EMC, Filters & Suppression

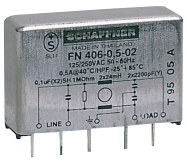
Filters - Power Line PCB Mount - Schaffner

- For maximum efficiency it is recommended that the filter current rating be as close to, but greater than the maximum circuit current, i.e. for a circuit with a maximum current of 0.5A select a 1A filter.
- Attenuation curves shown for filters are measured in the asymetrical mode (common mode). This is where measurement is carried out between the phase and neutral connected together, and the protection earth.

213832

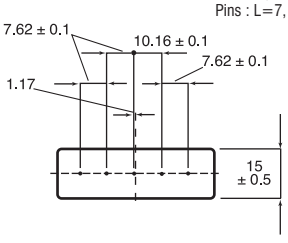
Ultra-Compact PCB Mounting

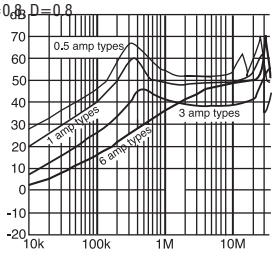
SCHAFFNER



- High performance aluminium cased PCB mounted filter for equipment applications where PCB footprint space is at a premium.
- Approved to **VDE**, **SEV**, **CSA** and **IEC950** compliant
- **UL** recognised

H=29.5, W=15, D=45
Pins : L=7, W=0.8, D=0.8





Voltage rating	250V @ 0 to 400Hz	Inductance	24mH (0.5A) 12mH (1A) 2.5mH (3A) 0.78mH (6A)
Earth leakage current @ 250V ac	2 x 0.21mA		
Capacitance	1 x 0.1μF(x)+2 x2200pF(y)	Operating temperature	-25°C to +85°C

Mftrs. List No. FN406-X/02/ where X=Rating in Amps

204032

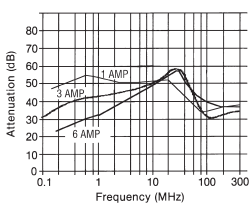
Price Each

Rating	Order Code	
0.5A	**119-1336**	
1A	**119-1337**	
3A	**119-1338**	
6A	**119-1339**	

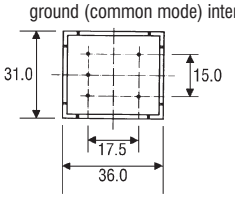
PCB Mounting

SCHAFFNER

H=19.5
Pins: L=7.0, Dia=0.8



- PCB mounted filter designed to provide effective reduction of broadband line-to-ground (common mode) interference.
- **VDE**, **SEV** and **CSA** approved.
- **UL** recognised
- Designed to meet **IEC950**.



Voltage rating	250V @ 0 to 400Hz
Earth leakage current @ 250V ac	2 x 0.2mA
Capacitance	1 x 0.015μF(X2) + 2 x2200pF(Y)
Inductance	24mH (0.5A) 10mH (1A) 2mH (3A) 0.8mH (6A)
Operating temperature	-25°C to +85°C

Mftrs. List No. FN 405-0.5/02 =119-1332 FN 405-1/02=119-1333 FN 405-3/02=119-1334
FN 405-6/02 =119-1335

203993

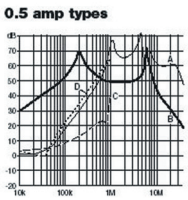
Price Each

Rating	Order Code	
0.5A	**119-1332**	
1A	**119-1333**	
3A	**119-1334**	
6A	**119-1335**	

PCB Mounting

FN402 Series

SCHAFFNER



- Compact PCB mounting filters
- Very low profile
- Approved to **VDE**, **CSA** and **SEMKO**
- **UL** recognised

Voltage rating 250V 0/400Hz
Leakage current 190μA

Rating (A)	Capacitors Cx	Capacitors Cy	Inductance mH	Dimensions H	W	D	Mftrs. List No.	Order Code
0.5	100nF	2 x 2.2nF	40	16.5	45	28	FN 402-0.5/02	119-1324
1	100nF	2 x 2.2nF	10	16.5	45	28	FN 402-1/02	119-1326
1.6	100nF	2 x 2.2nF	6	16.5	45	28	FN 402-1.6/02	119-1325
2.5	100nF	2 x 2.2nF	2	16.5	45	28	FN 402-2.5/02	119-1327
4	100nF	2 x 2.2nF	1	16.5	45	28	FN 402-4/02	119-1328
6.5	100nF	2 x 2.2nF	1	16.5	45	28	FN 402-6.5/02	119-1331

333792

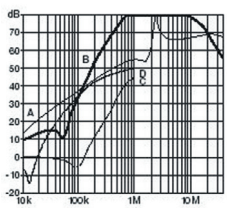
Price Each

Rating	Order Code	
0.5A	**119-1324**	
1A	**119-1326**	
1.6A	**119-1325**	
2.5A	**119-1327**	
4A	**119-1328**	
6.5A	**119-1331**	

PCB Mounting for DC/DC Converters

FN409 Series

SCHAFFNER



Voltage rating 250V 0/400Hz
Leakage current 190μA

- Very compact PCB mounting filters
- Exceptional attenuation performance
- Designed for DC/DC converter, IT and telecom applications

Rating (A)	Capacitors Cx	Capacitors Cy	Inductance (mH) L	Inductance (mH) L1	Dimensions H	W	D	Mftrs. List No.	Order Code
3	4700nF	2 x 4.7nF	2.9		11.7	50.8	27.9	FN 409-3/02	119-1341
6.5	4700nF	2 x 4.7nF	0.5	–	11.7	50.8	27.9	FN409-6.5/02	120-9500
13	4700nF	2 x 4.7nF	0.08	0.18	12.7	50.8	40.6	FN 409-13/02	119-1340

333805

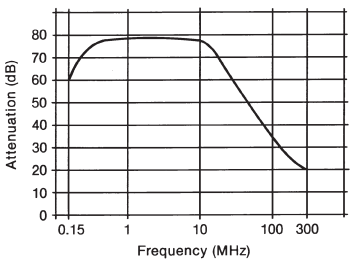
Price Each

Rating	Order Code	
3A	**119-1341**	
6.5A	**120-9500**	
13A	**119-1340**	

Filters - Power Line PCB Mount - Schaffner - continued

PCB Mounting, 2 Stage Ultra High Performance

H=19, W=33, D=72
Pins L=7.0, Th=0.8 x 0.8.
Fixing centres = 60 x 30



- 2 stage pcb mounting filter designed to provide excellent attenuation over a wide frequency range.
- Approved to **VDE**, **SEV** and **CSA**.
- Complies with **IEC950**.
- **UL** recognised

Voltage rating	250V @ 0 to 400Hz	Inductance	2 x 2mH + 2 x 2mH
Earth leakage current	2 x 0.21mA	Operating temperature	-25°C to +85°C
Capacitance	0.033µF (x) + 2 x 2200pF (y)		
Mftrs. List No.	FN410XX/02 where XX=Rating in Amps		

204258

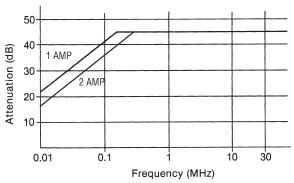
Price Each

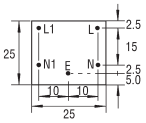
Rating	Order Code	
0.5A	**119-1343**	
3A	**119-1344**	
6A	**119-1345**	

Filters - Power Line PCB Mount - Schurter

PCB Mounting, 1" Cube

H=25,
Pins: L=15, Dia=0.6





- Compact PCB mounting filter
- Designed to meet the requirements of **VDE** and **IEC**.
- Approved to **SEV**, **CSA**, **VDE** and **EN 133 200**, **IEC950** compliant
- **UL** recognised

Voltage rating	115V to 250V ac	Inductance	2 x 10mH (150-490) 2 x 4mH (248-400)
Earth leakage current	<0.5mA		
Capacitance	1 x 0.015µF (X) + 2 x 2200pF (Y)	Operating temperature	-25 to +85°C
		Mftrs. List No.	FPP2-25-1/A=116-2774 FPP2-25-2/A=116-2775

204102

Price Each

Rating	Order Code	
1A	**116-2774**	
2A	**116-2775**	

Filters - Power Line Chassis Mount - Epcos

Single Phase - Chassis Mounting

- Chassis mounting filter range offfering choice of performance
- Shielded aluminium case
- Approved to **EN133 221**, **CSA** and **UL** recognised

Case Size	Length O/A	Width O/A	Height
A1	76.5	70	22.3
B1	76.5	45	28.6
B3	89.5	50.8	28.6
B4	89.5	50.8	38.1
B7	125	84	38.1
B8	89.5	50.8	38.1

Leakage current	<0.5mA
IEC climatic category	25/85/21
Voltage rating	250V ac 50/60Hz

Rating	Capacitance	L_N	Case Size	Mftrs. List No.	Order Code
Type A for normal attenuation					
3A	2 x 0.1µF(X2) 2 x 4700pF(Y2)	2 x 1.5mH	A1	B84111AA30	975-1980
2A	2 x 0.1µF(X2) 2 x 4700pF(Y2)	2 x 1.5mH	A1	B84111AA20	975-2099
10A	2 x 0.1µF(X2) 2 x 4700pF(Y2)	2 x 820µH	B1	B84111AB110	975-2005
6A	2 x 0.1µF(X2) 2 x 4700pF(Y2)	2 x 1.8mH	B1	B84111AB60	975-2030
Type B for enhanced attenuation					
6A	2 x 0.33µF(X2) 2 x 4700pF(Y2)	2 x 3.3mH	B1	B84112BB60	975-1920
Type A for normal attenuation			Case		
Type B for enhanced attenuation					
10A	2 x 0.47µF(X2) 2 x 4700pF(Y2)	2 x 1.8mH	B1	B84112BB110	975-1939
20A	2 x 0.68µF(X2) 2 x 4700pF(Y2)	2 x 1.8mH	B3	B84112BB120	975-1955
2A	2 x 0.1µF(X2) 2 x 4700pF(Y2)	2 x 10mH	B3	B84112BB20	975-1998
1A	2 x 0.1µF(X2) 2 x 4700pF(Y2)	2 x 10mH	B4	B84112BB10	975-2064
3A	2 x 0.22µF(X2) 2 x 4700pF(Y2)	2 x 10mH	B7	B84112BB30	975-2072
Type C for high attenuation					
10A	2 x 0.1µF(X2) 2 x 4700pF(Y2)	2 x 3.6mH	B4	B84113CB110	975-1963
3A	2 x 0.47µF(X2) 2 x 4700pF(Y2)	2 x 4.7mH	B8	B84113CB30	975-1912
Type D for high attenuation					
3A	2 x 0.47µF(X2) 2 x 4700pF(Y2)	2 x 5.6mH	B3	B84114DB30	975-1971
Type E for high attenuation below 100KHz					
3A	2 x 0.47µF(X2) 2 x 4700pF(Y2)	2 x 270µH 2 x 16mH	A4	B84115EB30	975-1947
6A	2 x 0.47µF(X2) 2 x 22nF(Y2)	2 x 47µH 2 x 3.6mH	A4	B84115EB60	975-2048

204012

Price Each

Rating	Order Code	
Type A		
3A	**975-1980**	
2A	**975-2099**	
10A	**975-2005**	
6A	**975-2030**	
Type B		
6A	**975-1920**	
10A	**975-1939**	
20A	**975-1955**	
2A	**975-1998**	
1A	**975-2064**	
3A	**975-2072**	
Type C		
10A	**975-1963**	
3A	**975-1912**	
Type D		
3A	**975-1971**	
Type E		
3A	**975-1947**	
6A	**975-2048**	

Three Phase Filters - B84143 Series 8A to 150A

- Low leakage current
- Compact and easy to install
- Optimised for long motor cables and full load operation
- Construction complies with **EN 133200**, **CSA 22.2 No. 8 1986**
- **UL** recognised
- Safe to touch terminal connections

Operating voltage	520V
Operating frequency	50Hz to 60Hz
Overload capability	1.5 x Rated Current for 3 min/hour or 2.5 x Rated Current for 30 sec/hour
Climate category	25/085/21

Current Rating @ 40°C	Leakage Current (mA)	Dimensions L (O/A)	W	H	Fixing Centres	Weight (kg)	Mftrs. List No.	Order Code
8A	12	165	51.4	63	155 x 38	0.58	B84143A8R105	975-1157
16A	14	231	46.4	70	221 x 38	0.9	B84143A16R105	975-1165
36A	14	265	58	90	255 x 35	1.75	B84143A36R105	975-1181

234222

Price Each

Rating	Order Code	
8A	**975-1157**	
16A	**975-1165**	
36A	**975-1181**	

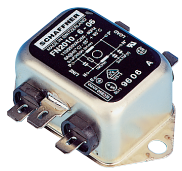
Express checkout

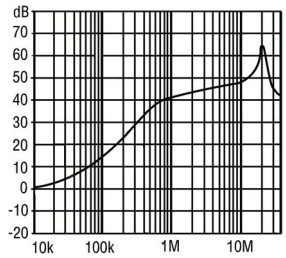
With no need to re-enter your details, returning customers can now buy products even faster - **order online today at www.element14.com**

Filters - Power Line Chassis Mount - Schaffner

Chassis Mounting - General Purpose

FN2010 Series





- Economic solution to general purpose filter requirements
- Good attenuation over a wide frequency range
- **UL** recognised, **VDE**, **CSA** and **SEV** approved, **IEC950** compliant

Voltage rating 250Vac
Leakage current 0.4mA/phase
Tabs 6.35mm x 0.8mm
Frequency range DC to 400Hz
Bleed resistor 1MΩ
Capacitance (X)=0.1μF (Y)=2 x 4.7nF

Current rating	Inductance (mH)	H	W (tabs)	D	FC	Weight (g)	Mftrs. List No.	Order Code
1	12	24.3	35	64	54	65	FN2010-1/06	119-1358
3	2.5	24.3	35	64	54	65	FN2010-3/06	119-1363
6	1	24.3	35	64	54	65	FN2010-6/06	119-1364
10	0.8	29.3	35	64	54	85	FN2010-10/06	119-1360
16	0.65	29.3	46.6	71	61	140	FN2010-16/06	119-1361

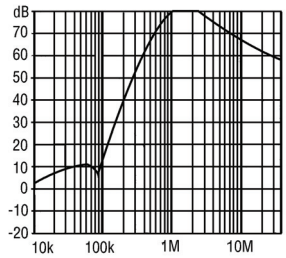
204113

Price Each

Rating	Order Code
1A	**119-1358**
3A	**119-1363**
6A	**119-1364**
10A	**119-1360**
16A	**119-1361**

Chassis Mounting

FN2020 Series



- Similar to the FN2010 Series above but with additional phase to neutral capacitance for improved differential mode performance
- **UL** recognised, **VDE**, **CSA** and **SEV** approved. **IEC950** compliant

Voltage rating 250Vac
Leakage current 0.4mA/phase
Tabs 6.35mm x 0.8mm
Frequency range DC to 400Hz
Bleed resistor 1MΩ
Capacitance (X)=0.15μF (Y)=2 x 4.7nF

Current rating	Inductance (mH)	H	W (excl. tabs)	D	FC	Weight (g)	Mftrs. List No.	Order Code
1A	12	29.3	35	64	54	80	FN2020-1/06	119-1365
3A	2.5	29.3	35	64	54	80	FN2020-3/06	119-1372
6A	1	29.3	35	64	54	80	FN2020-6/06	119-1373
10A	0.8	29.3	35	64	54	85	FN2020-10/06	119-1367
16A	0.65	29.3	46.6	71	61	140	FN2020-16/06	119-1368
20A	0.6	30.3	85	54	75	210	FN2020-20/06	119-1370

204114

Price Each

Rating	Order Code
1A	**119-1365**
3A	**119-1372**
6A	**119-1373**
10A	**119-1367**
16A	**119-1368**
20A	**119-1370**

FN2030 Series

EMI Filter with High Attenuation Performance

- High performance filter attenuation
- High differential mode attenuation
- Designed for easy and fast chassis mounting
- **UL** recognised, **CSA** and **ENEC** approved

Voltage rating 250Vac
Frequency range DC to 400Hz
Operating temperature -25°C to 100°C

Current rating	Inductance (mH)	Leakage Current (mA)	Resistance (kR)	H	W	D	Mftrs. List No.	Order Code
Standard Version								
1	20	0.34	1000	64	35	24.3	FN2030-1-06	130-4843
4	14	0.52	1000	71	46.6	22.3	FN2030-4-06	130-4844
6	8	0.73	680	71	46.6	22.3	FN2030-6-06	130-4845
10	8	0.73	680	85	54	30.3	FN2030-10-06	130-4846
16	4	0.87	330	85	54	40.3	FN2030-16-06	130-4848
30	2	0.87	330	85	54	40.3	FN2030-30-08	130-4849
Medical Version								
1	20	0.002	1000	64	35	24.3	FN2030B-1-06	130-4850
6	8	0.002	680	71	46.6	22.3	FN2030B-6-06	130-4852
10	8	0.002	680	85	54	30.3	FN2030B-10-06	130-4853
16	4	0.002	330	85	54	40.3	FN2030B-16-06	130-4854
30	2	0.002	330	85	54	40.3	FN2030B-30-08	130-4855

451934

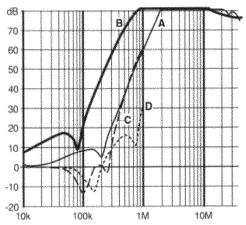
Price Each

Rating	Order Code
Standard Version	
1A	**130-4843**
4A	**130-4844**
6A	**130-4845**
10A	**130-4846**
16A	**130-4848**
30A	**130-4849**
Medical Version	
1A	**130-4850**
6A	**130-4852**
10A	**130-4853**
16A	**130-4854**
30A	**130-4855**

Chassis Mounting - Multi stage - Earth Line Choke

3 amp types

H=30, W=69, D=70
FC = 60, Tabs = 6.3 x 0.8



- Two stage filter with earth line choke
- **UL** and **CSA** recognised
- **VDE** and **SEV** approved

Voltage Rating 250V @ 50/60Hz
Leakage current 190μA

Current Rating	Inductance (mH) L1	L2	L3	Mftrs. List No.	Order Code
3A	1.1	2	0.4	FN 343-3/05	119-1316
6A	0.43	0.77	0.4	FN 343-6/05	119-1318
10A	0.27	0.66	0.4	FN 343-10/05	119-1315

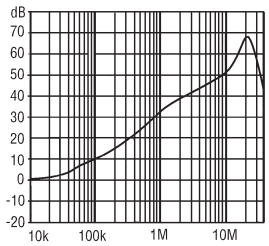
204191

Price Each

Rating	Order Code
3A	**119-1316**
6A	**119-1318**
10A	**119-1315**

Chassis Mounting - Multi Stage

FN2060 Series



- Multi stage general purpose filters with 2 inductors per phase for high common mode attenuation
- **UL** recognised, **VDE**, **SEV** and **CSA** approved. **IEC950** compliant

Voltage rating 250V ac
Leakage current 0.4mA/phase
Frequency range DC to 400Hz
Capacitance (Y)=2 x 4.7nF
Tabs

Current Rating	Inductance (mH)	Capacitors Cx μF	H	W	D	FC	Weight (g)	Mftrs. List No.	Order Code
1	12	0.22	29.3	46.6	71	61	120	FN2060-1/06	119-1374
3	2.5	0.22	29.3	46.6	71	61	120	FN2060-3/06	119-1383
6	0.97	0.22	29.3	46.6	71	61	120	FN2060-6/06	119-1385
10	0.8	0.47	30.3	54	85	75	190	FN2060-10/06	119-1375
12	0.58	0.47	30.3	54	85	75	190	FN2060-12/06	119-1376
16	0.65	0.33	40.3	54	85	75	260	FN2060-16/06	119-1381
20	0.6	1	45.4	57.5	113.5	103	480	FN2060-20/06	119-1382

Filters - Power Line Chassis Mount - Schaffner - continued

Chassis Mounting - Multi Stage - continued

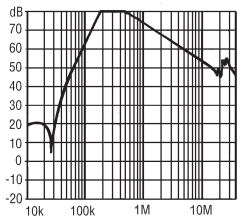
FN2060 Series - continued

204112

Rating	Order Code	Price Each
1A	**119-1374**	
3A	**119-1383**	
6A	**119-1385**	
10A	**119-1375**	
12A	**119-1376**	
16A	**119-1381**	
20A	**119-1382**	

Multi stage - High Performance

FN2070 Series



FN2070 Series insertion loss

- Multi stage filters with high values of capacitors and inductors for excellent differential and common mode attenuation
- **UL** recognised, **VDE**, **CSA** and **SEV** approved, **IEC950** compliant

Voltage rating 250V ac
Leakage current 0.4mA/phase
Tabs 6.3 x 0.8
Frequency Range DC to 400Hz
Capacitance (Y) = 2 x 4.7nF

Current Rating	Inductance (mH)	Capacitor Cx (µF)	H	W	D	FC	Weight (g)	Mftrs. List No.	Order Code
1A	22	0.33	30.3	54	85	75	190	FN2070-1/06	119-1386
3A	9.8	0.47	40.3	54	85	75	250	FN2070-3/06	119-1392
6A	7.8	1	45.4	57.5	113.5	103	450	FN2070-6/06	119-1394
10A	4.5	1	45.4	57.5	156	143	730	FN2070-10/06	119-1387
12A	3.25	1	45.4	57.5	156	143	730	FN2070-12/06	119-1388
16A	2.8	1	57.6	85.5	119	109	1000	FN2070-16/06	119-1389

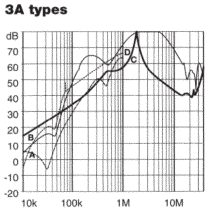
Mftrs. List No. FN2070M-X/06 where X=Rating in Amps

204111

Rating	Order Code	Price Each
FN2070 Series		
1A	**119-1386**	
3A	**119-1392**	
6A	**119-1394**	
10A	**119-1387**	
12A	**119-1388**	
16A	**119-1389**	

Multi stage - High Performance

FN 2080 Series



- Very high differential and common mode attenuation
- Good low frequency attenuation
- **VDE** and **SEV** approved, **UL** and **CSA** recognised
- **IEC950** compliant

Voltage rating 250V ac
Leakage current 0.4mA/ph
Capacitance Cy = 4.7nF
Frequency range DC to 400Hz
Operating temperature -25°C to + 85°C

Current Rating	Inductance (mH) L1	L2	Capacitor Cx (µF)	H	w	D	FC	Weight (g)	Mftrs. List No.	Order Code
1A	22	0.49	0.33	30.3	54	85	75	200	FN2080-1/06	119-1396
3A	9.8	0.16	0.47	40.3	54	85	75	270	FN2080-3/06	119-1400
6A	7.8	0.11	1	45.4	57.5	113.5	103	470	FN2080-6/06	119-1401
10A	4.5	0.06	1	45.4	57.5	156	143	750	FN2080-10/06	119-1397

204201

Rating	Order Code	Price Each
1A	**119-1396**	
3A	**119-1400**	
6A	**119-1401**	
10A	**119-1397**	

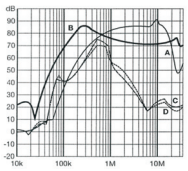
FN2090 Series

EMI Filter with Excellent Attenuation Performance

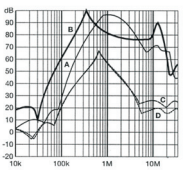
- Two stage filter
- Very high differential and common mode attenuation
- Designed for easy and fast chassis mounting
- Optional medical versions (B type)
- **UL** recognised, **CSA** and **ENEC** approved

Typical Attenuation
Per CISPR 17: A = 50Ω/50Ω sym; B = 50Ω/50Ω asym; C = 0.1Ω/100Ω sym; D = 100Ω/0.1Ω sym

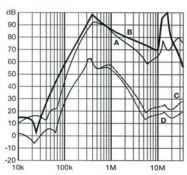
1 to 4A types



6 to 10A types



12 to 20A types



Voltage rating 250Vac
Frequency range DC to 400Hz
Operating temperature -25°C to 100°C

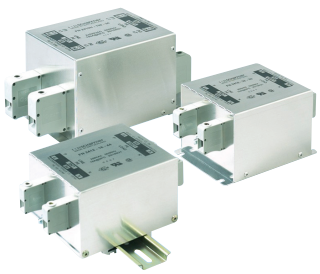
Current rating	Inductance (mH)	Leakage Current (mA)	Resistance (kR)	H	D	Mftrs. List No.	Order Code
Standard Version							
4	14	0.5	470	85	54 30.3	FN2090-4-06	130-4857
6	8	0.67	330	85	54 30.3	FN2090-6-06	130-4858
10	8	0.67	330	113.5	57.5 45.4	FN2090-10-06	130-4861
16	4	1.02	220	113.5	57.5 45.4	FN2090-16-06	130-4862
20	2.7	1.02	220	113.5	57.5 45.4	FN2090-20-08	130-4863
Medical Version							
6	8	0.002	330	85	54 30.3	FN2090B-6-06	130-4866
10	8	0.002	330	113.5	57.5 45.4	FN2090B-10-06	130-4867
20	2.7	0.002	220	113.5	57.5 45.4	FN2090B-20-08	130-4869

451943

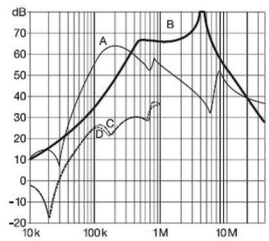
Rating	Order Code	Price Each
Standard Version		
4A	**130-4857**	
6A	**130-4858**	
10A	**130-4861**	
16A	**130-4862**	
20A	**130-4863**	
Medical Version		
6A	**130-4866**	
10A	**130-4867**	
20A	**130-4869**	

Single phase EMC/RFI filter

FN 2410/2412 Series



8 to 45A types



- Excellent filter performance for applications with high interference levels
- Available from 8 to 100A
- Industrial grade terminal blocks for unsurpassed electrical safety
- FN2410 designed for chassis mounting, FN2412 suitable for DIN rail mounting

Current rating	Dimensions H	W	D	Mftrs. List No.	Order Code
32	130	93	76	FN2410-32-33	110-0356
45A	130	93	76	FN2410-45-33	110-0357
60A	165	115	100	FN2410-60-34	110-0358
16	110	93	73	FN2412-16-44	110-0363
25A	110	93	87	FN2412-25-33	110-0364

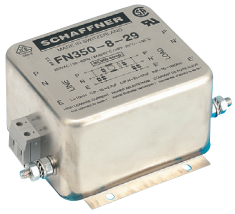
419711

Rating	Order Code	Price Each
32A	**110-0356**	
45A	**110-0357**	
60A	**110-0358**	
16A	**110-0363**	
25A	**110-0364**	

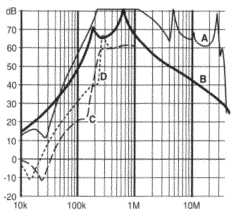
Motor Drive Filter

FN350 Series

SCHAFFNER



12 amp types



- Compact design
- Ideal for a large variety of motor drive applications
- Designed to meet **IEC950**
- Approved to **VDE**
- **UL** and **CSA** recognised

Current Rating	Inductance L (mA)	Dimensions H	W	D	Weight (kg)	Fixing	Centres	Mftrs. List No.	Order Code
12A	7.5	57	99.5	84.5	0.7	95	51	FN 350-12/29	119-1319
20A	3.2	57	99.5	84.5	0.7	95	51	FN 350-20/29	119-1320
30A	1.3	60	115	85	0.7	115	100	FN 350-30/33	119-1321
55A	1	60	115	85	1800	115	100	FN 350-55/33	120-9491

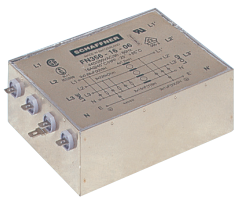
204190

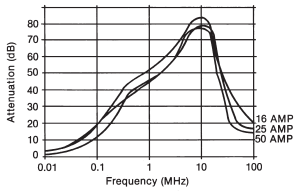
Price Each

Rating	Order Code	
12A	**119-1319**	
20A	**119-1320**	
30A	**119-1321**	
55A	**120-9491**	

Three Phase with Neutral

SCHAFFNER





- High performance three phase chassis mounting filters in a very compact package
- Suitable for use in installations which require a highly attenuated three phase mains supply, e.g. communication installations, computer rooms, laboratories and industrial control systems
- Connections are 6.3 x 0.8 fast-ons for the 16A unit, M6 screw terminals for the 25A, 36A,and 50A units and M10 for the 100A unit. Approved to **SEV** and **CSA**
- Designed to meet **IEC950**.

Voltage rating 440/250V @ 0 to — Operating temperature -25°C to +85°C

Current Rating 40°C	25°C	Earth Leakage Current (mA)	Induc-tance (mH)	Dimensions H	W	D	Weight (g)	Mftrs. List No.	Order Code
16A	18.4A	2.85	1.2	50	104	149	1.6	FN 356-16/06	119-1322
25A	28.7A	2.85	1.3	80	105	140	1.5	FN356-25/24	120-9482
36A	41.5A	2.58	0.95	80	105	189.5	1.2	FN 356-36-24	119-1323
50A	57.5A	2.85	0.55	102	122	143.5	2.3	FN356-50/24	120-9483

204256

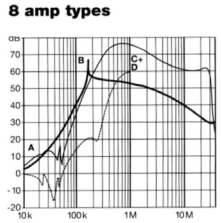
Price Each

Rating	Order Code	
16A	**119-1322**	
25A	**120-9482**	
36A	**119-1323**	
50A	**120-9483**	

Three Phase and Neutral

SCHAFFNER

8 amp types



- Designed for asymmetrical loads
- High attenuation
- Small leakage current
- Compact design
- Approved to **SEMKO**

Current Rating 50°C	40°C	Leakage Current (mA)	Inductance (mH)	Dimensions H	W	D	Weight (g)	Mftrs. List No.	Order Code
16A	18.1A	3.4	1.14	80	120	115	1100	FN 256-16/46	120-9485
25A	28.3A	3.4	1.57	115	130	125	1400	FN 256-25/47	120-9487
36A	40.8A	3.4	1.1	115	130	125	1500	FN 256-36/47	120-9488
64A	72.6A	3.4	1	125	140	125	2200	FN 256-64/52	120-9489

204200

Price Each

Rating	Order Code	
16A	**120-9485**	
25A	**120-9487**	
36A	**120-9488**	
64A	**120-9489**	

3 Phase Inverter Filters

FN3258 Series

SCHAFFNER

- 3 Phase filters for industrial frequency inverters and motor drive systems
- Exceptional attenuation from 150kHz to 30MHz
- Designed to meet **EN133200, UL1283** and **CSA 22.2 No. 8 1986**
- Ultra-compact bookend style case for vertical or horizontal mounting
- Input and output via terminal blocks.

Operating voltage 480V
Overload capability 4 x Rated Current at switch on, 1.5 x Rated Current for 1 min/hour
Operating frequency DC to 60Hz @ 50°C
Flame retardant to **UL94V-4**

Rating @ 50°C	Leakage Current (mA)	Dimensions L(O/A)	W	H	Fixing Centres	Weight (kg)	Mftrs. List No.	Order Code
30A	33.04	270	50	85	225 x 30	1.2	FN3258-30/47	119-1403

233490

Price Each

Rating	Order Code	
30A	**119-1403**	

Filters - Power Line Chassis Mount - Tyco Corcom

B Series

tyco / Electronics / corcom

- General purpose common-mode filters
- Provides RFI control of line-to-ground noise in a small size at low cost
- Available in a broad selection of current ratings and termination styles
- Very low leakage current required by VDE portable equipment, and (120 Volt) UL544 non-patient medical equipment

Operating voltage 250VAC
Operating frequency 50Hz to 60Hz

@ 120 VAC 60 Hz:	0.21mA
@ 250 VAC 50 Hz:	0.36mA

Maximum leakage current, each line-to-ground:

Current Rating	L	Dimensions W	H	Mftrs. List No.	Order Code
1A	16.8	64.3	57.2	1EB1	958-6040
3A	19.8	64.3	66.3	3EB1	958-6059
5A	19.8	64.3	66.3	5EB1	958-6067
10A	29.5	64.3	66.3	10EB1	958-6075
1A	16.8	64.3	24.4	1EB3	958-6083
3A	19.8	64.3	33.5	3EB3	958-6091
5A	19.8	64.3	33.5	5EB3	958-6105
10A	29.5	64.3	33.5	10EB3	958-6113

548338

Price Each

Mftrs. List No.	Order Code	
1EB1	**958-6040**	
3EB1	**958-6059**	
5EB1	**958-6067**	
10EB1	**958-6075**	
1EB3	**958-6083**	
3EB3	**958-6091**	
5EB3	**958-6105**	
10EB3	**958-6113**	

EMC Series

tyco / Electronics / corcom

The EMC Series of RFI filters has been developed to reduce conducted noise to acceptable limits for equipment that must comply with the requirements of CISPR in Europe and the FCC specifications in the USA.
The EMC Series was designed to address the need for more differential mode attenuation in the lower frequency range while still maintaining high common mode performance. This type of performance is typically needed for motor drives and switch mode power supplies with increased operating frequencies.
The EMC Series is ideal for applications that require a high level of performance in a compact, cost effective package.

Operating voltage	250VAC	
Operating frequency	50Hz to 60Hz	
Maximum leakage current, each line-to-ground		
	3,6,10 Amp	**15,20 Amp**
@ 120 VAC 60 Hz:	0.21mA	0.73mA
@ 250 VAC 50 Hz:	0.43mA	1.52mA

Filters - Power Line Chassis Mount - Tyco Corcom - continued

EMC Series - continued

Current Rating	Dimensions (mm) H	W	L	Mftrs. List No.	Order Code
3A	29.5	46	85.1	3EMC1	958-6458
6A	29.5	52.6	97.8	6EMC1	958-6466
10A	38.9	52.6	97.8	10EMC1	958-6474
15A	45.2	57.2	126.2	15EMC1	958-6482
20A	45.2	57.2	126.2	20EMC1	958-6490

548340

Mftrs List No.	Order Code	Price Each
3EMC1	**958-6458**	
6EMC1	**958-6466**	
10EMC1	**958-6474**	
15EMC1	**958-6482**	
20EMC1	**958-6490**	

RK Series

tyco / Electronics / corcom

- Compact Size
- High Performance
- 250 Rated Voltage
- UL Recognized, CSA Certifed, and VDE Approved

New

Operating voltage	250VAC
Operating frequency	50 / 60 Hz
Maximum leakage current, each line-to-ground	
@ 120 VAC 60 Hz:	0.16 mA
@ 250 VAC 50 Hz:	0.26 mA

Current Rating	Dimensions (mm) H	W	D	Mftrs. List No.	Order Code
3A	29.46	46.26	85.09	3ERK1	180-0488
6A	32.51	46.23	85.09	6ERK1	180-0489
10A	45.21	52.58	97.79	10ERK1	180-0490
15A	45.21	52.58	97.79	15ERK1	180-0491
20A	45.21	52.58	97.79	20ERK1	180-0492

605792

Mftrs List No.	Order Code	Price Each
3ERK1	**180-0488**	
6ERK1	**180-0489**	
10ERK1	**180-0490**	
15ERK1	**180-0491**	
20ERK1	**180-0492**	

AYO Series

tyco / Electronics / corcom

The AYO series filters are designed for 3-phase, four wire, WYE applications providing filtering in each of the three lines plus neutral.
These lower current RFI filters provide filtering to industrial 3-phase applications.

Operating voltage		
phase-to-phase	440VAC	
phase-to-neutral/ground	250VAC	
Operating frequency	50Hz to 60Hz	
Maximum leakage current, each line-to-ground		
	3, 6, 10A	**20A**
@ 120 VAC 60 Hz:	2mA	3.5mA
@ 250 VAC 50 Hz:	3mA	5.5mA

Current Rating	Dimensions W	H	L	Mftrs. List No.	Order Code
3A	52.5	81.5	85.6	3AYO1	958-6156
6A	52.5	81.5	85.6	6AYO1	958-6164
10A	52.5	81.5	85.6	10AYO1	958-6172
20A	52.5	81.5	85.6	20AYO1	958-6180

548341

Mftrs. List No.	Order Code	Price Each
3AYO1	**958-6156**	
6AYO1	**958-6164**	
10AYO1	**958-6172**	
20AYO1	**958-6180**	

BCF Series

tyco / Electronics / corcom

3-Phase Filter

- Very compact bookform filter
- Low weight design
- Insulated, high quality safety terminals for in and output

New

Current Rating 50°C	40°C	Leakage Current (mA)	Inductance (mH)	Dimensions (mm) H	W	D	Weight (kg)	Mftrs. List No.	Order Code
7A	8A	30	2.44	70	40	190	0.7	7BCF10	180-0484
16A	18A	30	2.32	70	45	250	1.1	16BCF10	180-0485
30A	33A	30	1.61	85	50	270	1.5	30BCF10	180-0487

605791

Rating	Order Code	Price Each
7A	**180-0484**	
16A	**180-0485**	
30A	**180-0487**	

Filters - Power Line Chassis Mount - Roxburgh EMC

Single and Three Phase

ROXBURGH EMC

Single phase H=55, W=116, D=174 FC=80 x 101

Three phase H=55, W=143, D=230 FC=120 x 128

- Compact high performance industrial filters built to satisfy **IEC950** safety standards which when installed correctly will allow compliance with **VDE0871, EN55011** (Industrial) and **EN55022** (Domestic) EMC emission levels
- IHF range is available in single phase or three phase (with neutral), feature a maximum leakage current of 3.5mA and are suitable for all general purpose applications
- The MDF range is available in single phase or three phase (without neutral) and feature higher performance than the standard IHF range
- Primarily designed for use with Motor Drive Inverters they are suitable for all applications without a neutral conductor where leakage current is not a limiting factor

Termination is via colour coded M6 studs.

Voltage rating	250V ac single phase 440/250V ac three phase	Operating temperature Test voltage	-25°C to +85°C 2kV ac
Line frequency	50/60Hz		

- Compact high performance industrial filters built to satisfy **IEC950** safety standards which when installed correctly will allow compliance with **VDE0871, EN55011** (Industrial) and **EN55022** (Domestic) EMC emission levels
- IHF range is available in single phase, features a maximum leakage current of 3.5mA and is suitable for all general purpose applications
- Primarily designed for use with Motor Drive Inverters they are suitable for all applications without a neutral conductor where leakage current is not a limiting factor

Termination is via colour coded M6 studs.

Rating	Inductance (mH)	Resistance per Winding (mΩ)	Dimensions H	W	D	Mftrs. List No.	Order Code
IHF Series							
18A, single phase	6.4	15	55	116	174	IHF18	118-7699
25A, single phase	4.4	8.5	55	116	174	IHF25	118-7678
36A, single phase	2.5	3.8	55	116	174	IHF36	118-7700
50A, single phase	1.1	2	55	116	174	IHF50	118-7679
8A, three phase with neutral	2.8	64	38	220	120	IHF408	118-7695
25A, three phase with neutral	1.1	4	55	143	230	IHF425	118-7680
36A, three phase with neutral	0.55	1.65	55	143	230	IHF436	118-7696
50A, three phase with neutral	0.28	1	55	143	230	IHF450	118-7681
70A, three phase with neutral	0.72	0.52	85	182	238	IHF470	118-7698
100A, three phase with neutral	0.4	0.3	85	238	182	IHF4100	118-7716
MDF Series							
18A single phase	0.4	15	55	120	174	MDF18	118-7701
25A, single phase	4.4	8.5	55	120	174	MDF25	118-7682
50A, single phase	1.1	2	55	120	174	MDF50	118-7684
36A, three phase	0.96	2.4	55	147	230	MDF336	118-7705
50A, three phase	0.55	1.8	55	147	230	MDF350	118-7687
70A, three phase	1.1	2.1	85	180	230	MDF370	118-7706
100A, three phase	0.71	1.7	85	180	230	MDF3100	118-7707
150A, three phase	0.45	0.5	80	290	280	MDF3150	118-7708

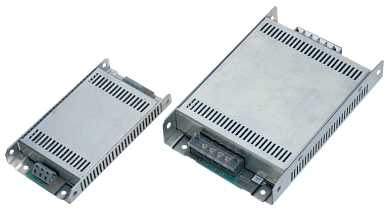
203998

	Order Code	Price Each
IHF Series		
18A, single phase	**118-7699**	
25A, single phase	**118-7678**	
36A, single phase	**118-7700**	
50A, single phase	**118-7679**	
8A, three phase with neutral	**118-7695**	
25A, three phase with neutral	**118-7680**	

	Order Code	Price Each
IHF Series		
36A, three phase with neutral	**118-7696**	
50A, three phase with neutral	**118-7681**	
70A, three phase with neutral	**118-7698**	
100A, three phase with neutral	**118-7716**	
MDF Series		
18A, single phase	**118-7701**	
25A, single phase	**118-7682**	
50A, single phase	**118-7684**	
36A, three phase	**118-7705**	
50A, three phase	**118-7687**	
70A, three phase	**118-7706**	
100A, three phase	**118-7707**	
150A, three phase	**118-7708**	

Motor Inverter Filters

Single and Three Phase



612-080 612-145

- Motor inverter high performance filters designed to enable inverters to meet the most stringent EMC limits as laid down in **EN55022B**
- Flexible mounting options ensure minimal panel space occupation
- Finger proof terminals are used up to 30A, and insulating boots cover stud terminals above 30A
- Designed to meet **IEC950**

Operating voltage	250V ac Single phase 520V ac Three phase
Operating temperature	-25°C to +85°C
Overload current	150% 1 minute, 200% 1 second
Typical worst case insertion loss	70-80dB

Rating	L	W	H	Weight (kg)	Mftrs. List No.	Order Code
Single Phase						
3A	170	90	25	0.3	MIF03	118-7726
Three Phase						
16A	214	204	47	1.6	MIF316	118-7732
30A	360	175	50	1.8	MIF330	118-7734
50A	618	230	70	4.8	MIF350	118-7735
100A	785	275	80	9.5	MIF3100	118-7736

204061

Rating	Order Code	Price Each
Single Phase		
3A	**118-7726**	
Three Phase		
16A	**118-7732**	
30A	**118-7734**	
50A	**118-7735**	
100A	**118-7736**	

DIN Rail Filters

- General purpose DIN rail mounting filter for use in industrial applications and rack mounted equipment
- Compact design which offers high performance and VDR protection
- Can be used in conjunction with Roxburgh DIN rail surge suppressors
- Designed to meet **IEC 950, UL, CSA** and **VDE** requirements.

H=74, W=80, D=22.5

Rating	Inductance (mH)	Resistance Per Winding (MΩ)	Mftrs. List No.	Order Code
1A	18	640	DRF01	118-7690
3A	3.2	71	DRF03	118-7691
6A	1.4	19	DRF06	118-7692
8A	1.5	15	DRF08	118-7694

Voltage rating	250V ac	Line frequency	DC to 440Hz
Operating temperature	-25°C to ++85°C		

204052

Rating	Order Code	Price Each
1A	**118-7690**	
3A	**118-7691**	
6A	**118-7692**	
8A	**118-7694**	

Filters - Circuit Filters - AVX

W2H/W3H Series

0805 & 1206 Case Sizes

High current feedthru filters are designed as a broadband EMI filter that is specially designed to have high current handling capability. These SMD feedthru filters offer an optimised frequency response with high attenuation across a wide RF spectrum due to optimised parallel and series inductances. They can also replace discrete L/C filter networks.

- Low parallel inductance provides significant noise reduction in circuits with operating frequencies up to 5GHz
- Broad frequency response with high attenuation
- Compact size
- High rated current

0805 Case Size

nF	Mftrs. List No.	Order Code	Price Each
100 Volt d.c. NP0			
0.022	W2H11A2208AT1A	SMD **125-1588**	
0.047	W2H11A4708AT1A	SMD **125-1590**	
0.1	W2H11A1018AT1A	SMD **125-1587**	
0.22	W2H11A2218AT1A	SMD **125-1589**	
0.47	W2H11A4718AT1A	SMD **125-1591**	
25 Volt d.c. X7R			
100	W2H13C1048AT1A	SMD **125-1592**	
50 Volt d.c. X7R			
1	W2H15C1028AT1A	SMD **125-1593**	
10	W2H15C1038AT1A	SMD **125-1595**	
22	W2H15C2238AT1A	SMD **125-1596**	
47	W2H15C4738AT1A	SMD **125-1597**	

1206 Case Size

451435

nF	Mftrs. List No.	Order Code	Price Each
50 Volt d.c. X7R			
22	W3H15C2238AT1A	SMD **125-1585**	
47	W3H15C4738AT1A	SMD **125-1586**	

RL **FREE Re-reeling service.** Only buy what you need and improve assembly efficiency. For more information visit **local website**

W3F Series Feedthrough Filters

- 1206 case size nickel barrier terminations
- Broad band RFI attenuation
- Ultra low inductance ground connection
- Supplied on tape

Capacitance pF	Volt dc	Tolerance %	Mftrs. List No.	Order Code
1000	50	+50-20	W3F15C1028AT1A	121-6396
2200	50	+50-20	W3F15C2228AT1A	121-6397
22000	50	+50-20	W3F15C2238AT1A	121-6398
22	100	+50-20	W3F11A2208AT1A	121-6400
47	100	+50-20	W3F11A4708AT1A	121-6401
100	100	+50-20	W3F11A1018AT1A	121-6402
220	100	+50-20	W3F11A2218AT1A	121-6403
470	100	+50-20	W3F11A4718AT1A	121-6404

204159

pF	Order Code	Price Each
50 Volt dc		
1000	SMD **121-6396**	
2200	SMD **121-6397**	
22000	SMD **121-6398**	

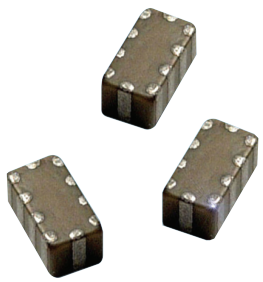
Filters - Circuit Filters - AVX - continued

W3F Series Feedthrough Filters - continued

pF	Order Code	Price Each
100 Volt dc		
22	SMD 121-6400	
47	SMD 121-6401	
100	SMD 121-6402	
220	SMD 121-6403	
470	SMD 121-6404	

W2F4/W3F4 Series

Feedthru FIlter Arrays



- Ideal choice for EMI suppression, broadband I/O filtering, LCD filtering and V_{cc} power line conditioning
- Unique construction provides low parallel inductance and offers excellent decoupling capabilities
- Contains four elements with a common ground connection, making it ideal for multi-line designs

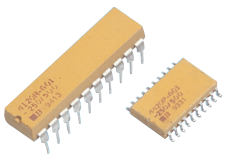
Case Size	Capacitance pF	Volt dc	Tolerance %	Mftrs. List No.	Order Code
0805	22	25	-20/+50	W2F43A2208AT1A	125-1568
0805	47	25	-20/+50	W2F43A4708AT1A	125-1571
1206	220	50	-20/+50	W3F45C2218AT1A	125-1575
1206	470	50	-20/+50	W3F45C4718AT1A	125-1576
1206	22	100	-20/+50	W3F41A2208AT1A	125-1573
1206	47	100	-20/+50	W3F41A4708AT1A	125-1574
1206	100	100	-20/+50	W3F41A1018AT1A	125-1572

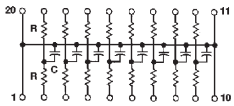
451439

Case Size	Order Code	Price Each
0805	SMD 125-1568	
1206	SMD 125-1572	

Filters - Circuit Filters - Bourns

601 Series RC Network T-Filter





Standard
H=4.57, W=7.87, L=27.05
Lead spacing = 2.54 x 8.64

Surface Mount
H=2.78, W=10.34, L=12.95
Lead spacing = 1.27 x 10.34

- Low pass noise filters designed to filter out the high frequency noise content of digital signals at board level
- Can be used to filter a maximum of eight signal lines
- Flame retardant case to **UL94V-0**.

Voltage Rating	50V	Capacitance voltage	25V
Resistance temperature coefficient	±300ppm/°C	Capacitance tolerance	±30%
Capacitance temperature coefficient	Z5U		

		Attenuation (dB)						
pF	Ω	10MHz	20MHz	100MHz	200MHz	1GHz	Mftrs. List No.	Order Code
50	25	3dB	4dB	7dB	14dB	19dB	4120R-601-250/500L	935-6029
200	25	4dB	7dB	15dB	40dB	17dB	4120R-601-250/201L	935-6010
50	25	3dB	4dB	7dB	14dB	19dB	4420P-T06-250/500L	935-6045
200	25	4dB	7dB	15dB	40dB	17dB	4420P-T06-250/201L	935-6037

204275

pF	Ω	Order Code	Price Each
Standard			
50	25	935-6029	
200	25	935-6010	
Surface Mount			
50	25	SMD 935-6045	
200	25	SMD 935-6037	

Filters - Circuit Filters - Murata

LFB Series

Bandpass Filters for Communication Equipment

- Ultra-small, low-profiled, light-weight bandpass filters
- Absolutely no adjustment required
- Reflow solderable

Frequency (MHz)	Bandwidth (MHz)	Insertion Loss (dB)	Mftrs. List No.	Order Code
0603 Case Size				
2450	100	2.2	LFB182G45SG9A246	129-4673
5787.5	125	2.2	LFB185G78SGAB713	129-4674
0805 Case Size				
1906.5	27	2.2	LFB211G90SG8B704	129-4675
2450	100	3.5	LFB212G45BA1A220	129-4676
2450	100	3.5	LFB212G45BA1A234	129-4677
2450	100	3.5	LFB212G45BA1B763	129-4678
2450	100	1.4	LFB212G45SG8A192	129-4681
5125	550	2.6	LFB215G12SG8A178	129-4682
5125	550	1.5	LFB215G12SG8A183	129-4683
5250	200	1.5	LFB215G25SG8A144	129-4685
5375	950	2.8	LFB215G37BA1A233	129-4686
5375	950	1.5	LFB215G37SG8A180	129-4687
5375	950	1.8	LFB215G37SG8A185	129-4688
5512	726	2.2	LFB215G51SG8A132	129-4689
5512	726	1.9	LFB215G51SG8A154	129-4690
1008 Case Size				
1906.5	27	2.2	LFB2H1G90SG6A157	129-4711
2450	100	1.2	LFB2H2G45SG7A158	129-4715
2450	100	2.1	LFB2H2G45SG7A159	129-4716
2450	100	2.1	LFB2H2G45SG7B734	129-4717
5787.5	100	3	LFB2H5G78SG7A175	129-4718
1210 Case Size				
205.5	63	1.5	LFB32205MSK1-948	129-4693
5787.5	125	1.5	LFB215G78SG8A170	129-4691

452092

MHz	Order Code	Price Each
0603 Case Size		
2450	SMD 129-4673	
5787.5	SMD 129-4674	
0805 Case Size		
1906.5	SMD 129-4675	
2450	129-4676	
2450	SMD 129-4677	
2450	SMD 129-4678	
2450	SMD 129-4681	
5125	SMD 129-4682	
5125	129-4683	
5250	SMD 129-4685	
5375	SMD 129-4686	
5375	SMD 129-4687	
5375	129-4688	
5512	SMD 129-4689	
5512	SMD 129-4690	
1008 Case Size		
1906.5	SMD 129-4711	
2450	SMD 129-4715	
2450	129-4716	
2450	SMD 129-4717	
5787.5	SMD 129-4718	
1210 Case Size		
205.5	SMD 129-4693	
5787.5	SMD 129-4691	

LFL Series

Lowpass Filters for Communication Equipment

- Ultra-small, low-profiled, light-weight chip filters based on ceramic multilayer technology
- Offer stable high selectivity up to very high frequency
- Absolutely no adjustment required
- Reflow solderable

Frequency (MHz)	Bandwidth (MHz)	Insertion Loss (dB)	Mftrs. List No.	Order Code
0402 Case Size				
2450	100	0.45	LFL152G45TC1A219	129-4694
0603 Case Size				
815.5	19	0.8	LFL18815MTC2A072	129-4721
924.5	70	0.4	LFL18924MTC1A052	129-4722
2450	100	0.37	LFL182G45TC1A108	129-4719
0805 Case Size				
600	500	1.37	LFL21600MTC1A002	129-4708
847.5	75	0.75	LFL21847MTC1A006	129-4709
902.5	25	0.6	LFL21902MTC1A018	129-4710
1350	500	0.92	LFL211G35TC1A001	129-4695
1441	24	0.47	LFL211G44TC1A014	129-4697
1795	170	0.47	LFL211G79TC1A011	129-4698
1890	20	0.47	LFL211G89TC1A015	129-4699
1920	140	0.6	LFL211G92TC1A060	129-4701
2450	100	0.5	LFL212G45TC1A007	129-4703
5250	200	0.7	LFL215G25TC1A156	129-4704
5787.5	125	0.7	LFL215G78TC1A155	129-4707

452093

Price Each

MHz	Order Code
0402 Case Size	
2450	**129-4694**
0603 Case Size	
815.5	SMD **129-4721**
924.5	**129-4722**
2450	**129-4719**
0805 Case Size	
600	SMD **129-4708**
847.5	SMD **129-4709**
902.5	SMD **129-4710**
1350	SMD **129-4695**
1441	SMD **129-4697**
1795	SMD **129-4698**
1890	SMD **129-4699**
1920	SMD **129-4701**
2450	SMD **129-4703**
5250	SMD **129-4704**
5787.5	SMD **129-4707**

DFCB Series

Dielectric Filters (GIGAFIL®)

- Low insertion loss for using high Q-value dielectric resonators
- Small and light for using high dielectric constant ceramics
- Excellent temperature stability for temperature compensated dielectric constant (0±5ppm/degree C max.)
- Excellent mechanical stability without vibratile structure
- SMD and reflow soldering is available
- Mountable by automatic placing machine

Frequency (MHz)	Bandwidth (MHz)	Insertion Loss (dB)	Attenuation (dB)	Mftrs. List No.	Order Code
836.5	25	2.6	6.5	DFCB2836MLDJAA	129-4728
881.5	25	3	15	DFCB2881MLDJAA	129-4729
881.5	25	2.5	27	DFCB3881MLDJAA	129-4739
915	26	3	15	DFCB2915MLDJAA	129-4730
915	26	2.6	27	DFCB3915MLDJAA	129-4741
947.5	25	3	45	DFCB2947MLDJAA	129-4731
947.5	25	3.5	45	DFCB3947MLDJAA	129-4742
1747.5	75	2	20	DFCB31G74LBJAA	129-4732
1960	60	3.7	5	DFCB21G96LDJAA	129-4727
1960	60	3.7	30	DFCB31G96LBJAA	129-4735
2140	60			DFCB32G14LBJAA	129-4736

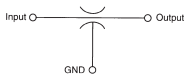
452096

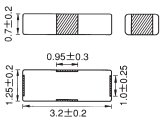
Price Each

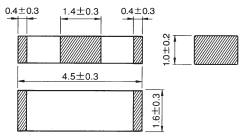
Frequency	Order Code
836.5MHz	SMD **129-4728**
881.5MHz	SMD **129-4729**
881.5MHz	SMD **129-4739**
915MHz	SMD **129-4730**
915MHz	SMD **129-4741**
947.5MHz	SMD **129-4731**
947.5MHz	SMD **129-4742**
1747.5MHz	SMD **129-4732**
1960MHz	SMD **129-4727**
1960MHz	SMD **129-4735**
2140MHz	SMD **129-4736**

Capacitor – 3 Terminal

556-701







- 3 terminal capacitors in chip form which offer a high level of noise suppression and excellent high frequency characteristics
- Applications include suppression of EMI in signal circuits and DC power lines.
- Supplied on tape.

NFM3212R Series

Voltage rating	50V dc	Current rating	300mA
Capacitance tolerance	1000MΩ min.	Insulation resistance	1000
Operating temperature	125-55°C to +°C	DC resistance	0.3Ω max

Capacitance pF	Mftrs. List No.	Order Code	Capacitance pF	Mftrs. List No.	Order Code
220	NFM3DCC221R1H3L	952-8253	2200	NFM3DCC222R1H3L	952-8261
1000	NFM3DCC102R1H3L	952-8245	22000	NFM3DCC223R1H3L	952-8270

NFM4516R Series

Voltage rating	100V dc	Current rating	300mA
Capacitance tolerance	1000MΩ min.	Insulation resistance	1000MΩ min.
Operating temperature	-55°C to +125°C	DC resistance	0.3Ω max

Capacitance pF	Mftrs. List No.	Order Code	Capacitance pF	Mftrs. List No.	Order Code
470	NFM41CC471R2A3L	952-8350	2200	NFM41CC222R2A3L	952-8334
1000	NFM41CC102R2A3L	952-8318	22000	NFM41CC223R2A3L	952-8342

NFM40R Series

Voltage rating	25V dc	Current rating	200mA
Insulation resistance	1000MΩ min.	DC resistance	0.6Ω max
Operating temperature	-55°C to +125°C		

Capacitance pF	Tolerance %	Mftrs. List No.	Order Code
47	+50 to -20	NFM3DCC470U1H3L	952-8288
100	+50 to -20	NFM3DCC101U1H3L	952-8237
100	+80 to -20	NFE31PT101C1E9L	952-8148
1500	+50 to -20	NFE31PT152Z1E9L	952-8156
220	+50 to -20	NFE31PT221D1E9L	952-8164
470	+50 to -20	NFE31PT471F1E9L	952-8180
470	+50 to -20	NFM3DCC471R1H3L	952-8296
2200	+50 to -50	NFE31PT222Z1E9L	952-8172

NFM41R Series

Voltage rating	100V dc	Current rating	300mAdc
Insulation resistance	10000MΩ	DC resistance	0.3Ω max
Operating temperature	-55°C to +125°C		

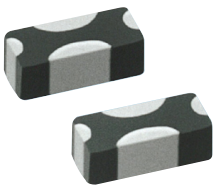
Capacitance pF	Tolerance %	Mftrs. List No.	Order Code
22	+50 to -20	NFM41CC220U2A3L	952-8326

204064

Order Multiple=5 **Price Each**

	Order Code
NFM3212R Series	**All Values**
NFM4516R Series	**All Values**
NFM40R Series	**All Values**
NFM41R Series	**All Values**

NFM Series



Capacitance	Voltage Rating	Tolerance	Mftrs. List No.	Order Code
Case Style 0603				
100nF	16V	-20% to +20%	NFM18PC104R1C3D	168-6508
220nF	16V	-20% to +20%	NFM18PC224R0J3D	168-6510
470nF	6.3V	-20% to +20%	NFM18PS474R0J3D	168-6509
470nF	16V	-20% to +20%	NFM18PC474R0J3D	168-6511
1µF	6.3V	-20% to +20%	NFM18PC105R0J3D	168-6505
1µF	6.3V	-20% to +20%	NFM18PS105R0J3D	168-6506
Case Style 0805				
100pF	50V	-20% to +20%	NFM21CC101U1H3D	182-8793
1nF	50V	-20% to +20%	NFM21CC102R1H3D	182-8795
2.2nF	50V	-20% to +20%	NFM21CC222R1H3D	182-8796
22nF	50V	-20% to +20%	NFM21CC223R1H3D	182-8797
100nF	25V	-20% to +20%	NFM21PC104R1E3D	168-6518
220nF	16V	-20% to +20%	NFM21PC224R1C3D	168-6515
470nF	16V	-20% to +20%	NFM21PC474R1C3D	168-6516
1µF	10V	-20% to +20%	NFM21PC105B1A3D	168-6514
1µF	16V	-20% to +20%	NFM21PC105B1C3D	168-6517
2.2µF	6.3V	-20% to +20%	NFM21PC225B0J3D	168-6512
Case Style 1205				
22µF	50V	-20% to +20%	NFM3DPC223R1H3L	168-6519
Case Style 1806				
200nF	50V	-20% to +20%	NFM41PC204F1H3L	168-6521
1.5µF	25V	-20% to +80%	NFM41PC155B1E3L	168-6520
Case Style 2220				
1.5µF	50V	-20% to +80%	NFM55PC155F1H4L	168-6522

Filters - Circuit Filters - Murata - continued

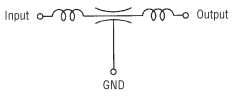
NFM Series - continued

528632

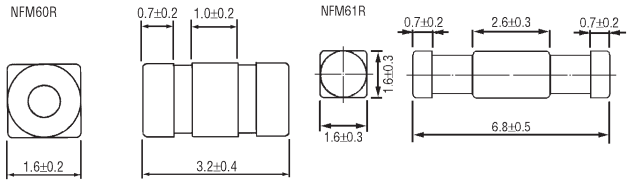
Order Multiple=5	Order Code	Price Each
Case Style 0603		
100 nF	SMD 168-6508 RL	
220 nF	SMD 168-6510 RL	
470 nF	SMD 168-6509 RL	
470 nF	SMD 168-6511 RL	
1 µF	SMD 168-6505 RL	
1 µF	SMD 168-6506 RL	
Case Style 0805		
100 pF	NEW SMD 182-8793	
1 nF	NEW SMD 182-8795	
2.2 nF	NEW SMD 182-8796	
22 nF	NEW SMD 182-8797	
100 nF	SMD 168-6518 RL	
220 nF	SMD 168-6515 RL	
470 nF	SMD 168-6516 RL	
1 µF	SMD 168-6514 RL	
1 µF	SMD 168-6517 RL	
2.2 µF	SMD 168-6512 RL	
Case Style 1205		
22 µF	SMD 168-6519 RL	
Case Style 1806		
200 nF	SMD 168-6521 RL	
1.5 µF	SMD 168-6520 RL	
Case Style 2220		
1.5 µF	SMD 168-6522 RL	
NFM/NFE Design Kit		
	NEW 176-0706	

3 Terminal with Ferrite Beads

T Circuit EMFIL®



The NFM 60R/61R has no polarity



- 3 terminal surface mount capacitor with ferrite bead on input and output leads
- High current rating and low DC resistance make them suitable for suppression of DC power rails
- Flow or reflow solder except 869-909 which can only be reflow soldered

NFE31Series

Voltage rating	25V dc	Current rating	6A dc
Insulation resistance	1000Mohm	DC resistance	0.01Ω
Operating temperature	-40°C to +85°C	Reel quantity	2000 pcs

Capacitance pF	Tolerance %	Mftrs. List No.	Order Code
47	±50%	NFE31PT470C1E9L	869-867
100	+80 -20%	NFE31PT101C1E9L	952-8148
220	+50 -20%	NFE31PT221D1E9L	952-8164
470	+50 -20%	NFE31PT471F1E9L	952-8180
1500	+50 -20%	NFE31PT152Z1E9L	952-8156
2200	±50%	NFE31PT222Z1E9L	952-8172

NFE61Series

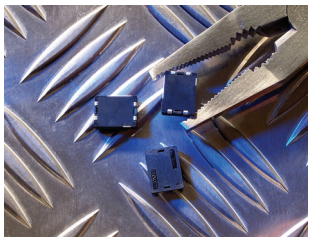
Voltage rating	50V dc	Current rating	2A
Insulation resistance	1000Mohm	Quantity	2500 pcs
Operating temperature	-25°C to +85°C		

Capacitance pF	Tolerance %	Mftrs. List No.	Order Code
100	±30%	NFE61PT101Z1H9L	952-8199
360	±20%	NFE61PT361B1H9L	952-8210
1000	±80%	NFE61PT102E1H9L	952-8202
4700	+80 -20%	NFE61PT472C1H9L	952-8229

204098

Order Multiple=5	Order Code	Price Each
NFE31Series	All Values	
NFE61Series	All Values	

Surface Mount - BNX Series



- Large rated current (10A) and Low DC Resistance
- High insertion loss characteristic over a wide frequency range of 1MHz to 1GHz
- Mounting area and volume is reduced
- Application includes Amusement equipment , PC and peripherals

Insulation Resistance	500MΩ

Ratings (dc)

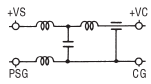
Current (A)	Voltage (V)	Mftrs. List No.	Order Code
10	50	BNX022-01L	111-4996
15	100	BNX023-01L	176-9693

423515

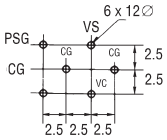
Order Code	Price Each
111-4996	
NEW 176-9693	

Standard BNX Series

H=13.0, W=12.0, D=11.0



VS=Voltage supply
VC=Voltage circuit
PSG=Power supply ground
CG=Circuit ground



- Compact PCB mounting dc power filters incorporating a large value four terminal capacitor, a feed-through capacitor and ferrite bead inductors
- Provides excellent attenuation over a very wide frequency band.
- Typical applications include the suppression of noise in digital equipment, engine control units, computer terminals and the output lines of switching power supplies.

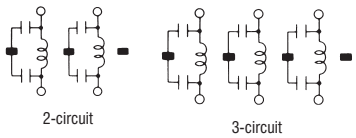
Ratings (dc) Current (A)	Voltage (V)	Dielectric Strength (V)	Insertion Loss	Mftrs. List No.	Order Code
10	50	125	1GHz - 1MHz	BNX002-01	952-6943
10	150	375	5MHz - 1GHz	BNX003-01	952-6951
15	50	125	1MHz - 1GHz	BNX005-01	952-6960

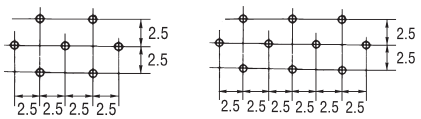
Insulation Resistance	100MΩ	Insertion Loss	40dB min

204212

Order Code	Price Each
952-6943	
952-6951	
952-6960	

Pi-Style BNP Series





- Compact PCB mounting dc power filters incorporating ferrite bead inductors and feed-through capacitors
- Available in two and three circuit styles suitable for multiple supply lines
- They provide excellent attenuation over a wide frequency range of 15MHz to 1GHz and are suitable for use in high impedance circuits.
- Typical applications include the suppression of noise in signal lines and dc power sources in engine control units, digital equipment, computer terminals and car electronics.

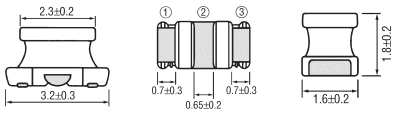
Rating	10A @ 50V	Operating temperature	-40°C to +100°C
Insulation resistance	100MΩ		

No. of Circuits	H	W	D	Attenuation dB (50Ω System) 1MHz	10MHz	100MHz	1GHz
2	12	12	11	5	35	70	55
3	12	17	11	5	35	70	55

204213

No. of Circuits	Order Code	Price Each
2	952-6927	
3	952-6935	

NFW31xxx Series



- Chip suppression filter, suitable for high speed digital circuits where signal harmonics are prone to becoming sources of noise
- Effective in applications where signal and noise frequencies are close to each other
- Applications include noise suppression in high speed processing circuits, high frequency clock and RGB circuits.

Rating 200mA @ 25V dc Reel quantity 2000 pcs
Operating temperature -40°C to +85°C

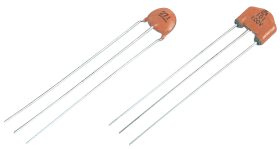
Cut-off Frequency MHz	10MHz	20MHz	50MHz	100MHz	200MHz	500MHz	1GHz	Mftrs. List No.	Order Code
10	*	5	25	25	25	30	30	NFW31SP106X1E4L	952-8369
20	-	*	5	25	25	30	30	NFW31SP206X1E4L	952-8385
50	-	-	*	10	30	30	30	NFW31SP506X1E4L	952-8407

* 6dB Max.

204097

Order Multiple=5		Price Each
	Order Code	
NFM51R	**All Values** ●	

Standard



H=8, W=8, D=2.54, Lead Length=25, Lead pitch=2.5, Lead dia.=0.6

- Three terminal T-networks offer a lower residual inductance than that of standard two terminal capacitors
- Bypass capacitor provides a path for high frequency noise to earth and ensures excellent high frequency attenuation
- Typical applications include noise suppression in office equipment, computers, TV, VCR and automotive electronics
- Note: DSS types have ferrite beads on input and output leads

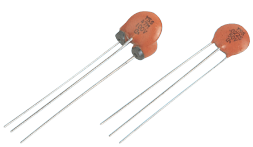
Rating 6A Operating Temperature -25°C to +85°C

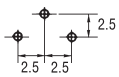
Capacitance pF	Tolerance	Effective Frequency range (50Ω Series 20dB min) MHz	Voltage Rating dc	Ferrite Beads	Mftrs. List No.	Order Code
1000	±20%	90 to 1000	50	No	DSN6NC51H102Q55B	952-7362
2200	±20%	50 to 1000	50	No	DSN6NC51H222Q55B	952-7370
10000	+80% to -20%	8 to 1000	50	No	DSN6NZ81H103Q55B	952-7389
22000	±50%	40 to 900	50	No	DSN9NC51H223Q55B	952-7400
22	±20%	800 to 1100	100	Yes	DSS6NC52A220Q55B	952-7435
47	±20%	400 to 1100	100	Yes	DSS6NC52A470Q55B	952-7460
100	±20%	200 to 1050	100	Yes	DSS6NC52A101Q55B	952-7419
220	±20%	110 to 1000	100	Yes	DSS6NC52A221Q55B	952-7443
270	±20%	90 to 1000	100	Yes	DSS6NC52A271Q55B	952-7451
470	±20%	70 to 1000	100	Yes	DSS6NC52A471Q55B	952-7478
1000	±20%	20 to 1000	100	Yes	DSS6NC52A102Q55B	952-7427
2200	+80% to -20%	10 to 1000	100	Yes	DSS6NE52A222Q55B	952-7486
10000	±30%	7 to 1000	100	Yes	DSS6NZ82A103Q55B	952-7508
22000	+80% to -20%	2 to 1000	16	Yes	DSS6NF31C223Q55B	952-7494

204046

		Price Each
	Order Code	
1000	**952-7362**● RL	
2200	**952-7370**● RL	
10000	**952-7389**● RL	
100 Volt dc		
22	**952-7435**●	
47	**952-7460**●	
100	**952-7419**●	
220	**952-7443**●	
270	**952-7451**●	
470	**952-7478**●	
1000	**952-7427**●	
2200	**952-7486**●	
10000	**952-7508**●	
16 Volt dc		
22000	**952-7494**●	

310 Series





H=10.5 W=12.0, Lead L=25.0

Wide band noise suppression filter made with high performance ferrite material. High attenuation over a wide band. Available with and without ferrite beads.

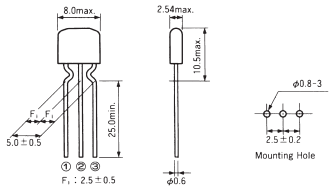
Rating 7A Operating Temperature -25°C to +85°C

Capacitance pF	Tolerance	Effective Frequency range (50Ω Series 20 dB min) MHz	Voltage Rating dc	Ferrite Beads	Mftrs. List No.	Order Code
22000	+50% to -20%	40 to 900	50	No	DSN9NC51H223Q55B	952-7400
100000	±20%	0.8 to 1000	16	No	DSN9NC51C104Q55B	952-7397
2200	±20%	20 to 1100	250	Yes	DSS9HB32E222Q55B	952-7516

204045

Order Multiple=5			Price Each
pF	Volts dc	**Order Code**	
22000	50	**952-7400**● RL	
100000	16	**952-7397**● RL	
2200	250	**952-7516**●	

Varistor



- Three terminal T-network consisting of a capacitor which provides a varistor function combined with two internal ferrite bead inductors
- Designed to eliminate noise and protect semiconductors.

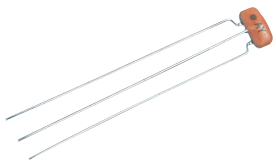
Voltage rating 25V dc Peak pulse current 100A
Varistor voltage 50V dc Capacitance 220pF ±20%
Current rating 6A Operating temperature -40°C to +105°C

Mftrs. List No. VF56VD8IE221T51B

204041

Order Multiple=5		Price Each
	Order Code	
	581-069●	

Varistor 3 Terminal



H=5, W=8, D=2.3, Lead pitch=2.5, Lead dia.=0.45

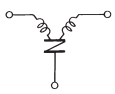
- 3 terminal varistor designed to protect CMOS and TTL IC's from electro-static discharge
- Small size and 2.5mm pitch for densely populated circuit boards.

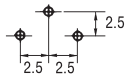
Voltage rating 25V dc
Varistor voltage 50Vdc
Current rating 20mA dc
Capacitance 130pF ±20%
Operating temperature -25°C to +85°C
Mftrs. List No. VFR3VD31E131T51B

204042

	Price Each
Order Code	
581-197●	

Varistor





H=10.5, W=12.0, Lead L=25.0

- Three terminal T-networks consisting of a capacitor which provides a varistor function combined with two internal ferrite bead inductors
- The varistor capacitor not only acts as a bypass capacitor but also provides a path for high voltage surges to flow to earth
- Efficiently removes fast surges and high frequency noise above 60MHz
- Self-healing properties ensure effective operation in circuits having 600V surges

Rating 7A @ 12V Insulation resistance 1MΩ
Maximum varistor voltage 22V ±20% (1mA) Operating temperature -40°C to +100°C
Capacitance 22000pF +50%, -20% Mftrs. List No. VFS9VD31B223Q55B
Inductance 0.8μH x 2 (1kHz)

204236

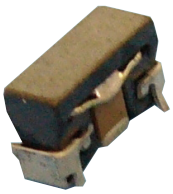
	Price Each
Order Code	
108-266●	

Filters - Circuit Filters - Panasonic

EXCCET Series

Chip EMI FIlters

Panasonic ideas for life



- Eight capacitance values in a wide range, related to the noise frequency
- Suitable for narrow pitch insertion
- Suitable for applications requiring thin design

SMD

Tolerance	20%
Voltage rating d.c.	50V
Current rating	2A
Resistance	50ohm
Operating temperature	-25°C to +80°C

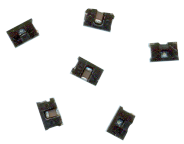
452172

pF	Order Code	Price Each
470	SMD 129-2719 ●	
1000	SMD 129-2712 ●	
2200	SMD 129-2715 ●	
10000	SMD 129-2713 ●	

ELKE Series

EMI FIlters

Panasonic ideas for life



- No variation in attenuation characteristics as current changes
- Stable P/N marking using laser technology on the top face of product
- Recommended for data lines, secondary power supply lines (DC lines) for game, digital AV and communications equipment

SMD

Case size 3218 Operating temperature -20°C to +85°C

Capacitance pF	Frequency max. (MHz)	Rated Current Max. (A)	Voltage (V d.c.)	Mftrs. List No.	Order Code
47	100	2	50	ELKE470FA	130-5080
220	25	2	50	ELKE221FA	130-5082
2200	2	2	50	ELKE222FA	130-5085
10000	0.5	2	50	ELKE103FA	130-5087
33000	0.2	2	25	ELKE333FA	130-5088

452182

Order Code	Price Each
All Values ●	

Filters - Circuit Filters - TDK

MEM Series 3 Terminal Filters

Wide-Band

TDK

SMD

New

Features:

MEM2012P Type

- Multilayer chip EMC filter that is small and low-profile due to the use of a π-type circuit.

MEM2012TC Type

- Multilayer chip EMC filter utilizing a T-type circuit.
- MEM2012TC combines a bead inductor with a through-type capacitor.
- Steep attenuation characteristic plot. Highly effective noise suppression.

MEM2012W Type

- Steeper and wider bandwidth attenuation characteristics than earlier type.
- Used for high cutoff frequency applications.
- Small size (2.0× 1.25× 2.0mm).
- Taped-type packaging, so can be used for automatic mounting.

Applications:

MEM2012P, MEM2012TC Type

Computers, computer peripherals, VCRs, TVs, car audio equipment, printers, game machines, etc.

MEM2012W Type

Signal line noise elimination for PCs, liquid crystal panels, printers, game machines, mobile phones, DVCs, etc.

MEM2012P

Mftrs. List No.	Cutoff frequency (MHz)	Attenuation (dB)min.	Rated voltage Edc(V)max.	Rated current Idc(mA)max.	Order Code
MEM2012P10R0	10	20[0.2 to 2GHz]	12	200	166-9507
MEM2012P50R0	50	20[0.4 to 2GHz]	12	200	166-9509
MEM2012P75R0	75	20[0.7 to 2GHz]	12	200	166-9510
MEM2012P101R	100	20[1.5 to 2GHz]	12	200	166-9506

MEM2012TC

Mftrs. List No.	Capacitance* (pF)	Tolerance (%)	Rated voltage Edc(V)max.	Rated current Idc(A)max.	Order Code
MEM2012TC100	10	±30	12	1	166-9517
MEM2012TC220	22	±30	12	1	166-9520
MEM2012TC470	47	±30	12	1	166-9521
MEM2012TC101	100	±30	12	1	166-9518
MEM2012TC151	150	±30	12	1	166-9519

*Measuring frequency: 1(MHz), measuring voltage: 1(V)

MEM2012W

Mftrs. List No.	Cutoff frequency (MHz)	Rated voltage Edc(V)max.	Rated current Idc(mA)max.	Order Code
MEM2012W121R	120	10	100	166-9522
MEM2012W151R	150	10	100	166-9523
MEM2012W181R	180	10	100	166-9524
MEM2012W211R	210	10	100	166-9525
MEM2012W241R	240	10	100	166-9526

531644

Order Multiple = 5 Order Code	Price Each
MEM2012P	
SMD 166-9506 ●	
SMD 166-9507 ●	
SMD 166-9509 ●	
SMD 166-9510 ●	
MEM2012T	
SMD 166-9517 ●	
SMD 166-9518 ●	
SMD 166-9519 ●	
SMD 166-9520 ●	
SMD 166-9521 ●	
MEM2012W	
SMD 166-9522 ●	
SMD 166-9523 ●	
SMD 166-9524 ●	
SMD 166-9525 ●	
SMD 166-9526 ●	

ACH32 Series

SMD 3-terminal Filters for Power Lines

TDK

- EMC filters comprising ferrite beads and chip capacitors and are engineered to handle high current levels
- Provide highly effective EMC suppression
- Due to almost entirely ferrite, they exhibit excellent attenuation characteristics
- Suitable for reflow soldering
- 1206 case size

SMD

Frequency MHz	DC Res. Max. (mΩ)	Current rating (A)	Mftrs. List No.	Order Code
3.5 - 200	2	6	ACH32C-104-T	166-9279
30 - 200	2	6	ACH32C-103-T	166-9277
55 - 300	2	6	ACH32C-222-T	166-9282
100 - 350	2	6	ACH32C-102-T	166-9276
200 - 800	2	6	ACH32C-331-T	166-9283
650 - 2500	2	6	ACH32C-470-T	166-9285
1300 - 2500	2	6	ACH32C-220-T	166-9281
2000 - 6000	2	6	ACH32C-100-T	166-9275

528713

Order Code	Price Each
All Values ●	

ACH Series

SMD 3-terminal Filters for Power Lines

TDK

- Superior attenuation characteristics, in which the T-type filter circuit is magnetically shielded with ferrite
- Even greater attenuation characteristics when used in a stable circuit on the ground
- Ideal for high-density circuit design
- Suitable for reflow soldering

SMD

Frequency MHz	DC Res. Max. (Ω)	Current rating (A)	Mftrs. List No.	Order Code
1210 Case				
11 - 55	0.06	1.5	ACH3218-223-TD01	166-9264
17 - 60	0.06	1.5	ACH3218-103-TD01	166-9258
22 - 75	0.06	1.5	ACH3218-682-TD01	166-9274
30 - 85	0.06	1.5	ACH3218-472-TD01	166-9271
37 - 90	0.06	1.5	ACH3218-332-TD01	166-9268
60 - 115	0.06	1.5	ACH3218-152-TD01	166-9260
80 - 140	0.06	1.5	ACH3218-102-TD01	166-9257
95 - 150	0.06	1.5	ACH3218-681-TD01	166-9273

Frequency	DC Res.			
1210 Case				
120 - 180	0.06	1.5	ACH3218-471-TD01	166-9270
170 - 250	0.06	1.5	ACH3218-221-TD01	166-9262
205 - 280	0.06	1.5	ACH3218-151-TD01	166-9259
265 - 340	0.06	1.5	ACH3218-101-TD01	166-9256
340 - 420	0.06	1.5	ACH3218-680-TD01	166-9272
420 - 500	0.06	1.5	ACH3218-470-TD01	166-9269
500 - 600	0.06	1.5	ACH3218-330-TD01	166-9265
600 - 700	0.06	1.5	ACH3218-220-TD01	166-9261
1812 Case				
6 - 60	0.04	2	ACH4518-333-TD01	166-9290
15 - 75	0.04	2	ACH4518-103-TD01	166-9288
35 - 100	0.04	2	ACH4518-332-TD01	166-9289
65 - 150	0.04	2	ACH4518-102-TD01	166-9287
235 - 335	0.04	2	ACH4518-101-TD01	166-9286

528711

Price Each

	Order Code
1210 Case	**All Values** ●
1812 Case	
6 - 60MHz	**166-9290** ●
15 - 75MHz	**166-9288** ●
35 - 100MHz	**166-9289** ●
65 - 150MHz	**166-9287** ●
235 - 335MHz	**166-9286** ●

ACF Series

SMD 3-terminal Filters for Signal Lines

- Superior attenuation characteristics, in which the T-type filter circuit is magnetically shielded with ferrite
- Even greater attenuation characteristics when used in a stable circuit on the ground
- Ideal for high-density circuit design
- Suitable for reflow soldering

Frequency MHz	DC Res. Max. (Ω)	Current rating (mA)	Mftrs. List No.	Order Code
1210 Case				
11 - 55	0.15	300	ACF321825-223-TD01	166-9222
17 - 60	0.15	300	ACF321825-103-TD01	166-9215
22 - 75	0.15	300	ACF321825-682-TD01	166-9233
30 - 85	0.15	300	ACF321825-472-TD01	166-9228
37 - 90	0.15	300	ACF321825-332-TD01	166-9225
45 - 105	0.15	300	ACF321825-222-TD01	166-9221
60 - 115	0.15	300	ACF321825-152-TD01	166-9218
95 - 150	0.15	300	ACF321825-681-TD01	166-9232
120 - 180	0.15	300	ACF321825-471-TD01	166-9227
130 - 210	0.15	300	ACF321825-331-TD01	166-9224
205 - 280	0.15	300	ACF321825-151-TD01	166-9216
265 - 340	0.15	300	ACF321825-101-TD01	166-8890
340 - 420	0.15	300	ACF321825-680-TD01	166-9231
420 - 500	0.15	300	ACF321825-470-TD01	166-9226
500 - 600	0.15	300	ACF321825-330-TD01	166-9223
600 - 700	0.15	300	ACF321825-220-TD01	166-9219
1812 Case				
7 - 60	0.15	300	ACF451832-333-TD01	166-9248
11 - 70	0.15	300	ACF451832-153-TD01	166-9239
15 - 75	0.15	300	ACF451832-103-TD01	166-9236
20 - 85	0.15	300	ACF451832-682-TD01	166-9255
25 - 90	0.15	300	ACF451832-472-TD01	166-9251
35 - 100	0.15	300	ACF451832-332-TD01	166-9247
40 - 110	0.15	300	ACF451832-222-TD01	166-9243
50 - 130	0.15	300	ACF451832-152-TD01	166-9238
95 - 180	0.15	300	ACF451832-471-TD01	166-9250
115 - 205	0.15	300	ACF451832-331-TD01	166-9246
150 - 250	0.15	300	ACF451832-221-TD01	166-9241
190 - 290	0.15	300	ACF451832-151-TD01	166-9237
235 - 335	0.15	300	ACF451832-101-TD01	166-9234
295 - 395	0.15	300	ACF451832-680-TD01	166-9252
360 - 460	0.15	300	ACF451832-470-TD01	166-9249
450 - 550	0.15	300	ACF451832-330-TD01	166-9245
550 - 650	0.15	300	ACF451832-220-TD01	166-9240

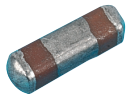
528705

Price Each

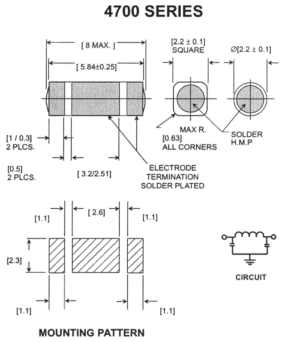
	Order Code
1210 Case	**All Values** ●
1812 Case	**All Values** ●

Filters - Circuit Filters - Tusonix

Surface Mount Pi-Section Filters



Supplied on 16mm blister tape



- Pi-section filters in compact surface mount package
- High current rating 10A
- Designed for use near to noise generating components to suppress interference at source
- Applications include radio and telecommunications, signal processing, disc drives, TV set-top equipment, sensors and instrumentation

Operating Temperature -55°C to +125°C Current Rating 10A

Capacitance (pF)	Voltage Rating @ 125°C (V)	Attenuation dB (50Ω system) 10MHz	100MHz	1GHz	10GHz	Mftrs. List No.	Order Code
1000	100	7	40	65	70	4700-005LF	118-6429
2000	100	10	45	70	70	4700-003LF	118-6430
4000	100	13	52	70	70	4700-008LF	118-6431
8200	100*	20	65	70	70	4701-001LF	118-6432

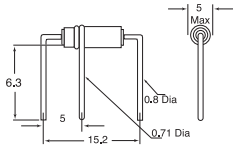
*100V @ 85°C

204193

Price Each

pF	Order Code
1000	SMD **118-6429** ●
2000	SMD **118-6430** ●
4000	SMD **118-6431** ●
8200	SMD **118-6432** ●

Pi-Section – Axial Filter



- Pi-section suppression filters in an axial design
- For use on printed circuit boards near to noise generating components to suppress conducted noise or interference at source
- High insertion loss and compact size.

Operating Temperature 125°C to +-55°C Current Rating 10A

Capacitance (pF) min.	max.	Working Voltage 85°C	125°C	Insertion Loss(50Ω system) 10MHz	100MHz	1GHz	Mftrs. List No.	Order Codes
5000		250Vac	200Vdc	18	60	70	4100-053LF	118-6436

204030

Price Each

Capacitance pF (min)	Order Code
5000	**118-6436** ●

Sub-miniature Capacitive - 4400 Series

- Sub-miniature ceramic lead-through capacitors for low pass filtering applications
- M3 mounting thread

Operating Temperature -55°C to +125°C
Current Rating 10A

Mounting hole dia.=3.0, Body length=7.0,
Body dia.=4.0 (Hex),
Lead dia.=0.79, Thread=M3 x 0.5

Capacitance (pF)	Voltage Rating @ 125°C (V)	Attenuation dB (50Ω system) 1MHz	10MHz	100MHz	1GHz	10GHz	Mftrs. List No.	Order Codes
1000	200	–	5	20	35	45	4400-095LF	118-6433
4700	100	–	15	30	45	55	4400-094LF	118-6434
10000	50	4	21	35	50	55	4400-093LF	118-6435

204192

Price Each

pF	Order Code
1000	**118-6433** ●
4700	**118-6434** ●
10000	**118-6435** ●

Filters - Circuit Filters - Tusonix - continued

Shoulder Feed-Thru Capacitors

TUSONIX

2461 Series

- Solder mount feed-thru capacitors
- Silver finish on leads

L = 4.19, Dia = 4.19, Lead length = 6.35, Lead dia. = 1.3

Operating temperature	-55°C to +125°C	Dielectric characteristic	X7R
Insulation resistance	10GΩ	Voltage rating	100V dc
Capacitance	1000pF	Mftrs. List No.	2461-001-X7V0-102AA LF

451995

Price Each

pF	Order Code
1000	**130-5442**

Capacitive – 2499 Series

TUSONIX

- Ceramic lead-through capacitors for low pass filtering applications, where chassis mounting is required and where space is at a premium.

Mounting hole dia.=5.4, Body length=11.9, Body dia.=6.35 (Hex), Lead thickness=1.29, Thread=1⁵⁄₂₈-NF-2A

Voltage rating	500V	Power Factor	0.03 (106-772=0.001)
Operating Temperature	-55°C to +125°C	Current Rating	10A

(pF)	Temperature Coefficient	Insertion Loss (50Ω system) 10MHz	100MHz	1GHz	Mftrs. List No.	Order Code
100	+22% to +56% -55°C to +85°C	0.1	5	23	2499-003-U2M0-101KLF	118-6421
1000	+22% to 56% -55°C to +85°C	5	21	28	2499-003-X5U0-102PLF	118-6422
10000	+22% to 56% -55°C to +85°C	22	38	50	2499-003-X5W0-103ZLF	118-6423

204233

Price Each

pF	Order Code
100	**118-6421**
1000	**118-6422**
10000	**118-6423**

Pi-Section – 4101 & 4209 Series

TUSONIX

Solder mount 106-775 106-776 Body length=10.3, Body diameter=4.95, Max height above panel=7.9, Max height below panel= 10.3 (106-775) 18.0 (106-776), Mounting hole dia.=4.0

Bush mount 106-777 106-778 Body length=12.3, Body diameter=6.35, Thread=M5 x 0.8, Max height above panel=9.5, Max height below panel=23.4, Mounting hole dia.=5.1

- Pi-section suppression filters in both chassis and solder mount styles
- Combines a ceramic capacitor with a ferrite inductor
- Can be used to suppress unwanted EMI/RFI in a wide range of applications where a high insertion loss is required from 10MHz to 10GHz

Current Rating 10A Operating Temperature -55°C to +125°C °C°C

Solder Mount

Capacitance pF (min)	Voltage Rating 85°C	125°C	Attenuation dB (50Ω System) 10MHz	100MHz	1GHz	10GHz	Mftrs. List No.	Order Code
1500	350	200	5	45	70	70	4101-001LF	118-6424
5500	140	70	15	55	70	70	4101-008LF	118-6426
Chassis Mount								
1500	350	200	5	45	70	70	4209-003LF	118-6427
5500	200	100	20	65	70	70	4209-053LF	118-6428

204235

Price Each

pF	Order Code
Solder Mount	
1500	**118-6424**
5500	**118-6426**
Chassis Mount	
1500	**118-6427**
5500	**118-6428**

Surge Protection - GDT's - Bourns

Precision Gas Discharge Tube Surge Protector

BOURNS

2035 Series

- High surge current rating
- Stable breakdown throughout life

L = 4.4, Dia. = 4.8mm

DC Sparkover Voltage (V)	Impulse Discharge Current	Impulse Sparkover Voltage (V)	Mftrs. List No.	Order Code
90	10kA	525	2035-09-SM-RPLF	168-9825
150	10kA	550	2035-15-SM-RPLF	168-9826

537646

Price Each

Mftrs. List No.	Order Code
2035-09-SM-RPLF	**168-9825**
2035-15-SM-RPLF	**168-9826**

Precision Gas Discharge Tube Surge Protector

BOURNS

2036 Series

- Ideal for board level protection of broadband circuits
- Leadless, surface mount for economical assembly
- High surge current rating, low insertion loss

L = 7.3, Dia. = 5mm

DC Sparkover Voltage (V)	Impulse Discharge Current	Impulse Sparkover Voltage (V)	Mftrs. List No.	Order Code
90	20kA	550	2036-09-SM-RPLF	168-9827
150	20kA	500	2036-15-SM-RPLF	168-9828

537647

Price Each

Mftrs. List No.	Order Code
2036-09-SM-RPLF	**168-9827**
2036-15-SM-RPLF	**168-9828**

Surge Protection - GDT's - Epcos

Mini Gas Discharge Tubes 2.5kA - 2 Electrode

EPCOS

L = 6, Dia. = 5.5, Lead length = 27, Lead dia. = 0.8

- Axial mini gas discharge tubes
- 2 electrodes

Impulse discharge current 2.5kA
Insulation resistance 1GΩ

DC Sparkover Voltage (V)	Impulse Sparkover Voltage (V)	Mftrs. List No.	Order Code
90	<350	B88069X190S102	129-9953

452143

Price Each

Mftrs. List No.	Order Code
B88069X190S102	**129-9953**

Mini Gas Discharge Tubes 2.5kA - 3 Electrode

EPCOS

- Radial mini gas discharge tubes
- 3 electrodes

Impulse discharge current 2.5kA Insulation resistance 1GΩ

DC Sparkover Voltage (V)	Impulse Sparkover Voltage (V)	Mftrs. List No.	Order Code
230	<600	B88069X2591B502	129-9960

L = 6, Dia. = 5.5, Lead dia. = 0.8

452146

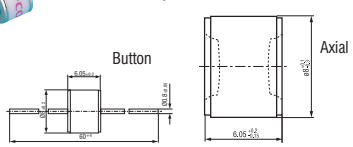
Price Each

Mftrs. List No.	Order Code
B88069X2591B502	**129-9960**

Gas Discharge Tubes – 5kA Ceramic

EPCOS

- Ceramic insulator surge arresters for overvoltage protection in telecom and control systems
- Button cell, radial and axial lead types available up to 600V



Impulse discharge current: 5kA
Insulation resistance: >10GΩ
Capacitance: <2pF

D.C Sparkover Voltage	Impulse Sparkover Voltage	Type	Mftrs. List No.	Order Code
90	<600	Axial	EC90X	304-3174
150	<700	Axial	B88069X880S102	121-8962
230	<700	Axial	EC230X	304-3216
350	<900	Axial	EC350X	304-3228
600	<1300	Axial	EC600X	304-3230
260	<600	Radial	ES260XP	521-2467
300	<600	Radial	ES300XP	521-2479

204179

Style	Order Code	Price Each
Axial		
EC90X	**304-3174**	
B88069X880S102	**121-8962**	
EC230X	**304-3216**	
EC350X	**304-3228**	
EC600X	**304-3230**	
Radial		
ES260XP	**521-2467**	
ES300XP	**521-2479**	

Gas Discharge Tubes - 90V

- Gas discharge tubes
- 2 and 3 electrodes

Order Code	H	W	D
151-1743	6.6mm	5.4mm	5mm
151-1744	9.3mm	8.3mm	6.05mm
151-1745	8mm	5mm	5.6mm

2 Electrodes

Impulse discharge current	Insulation resistance	DC Sparkover Voltage	Impulse Voltage	Mftrs. List No.	Order Code
5kA	1Gohm	90V	600V	B88069X1640T902Gohm	151-1743
20kA	10Gohm	90V	600V	B88069X1630T602Gohm	151-1744

Mftrs. List No.	Order Code	Price Each
B88069X1640T902	**151-1743**	
B88069X1630T602	**151-1744**	

3 Electrodes

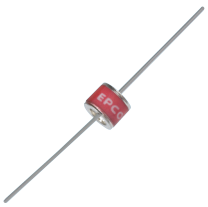
Impulse discharge current	Insulation resistance	DC Sparkover Voltage	Impulse Voltage	Mftrs. List No.	Order Code
5kA	1Gohm	90V	700V	B88069X4051T902Gohm	151-1745

452148

Mftrs. List No.	Order Code	Price Each
B88069X4051T902	**151-1745**	

Gas Discharge Tubes - 10kA

Medium Duty Types



- Metal ceramic gas discharge tubes

Impulse discharge current 10kA
Insulation resistance 10GΩ

DC Sparkover Voltage (V)	Impulse Sparkover Voltage (V)	Mftrs. List No.	Order Code
90	<600	N81-A90X	564-023
350	<950	N81-A350X	564-047
600	<1100	N81-A600X	129-9957

220479

Mftrs. List No.	Order Code	Price Each
N81-A90X	**564-023**	
N81-A350X	**564-047**	
N81-A600X	**129-9957**	

Gas Discharge Tubes 10kA - 3 Electrode

- Radial gas discharge tubes
- 3 electrodes

Impulse discharge current 10kA Insulation resistance 10GΩ

DC Sparkover Voltage (V)	Impulse Sparkover Voltage (V)	Mftrs. List No.	Order Code
90	<400	B88069X8300B502	129-9961
230	<450	B88069X8910B502	129-9962

L = 13.4, Dia. = 8, Lead dia. = 1

452147

Mftrs. List No.	Order Code	Price Each
B88069X8300B502	**129-9961**	
B88069X8910B502	**129-9962**	

Short Circuit Gas Discharge Tubes 10kA

- Short circuit gas discharge tubes
- 3 electrodes

Impulse discharge current 10kA Insulation resistance 10GΩ

DC Sparkover Voltage (V)	Impulse Sparkover Voltage (V)	Mftrs. List No.	Order Code
230	<450	B88069X9420B502	129-9963

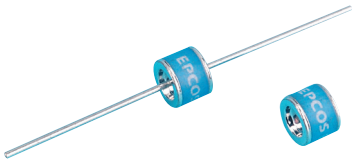
L = 13.4, Dia. = 8, Lead dia. = 1

452148

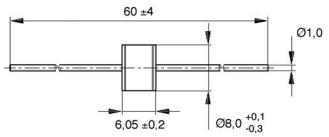
Mftrs. List No.	Order Code	Price Each
B88069X9420B502	**129-9963**	

Gas Discharge Tube - 20kA

Heavy Duty Types



- 20kA metal ceramic gas discharge tubes



Impulse discharge current 20kA
Insulation resistance >10GΩ
Capacitance <1.5pF

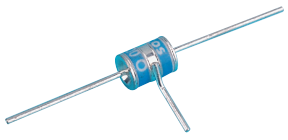
DC Sparkover Voltage (V)	Impulse Sparkover Voltage (V)	Mftrs. List No.	Order Code
90	<500	B88069X1380S102	564-060
230	<600	B88069X2250S102	434-292
350	<700	B88069X2380S102	564-084
600	<1100	B88069X2880S102	129-9959

220478

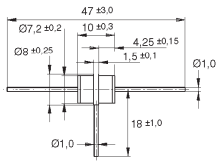
Mftrs. List No.	Order Code	Price Each
B88069X1380S102	**564-060**	
B88069X2250S102	**434-292**	
B88069X2380S102	**564-084**	
B88069X2880S102	**129-9959**	

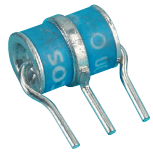
Gas Discharge Tubes

3 Electrode - 20kA

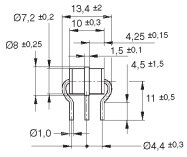


T21 Series





T23 Series



- 3 electrode ceramic insulator gas discharge tubes

Impulse discharge current 20kA Capacitance <1.5pF
Insulation resistance >10GΩ

DC Sparkover Voltage (V)	Impulse Sparkover Voltage (V)	Mftrs. List No.	Order Code
230	<350	T21-A230X	976-260
230	<300	T23-A230X	564-199
350	<700	T23-A350X	564-205

204139

Mftrs. List No.	Order Code	Price Each
T21-A230X	**976-260**	
T23-A230X	**564-199**	
T23-A350X	**564-205**	

Surge Protection - GDT's - Epcos - continued

SMD Surge Arrestors

EPCOS

L = 4.5, W = 3.2, D = 2.7

- 2 electrodes
- Fast response time
- Extremely small size

Impulse discharge current 2kA Insulation resistance 1GΩ

DC Sparkover Voltage (V)	Impulse Sparkover Voltage (V)	Mftrs. List No.	Order Code
150	<600	B88069X6071T203	168-8766
400	<950	B88069X5211T203	168-8767

528795

Price Each

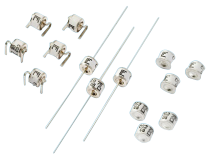
Mftrs. List No.	Order Code
B88069X6071T203	**168-8766**
B88069X5211T203	**168-8767**

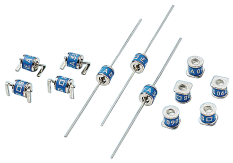
Surge Protection - GDT's - Littelfuse

CG Series Gas Discharge Tubes

Littelfuse

New





Littelfuse highly reliable CG Series GDTs provide a high degree of surge protection in a small size ideal for board level circuit protection.
The CG Series is ideal for protection of test and communication equipment and other devices in which low voltage limits and extremely low arc voltages are required.

DC Breakdown Min.	Typ.	Max.	Impulse Breakdown @ 100v/µs (V)	Impulse Breakdown @ 1Kv/µs (V)	Mftrs. List No.	Order Code
60	75	90	400	650	CG75L	175-7280
60	75	90	400	650	CG75MS	181-5471
72	90	108	400	600	CG90L	175-7281
72	90	108	400	600	CG90LSN	181-5472
72	90	108	550	700	CG590L	181-5473
72	90	108	550	700	CG590MS	181-5474
116	145	174	500	600	CG2145L	175-7282
116	145	174	500	600	CG2145MS	181-5475
184	230	276	600	700	CG2230L	175-7284
184	230	276	600	700	CG2230LSN	181-5476
184	230	276	550	650	CG5230L	181-5479
195	230	265	600	700	CG2230MS	181-5478
297	350	403	750	900	CG2350L	181-5480
376	470	564	850	1200	CG2470LSN	181-5481
400	470	540	850	1200	CG2470L	175-7285
510	600	690	1000	1400	CG2600L	175-7286
680	800	920	1200	1500	CG2800L	181-5482
850	1000	1150	1500	1600	CG21000L	175-7287
1200	1500	1800	1800	2000	CG31.5L	181-5483
2000	2500	3000	3200	3500	CG32.5L	181-5484

Parts ending **L** = Straight Leads, **LS** = Shaped Leads, **MS** = Surface Mount (LSN = Straight Leads, different DC Breakover Voltage Limit, see datasheet for more details)

547670

Price Each

Mftrs. List No.	Order Code
CG75L	**175-7280**
CG75MS	NEW **181-5471**
CG90L	**175-7281**
CG90LSN	NEW **181-5472**
CG590L	NEW **181-5473**
CG590MS	NEW **181-5474**
CG2145L	**175-7282**
CG2145MS	NEW **181-5475**
CG2230L	**175-7284**
CG2230LSN	NEW **181-5476**
CG5230L	NEW **181-5479**
CG2250L	**161-2065**
CG2230MS	NEW **181-5478**
CG2350L	NEW **181-5480**
CG2470LSN	NEW **181-5481**
CG2470L	**175-7285**
CG2600L	**175-7286**
CG2800L	NEW **181-5482**
CG21000L	**175-7287**
CG31.5L	NEW **181-5483**
CG32.5L	NEW **181-5484**

Gas Discharge Tubes

SL0902A / SL1002A & SL1003A Series

New

Littelfuse

SL1002A

The series has been especially developed for Broadband equipment. These devices have ultra low capacitance and present insignificant signal losses.

- Low insertion loss
- Surface mountable
- Excellent response to fast rising transients
- 'C' Type Core Devices
- 'SM' Type Surface Mount Devices

DC Breakdown Min.	Typ.	Max.	Impulse Breakdown @ 100v/µs (V)	Impulse Breakdown @ 1Kv/µs (V)	Mftrs. List No.	Order Code
72	90	108	550	700	SL0902A090SM	181-5485
72	90	108	400	650	SL1002A090SM	181-5486
72	90	108	600	600	SL1003A090C	181-5487
72	90	108	600	600	SL1003A090SM	181-5488
180	230	276	550	650	SL0902A230SM	181-5491
184	230	276	600	700	SL1002A230SM	181-5492
184	230	276	600	700	SL1003A230C	181-5493
184	230	276	600	700	SL1003A230SM	181-5494
280	350	420	800	900	SL0902A350SM	181-5495
480	600	720	1100	1200	SL1002A600SM	181-5496

610269

Price Each

Mftrs. List No.	Order Code
SL0902A090SM	**181-5485**
SL1002A090SM	**181-5486**
SL1003A090C	**181-5487**
SL1003A090SM	**181-5488**
SL0902A230SM	**181-5491**
SL1002A230SM	**181-5492**
SL1003A230C	**181-5493**
SL1003A230SM	**181-5494**
SL0902A350SM	**181-5495**
SL1002A600SM	**181-5496**

AC Series Gas Discharge Tubes

Littelfuse

New

L = 6, Dia. = 8, Lead dia. = 0.8mm

Littelfuse AC series two-electrode line protectors provide a high degree of surge protection in AC line applications. The two models, AC120 and AC240 are designed for use with 120VAC and 240VAC lines respectively. They are able to extinguish AC follow-on currents of at least 200A.

Impulse discharge current 5kA Insulation resistance 10GΩ

AC Line Voltage (V)	DC Breakdown Min.	Typ.	Max.	Impulse Breakdown @ 100v/µs (V)	Impulse Breakdown @ 1Kv/µs (V)	Mftrs. List No.	Order Code
120	230	285	340	500	550	AC120L	175-7278
240	480	600	720	1100	1200	AC240L	175-7279

547656

Price Each

Mftrs. List No.	Order Code
AC120L	**175-7278**
AC240L	**175-7279**

SL1011A/B, SL1021A/B, SL1024A/B and PMT8 Series

Littelfuse

Semitron

SL1011

SL1021 / 1024 & PMT8

Feautres:
- Low insertion loss
- Excellent response to fast rising transients
- Ultra low capacitance

Applications:
- Broadband equipment
- ADSL equipment
- XDSL equipment

PMT8:
- Telecom network interfaces
- Telephone line cards
- Repeaters
- Modems
- Line test equipment

Storage and Operating Temp. -40°C to +90°C

DC Sparkover Voltage (V)	Max Impulse Sparkover (V)	Single Surge 8/20 µSec (kA)	Mftrs List No.	Order Code
90V				
72-108	500	5	SL1011A090A	181-5448
72-108	500	10	SL1011B090A	181-5449

DC Sparkover	Max Impulse	Single Surge		
90V				
72-108	500	10	SL1021A090R	181-5450
72-108	500	10	SL1024A090RF	181-5451
72-108	500	20	PMT809004	181-5452
72-108	500	20	PMT809004F	181-5454
200V				
150-250	500	10	SL1021A200RF	120-0441
230V				
195-265	550	5	SL1011A230A	120-0440
184-276	550	10	SL1011B230A	181-5455
184-276	450	10	SL1021A230R	181-5456
184-276	450	20	SL1021B230R	181-5457
184-276	450	10	SL1024A230RF	181-5458
184-276	450	20	SL1024B230RF	181-5459
184-276	450	20	PMT823004	181-5460
184-276	450	20	PMT823004F	181-5461
250V				
200-300	600	10	SL1011B250A	181-5462
200-300	500	20	PMT825004	181-5463
200-300	500	20	PMT825004F	181-5464
260V				
210-310	550	10	SL1021A260R	121-9727
210-310	550	20	SL1021B260R	181-5466
350V				
280-420	800	5	SL1011A350A	181-5467
280-420	700	10	SL1021A350R	181-5468
400 V				
320-480	850	10	SL1021A400R	181-5469
500V				
400-600	950	10	SL1021A500R	181-5470

Parts ending with 'F' = With Failsafe

204214

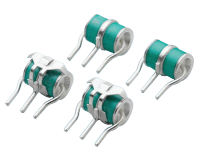
Mftr. List No.	Order Code	Price Each
90V		
SL1011A090A	**181-5448**	
SL1011B090A	**181-5449**	
SL1021A090R	**181-5450**	
SL1024A090RF	**181-5451**	
PMT809004	**181-5452**	
PMT809004F	**181-5454**	
200V		
SL1021A200RF	**120-0441**	
230V		
SL1011A230A	**120-0440**	
SL1011B230A	**181-5455**	
SL1021A230R	**181-5456**	
SL1021B230R	**181-5457**	
SL1024A230RF	**181-5458**	
SL1024B230RF	**181-5459**	
PMT823004	**181-5460**	
PMT823004F	**181-5461**	
250V		
SL1011B250A	**181-5462**	
PMT825004	**181-5463**	
PMT825004F	**181-5464**	
260V		
SL1021A260R	**121-9727**	
SL1021B260R	**181-5466**	
350V		
SL1011A350A	**181-5467**	
SL1021A350R	**181-5468**	
400V		
SL1021A400R	**181-5469**	
500V		
SL1021A500R	**181-5470**	

Gas Discharge Tube

PMT3(310) Series

New

Littelfuse



Littelfuse three electrode PMT3(310) series GDTs are designed primarily to protect telecommunications equipment requiring simultaneous crowbar action of two signal lines. GDTs function as switches; dissipating a minimum amount of energy and can handle much higher currents than other types of transient voltage protection.

- Rugged ceramic-metal construction
- Low capacitance (<1.5 pF)

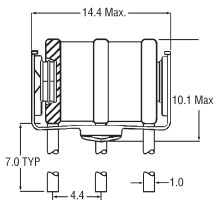
DC Breakdown Min.	Typ.	Max.	DC Voltage @ 100v/µs (V)	Impulse Breakdown @ 1Kv/µs (V)	Mftrs. List No.	Order Code
120	150	180	500	650	PMT3(310)15004	181-5500
200	250	300	600	700	PMT3(310)25004	181-5501
280	350	420	900	1000	PMT3(310)35004	181-5502

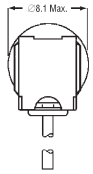
610271

Voltage	Order Code	Price Each
150	**181-5500**	
250	**181-5501**	
350	**181-5502**	

Hybrid Arrestor

Littelfuse Semitron





- Incorporates gas discharge tube technology and transient voltage suppressor diodes
- No extra component cost
- Combines high current handling with fast response
- Compatible with most GDT connection systems
- Suitable for most telecom and electronic applications

Alternating discharge current	5A	Impulse discharge current	5A
Insulation resistance	1 x $10^8\Omega$	Capacitance	200pF max

Nominal Voltage (V)	DC Sparkover Voltage (V)	Max Impulse Sparkover (V)	Holdover (V)	Mftrs List No.	Order Code
200V	140-250	250	120	SL1122A200	120-0442
230V	184-276		135	SL1122A230	181-5447

204122

Nominal Voltage	Order Code	Price Each
200V	**120-0442**	
230V	**181-5447**	

Gas Discharge Tube

SL1026 Series

Littelfuse

New

The SL1026 Series is a heavy-duty transient suppresser using Gas Plasma technology. In response to transients that exceed the device's breakover voltage, the device changes from a very high impedance state to a low impedance state to conduct harmful current away from the protected system. The SL1026 is designed to protect electrical and electronic equipment such as communications, control and railway systems.

- 55 kA surge capability (single shot) tested with 8/20µS pulse as defined by IEC 61000-4-5
- 40 kA surge capability (repetitive)

Insulation resistance	>10GΩ at 100 Volts	Capacitance	<=2.5pf, 1MHz 0 Volts Bias
Surge current 8/20µsec x10	20 kA	Operating Temp	-40°C to +90°C

610270

Voltage	Order Code	Price Each
275	**181-5497**	
400	**181-5498**	
700	**181-5499**	

Surge Protection - ESD Suppressors - Bourns

Surge Protector

P500/P850-G

BOURNS

New

Features

- Extremely high speed performance
- Blocks high voltages and currents
- Simple, superior circuit protection

Applications

- POTS linecards
- VoIP equipment
- Voice and data combo linecards
- Gateways
- Cable and DSL modems

Operating temperature range	-40°C to +85°C
V_{imp} (Maximum protection voltage) - P500-Gxxx-WH	500 V
V_{imp} (Maximum protection voltage) - P850-Gxxx-WH	850 V
V_{rms} - P500-Gxxx-WH	300 V
V_{rms} - P850-Gxxx-WH	450 V
I_{op} - Pxxx-G120-WH	100 mA
I_{op} - Pxxx-G200-WH	200 mA

533973

Mftrs. List No.	Order Code	Price Each
P500-G120-WH	**170-2016**	
P500-G200-WH	**170-2017**	
P850-G120-WH	**170-2018**	
P850-G200-WH	**170-2019**	

Surge Protection - ESD Suppressors - Bourns - continued

Surge Protector

C650/C850

BOURNS

New

Features
- Extremely high speed performance
- Blocks high voltages and currents
- Simple, superior circuit protection

Applications
- Combo voice / xDSL linecards
- Voice linecards
- MDF, primary protection modules
- Process control equipment
- Test and measurement equipment
- General electronics

Operating temperature range	-40°C to +85°C
V_{imp} (Maximum protection voltage) - C650-xxx-WH	650 V
V_{imp} (Maximum protection voltage) - C850-xxx-WH	850 V
V_{rms} - C650-xxx-WH	300 V
V_{rms} - C850-xxx-WH	425 V
I_{op} - Cx50-100-WH	100 mA
I_{op} - Cx50-180-WH	180 mA
I_{op} - Cx50-260-WH	260 mA

534008

Mftrs. List No.	Order Code	Price Each
C650-100-WH	170-2020	
C650-180-WH	170-2021	
C650-260-WH	170-2022	
C850-180-WH	170-2023	
C850-260-WH	170-2024	

Surge Protector

P650/P850-U

BOURNS

New

Features
- Extremely high speed performance
- Blocks high voltages and currents
- Very high bandwidth; GHz compatible

Applications
- Mb Ethernet port protection
- Gb Ethernet port protection
- Isolated and floating interfaces

Operating temperature range	-40°C to +85°C
V_{imp} (Maximum protection voltage) - P650-Uxxx-WH	650 V
V_{imp} (Maximum protection voltage) - P850-Uxxx-WH	850 V
V_{rms} - P650-Uxxx-WH	300 V
V_{rms} - P850-Uxxx-WH	425 V
I_{op} - Pxxx-U180-WH	180 mA
I_{op} - Pxxx-U260-WH	260 mA

534010

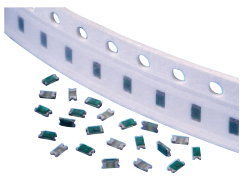
Mftrs. List No.	Order Code	Price Each
P650-U180-WH	170-2025	
P650-U260-WH	170-2027	
P850-U180-WH	170-2028	

Surge Protection - ESD Suppressors - Littelfuse

ESD Suppressor

0603

Littelfuse



New

- Ultra-low capacitance
- Low leakage current
- Fast response time
- Single line of protection
- Bi-directional
- Withstands multiple ESD strikes
- Compatible with pick-and-place processes

Operating temperature	-65°C to +125°C
Voltage rating d.c.	24V Max.
Clamping voltage	150V

Case Size	Leakage Current	Capacitance (pF)	Mftrs. List No.	Order Code
0603	< 1 nA	0.055	PGB1010603MR	175-7240

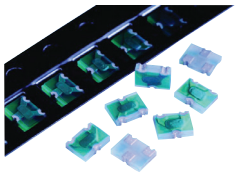
546289

Order Code	Price Each
175-7240	

ESD Suppressor

SOT23

Littelfuse



New

- Ultra-low capacitance
- Low leakage current
- Fast response time
- 2-lines of protection
- Bi-directional
- Withstands multiple ESD strikes
- Compatible with pick-and-place processes

Operating temperature	-65°C to +125°C	Clamping voltage	150V
Voltage rating d.c.	24V Max.		

Case Size	Leakage Current	Capacitance (pF)	Mftrs. List No.	Order Code
SOT-23	< 1 nA	0.055	PGB102ST23WR	175-7241

547642

Order Code	Price Each
175-7241	

Surge Protection - ESD Suppressors - Murata

Noise Suppression

New

muRata innovator in Electronics

- ESD protection of high-speed data lines
- Low capacitance
- Operating Temp Range: -40 to +85°C

No. of Channels	Voltage Rating (V)	Capacitance (pF)	Mftrs. List No.	Order Code
1	15	0.05	LXES15AAA1-017	179-7020
2	6	0.55	LXES1TBAA2-013	179-7021
4	6	0.5	LXES2TBBB4-028	179-7022
4	6	0.55	LXES2SBAA4-016	179-7023
4	6	1	LXES2SBAA4-026	179-7024
4	6	1.3	LXES1TBAA4-005	179-7026
6	6	0.25	LXES4XBAA6-027	179-7027

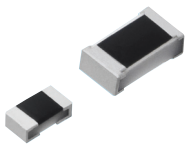
605387

Channels	Order Code	Price Each
1	179-7020	
2	179-7021	
4	179-7022	
4	179-7023	
4	179-7024	
4	179-7026	
6	179-7027	

Surge Protection - ESD Suppressors - Panasonic

ESD Suppressors

Panasonic ideas for life



SMD

- ESD protection of high-speed data lines
- Low capacitance
- Good ESD suppression characteristics
- Good ESD withstanding

Operating temperature	-55°C to +125°C
Voltage rating a.c.	15V
Clamping voltage	100V
Peak voltage	500V

Case Size	Rated Current Max. (mA)	Capacitance (pF)	Mftrs. List No.	Order Code
0402	1	0.05	EZAEG2A50AX	129-2691
0603	2	0.1	EZAEG3A50AV	129-2692

452168

Case size	Order Code	Price Each
0402	SMD 129-2691 RL	
0603	SMD 129-2692 RL	

Surge Protection - Varistors - AVX

'Transguard' MLV – Surface Mount

0201 case size L=0.6 ± 0.03, W=0.3 ± 0.3, H=0.15 max.
0402 case size L=1 ± 0.1, W=0.5 ± 0.1, H=0.6 max.
0603 case size L=1.6 ± 0.15, W=0.8 ± 0.15, H=0.9 max.
0805 case size L=2.0 ± 0.2, W=1.25 p± 0.2, H=1.02 max.
1206 case size L=3.2 ± 0.2, W=1.6 ± 0.2, H=1.02 max.
1210 case size L=3.2 ± 0.2, W=2.49 ± 0.2, H=1.7 max.
Supplied on 8mm embossed tape

- Ultra compact high energy multilayer transient suppressors in four popular SMD case sizes
- Provides an ultra fast clamping time of less than 1ns for all low voltage DC applications.

Working Voltage, V_{WM} (V)	Break-down Voltage, V_B (V)	Clamping Voltage Max. 8/20µs V_C (V)	Peak Current Max. 8/20µs I_P (A)	Transient Energy Max. 10/1000µs E_{TRAN} (J)	Capa-citance nF	Mftrs. List No.	Order Code
0201 Case Size							
5.6	10 - 15.6	35	2	0.01	15	VC020105T150WP	177-1422
5.6	10 - 15.6	35	4	0.01	33	VC020105T330WP	177-1423
5.6	10 - 15.6	35	5	0.01	50	VC020105T500WP	177-1424
5.6	10 - 15.6	35	5	0.01	100	VC020105T101WP	177-1426
0402 Case Size							
5.6	7.6 - 9.3	15.5	20	0.05	0.175	VC040205X150WP	130-1916
18	22.9 - 28	40	20	0.05	0.065	VC040218X400WP	130-1918
0603 Case Size							
3.6	4.0 - 5.5	10	30	0.1	1.5	VC060303A100RP	118-9308
5.6	7.6 - 9.3	15.5	30	0.1	1	VC060305A150RP	118-9309
9	11 - 14	20	30	0.1	0.55	VC060309A200DP	130-1919
14	16.5 - 20.3	30	30	0.1	0.5	VC060314A300RP	118-9310
18	22.9 - 28.0	40	30	0.1	0.275	VC060318A400RP	118-9312
26	31 - 37.9	58	30	0.1	0.155	VC060326A580DP	130-1920
30	37 - 46	65	30	0.1	0.125	VC060330A650DP	130-1921
0805 Case Size							
3.6	4.0 - 5.5	10	40	0.1	1.775	VC080503A100DP	118-9313
5.6	7.6 - 9.3	15.5	40	0.1	1.1	VC080505A150DP	118-9314
5.6	7.1 - 8.7	15.5	120	0.3	2.75	VC080505C150DP	118-9315
14	16.5 - 20.3	30	40	0.1	0.43	VC080514A300DP	118-9316
14	15.9 - 19.4	30	120	0.3	0.9	VC080514C300DP	130-1927
18	5	50	30	0.1	80	VC08LC18A500DP	165-8893
26	30.5 - 37.3	58	100	0.3	0.25	VC080526C580DP	130-1931
30	37 - 46	65	30	0.1	0.09	VC080530A650DP	130-1932
1206 Case Size							
5.6	7.1 - 8.7	15.5	150	0.4	3	VC120605D150DP	118-9317
14	16.5 - 20.3	30	40	0.1	0.6	VC120614A300DP	118-9318
14	15.9 - 19.4	30	150	0.4	1.4	VC120614D300DP	118-9319
18	22.9 - 28	40	30	0.1	0.15	VC120618A400DP	130-1938
18	22.5 - 27.5	40	150	0.4	1	VC120618D400DP	118-9320
26	30.5 - 37.3	58	120	0.4	0.55	VC120626D580DP	118-9321
30	36.0 - 45.0	65	120	0.4	0.5	VC120630D650DP	118-9322
38	42.3 - 51.7	77	200	1.1	0.35	VC120638N770DP	138-0919
48	56 - 68	100	100	0.4	0.225	VC120648D101DP	130-1942
56	61.2 - 74.8	110	100	0.7	0.18	VC120656F111DP	138-0920
1210 Case Size							
18*	21.5 - 26.5	39	500	1.5	3.1	VC121018J390DP	118-9324
30	36.9 - 45.1	67	280	1.2	1850	VC121030H620DP	165-8894
60	68.4 - 83.6	120	250	1.5	400	VC121060J121DP	165-8895

*Withstands 24.5V dc for 5 minutes (automotive applications)

204019

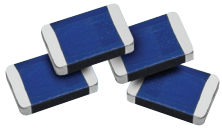
Order Multiple=5

Working Voltage (V)	Order Code	Price Each
0201 Case Size		
5.6	NEW SMD **177-1422**	
5.6	NEW SMD **177-1423**	
5.6	NEW SMD **177-1424**	
5.6	NEW SMD **177-1426**	
0402 Case Size		
5.6	SMD **130-1916**	
18	**130-1918**	
0603 Case Size		
3.6	SMD **118-9308** RL	
5.6	SMD **118-9309** RL	
9	**130-1919**	
14	SMD **118-9310** RL	
18	SMD **118-9312** RL	
26	SMD **130-1920**	
30	SMD **130-1921**	
0805 Case Size		
3.6	SMD **118-9313** RL	
5.6	SMD **118-9314** RL	
5.6	SMD **118-9315** RL	
9	SMD **130-1924**	
14	SMD **118-9316** RL	
14	SMD **130-1927**	
18	SMD **130-1928**	

Order Multiple=5

Working Voltage (V)	Order Code	Price Each
0805 Case Size		
18	SMD **130-1929**	
26	SMD **130-1930**	
26	SMD **130-1931**	
30	SMD **130-1932**	
1206 Case Size		
5.6	SMD **130-1933**	
5.6	SMD **118-9317** RL	
14	SMD **118-9318** RL	
14	SMD **118-9319** RL	
18	**130-1938**	
18	SMD **118-9320** RL	
26	SMD **118-9321** RL	
30	SMD **118-9322** RL	
38	SMD **138-0919**	
48	SMD **130-1942**	
56	SMD **138-0920** NEW	
1210 Case Size		
18	SMD **118-9324** RL	
	SMD **165-8894** RL	
	SMD **165-8895** RL	

VC32 Series



- Surface mount single layer varistors
- Higher voltage ratings and transient energy ratings than typical MLVs
- Replacement for radial MOVs
- Applications include electric meters, industrial equipment, mains PSUs, telecommunications and consumer electronics

Operating temperature -55 to 125°C Dimensions (LxWxH) 8.51 x 5.26 x 2.03mm

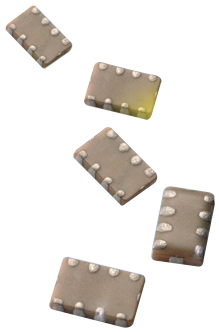
V_{RMS}	V_{DC}	V_p (A)	$V_{V(1ma)}$ Nominal	Transient Energy (J)	Peak Current (A)	Capacitance (pF)	Mftrs. List No.	Order Code
175	225	455	270	15	200	135	VC32M01750KBG	125-1563
230	300	595	360	20	200	100	VC32M00231KBG	125-1564
250	330	650	390	21	200	90	VC32M00251KBG	125-1565
275	368	710	430	23	200	80	VC32M02750KBG	125-1566

451428

Order Code	Price Each
All Values	

Multiguard MLV Arrays

2 & 4 Elements



AVXs Transient Voltage Suppression (TVS) Arrays address six trends in todays electronic circuits:

- Mandatory ESD protection
- Mandatory EMI control
- Signal integrity improvement
- PCB downsizing
- Reduced component placement costs
- Protection from induced slow speed transient voltages and currents

AVXs MultiGuard products offer numerous advantages, which include a faster turn-on-time (<1nS), repetitive strike capability, and space savings. In some cases, MultiGuard consumes less than 75% of the PCB real estate required for the equivalent number of discrete chips. This size advantage coupled with the savings associated with placing only one chip, makes MultiGuard the TVS component of choice for ESD protection of I/O lines in portable equipment and programming ports in cellular phones. Other applications include differential data line protection, ASIC protection and LCD driver protection for portable computing devices.

Element	Working Voltage (V)	Breakdown voltage (V)	Clamping voltage (V)	Peak current (A)	Transient energy (J)	Mftrs. List No.	Order Code
2	5.6	6.8 to 10.3	17.5	20	50	MG042S05X150DP	756-8690
2	18	20.4 to 28	42	20	50	MG042L18V500RP	756-8703
4	5.6	7.6 to 9.3	15.5	20	0.05	MG064S05A150DP	474-2072

339460

Elements	Case Size	Order Code	Price Each
2	0405	SMD **756-8690**	
2	0405	SMD **756-8703**	
4	0612	SMD **474-2072**	

Surge Protection - Varistors - AVX - continued

'Transguard'

L=4.32 (446-762=4.83), Dia.=2.54 (446-762=3.56), Lead length=30min, Lead dia.=0.5

- Ultra compact high energy multilayer transient suppressors providing an ultra fast clamping time of less than 1ns for all low voltage DC applications.

Operating temperature: -55° C to +125° C

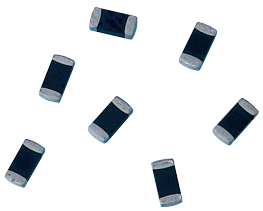
Working Voltage, V_{WM} (V)	Break-down Voltage, V_B (V)	Clamping Voltage Max. 8/20µs, V_C (V)	Peak Current Max. 8/20µs, I_P (A)	Transient Energy Max. 10/1000µs E_{TRAN} (J)	Capa-citance nF	Induc-tance nH	Mftrs. List No.	Order Code
5.6	7.6 - 9.3	15.5	40	0.1	1.1	1.5	VA100005A150D	131-6523
5.6	7.1 - 8.7	15.5	150	0.4	2.8	3.5	VA100005D150D	131-6524
14	16.5 - 20.3	30	40	0.1	0.5	3.5	VA100014A300D	131-6525
14	15.9 - 19.4	30	150	0.4	1.4	3.5	VA100014D300D	131-6526
18	22.9 - 28	40	40	0.1	0.35	3.5	VA100018A400D	131-6528
18	22.5 - 27.5	40	150	0.4	1	3.5	VA100018D400D	131-6529
26	30.5 - 37.3	58	120	0.4	0.55	3.5	VA100026D580D	131-6530
60	67 - 83	120	300	2	0.4	3.5	VA200060K121D	131-6531

204271

Working Voltage (V)	Order Code	Price Each
5.6	**131-6523**	
5.6	**131-6524**	
14	**131-6525**	
14	**131-6526**	
18	**131-6528**	
18	**131-6529**	
26	**131-6530**	
60	**131-6531**	

Surge Protection - Varistors - Epcos

SMD Varistors– MLV Standard Series



- Suitable for ESD protection
- Surge currents up to 1200 A
- Bidirectional clamping
- Case sizes ranging from 0603 to 1210

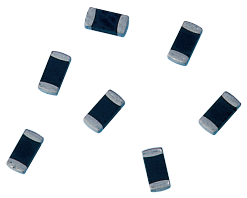
Max. AC Op. Volt. (V)	Volt.	Trans Energy (2ms) (J)	Peak Surge Current 8/20us A	Varistor Volt W 1mA) (V)	Max Clamp. Voltage V A	Toler.Vv (1mA) %	Mftrs List No.	Order Code
0402 Case Size								
4	5.5	7.5mJ	20	10	24 @ 1A	±20%	B72590T0040M060	168-8759
11	14	7.5mJ	20	18.4	35 @ 1A	±10%	B72590T0110S160	168-8760
14	16	10mJ	20	23.5	46 @ 1A	±15%	B72590T0140L060	168-8761
17	19	10mJ	20	32	59 @ 1A	±25%	B72590T0170S160	168-8762
0603 Case Size								
4	5.5	0.1	30	9.6	19 @ 1A	±20%	B72500T40M60	883-2374
6	8	0.1	30	13.2	27 @ 1A	±20%	B72500T60M60	883-2382
7	9	0.1	30	15	30 @ 1A	±20%	B72500T70M60	883-2390
11	14	0.2	30	19.8	35 @ 1A	±10%	B72500T110K60	883-2412
14	18	0.2	30	24.2	40 @ 1A	±10%	B72500T140K60	883-2420
17	22	0.2	30	29.7	46 @ 1A	±10%	B72500T170K60	883-2439
20	26	0.2	30	36.3	56 @ 1A	±10%	B72500T200K60	883-2447
25	31	0.3	30	42.9	67 @ 1A	±10%	B72500T250K60	883-2455
0805 Case Size								
4	5.5	0.1	100	9.6	19 @ 1A	±20%	B72510T40M62	883-2463
6	8	0.2	120	13.2	27 @ 1A	±20%	B72510T60M62	883-2471
8	11	0.2	120	17.25	33 @ 1A	±15%	B72510T80L62	883-2480
11	14	0.2	120	19.8	35 @ 1A	±10%	B72510T110K62	883-2498
14	18	0.3	120	24.2	40 @ 1A	±10%	B72510T140K62	883-2501
17	22	0.3	120	29.7	46 @ 1A	±10%	B72510T170K62	883-2510
20	26	0.3	80	36.3	56 @ 1A	±10%	B72510T200K62	883-2528
25	31	0.3	80	42.9	67 @ 1A	±10%	B72510T250K62	883-2536
30	38	0.3	80	51.7	77 @ 1A	±10%	B72510T300K62	883-2544
1206 Case Size								
4	5.5	0.3	150	9.6	17 @ 1A	±20%	B72520T40M62	883-2552
6	8	0.4	200	13.2	25 @ 1A	±20%	B72520T60M62	883-2560
8	11	0.5	200	17.25	30 @ 1A	±15%	B72520T80L62	883-2579
11	14	0.5	200	19.8	33 @ 1A	±10%	B72520T110K62	883-2587
14	18	0.5	200	24.2	38 @ 1A	±10%	B72520T140K62	883-2595
17	22	0.6	200	29.7	44 @ 1A	±10%	B72520T170K62	883-2609
20	26	0.7	200	36.3	54 @ 1A	±10%	B72520T200K62	883-2617
25	31	1	200	42.9	65 @ 1A	±10%	B72520T250K62	883-2625
30	38	1.1	200	51.7	77 @ 1A	±10%	B72520T300K62	883-2633
35	45	0.4	100	61.6	90 @ 1A	±10%	B72520T350K62	883-2641
40	56	0.5	100	74.8	110 @ 1A	±10%	B72520T400K62	883-2650
50	65	0.6	100	90.2	135 @ 1A	±10%	B72520T500K62	883-2668
60	85	0.7	100	110	165 @ 1A	±10%	B72520T600K62	883-2676
1210 Case Size								
4	5.5	0.4	250	9.6	17 @ 2.5A	±20%	B72530T40M62	883-2684
6	8	0.7	300	13.2	25 @ 2.5A	±20%	B72530T60M62	883-2692
11	14	1.2	400	19.8	33 @ 2.5A	±10%	B72530T110K62	883-2714
20	26	1.9	400	36.3	54 @ 2.5A	±10%	B72530T200K62	883-2749
25	31	1.7	300	42.9	65 @ 2.5A	±10%	B72530T250K62	883-2757
30	38	2	300	51.7	77 @ 2.5A	±10%	B72530T300K62	883-2765
35	45	2	250	61.6	90 @ 2.5A	±10%	B72530T350K62	883-2773
60	85	2	200	110	165 @ 2.5A	±10%	B72530T0600K062	883-2803
1812 Case Size								
4	5.5	0.8	500	8	17 @ 1A	±20%	B72580V0040M062	168-8742
6	8	1	500	11	25 @ 1A	±20%	B72580V0060M062	168-8744
14	18	2.3	800	22	38 @ 1A	±10%	B72580V0140K062	168-8748
17	22	2.7	800	27	44 @ 1A	±10%	B72580V0170K062	168-8750
20	26	3	800	33	54 @ 1A	±10%	B72580V0200K062	168-8752
25	31	3.7	800	39	65 @ 1A	±10%	B72580V0250K062	168-8755
30	38	4.2	800	47	77 @ 1A	±10%	B72580V0300K062	168-8757
2220 Case Size								
6	8	3.6	1200	11	25 @ 1A	±20%	B72540V0060M062	168-8745
11	14	5.4	1200	18	33 @ 1A	±10%	B72540V0110K062	168-8747
14	18	5.8	1200	22	38 @ 1A	±10%	B72540V0140K062	168-8749
17	22	7.2	1200	27	44 @ 1A	±10%	B72540V0170K062	168-8751
20	26	7.8	1200	33	54 @ 1A	±10%	B72540V0200K062	168-8754
25	31	9.6	1200	39	65 @ 1A	±10%	B72540V0250K062	168-8756
30	38	12	1200	47	77 @ 1A	±10%	B72540V0300K062	168-8758

386505

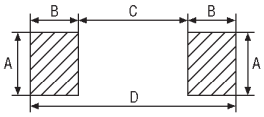
Case Size	Order Code	Price Each
0402	**All Values** RL	
0603	**All Values** RL	
0805	**All Values** RL	
1206	**All Values** RL	
1210	**All Values** RL	
1812	**All Values** RL	

RL **FREE Re-reeling service.** Only buy what you need and improve assembly efficiency. For more information visit **local website**

SIOV Metal Oxide Varistors – Surface Mount



- Surface mount Metal Oxide Varistors
- Popular surface mount case sizes
- Silver palladium terminations up to 1210 case size, tinned copper above



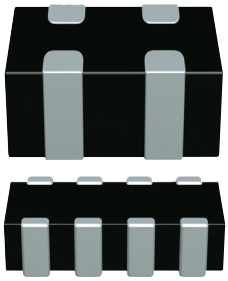
Case Size	A	B	C	D
3225	3.5	2.8	4.5	10.1
4032	3.5	2.8	6.5	12.1

Max. AC Op. Volt. (V)	Volt.	Trans Energy (2ms) (J)	Peak Surge Current 8/20us A	Varistor Volt Vv (1mA) (V)	Max Clamp. Voltage V A	Toler.Vv (1mA) %	Mftrs List No.	Order Code
3225 Case Size								
130	170	4.2	400	205	340 @ 5A	±10%	B72650M131K72	995-8509
175	225	5.6	400	270	455 @ 5A	±10%	B72650M171K72	995-8517
275	350	8.6	400	430	710 @ 5A	±10%	B72650M271K72	995-8533
4032 Case Size								
175	225	13	1200	270	455 @ 10A	±10%	B72660M171K72	995-8550
230	300	17	1200	360	595 @ 10A	±10%	B72660M231K93	995-8568
275	350	21	1200	430	710 @ 10A	±10%	B72660M271K72	995-8584

204133

Case Size	Order Code	Price Each
3225	**All Values**	
4032	**All Values**	

SMD Varistors Arrays



- Bidirectional protection
- Low capacitance
- No signal distortion
- Suitable for lead-free soldering

Max. AC Op. Volt. (V)	Volt.	Trans Energy (2ms) (mJ)	Peak Surge Current 8/20us A	Varistor Volt W 1mA) (V)	Max Clamp. Voltage V A	Mftrs List No.	Order Code
2-Fold Array - 0405 Case Size							
17	22	10	10	40	50 @ 1A	B72762A2170S160	168-8764
4-Fold Array - 0612 Case Size							
17	22	75	30	40	50 @ 1A	B72724A2170S162	168-8763

528811

Price Each

Case Size	Order Code
0405	SMD **168-8764**
0612	SMD **168-8763**

Metal Oxide Varistors

- The voltage dependent characteristics enable varistors to protect against high transient voltage spikes
- The varistor impedance changes to a low value clamping the transient to a safe level
- **UL** recognised, **CSA** approved

Tolerance: ±10% Operating Temperature: -40° C to +85° C

7mm Disc (Nominal Diameter)

Mftrs. List No.	Lead Pitch (offset)	Disc Dia.	Disc W	Disc H	Lead L	Lead D
SIOV-B72205S0111K101-40	5	7	3.5-4.1	9.5	30	0.6

V_{RMS}	V_{DC}	$V_{V(1ma)}$	Transient Energy (J)	Peak Transient Current (A)	Mftrs. List No.	Order Code
11	14	18	0.3	100	B72205S110K101	100-4348
14	18	22	0.4	100	B72205S0140K101	100-4303
17	22	27	0.5	100	B72205S0170K101	100-4334
20	26	33	0.6	100	B72205S0200K101	100-4308
25	31	39	0.7	100	B72205S0250K101	100-4277
30	38	47	0.9	100	B72205S0300K101	100-4279
35	45	56	1.1	100	B72205S0350K101	100-4295
40	56	68	1.3	100	B72205S0400K101	100-4330
50	65	82	1.8	400	B72205S0500K101	100-4313
75	100	120	2.5	400	B72205S0750K101	100-4343
95	125	150	3.4	400	B72205S0950K101	100-4341
115	150	180	3.4	400	B72205S0111K101	100-4345
130	170	205	4.2	400	B72205S0131K101	100-4315
150	200	240	4.9	400	B72205S0151K101	100-4329
175	225	270	5.6	400	B72205S0171K101	100-4344
230	300	360	7.2	400	B72205S0231K101	100-4353
250	320	390	8.2	400	B72205S0251K101	100-4290
275	350	430	8.6	400	B72205S0271K101	100-4358
300	385	470	9.6	400	B72205S0301K101	100-4399
385	505	620	13.5	400	B72205S0381K101	100-4366
420	560	680	14	400	B72205S0421K101	100-4317
460	615	750	18	400	B72205S0461K101	100-4346

AC — **Price Each**

Voltage	Order Code
11	**100-4348**
14	**100-4303**
17	**100-4334**
20	**100-4308**
25	**100-4277**
30	**100-4279**
35	**100-4295**
40	**100-4330**
50	**100-4313**
75	**100-4343**
95	**100-4341**
115	**100-4345**
130	**100-4315**
150	**100-4329**
175	**100-4344**
230	**100-4353**
250	**100-4290**
275	**100-4358**
300	**100-4399**
385	**100-4366**
420	**100-4317**
460	**100-4346**

9mm Disc (Nominal Diameter)

Mftrs. List No.	Lead Pitch (offset)	Disc Dia.	Disc W	Disc H	Lead L	Lead D
B72207S0110K101-40	5	9	3.5-4.1	11.5	30	0.6

V_{RMS}	V_{DC}	$V_{V(1mA)}$	Transient Energy (J)	Peak Transient Current (A)	Mftrs. List No.	Order Code
11	14	18	0.8	250	B72207S0110K101	100-4338
14	18	22	0.9	250	B72207S0140K101	100-4369
17	22	27	1.1	250	B72207S0170K101	100-4339
25	31	39	1.6	250	B72207S0250K101	100-4370
30	38	47	2.0	250	B72207S0300K101	100-4350
35	45	56	2.5	250	B72207S0350K101	100-4373
40	56	68	3.0	250	B72207S0400K101	100-4291
50	65	82	4.2	1200	B72207S0500K101	100-4312
60	85	100	4.8	1200	B72207S0600K101	100-4285
75	100	120	5.9	1200	B72207S0750K101	100-4310
115	150	180	8.4	1200	B72207S0111K101	100-4380
130	170	205	9.5	1200	B72207S0131K101	100-4292
175	225	270	13.0	1200	B72207S0171K101	100-4388
230	300	360	17.0	1200	B72207S0231K101	100-4307
250	320	390	19.0	1200	B72207S0251K101	100-4276
275	350	430	21	1200	B72207S0271K101	100-4361
300	385	470	23	1200	B72207S0301K101	100-4364
420	560	680	32.0	1200	B72207S0421K101	100-4332
460	615	750	32.0	1200	B72207S0461K101	100-4340

AC — **Price Each**

Voltage	Order Code
11	**100-4338**
14	**100-4369**
17	**100-4339**
25	**100-4370**
30	**100-4350**
35	**100-4373**
40	**100-4291**
50	**100-4312**
60	**100-4285**
75	**100-4310**
115	**100-4380**
130	**100-4292**
175	**100-4388**
230	**100-4307**
250	**100-4276**
275	**100-4361**
300	**100-4364**
420	**100-4332**
460	**100-4340**

10mm Disc (Nominal Diameter)

Mftrs. List No.	Lead Pitch (offset)	Disc Dia.	Disc D	Disc H	Lead L	Lead Dia
B72210P2271K101-40	7.5	12	5.9-8.4	16-16.5	25	0.8

V_{RMS}	V_{DC}	$V_{V(1mA)}$	Transient Energy (J)	Peak Transient Current (A)	Mftrs. List No.	Order Code
275	350	430	60	3500	B72210P2271K101	178-1925
300	385	470	65	3500	B72210P2301K101	178-1926
320	420	510	72	3500	B72210P2321K101	178-1927
385	505	620	82	3500	B72210P2381K101	178-1928
420	560	680	87	3500	B72210P2421K101	178-1929
460	615	750	92	3500	B72210P2461K101	178-1930

Vrms (V) — **Price Each**

Order Code
NEW **178-1925**
NEW **178-1926**
NEW **178-1927**
NEW **178-1928**
NEW **178-1929**
NEW **178-1930**

12mm Disc (Nominal Diameter)

Mftrs. List No.	Lead Pitch (offset)	Disc Dia.	Disc W	Disc H	Lead L	Lead D
B72210S0110K101-40	7.5	12.5	4.1-4.8	15	30	0.8

V_{RMS}	V_{DC}	$V_{V(1mA)}$	Transient Energy (J)	Peak Transient Current (A)	Mftrs. List No.	Order Code
11	14	18	1.7	500	B72210S0110K101	100-4328
14	18	22	2	500	B72210S0140K101	100-4296
17	22	27	2.5	500	B72210S0170K101	100-4309
20	26	33	3.1	500	B72210S0200K101	100-4320
25	31	39	3.7	500	B72210S0250K101	100-4274
30	38	47	4.4	500	B72210S0300K101	100-4351
35	45	56	5.4	500	B72210S0350K101	100-4286
40	56	68	6.4	500	B72210S0400K101	100-4298
50	65	82	8.4	2500	B72210S0500K101	100-4278
75	100	120	12	2500	B72210S0750K101	100-4326
95	125	150	15	2500	B72210S0950K101	100-4322
115	150	180	18	2500	B72210S0111K101	100-4381
130	170	205	19	2500	B72210S0131K101	100-4288
140	180	220	22	2500	B72210S0141K101	100-4386
150	200	240	24	2500	B72210S0151K101	100-4297
175	225	270	28	2500	B72210S0171K101	100-4342
230	300	360	36	2500	B72210S0231K101	100-4354
250	320	390	38	2500	B72210S0251K101	100-4355
275	350	430	43	2500	B72210S0271K101	100-4390

Surge Protection - Varistors - Epcos - continued

Metal Oxide Varistors - continued

10mm Disc (Nominal Diameter) - continued

V_{RMS}	V_{DC}	$V_{V(1mA)}$	Transient Energy (J)	Peak Transient Current (A)	Mftrs. List No.	Order Code
300	385	470	47	2500	B72210S0301K101	100-4365
320	420	510	50	2500	B72210S0321K101	100-4337
385	505	620	40	2500	B72210S0381K101	100-4398
420	560	680	45	2500	B72210S0421K101	100-4299
460	615	750	50	2500	B72210S0461K101	100-4283

AC Voltage	Order Code	Price Each
11	**100-4328**	
14	**100-4296**	
17	**100-4309**	
20	**100-4320**	
25	**100-4274**	
30	**100-4351**	
35	**100-4286**	
40	**100-4298**	
50	**100-4278**	
75	**100-4326**	
95	**100-4322**	
115	**100-4381**	
130	**100-4288**	
140	**100-4386**	
150	**100-4297**	
175	**100-4342**	
230	**100-4354**	
250	**100-4355**	
275	**100-4390**	
300	**100-4365**	
320	**100-4337**	
385	**100-4398**	
420	**100-4299**	
460	**100-4283**	

14mm Disc (Nominal Diameter)

Mftrs. List No.	Lead Pitch (offset)	Disc Dia.	Disc D	Disc H	Lead L	Lead Dia
B72214P2271K101-40	7.5	16	5.9-8.5	20-20.5	25	0.8

V_{RMS}	V_{DC}	$V_{V(1mA)}$	Transient Energy (J)	Peak Transient Current (A)	Mftrs. List No.	Order Code
275	350	430	130	6000	B72214P2271K101	178-1931
300	385	470	140	6000	B72214P2301K101	178-1932
320	420	510	150	6000	B72214P2321K101	178-1933
385	505	620	180	6000	B72214P2381K101	178-1934
420	560	680	190	6000	B72214P2421K101	178-1936
460	615	750	200	6000	B72214P2461K101	178-1937

Vrms (V)	Order Code	Price Each
275	NEW **178-1931**	
300	NEW **178-1932**	
320	NEW **178-1933**	
385	NEW **178-1934**	
420	NEW **178-1936**	
460	NEW **178-1937**	

15.5mm Disc (Nominal Diameter)

Mftrs. List No.	Lead Pitch (offset)	Disc Dia.	Disc W	Disc H	Lead L	Lead D
B72214S0110K101-40	7.5	16.5	4.1-4.9	19	30	0.8

V_{RMS}	V_{DC}	$V_{V(1mA)}$	Transient Energy (J)	Peak Transient Current (A)	Mftrs. List No.	Order Code
11	14	18	3.2	1000	B72214S0110K101	100-4324
14	18	22	4	1000	B72214S0140K101	100-4294
20	26	33	6	1000	B72214S0200K101	100-4306
25	31	39	7	1000	B72214S0250K101	100-4349
30	38	47	9	1000	B72214S0300K101	100-4371
35	45	56	10	1000	B72214S0350K101	100-4374
40	56	68	13	1000	B72214S0400K101	100-4375
50	65	82	15	4500	B72214S0500K101	100-4376
60	85	100	17	4500	B72214S0600K101	100-4377
75	100	120	20	4500	B72214S0750K101	100-4378
95	125	150	25	4500	B72214S0950K101	100-4379
115	150	180	30	4500	B72214S0111K101	100-4382
130	170	205	34	4500	B72214S0131K101	100-4385
140	180	220	36	4500	B72214S0141K101	100-4333
175	225	270	46	4500	B72214S0171K101	100-4327
230	300	360	60	4500	B72214S0231K101	100-4389
250	320	390	65	4500	B72214S0251K101	100-4356
275	350	430	71	4500	B72214S0271K101	100-4362
300	385	470	76	4500	B72214S0301K101	100-4391
320	420	510	84	4500	B72214S0321K101	100-4318
385	505	620	80	4500	B72214S0381K101	100-4367
420	560	680	90	4500	B72214S0421K101	100-4368
460	615	750	100	4500	B72214S0461K101	100-4273

AC Voltage	Order Code	Price Each
11	**100-4324**	
14	**100-4294**	
20	**100-4306**	
25	**100-4349**	
30	**100-4371**	
35	**100-4374**	
40	**100-4375**	
50	**100-4376**	
60	**100-4377**	
75	**100-4378**	
95	**100-4379**	
115	**100-4382**	
130	**100-4385**	
140	**100-4333**	
175	**100-4327**	
230	**100-4389**	
250	**100-4356**	
275	**100-4362**	
300	**100-4391**	
320	**100-4318**	
385	**100-4367**	
420	**100-4368**	
460	**100-4273**	

20mm Disc (Nominal Diameter)

Mftrs. List No.	Lead Pitch (offset)	Disc Dia.	Disc D	Disc H	Lead L	Lead Dia
B72220P3271K101-40	10	22.5	6.5-8.9	27	25	1

V_{RMS}	V_{DC}	$V_{V(1mA)}$	Transient Energy (J)	Peak Transient Current (A)	Mftrs. List No.	Order Code
275	350	430	260	12000	B72220P3271K101	178-1938
300	385	470	290	12000	B72220P3301K101	178-1939
320	420	510	320	12000	B72220P3321K101	178-1940
385	505	620	320	12000	B72220P3381K101	178-1941
420	560	680	320	12000	B72220P3421K101	178-1942
460	615	750	370	12000	B72220P3461K101	178-1943

Vrms (V)	Order Code	Price Each
275	NEW **178-1938**	
300	NEW **178-1939**	
320	NEW **178-1940**	
385	NEW **178-1941**	
420	NEW **178-1942**	
460	NEW **178-1943**	

21.5mm Disc (Nominal Diameter)

Mftrs. List No.	Lead Pitch (offset)	Disc Dia.	Disc W	Disc H	Lead L	Lead D
B72220S0110K101-40	10	22.5	4.5-5.4	26	30	1

V_{RMS}	V_{DC}	$V_{V(1mA)}$	Transient Energy (J)	Peak Transient Current (A)	Mftrs. List No.	Order Code
11	14	18	10	2000	B72220S0110K101	100-4331
14	18	22	12	2000	B72220S0140K101	100-4336
17	22	27	14	2000	B72220S0170K101	100-4319
20	26	33	18	2000	B72220S0200K101	100-4325
25	31	39	26	2000	B72220S0250K101	100-4284
30	38	47	26	2000	B72220S0300K101	100-4275
35	45	56	33	2000	B72220S0350K101	100-4321
40	56	68	37	2000	B72220S0400K101	100-4316
50	65	82	27	6500	B72220S0500K101	100-4301
60	85	100	33	6500	B72220S0600K101	100-4280
75	100	120	40	6500	B72220S0750K101	100-4302
95	125	150	50	6500	B72220S0950K101	100-4304
115	150	180	60	6500	B72220S0111K101	100-4383
130	170	205	74	8000	B72220S0131K101	100-4282
140	180	220	78	8000	B72220S0141K101	100-4387
150	200	240	85	8000	B72220S0151K101	100-4289
175	225	270	98	8000	B72220S0171K101	100-4352
230	300	360	130	8000	B72220S0231K101	100-4287
250	320	360	140	8000	B72220S0251K101	100-4357
275	350	430	151	8000	B72220S0271K101	100-4363
300	385	470	173	8000	B72220S0301K101	100-4392
320	420	510	184	8000	B72220S0321K101	100-4305
385	505	220	150	8000	B72220S0381K101	100-4393
420	560	680	175	8000	B72220S0421K101	100-4394
460	615	750	195	8000	B72220S0461K101	100-4272
510	670	820	190	6500	B72220S0511K101	100-4395
625	825	1000	230	6500	B72220S0621K101	100-4397

204010

AC Voltage	Order Code	Price Each
11	**100-4331**	
14	**100-4336**	
17	**100-4319**	
20	**100-4325**	
25	**100-4284**	
30	**100-4275**	
35	**100-4321**	
40	**100-4316**	
50	**100-4301**	
60	**100-4280**	

AC Voltage	Order Code	Price Each
75	**100-4302**	
95	**100-4304**	
115	**100-4383**	
130	**100-4282**	
140	**100-4387**	
150	**100-4289**	
175	**100-4352**	
230	**100-4287**	
250	**100-4357**	
275	**100-4363**	
300	**100-4392**	
320	**100-4305**	
385	**100-4393**	
420	**100-4394**	
460	**100-4272**	
510	**100-4395**	
625	**100-4397**	

Square Metal Oxide Varistors EnergetiQ Q14,Q20 Series

EPCOS

- High performance EnergetiQ Series square varistors
- Designed to offer maximum protection in a minimum component height
- High transient current handling capability
- Leaded varistors in 14 and 20mm plate sizes
- Tinned copper leads, body epoxy resin coated to **UL94V-0**
- **CSA** and **CECC** approved
- **UL** recognised

Tolerance ±10% Operating temperature -40°C to + 85°C

Type	Body Dimensions H	W	D	Height above PCB	Lead Dimensions L	Dia	Pitch
Q14 Series	16.5	16.5	5.8 - 6.3	19.5	30	1.0	10
Q20 Series	22.5	16.5	5.8 - 6.3	27	30	1.0	10

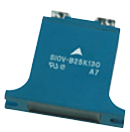
V_{RMS}	V_{DC}	$V_{V(1ma)}$	Transient Energy (J)	Peak Transient Current (A)	Mftrs. List No.	Order Code
Q14 Series						
275	350	430	150	8000	B72214Q0271K101	100-4265
320	420	510	185	8000	B72214Q0321K101	100-4266
Q20 Series						
275	350	430	215	15000	B72220Q0271K101	100-4267
300	385	470	235	15000	B72220Q0301K101	100-4269
320	420	510	255	15000	B72220Q0321K101	100-4271

311288

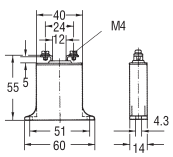
AC(rms) Voltage	Order Code	Price Each
Q14 Series		
275	**100-4265**	
320	**100-4266**	
Q20 Series		
275	**100-4267**	
300	**100-4269**	
320	**100-4271**	

Metal Oxide Block Varistors – SIOV Series

EPCOS



B32/B40 Style



Block encapsulated, symmetrical characteristic, metal oxide varistors for high power transient suppression. Their resistance value decreases with increased voltage, thus 'short-circuiting' a further rise in overvoltage, safeguarding sensitive electronic equipment. **UL** recognised and **CSA** approved.

AC Working Voltage (V)	DC Working Voltage (V)	Transient Energy (10/(2000µs) (Joules)	Peak Transient Current (8/20µs) (A)	Nominal Varistor Voltage (V)	Maximum Clamping Voltage (V)	Mftrs List No.	Order Code
130	170	210	25000	205	340	B72232B131K001	120-0450
230	300	300	25000	360	595	B72232B231K001	120-0451
250	320	330	25000	390	650	B72232B251K001	120-0453
275	350	550	40000	430	710	B72240B271K001	120-0454

204224

AC Voltage	Energy (Joules)	Order Code	Price Each
130	210	**120-0450**	
230	300	**120-0451**	
250	330	**120-0453**	
275	550	**120-0454**	

Surge Protection - Varistors - Littelfuse

CH Series – Metal Oxide Varistors

Littelfuse

New

CH Series transient surge suppressors are small, metal-oxide varistors (MOVs) manufactured in leadless chip form. They are intended for use in a variety of applications from low voltage DC to off-line board-level protection. These devices, which have significantly lower profiles than traditional radial lead varistors, permit designers to reduce the size and weight and increase the reliability of their equipment designs.

Operating temperature -55° C to +125° C

Maximum Continuous Working Voltage Vdc	Vac	Maximum Non-repet. Surge Current (A) (8/20µs)	Maximum Non-repeti-tive Surge Energy (J) (10/1000µs)	Maximum Clamping Voltage at 10A (or as noted) (8/20µs)	Typical Cap @ 1MHz pF	Mftrs. List No.	Order Code
0402 Case Size							
18	14	100	1	47	1600	V22CH8	181-6995
22	17	100	1	57	1300	V27CH8	175-7242
26	20	100	1	68	1100	V33CH8	175-7243
31	25	100	1	79	900	V39CH8	175-7244
38	30	100	1.2	92	800	V47CH8	175-7245
45	35	100	1.4	107	700	V56CH8	175-7247
56	40	100	1.5	127	600	V68CH8	175-7248
102	75	250	2	200	300	V120CH8	175-7249
127	95	250	3	250	250	V150CH8	175-7250
153	115	250	4	295	200	V180CH8	175-7251
175	130	250	4	340	180	V200CH8	175-7252
180	140	250	5	360	160	V220CH8	175-7253
200	150	250	5	395	150	V240CH8	175-7254
300	230	250	6	595	100	V360CH8	175-7255
330	250	250	7	650	90	V390CH8	175-7256
369	275	250	8	710	80	V430CH8	175-7257

547644

Order Code	Price Each
SMD **All Values**	

ML Series – Surface Mount

Littelfuse

SMD

- Transient surge suppressors to protect electronic devices from high voltage transients
- Manufactured from ceramic which offers rugged protection, excellent energy absorption and high internal heat dissipation
- Chip form eliminates lead conductance which ensures a fast response
- Low capacitance types do not reduce bandwidth of high speed signal lines
- Designed to fail short circuit when over stressed to protect associated equipment

Operating temperature -55° C to +125° C

Maximum Continuous Working Voltage Vdc	Vac	Maximum Non-repet. Surge Current (A) (8/20µs)	Maximum Non-repeti-tive Surge Energy (J) (10/1000µs)	Nominal Voltage at 1mA DC Test Curr. Min (V)	(V)	Maximum Clamping Voltage at 10A (or as noted) (8/20µs)	Typical Cap @ 1MHz pF	Mftrs. List No.	Order Code
0402 Case Size									
5.5	4	20	0.05	7.1	10.8	21	220	V5.5MLA0402NR	175-7267
5.5	4	20	0.05	15.9	21.5	39	70	V5.5MLA0402LNR	181-6924
9	6.5	20	0.05	11	16	30	120	V9MLA0402NR	175-7268
14	10	20	0.05	15.9	21.5	39	70	V14MLA0402NR	175-7269
18	14	20	0.05	22	28	50	40	V18MLA0402NR	175-7270
0603 Case Size									
3.5	2.5	30	0.1	3.7	7	13	1270	V3.5MLA0603A	161-1979
3.5	2.5	30	0.1	3.7	7	13	1270	V3.5MLA0603H	175-7272
3.5	2.5	30	0.1	3.7	7	13	1270	V3.5MLA0603NH	181-6926
5.5	4	30	0.1	7.1	9.3	17.5	760	V5.5MLA0603H	175-7273
5.5	4	30	0.1	7.1	9.3	17.5	500	V5.5MLA0603NH	181-6927
9	6.5	30	0.1	11	16	25.5	490	V9MLA0603H	181-6928
14	10	30	0.1	10	14	34.5	180	V14MLA0603H	175-7274
18	14	30	0.1	22	28	50	120	V18MLA0603H	175-7275
26	20	30	0.1	31	38	60	110	V26MLA0603H	175-7276
0805 Case Size									
3.5	2.5	120	0.3	3.7	5.5	10 at 5A	2750	V3.5MLA0805H	105-7215
3.5	2.5	40	0.1	3.7	5.5	10 at 2A	1200	V3.5MLA0805LH	105-7216
3.5	2.5	120	0.3	3.7	7	13	2530	V3.5MLA0805NH	181-6929
3.5	2.5	40	0.1	3.7	7	13	1380	V3.5MLA0805LNH	181-6930
5.5	4	120	0.3	7.1	9.3	15.5 at 5A	2500	V5.5MLA0805H	105-7217
5.5	4	40	0.1	7.1	9.3	15.5 at 2A	1100	V5.5MLA0805LH	105-7218
5.5	4	120	0.3	7.1	9.3	17.5	1840	V5.5MLA0805NH	181-6931
5.5	4	40	0.1	7.1	9.3	17.5	990	V5.5MLA0805LNH	181-6932
14	10	120	0.3	15.9	20.3	30 at 5A	1200	V14MLA0805H	105-7220
14	10	40	0.1	15.9	20.3	30 at 2A	450	V14MLA0805LH	105-7221
14	10	120	0.3	15.9	20.3	32	560	V14MLA0805NH	181-6933
14	10	40	0.1	15.9	20.3	32	320	V14MLA0805LNH	181-6934
18	14	120	0.3	22.5	28	40 at 5A	650	V18MLA0805H	105-7222
18	14	40	0.1	22.5	28	40 at 2A	350	V18MLA0805LH	105-7223
26	20	100	0.3	29.5	38.5	60	220	V26MLA0805H	181-6935
26	20	40	0.1	29.5	38.5	60	140	V26MLA0805LH	181-6936
30	25	30	0.1	37	46	72	90	V30MLA0805LH	181-6938
30	25	30	0.1	37	46	72	90	V30MLA0805LNH	181-6939
1206 Case Size									
5.5	4	150	0.4	7.1	8.7	15.5	4500	V5.5MLA1206H	105-7225
5.5	4	150	0.4	7.1	9.3	17.5	3500	V5.5MLA1206NH	181-6940

Surge Protection - Varistors - Littelfuse - continued

ML Series – Surface Mount - continued

Maximum Continuous Working Voltage Vdc	Vac	Maximum Non-repet. Surge Current (A) (8/20µs)	Maximum Non-repetitive Surge Energy (J) (10/1000µs)	Nominal Voltage at 1mA DC Test Curr. Min (V)	(V)	Maximum Clamping Voltage at 10A (or as noted) (8/20µs)	Typical Cap @ 1MHz pF	Mftrs. List No.	Order Code
1206 Case Size									
14	10	150	0.4	16.4	20	30	2100	V14MLA1206H	105-7226
14	10	150	0.4	15.9	20.3	32	1400	V14MLA1206NH	181-6941
18	14	150	0.4	22	27	40	1700	V18MLA1206H	105-7227
26	20	150	0.6	29.5	38.5	56	800	V26MLA1206H	105-7228
33	26	180	0.8	38	45	72	500	V33MLA1206H	105-7229
33	26	180	0.8	38	49	75	500	V33MLA1206NH	181-6942
42	30	180	0.8	46	56	86	450	V42MLA1206H	105-7230
42	30	180	0.8	46	60	92	425	V42MLA1206NH	181-6943
56	40	180	1	61	76	110	350	V56MLA1206H	105-7231
68	50	180	1	76	90	130	150	V68MLA1206H	105-7232
1210 Case Size									
18	14	250	0.8	22	27	40	190	V18MLA1210H	105-7233
26	20	250	1.2	29.5	38.5	54	100	V26MLA1210H	105-7234
30	25	280	1.2	35	43	68	1820	V30MLA1210H	181-6944
48	40	250	1.2	54.5	66.5	105	520	V48MLA1210H	175-7277
48	40	250	1.2	54.5	66.5	105	520	V48MLA1210NH	181-6945
60	50	250	1.5	67	83	130	440	V60MLA1210H	181-6946
85	67	250	2.5	95	115	180	260	V85MLA1210H	181-6947
85	67	250	2.5	95	115	180	260	V85MLA1210NH	181-6948
120	107	125	2	135	165	260	80	V120MLA1210NH	181-6951

204035

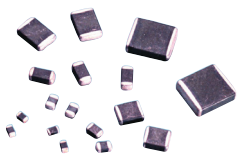
Working Voltage (V)	Order Code	Price Each
0402 Case Size		
5.5	NEW SMD 175-7267	
5.5	NEW 181-6924	
9	NEW SMD 175-7268	
14	NEW SMD 175-7269	
18	NEW SMD 175-7270	
0603 Case Size		
3.5	SMD 161-1979	
3.5	NEW SMD 175-7272	
3.5	NEW 181-6926	
5.5	NEW SMD 175-7273	
5.5	NEW 181-6927	
9	NEW 181-6928	
14	NEW SMD 175-7274	
18	NEW SMD 175-7275	
26	NEW SMD 175-7276	
0805 Case Size		
3.5	SMD 105-7215	
3.5	SMD 105-7216	
3.5	NEW 181-6929	
3.5	NEW 181-6930	
5.5	SMD 105-7217	
5.5	SMD 105-7218	
5.5	NEW 181-6931	
5.5	NEW 181-6932	
14	SMD 105-7220	
14	SMD 105-7221	
14	NEW 181-6933	
14	NEW 181-6934	
18	SMD 105-7222	
18	SMD 105-7223	
26	NEW 181-6935	
26	NEW 181-6936	
30	NEW 181-6938	
30	NEW 181-6939	
1206 Case Size		
5.5	SMD 105-7225	
5.5	NEW 181-6940	
14	SMD 105-7226	
14	NEW 181-6941	
18	SMD 105-7227	
26	SMD 105-7228	
33	SMD 105-7229	
33	NEW 181-6942	
42	SMD 105-7230	
42	NEW 181-6943	
56	SMD 105-7231	
68	SMD 105-7232	

Working Voltage (V)	Order Code	Price Each
1210 Case Size		
18	SMD 105-7233	
26	SMD 105-7234	
30	NEW 181-6944	
48	NEW SMD 175-7277	
48	NEW 181-6945	
60	NEW 181-6946	
85	NEW 181-6947	
85	NEW 181-6948	
120	NEW 181-6951	

Multilayer Varistors

Littelfuse

MLE Series



New

- AEC-2000 compliant
- Rated for ESD (IEC-61000-4-2)
- Characterised for impedance and capacitance
- 0603, 0805 & 1206 case sizes
- Nickel Barrier Termination (V18MLE0603NH)
- -55°C to +125°C Operating temp range

The MLE Series family of transient voltage suppression devices are based on the Littelfuse multilayer fabrication technology. These components are designed to suppress ESD events, including those specified in IEC 61000-4-2 or other standards used for Electromagnetic Compliance testing.

Max Cont. Working Voltage Vdc	Max ESD Clamp Voltage @ 8kV Contact (V)	@ 15kV Air (V)	Typical Cap @ 1MHz pF	Mftrs. List No.	Order Code
0603 Case Size					
18	< 75	< 110	<125	V18MLE0603H	181-6996
18	< 75	< 110	<125	V18MLE0603NH	181-6997
0805 Case Size					
18	< 70	< 75	<500	V18MLE0805H	181-6999
1206 Case Size					
18	< 65	< 65	<1700	V18MLE1206H	181-7001

610272

Order Multiple=5 Mftr. no	Order Code	Price Each
0603 Case Size		
V18MLE0603H	181-6996	
V18MLE0603NH	181-6997	
0805 Case Size		
V18MLE0805H	181-6999	
1206 Case Size		
V18MLE1206H	181-7001	

MHS Series

Littelfuse

New

The Multilayer High-Speed MHS Series is a very-low capacitance extension to the Littelfuse ML family of transient voltage surge suppression devices available in 0402 or 0603-size surface mount chip.

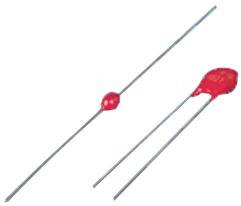
- AEC-2000 compliant
- Low Leakage current
- Operating temperature:-55°C to +125°C

Maximum Clamping Voltage (V)	Typical Leakage Current at 3.5V (µA)	Typical Cap @ 1MHz Min. pF	Typical Cap @ 1MHz Max. pF	Mftrs. List No.	Order Code
0402 Case Size					
30	0.5	15	29	V0402MHS22NR	181-6920
55	0.5	8	16	V0402MHS12NR	181-6921
135	0.5	1	6	V0402MHS03NR	181-6922
0603 Case Size					
30	0.5	15	29	V0603MHS22NH	175-7265
55	0.5	8	16	V0603MHS12NH	175-7266
135	0.5	1	6	V0603MHS03NH	181-6923

605465

Clamping Voltage (V)	Order Code	Price Each
0402 Case Size		
30	NEW 181-6920	
55	NEW 181-6921	
135	NEW 181-6922	
0603 Case Size		
30	SMD 175-7265	
55	SMD 175-7266	
135	NEW 181-6923	

Metal Oxide Varistors – MA/LA/ZASeries



	MA Series	LA/ZA Series
Operating ambient temperature	-55°C to +75°C	-55°C to +85°C
Test withstand voltage	1000V dc	2500V dc
Insulation resistance	>1000MΩ	>1000MΩ
Voltage temp. coefficient	-0.03%/°C	-0.05%/°C

204218

MA Series (Axial Lead Package)

Littelfuse

Body Dia. = Min 3 / Max 4.5 (mm)
Lead Dia. = Min 0.61 / Max 0.66 (mm)
Lead Length = Min 27.3 / Max 31 (mm)

AC Working Voltage (V)	DC Working Voltage (V)	Transient Energy (10/(1000µs) (Joules)	Peak Transient Current (8/20µs) (A)	Varistor Voltage @ 1mA dc V min	V nom	V max	Device Marking	Order Code
18	23	0.13	40	26.0	33	40	33A	318-231
20	26	0.15	40	29.5	33	36.5	33B	181-6952
72	97	0.4	100	102	120	138	120	181-6953
171	235	1	100	243	270	297	271	181-6954
264	365	1.7	100	387	430	473	431	181-6955

204220

AC Voltage	Energy (Joules)	Order Code	Price Each
18	0.13	**318-231**	
20	0.15	**181-6952**	
72	0.4	**181-6953**	
171	1	**181-6954**	
264	1.7	**181-6955**	

LA Series (Radial Lead Package)

Littelfuse

Maximum Ratings (25°C)

AC Working Voltage (V)	DC Working Voltage (V)	Transient Energy (10/(1000µs) (Joules)	Peak Transient Current (8/20µs) (A)	Varistor Voltage @ 1mA dc V min	V max	Device Marking	Mftrs. List No.	Order Code
130	175	11	1200	184	228	1302	V130LA2P	105-7180
130	175	20	2500	184	228	1305	V130LA5P	105-7181
130	175	38	4500	184	228	130L10	V130LA10AP	105-7183
130	175	70	6500	184	228	130L20	V130LA20AP	105-7184
130	175	70	6500	184	220	130L20B	V130LA20BP	105-7185
140	180	42	4500	198	242	P140L10	V140LA10AP	181-6956
140	180	75	6500	198	242	P140L20	V140LA20AP	181-6957
150	200	13	1200	212	268	1502	V150LA2P	105-7186
150	200	25	2500	212	268	1505	V150LA5P	105-7187
150	200	45	4500	212	268	150L10	V150LA10AP	105-7188
150	200	80	6500	212	268	150L20	V150LA20AP	105-7189
150	200	80	6500	212	243	150L20B	V150LA20BP	105-7190
175	225	55	4500	247	303	175L10	V175LA10AP	105-7146
175	225	15	1200	247	303	P1752	V175LA2P	181-6958
230	300	20	1200	324	396	2304	V230LA4P	105-7147
230	300	70	4500	324	396	230L20	V230LA20AP	105-7148
230	300	125	6000	324	396	P230L20	V230LA20CP	181-6959
250	330	21	1200	354	473	2502	V250LA2P	105-7191
250	330	21	1200	354	429	2504	V250LA4P	105-7192
250	330	40	2500	354	429	250L	V250LA10P	105-7193
250	330	72	4500	354	429	250L20	V250LA20AP	105-7195
250	330	130	6500	354	429	250L40	V250LA40AP	105-7197
250	330	130	6500	354	413	250L40B	V250LA40BP	105-7198
275	369	23	1200	389	515	2752	V275LA2P	105-7149
275	369	23	1200	389	473	2754	V275LA4P	105-7199
275	369	45	2500	389	473	275L	V275LA10P	105-7201
275	369	75	4500	389	473	275L20	V275LA20AP	105-7202
275	369	140	6500	389	473	275L40	V275LA40AP	105-7203
275	369	140	6500	389	453	275L40B	V275LA40BP	105-7204
300	405	46	2500	420	517	P300L	V300LA10P	181-6960
300	405	77	4500	420	517	P300L20	V300LA20AP	181-6961
300	405	25	1200	462	565	P3002	V300LA2P	181-6963
300	405	165	6500	420	517	P300L40	V300LA40AP	181-6964
300	405	25	1200	420	517	P3004	V300LA4P	181-6965
320	420	90	4500	462	565	320L20	V320LA20AP	105-7205
320	420	160	6500	462	540	320L40	V320LA40BP	105-7150
385	505	85	4500	558	682	P385L20	V385LA20AP	181-6966
385	505	160	6500	558	682	P385L40	V385LA40BP	181-6967
420	560	45	2500	610	748	420L	V420LA10P	105-7206
420	560	90	4500	610	748	420L20	V420LA20AP	105-7151
420	560	160	6500	610	720	420L40	V420LA40BP	105-7152
420	560	30	1200	610	748	P4207	V420LA7P	181-6968
480	640	105	4500	670	825	480L40	V480LA40AP	105-7207
480	640	180	6500	670	790	480L80	V480LA80BP	105-7208
510	675	110	4500	735	910	510L40	V510LA40AP	105-7209
510	675	190	6500	735	860	P510L80	V510LA80BP	181-6969
575	730	120	4500	805	1000	575L40	V575LA40AP	105-7210
575	730	220	6500	805	960	575L80	V575LA80BP	105-7213
575	730	65	2500	805	1000	P575L	V575LA10P	181-6970
660	850	140	4500	940	1210	660L50	V660LA50AP	105-7214
1000	1200	360	6500	1425	1600	1000L160	V1000LA160BP	105-7153
1000	1200	220	4500	1425	1800	P1000L8	V1000LA80AP	181-6971

204222

Order Multiple=5

AC Voltage	Energy (Joules)	Disc Dia. (mm)	Order Code	Price Each
130	11	7	**105-7180**	
130	20	10	**105-7181**	
130	38	14	**105-7183**	
130	70	20	**105-7184**	
130	70	20	**105-7185**	
140	42	14	NEW **181-6956**	
140	75	20	NEW **181-6957**	
150	13	7	**105-7186**	
150	25	10	**105-7187**	
150	45	14	**105-7188**	
150	80	20	**105-7189**	
150	80	20	**105-7190**	
175	55	14	**105-7146**	
175	15	7	NEW **181-6958**	
230	20	7	**105-7147**	
230	70	14	**105-7148**	
230	125	14	NEW **181-6959**	
250	21	7	**105-7191**	
250	21	7	**105-7192**	
250	40	10	**105-7193**	
250	72	14	**105-7195**	
250	130	20	**105-7197**	
250	130	20	**105-7198**	
275	23	7	**105-7149**	
275	23	7	**105-7199**	
275	45	10	**105-7201**	
275	75	14	**105-7202**	
275	140	20	**105-7203**	
275	140	20	**105-7204**	
300	46	10	NEW **181-6960**	
300	77	14	NEW **181-6961**	
300	25	7	NEW **181-6963**	
300	165	20	NEW **181-6964**	
300	25	7	NEW **181-6965**	
320	90	14	**105-7205**	
320	160	20	**105-7150**	
385	85	14	NEW **181-6966**	
385	160	20	NEW **181-6967**	
420	45	10	**105-7206**	
420	90	14	**105-7151**	
420	160	20	**105-7152**	
420	30	7	NEW **181-6968**	
480	105	14	**105-7207**	
480	180	20	**105-7208**	
510	110	14	**105-7209**	
510	190	20	NEW **181-6969**	
575	120	14	**105-7210**	
575	220	20	**105-7213**	
575	65	10	NEW **181-6970**	
660	140	14	**105-7214**	
1000	360	20	**105-7153**	
1000	220	14	NEW **181-6971**	

ZA Series (Radial Lead Package)

Maximum Ratings (25° C)
Mftrs. List No

AC Working Voltage (V)	DC Working Voltage (V)	Transient Energy (10/(1000µs) (Joules)	Peak Transient Current (8/20µs) (A)	Varistor Voltage @ 1mA dc V min	V max	Device Marking	Mftrs. List No.	Order Code
4	5.5	0.4	100	6	11	08Z1	V8ZA1P	105-7154
4	5.5	0.8	250	6	11	08Z2	V8ZA2P	105-7155
6	8	1.2	250	9	16	12Z2	V12ZA2P	105-7156
6	8	0.6	100	9	16	P12Z1	V12ZA1P	181-6972
10	14	0.8	250	14.4	21.6	18Z1	V18ZA1P	105-7158
10	14	3.5	1000	14.4	21.6	18Z3	V18ZA3P	105-7159
10	14	1.5	500	14.4	21.6	P18Z2	V18ZA2P	181-6973
10	14	80	2000	14.4	21.6	P18Z40	V18ZA40P	181-6975

Surge Protection - Varistors - Littelfuse - continued

ZA Series (Radial Lead Package) - **continued**

AC Working Voltage (V)	DC Working Voltage (V)	Transient Energy (10/ (1000µs) (Joules)	Peak Transient Current (8/20µs) (A)	Varistor Voltage @ 1mA dc V min	V max	Device Marking	Mftrs. List No.	Order Code
14	18	0.9	250	18.7	26	22Z1	V22ZA1P	105-7160
14	18	2	500	18.7	26	P22Z2	V22ZA2P	175-7259
14	18	4	1000	18.7	26	22Z3	V22ZA3P	105-7161
14	18	100	2000	19.2	26	24Z50	V24ZA50P	105-7162
14	18	0.2	100	19.2	26	PZ22	V22ZA05P	181-6976
17	22	1	250	23	31.1	27Z1	V27ZA1P	105-7137
17	22	5	1000	23	31.1	27Z4	V27ZA4P	105-7163
20	26	1.2	250	29.5	36.5	33Z1	V33ZA1P	105-7164
20	26	6	1000	29.5	36.5	33Z5	V33ZA5P	105-7166
21	27	150	2000	29.5	36.5	P33Z70	V33ZA70P	105-7167
23	31	160	2000	32	40	P36Z80	V36ZA80P	175-7261
25	31	1.5	250	35	43	39Z1	V39ZA1P	105-7168
25	31	3	500	35	43	P39Z3	V39ZA3P	175-7262
25	31	7.2	1000	35	43	39Z6	V39ZA6P	105-7171
30	38	1.8	250	42	52	47Z1	V47ZA1P	105-7172
30	38	4.5	500	42	52	P47Z3	V47ZA3P	175-7263
30	38	8.8	1000	42	52	47Z7	V47ZA7P	105-7173
30	38	0.4	100	42	55	PZ47	V47ZA05P	181-6977
30	38	23	2000	42	52	P47Z20	V47ZA20P	181-6978
35	45	2.3	250	50	62	56Z2	V56ZA2P	105-7174
35	45	10	1000	50	62	56Z8	V56ZA8P	105-7175
35	45	0.5	100	50	66	PZ56	V56ZA05P	181-6979
35	45	5.5	500	50	62	P56Z3	V56ZA3P	181-6980
40	56	3	250	61	75	68Z2	V68ZA2P	105-7138
40	56	13	1000	61	75	68Z10	V68ZA10P	105-7176
40	56	0.6	100	61	80	PZ68	V68ZA05P	181-6981
40	56	33	2000	61	75	P68Z20	V68ZA20P	181-6982
40	56	6.5	500	61	75	P68Z3	V68ZA3P	181-6983
50	66	4	250	74	91	82Z2	V82ZA2P	105-7177
50	66	15	4500	73	91	82Z12	V82ZA12P	105-7139
50	68	2	400	73	97	PZ82	V82ZA05P	181-6984
50	68	8	2500	73	91	P82Z4	V82ZA4P	181-6985
60	81	20	4500	90	110	100Z15	V100ZA15P	105-7140
60	81	5	1200	90	110	100Z	V100ZA3P	105-7178
60	81	2.5	400	90	117	PZ100	V100ZA05P	181-6987
60	81	10	2500	90	110	P100Z4	V100ZA4P	181-6988
75	102	6	1200	108	132	120Z	V120ZA1P	105-7179
75	102	22	4500	108	132	120Z6	V120ZA6P	105-7141
95	127	30	4500	135	165	150Z8	V150ZA8P	105-7142
95	127	8	1200	135	165	PZ051	V150ZA1P	181-6989
95	127	45	6500	135	165	P150Z20		181-6990
110	153	5	400	162	207	PZ180	V180ZA05P	181-6991
115	153	10	1200	162	198	180Z	V180ZA1P	105-7143
115	153	35	4500	162	198	180Z10	V180ZA10P	105-7144
115	153	18	2500	162	198	P180Z5	V180ZA5P	181-6992
140	180	6	400	198	253	PZ220	V220ZA05P	181-6993
250	330	10	400	351	449	PZ390	V390ZA05P	175-7264
275	369	11	400	387	495	PZ430	V430ZA05P	181-6994

204221

Order Multiple=5

AC Voltage	Energy (Joules)	Disc Dia. (mm)	Order Code	Price Each
4	0.4	7	**105-7154**	
4	0.8	10	**105-7155**	
6	1.2	10	**105-7156**	
6	0.6	7	NEW **181-6972**	
10	0.8	7	**105-7158**	
10	3.5	14	**105-7159**	
10	1.5	10	NEW **181-6973**	
10	80	20	NEW **181-6975**	
14	0.9	7	**105-7160**	
14	2	10	NEW **175-7259**	
14	4	14	**105-7161**	
14	100	20	**105-7162**	
14	0.2	5	NEW **181-6976**	
17	1	7	**105-7137**	
17	5	14	**105-7163**	
20	1.2	7	**105-7164**	
20	6	14	**105-7166**	
21	150	20	**105-7167**	
23	160	20	NEW **175-7261**	
25	1.5	7	**105-7168**	
25	3	10	NEW **175-7262**	
25	7.2	14	**105-7171**	
30	1.8	7	**105-7172**	
30	4.5	10	NEW **175-7263**	
30	8.8	14	**105-7173**	
30	0.4	5	NEW **181-6977**	
30	23	20	NEW **181-6978**	
35	2.3	7	**105-7174**	
35	10	14	**105-7175**	
35	0.5	5	NEW **181-6979**	
35	5.5	10	NEW **181-6980**	
40	3	7	**105-7138**	
40	13	14	**105-7176**	
40	0.6	5	NEW **181-6981**	

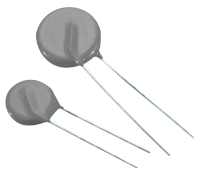
Order Multiple=5

AC Voltage	Energy (Joules)	Disc Dia. (mm)	Order Code	Price Each
40	33	20	NEW **181-6982**	
40	6.5	10	NEW **181-6983**	
50	4	7	**105-7177**	
50	15	14	**105-7139**	
50	2	5	NEW **181-6984**	
50	8	10	NEW **181-6985**	
60	20	14	**105-7140**	
60	5	7	**105-7178**	
60	2.5	5	NEW **181-6987**	
60	10	10	NEW **181-6988**	
75	6	7	**105-7179**	
75	22	14	**105-7141**	
95	30	14	**105-7142**	
95	8	7	NEW **181-6989**	
95	45	20	NEW **181-6990**	
110	5	5	NEW **181-6991**	
115	10	7	**105-7143**	
115	35	14	**105-7144**	
115	18	10	NEW **181-6992**	
140	6	5	NEW **181-6993**	
250	10	5	NEW **175-7264**	
275	11	5	NEW **181-6994**	

UltraMOV Series

Metal Oxide Varistor

Littelfuse



- High peak surge current rating
- Standard operating voltage range compatible with common AC line voltages
- Characterised for maximum standby current (Leakage)

New

Body	Dia	Lead Spacing	Lead Length
V14x	14	5.6	25.4
V20x	20	5.6	25.4

AC Working Voltage (V)	DC Working Voltage (V)	Transient Energy 2ms (Joules)	Varistor Voltage @ 1mA (V) min	max	Max Clamping 8 x 20µs (V)	Mftrs. List No.	Order Code
275	350	110	387	473	710	V14E275P	181-7002
300	385	125	423	517	775	V14E300P	181-7003
320	420	136	459	561	840	V14E320P	181-7004
250	320	170	351	429	650	V20E250P	181-7005
320	420	273	459	561	840	V20E320P	181-7006

610309

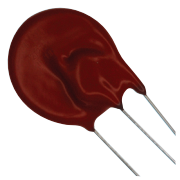
Order Mulitiple=5

AC Voltage	Energy (Joules)	Order Code	Price Each
275	110	**181-7002**	
300	125	**181-7003**	
320	136	**181-7004**	
250	170	**181-7005**	
320	273	**181-7006**	

TMOV Series

Thermally Protected Varistors

Littelfuse



- Low Leakage
- High peak surge current rating up to 10kA
- -55°C to +85°C Operating Temp

New

Body	Dia	Lead Spacing	Lead Length
TMOV14x	14	7.5	25.4
TMOV20x	20	7.5	25.4

AC Working Voltage (V)	DC Working Voltage (V)	Transient Energy 2ms (Joules)	Varistor Voltage @ 1mA (V) min	max	Max Clamping 8 x 20µs (V)	Typ Capacitance f= 1MHz (pF)	Mftrs. List No.	Order Code
275	387	110	387	473	710	450	TMOV14RP275E	181-7007
275	387	190	387	473	710	900	TMOV20RP275E	181-7008

610314

Order Mulitiple=5

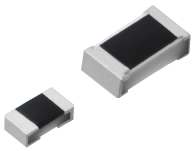
AC Voltage	Energy (Joules)	Order Code	Price Each
275	110	**181-7007**	
275	190	**181-7008**	

Surge Protection - Varistors - Panasonic

Multilayer Varistors

EZJP & EZJZ Series

Panasonic ideas for life



- Excellent ESD suppression due to advanced material technology
- Ultra low capacitance for signal lines of high speed busses

New

Operating temperature -40°C to +85°C

Case Size	Capacitance (pF)	Clamping Voltage (V)	Peak Current Max. (A)	Mftrs. List No.	Order Code
0201	100	6.8	5	EZJPZV6R8GA	178-0492
0201	220	6.8	5	EZJPZV6R8JA	178-0493
0201	27	12	1	EZJPZV120DA	178-0494
0201	100	12	5	EZJPZV120GA	178-0495
0201	200	27	1	EZJPZV270RA	178-0496
0402	100	6.8	—	EZJP0V6R8GA	178-0497
0402	27	8	1	EZJP0V080DA	178-0498
0402	100	8	3	EZJP0V080GA	178-0500
0402	330	8	15	EZJP0V080KA	178-0501
0402	680	8	20	EZJP0V080MA	178-0502
0402	220	12	10	EZJZ0V120JA	178-0503
0402	20	27	—	EZJP0V270RA	178-0504
0402	47	27	—	EZJP0V270EA	178-0506
0402	56	42	10	EZJZ0V420WA	178-0507
0402	27	65	5	EZJZ0V650DA	178-0508
0603	330	12	20	EZJZ1V120KA	178-0509
0603	20	27	3	EZJZ1V270RA	178-0510
0603	47	27	20	EZJZ1V270EA	178-0511
0603	68	42	15	EZJZ1V420FA	178-0512
0603	27	65	5	EZJZ1V650DA	178-0513

600014

Price Each

Case Size	Order Code	
0201	All Values ●	
0402	178-0497 ●	
0402	178-0498 ●	
0402	178-0500 ●	
0402	178-0501 ●	
0402	178-0502 ●	
0402	178-0503 ●	
0402	178-0504 ●	
0402	178-0506 ●	
0402	178-0507 ●	
0402	178-0508 ●	
0603	All Values ●	

Multilayer Varistors

EZJZS Series

Panasonic ideas for life

- 0504 Case Size
- Multilayer varistor of Zinc oxide ceramic, suppresses the pulse noise(ESD, burst-noise) and protects the equipment from the transient surge.
- Suitable for high-speed signal line due to small capacitance.

New

Operating temperature -40°C to +85°C

Capacitance (pF)	Clamping Voltage (V)	Peak Current Max. (A)	Mftrs. List No.	Order Code
220	12	10	EZJZSV120JA	178-0514
20	27	3	EZJZSV270RA	178-0515
27	27	5	EZJZSV270DAK	178-0516
33	27	5	EZJZSV270PAK	178-0518
39	27	5	EZJZSV270SAK	178-0519
43	27	5	EZJZSV270TAK	178-0520
47	27	10	EZJZSV270EA	178-0521

600013

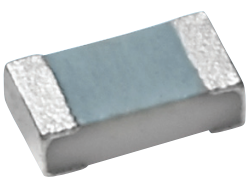
Price Each

Order Code	
All Values ●	

Surge Protection - Varistors - Vishay

Multilayer Varistors

VISHAY



New

- Surface mount multilayer surge suppressor
- Inherent bidirectional clamping
- Excellent energy/volume ratio
- Suitable for reflow soldering

max Operating Voltage AC	DC	Peak Current 8/20 µs (A)	Transient clamp energy (J)	Clamp.Voltage max. (V)	Capacitance (pF)	Mftrs. List No.	Order Code
0402							
4	5.6	20	0.05	15.5	360	MLV0402E30403T	176-1084
7	9	20	0.05	20	230	MLV0402E30703T	176-1085
11	14	20	0.05	30	120	MLV0402E31103T	176-1086
14	18	20	0.05	40	90	MLV0402E31403T	176-1087
0603							
4	5.6	30	0.1	15.5	825	MLV0603E30403T	176-1088
7	9	30	0.1	20	550	MLV0603E30703T	176-1089
11	14	30	0.1	30	425	MLV0603E31103T	176-1090
14	18	30	0.1	40	225	MLV0603E31403T	176-1091
20	26	30	0.1	58	160	MLV0603E32003T	176-1093
25	30	30	0.1	65	150	MLV0603E32503T	176-1094
0805							
4	5.6	40	0.1	15.5	860	MLV0805E30403T	176-1095
7	9	40	0.1	20	585	MLV0805E30703T	176-1096
11	14	40	0.1	30	280	MLV0805E31103T	176-1097
25	30	30	0.1	65	80	MLV0805E32503T	176-1098

547468

Price Each

Clamp.Voltage max. (V)	Order Code	
0402		
15.5	SMD 176-1084 ●	
20	SMD 176-1085 ●	
30	SMD 176-1086 ●	
40	SMD 176-1087 ●	
0603		
15.5	SMD 176-1088 ●	
20	SMD 176-1089 ●	
30	SMD 176-1090 ●	
40	SMD 176-1091 ●	
58	SMD 176-1093 ●	
65	SMD 176-1094 ●	
0805		
15.5	SMD 176-1095 ●	
20	SMD 176-1096 ●	
30	SMD 176-1097 ●	
65	SMD 176-1098 ●	

2381 59 Series

Voltage Dependent Resistors

BC COMPONENTS

- Voltage dependent resistors offering protection against high voltage surges and transients
- Zinc oxide ceramic epoxy coating providing insulation up to 2500V
- **UL** recognised and **VDE** approved

Body	H	W	D
592 Series	11	7	6
593 Series	13	9	6
594 Series	14	12.5	7
595 Series	19	16	7

Leads	L	Dia.	Spacing
592/593 Series	20	0.6	5
594/595 Series	16	0.8	7.5

AC Working Voltage (V)	DC Working Voltage (V)	Transient Energy (10/1000µs) (Joules)	Varistor Voltage @ 1mA min	Varistor Voltage @ 1mA max	Max Clamping V @ 100A (*50A) 8/20ms	Mftrs. List No.	Order Code
60	85	2.9	90	110	165	VDRS05C060BSE	118-7044
275	350	12	387	473	710	VDRS05C275BSE	118-7045
130	170	17	185	225	340	VDRS07H130BSE	118-7046
150	200	20	216	264	400	VDRS07H150BSE	118-7047
250	320	33	351	429	650	VDRS07H250BSE	118-7048
275	350	36	387	473	710	VDRS07H275BSE	118-7050
300	385	40	423	517	800	VDRS07H300BSE	118-7051
460	615	63	675	825	1240	VDRS07H460BSE	118-7052
60	85	8.3	90	110	165	VDRS07H060BSE	118-7054
275	350	63	387	473	710	VDRS10P275BSE	118-7055
275	350	104	387	473	710	VDRS14T275BSE	118-7056
460	615	135	675	825	1240	VDRS14T460BSE	118-7057

204226

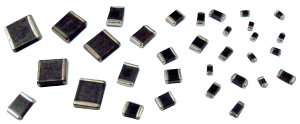
Order Mulitiple=5

AC Voltage	Energy (Joules)	Order Code	Price Each
60	2.9	118-7044 ●	
275	12	118-7045 ●	
130	17	118-7046 ●	
150	20	118-7047 ●	
250	33	118-7048 ●	
275	36	118-7050 ●	
300	40	118-7051 ●	
460	63	118-7052 ●	
60	8.3	118-7054 ●	
275	63	118-7055 ●	
275	104	118-7056 ●	
460	135	118-7057 ●	

Surge Protection - Varistors - Würth Elektronik

WESURGE Power Varistors

WE-VS Series



- Fast response time
- Low leakage current and clamping voltage
- Wide range of voltages available
- Almost no energy consumption in stand-by mode
- After a surge impulse the varistor works immediately in
- Normal mode so there is no slip current
- Excellent absorption at surge impulses
- Protection of DC distribution, power supplies, bus systems and communication lines
- Limiting of over-voltages, protection of semiconductors

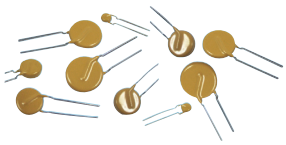
max Operating Voltage AC	DC	Peak Current 8/20 µs	Transient energy (J)	Clamp.Voltage max. (V)	Capacity (pF)	Mftrs. List No.	Order Code
0402							
7	9	20	0.05	30	120	82537070	163-6430
11	14	20	0.02	30	70	82537110	163-6432
0603							
2.5	3.3	30	0.1	10	180	82536259	163-6433
4	5.5	30	0.1	16	200	82536040	163-6434
7	9	30	0.1	30	200	82536070	163-6435
11	14	30	0.1	30	100	82536110	163-6436
14	18	30	0.1	45	100	82536140	163-6437
0805							
4	5.5	80	0.1	16	1600	82550040	163-6439
6	9	80	0.1	20	1180	82550060	163-6440
25	30	100	0.3	65	310	82550250	163-6445
1206							
4	5.5	100	0.4	16	3600	82531040	163-6446
14	18	100	0.3	40	900	82551140	163-6448
25	30	200	1	72	620	82541250	163-6451
30	38	200	1.1	85	550	82541300	163-6452
1210							
30	38	400	2	85	1000	82533300	182-7552
1812							
14	18	500	1.7	40	3930	82555140	163-6460
25	30	800	3.7	72	2950	82535250	182-7553
30	38	800	4.2	85	2550	82535300	182-7554
2220							
25	30	1200	9.6	72	8900	82532250	182-7555
30	38	1200	12	85	5700	82532300	182-7556
35	45	1200	12	100	4800	82542350	163-6466

523266

Clamp.Voltage max. (V)	Order Code	Price Each
0402		
30	SMD **163-6430**	
30	SMD **163-6432**	
0603		
10	SMD **163-6433**	
16	SMD **163-6434**	
30	SMD **163-6435**	
30	SMD **163-6436**	
45	SMD **163-6437**	
0805		
16	SMD **163-6439**	
20	SMD **163-6440**	
65	SMD **163-6445**	
1206		
16	SMD **163-6446**	
40	SMD **163-6448**	
72	SMD **163-6451**	
85	SMD **163-6452**	
1210		
85	NEW **182-7552**	
1812		
40	SMD **163-6460**	
72	NEW **182-7553**	
85	NEW **182-7554**	
2220		
72	NEW **182-7555**	
85	NEW **182-7556**	
100	SMD **163-6466**	

WESURGE Disk Varistors

WE-VD Series



- Fast response time
- Low leakage current
- Low clamping voltage
- Wide range of voltages available
- Almost no energy consumption in stand-by mode
- After a surge impulse the varistor works immediately in
- Normal mode so there is no slip current
- Excellent absorption at surge impulses
- For 12-48 VDC distribution or 110-400 V power supply

Disk ∅ (mm)	Operating Voltage max. VTRMS	R_{DC} max V_{DC}	Clamp.voltage max. (V)	Transient energy (J)	I_{MAX} (A)	Capacity (pF)	Mftrs. List No.	Order Code
5	130	170	355	7.1	400	135	820551311	163-6403
7	25	31	77	2.4	250	1820	820572501	163-6405
7	115	150	300	13	1200	220	820571111	163-6410
10	20	26	65	4.8	1000	4250	820412001	163-6413
10	25	31	77	4.7	500	3660	820512501	163-6414
10	30	38	93	6	500	3140	820513001	163-6415
10	130	170	340	28	2500	410	820511311	163-6416
14	14	18	43	5.4	1000	11960	820541406	163-6417
14	25	31	77	9.4	1000	7620	820542501	163-6419
14	130	170	340	57	4500	840	820541311	163-6422
20	130	170	340	114	6500	1830	820521311	163-6424
20	275	350	710	303	10000	860	820422711	163-6425
20	320	418	842	382	10000	760	820423211	163-6426

523259

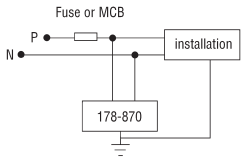
Disk ∅ (mm)	Order Code	Price Each
5	**163-6403**	
7	**163-6405**	
7	**163-6410**	
10	**163-6413**	
10	**163-6414**	
10	**163-6415**	
10	**163-6416**	
14	**163-6417**	
14	**163-6419**	
14	**163-6422**	
20	**163-6424**	
20	**163-6425**	
20	**163-6426**	

Surge Protection - Modules

Suppression Module

DIN Rail Mounting

H=90, W=35, D=54.5



- Provides over-voltage protection for electronic equipment
- Rapid response time and clear indication of failure (short circuit to earth)
- Rated at 16A when used with suitable MCB
- An amber neon indicates normal supply
- Flame retardant ABS housing conforms to **UL94V-0** and the dimensional requirements of **DIN43880**
- Can either be mounted on symmetric 35mm DIN rail or screw mounted using 2 x M4 screws

Supply Voltage	240V ac @ 50/60 Hz	Operating temperature	-15°C to +55°C
Current rating	16A when used with suitable MCB	Response time	≤25ns
Electrical life	100A for 2ms, 5000A for 8µs		

204243

Mftrs List No.	Order Code	Price Each
M3SPD	**960-9946**	

MOV Suppression Modules

DIN Rail Mounting

H=55, W=78, D=12.5
Terminals=2.5mm

- Slimline DIN rail surge suppressors comprising two isolated high energy metal oxide varistors
- Reduces high transient voltage spikes by connecting across the load or the supply

Line frequency	DC to 440Hz
Operating temperature	-25°C to +85°C

Operating Voltage (Vac)	Maximum Voltage Ratings (Vac)	(Vdc)	Transient Energy (10/1000µs) (Joules)	Peak Transient Current (8/20µs) (A)	Mftrs. List No.	Order Code
240	275	369	140	6500	DVS240	118-7677

220486

	Operating Voltage (Vac)	Order Code	Price Each
DVS240	240	**118-7677**	

Surge Protection - Data Line

CCTV Systems Protector

H=54, W=19, D=120

- Use to protect CCTV cameras and systems from lightning and transient overvoltage on coaxial CCTV cables
- Provides repeated and impairment free protection and suitable for both earthed/isolated screen systems (188-621) or ESP 415 M1 (188-633)
- Protect external cameras in conjunction with a protector for twisted pair lines (e.g. ESP 15D) for telemetry input and low current protector (e.g. ESP 240-5A) for the mains input
- DIN rail or flat base/side mounting
- Fully tested to **BS 6651**

Max. working voltage	6.45V	Max. line current	300mA
Peak 'let-through' voltage	17V	Max. surge current	10kA
In-line resistance	1Ω		

204156

Mftrs.List No.	Order Code	Price Each
ESP CCTV/B.	**188-591**	

Ferrite Transformers - Epcos

RM Cores and Accessories

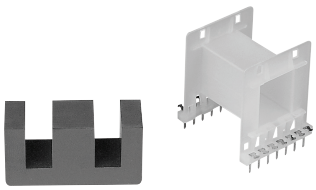
Transformer Half Core	Material Grade	AL (nH) +30% -20%	Mftrs. List No.	Order Code
RM6	N87	2400	B65807JR87	142-2717
RM8	N87	3300	B65811JR87	142-2720
RM10	N87	4200	B65813JR87	142-2723
RM12	N87	5300	B65815E0000R087	178-1855
RM12	N97	5300	B65815E0000R097	178-1857
Gapped		± 3%		
RM12	N87	160	B65815E0160A087	178-1858
RM12	N87	250	B65815E0250A087	178-1859
		± 5%		
RM12	N87	400	B65887E0400A087	178-1860
RM12	N87	1000	B65887E1000J087	178-1861
Half Core		+30% -20%		
RM14	N87	6000	B65887E0000R087	178-1864
RM14	N97	6000	B65887E0000R097	178-1865
Gapped		± 3%		
RM14	N87	160	B65887E0160A087	178-1866
RM14	N87	250	B65887E0250A087	178-1867
RM14	N87	630	B65887E0630A087	178-1869

479784

RM6		Order Code	Price Per Pair
Half core	N87	**142-2717**	
			Price Each
Coilformer	One section 6 pin	**142-2718**	
Steel clip		**142-2719**	
RM8			**Price Per Pair**
Half core	N87	**142-2720**	
			Price Each
Coilformer	One section 12 pin	**142-2721**	
Steel clip		**142-2722**	
RM10			**Price Per Pair**
Half core	N87	**142-2723**	
			Price Each
Coilformer	One section 12 pin	**142-2724**	
Steel clip		**142-2725**	
RM12			**Price Per Pair**
Half core	N87	NEW **178-1855**	
Half core	N97	NEW **178-1857**	
Gapped	N87	NEW **178-1858**	
Gapped	N87	NEW **178-1859**	
Gapped	N87	NEW **178-1860**	
Gapped	N87	NEW **178-1861**	
			Price Each
Coilformer	One section 12 pin	NEW **178-1862**	
Steel clip		NEW **178-1863**	

RM6		Order Code	Price Per Pair
RM14			**Price Per Pair**
Half core	N87	NEW **178-1864**	
Half core	N97	NEW **178-1865**	
Gapped	N87	NEW **178-1866**	
Gapped	N87	NEW **178-1867**	
Gapped	N87	NEW **178-1869**	
			Price Each
Coilformer	One section 12 pin	NEW **178-1871**	
Steel clip		NEW **178-1872**	

E Cores and Accessories



	H	W	D
E42	33	42.5	43
E55	46	56	57

- An assembly set consists of two half cores and a coil former
- Suitable for large power capacity power supplies
- High saturation flux density and low power loss
- N27 material recommended for power applications up to 100kHz
- N67 material recommended for power applications from 100kHz to 300kHz

Transformer Half Core	Material Grade	AL +30% -20%	Mftrs. List No.	Order Code	Coilformer	Mftrs. List No.	Order Code
E42	N27	3500	B66325GX127	119-0595	E42	B66242J1000R1	119-0598
E42	N87	3800	B66325GX187	119-0596	E55	B66252BM1	119-0599
E55	N27	5800	B66335GX127	119-0597			

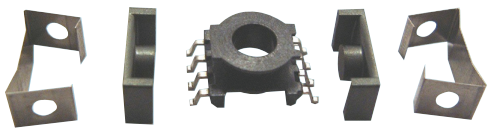
AL=Inductance Factor (nH)=L/N^2

Note: The most favoured method of fixing the half cores together is adhesive bonding. Suitable adhesive Order Code 318-036

223846

		Order Code	Price Each
E42			
Half core	N27	**119-0595**	
Half core	N87	**119-0596**	
Coilformer single section 10 pin		**119-0598**	
E55			
Half core	N27	**119-0597**	
Coilformer single section 14 pin		**119-0599**	

ER Cores and Accessories



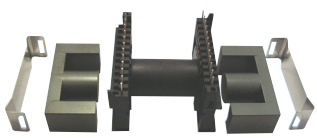
	H	W	D
ER9.5	2.5	9.5	5
ER11	2.5	11	6

Transformer Half Core	Material Grade	AL +30% -20%	Mftrs. List No.	Order Code	Coilformer	Mftrs. List No.	Order Code
ER9.5	N97	840	B65523JR97	142-2738	ER9.5	B65527B1008T1	142-2739
ER11	N97	1200	B65525JR97	142-2742	ER11	B65526B1010T1	142-2743

481002

		Order Code	Price Each
ER9.5			
Half core	N97	**142-2738**	
Coilformer	One section 10 pin	**142-2739**	
Steel clip		**142-2740**	
ER11			
Half core	N97	**142-2742**	
Coilformer	One section 10 pin	**142-2743**	
Steel clip		**142-2744**	

ETD Cores and Accessories



	H	W	D		H	W	D		H	W	D		H	W	D
ETD29	16	30.6	9.8	ETD39	20	38.9	12.8	ETD54	27.8	54.5	19.3	ETD59	31.2	59.8	22.1

Ferrite Transformers - Epcos - continued

ETD Cores and Accessories - continued

Transformer Half Core	Material Grade	AL +30% -20%	Mftrs. List No.	Order Code	Coilformer	Mftrs. List No.	Order Code
ETD29	N97	2250	B66358GX197	142-2745	ETD29	B66359W1013T1	142-2746
ETD34	N87	2600	B66361G0000X187	178-1878	ETD34	B66359X1014T001	178-1877
ETD39	N97	2800	B66363GX197	142-2748	ETD39	B66364W1016T1	142-2749
ETD54	N97	4600	B66395GX197	142-2751	ETD54	B66396W1022T1	142-2752
ETD59	N97	5500	B66397GX197	142-2755	ETD59	B66398W1024T1	142-2756

479810

		Order Code	Price Each
ETD29			
Half core	N97	**142-2745**	
Half core	N87	NEW **178-1873**	
Half core - Gapped	N87	NEW **178-1874**	
Half core - Gapped	N87	NEW **178-1875**	
Half core - Gapped	N87	NEW **178-1876**	
Coilformer	One section 14 pin	NEW **178-1877**	
Coilformer	One section 13 pin	**142-2746**	
Steel clip		**142-2747**	
ETD34			
Half core	N87	NEW **178-1878**	
Half core - Gapped	N87	NEW **178-1879**	
Half core - Gapped	N87	NEW **178-1880**	
Half core - Gapped	N87	NEW **178-1882**	
Coilformer	One section 14 pin	NEW **178-1883**	
Steel clip		NEW **178-1884**	
ETD39			
Half core	N97	**142-2748**	
Coilformer	One section 16 pin	**142-2749**	
Steel clip		**142-2750**	
ETD54			
Half core	N97	**142-2751**	
Coilformer	One section 22 pin	**142-2752**	
Steel clip		**142-2754**	
ETD59			
Half core	N97	**142-2755**	
Coilformer	One section 24 pin	**142-2756**	
Steel clip		**142-2757**	

EF Cores and Accessories

	H	W	D		H	W	D		H	W	D
EF20	10.1	20.4	5.9	EF25	12.8	25	7.5	E30	15.2	30	7.3

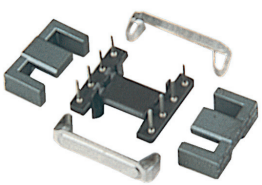
Transformer Half Core	Material Grade	AL +30% -20%	Mftrs. List No.	Order Code	Coilformer	Mftrs. List No.	Order Code
EF20	N87	1470	B66311GX187	142-2758	EF20	B66206A1110T1	142-2759
EF25	N87	1850	B66317GX187	142-2761	EF25	B66208A1110T1	142-2762
E30	N87	1900	B66319GX187	142-2764	E30	B66232A1114T1	142-2766

479694

		Order Code	Price Each
EF20			
Half core	N87	**142-2758**	
Coilformer	One section 10 pin	**142-2759**	
Steel clip		**142-2760**	
EF25			
Half core	N87	**142-2761**	
Coilformer	One section 10 pin	**142-2762**	
Steel clip		**142-2763**	
E30			
Half core	N87	**142-2764**	
Coilformer	One section 14 pin	**142-2766**	
Steel clip		**142-2767**	

EFD Cores and Accessories

Material Grade N87



Assembly set dimensions

	H (above PCB)	W	D
EFD15	8	17	19.3
EFD20	10	22	24.3
EFD25	12.5	27.3	29.3
EFD30	12.5	32.5	

A range of EFD cores and accessories having a flattened and lowered centre limb, suitable for low profile transformer designs within switch mode power supplies and dc to dc converters.

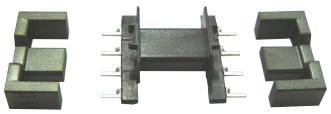
An assembly set consists of two half cores, a single section bobbin and two retaining clips.

Mftrs. List Nos	Order Code	Mftrs. List Nos	Order Code	Mftrs. List Nos	Order Code
B66413GX187	119-0582	B66418W1008D001	119-0586	B66422W1010D001	119-0589
B66414W1008D1	119-0583	B66418B2000X000	119-0587	B66422B2000X000	119-0590
B66414B2000	119-0584	B66421G0000X187	119-0588	B66423GX187	119-0591
B66417G0000X187	119-0585	B66421U0160K187	178-1887	B66424W1012D1	119-0592
B66417U0100K187	178-1885	B66421U0250K187	178-1888	B66424B2000	119-0594
B66417U0160K187	178-1886	B66421U0315K187	178-1889		

223900

	Order Code	Price Each
EFD15		
Half core	**119-0582**	
Bobbin, 8pin	**119-0583**	
Retaining clip	**119-0584**	
EFD20		
Half core	**119-0585**	
Half core Gapped	NEW **178-1885**	
Half core Gapped	NEW **178-1886**	
Bobbin, 8pin	**119-0586**	
Retaining clip	**119-0587**	
EFD25		
Half core	**119-0588**	
Half core Gapped	NEW **178-1887**	
Half core Gapped	NEW **178-1888**	
Half core Gapped	NEW **178-1889**	
Bobbin, 10pin	**119-0589**	
Retaining clip	**119-0590**	
EFD30		
Half core	**119-0591**	
Bobbin, 12pin	**119-0592**	
Retaining clip	**119-0594**	

EFD Cores and Accessories



	H	W	D
EFD15	7.5	15	4.65
EFD20	10	20	6.65
EFD25	12.5	25	9.1
EFD30	15	30	9.1

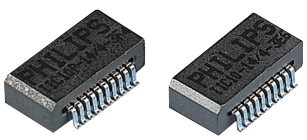
Transformer Half Core	Material Grade	AL +30% -20%	Mftrs. List No.	Order Code
EFD15	N97	820	B66413GX197	142-2726
EFD20	N97	1250	B66417G0000X197	142-2729
EFD25	N97	2100	B66421G0000X197	142-2731
EFD30	N97	2150	B66423GX197	142-2732
Coilformer				
EFD15			B66414B6008T1	142-2727
EFD20			B66418W1008D001	119-0586
EFD25			B66422W1010D001	119-0589
EFD30			B66424W1012D1	119-0592

479820

		Order Code	Price Each
EFD15			
Half core	N97	**142-2726**	
Coilformer	One section 8 pin	**142-2727**	
Retaining clip		**119-0584**	
EFD20			
Half core	N97	**142-2729**	
Coilformer	One section 8 pin	**119-0586**	
Retaining clip		**119-0587**	
EFD25			
Half core	N97	**142-2731**	
Coilformer	One section 10 pin	**119-0589**	
Retaining clip		**119-0590**	
EFD30			
Half core	N97	**142-2732**	
Coilformer	One section 12 pin	**119-0592**	
Retaining clip		**119-0594**	

Ferrite Transformers - Ferroxcube

Integrated Inductive Components - IIC



- Surface mount component comparable in size to standard integrated circuits
- Windings are completed by PCB tracks
- Wide range of magnetic functions can be realised with the same product, depending on layout
- Available with or without airgap

Applications for IIC without Airgap include:
Power transformer
Signal transformer
Common-mode choke

Applications for IIC with Airgap include:
Power inductors
Output Choke
EMI-choke with bias

Operating temperature:	-55°C to +150°C	Reel quantity:	1000 pieces

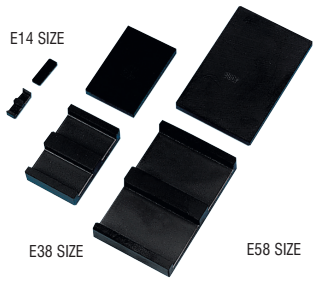
Mftrs. List No.	Order Code	Mftrs. List No.	Order Code
IIC10-14/4-3F4-Z	305-6776	IIC10P-14/4-3F4-Z	305-6764
IIC10-14/4-3S4	305-6788		

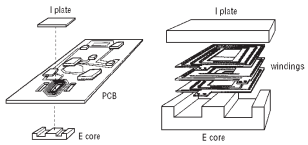
223851

With Partial Airgap	Material Grade	Order Code	Price Each
IIC10P-14/4	3F4	**305-6764**	
Without Airgap			
IIC10-14/4	3S4	**305-6788**	

Planar Cores

FERROXCUBE





- A range of low profile ferrite E cores which can be used in 2 ways:
  1. The integrated method uses windings which are etched into a multi-layer PCB i.e. the coils are an integral part of the PCB
  2. The stand alone method uses coils etched onto mono layer PCB's which are then stacked between the planar cores
- Transformer and choke designs with power throughput from 10 to 1500 Watts achievable
- E cores can be glued to their mating parts, or sizes E14, E18 and E22 can be clipped together using spring clips
- Planar advantages include: very low profile, less skin effect with flat conductors, good coupling of stacked coils, no bobbin necessary, no winding labour costs, no winding errors and excellent repeatability
- Mftrs. List No. gives EW/H/D-material for E cores and PLTW/D/H/-material for I plates

223917

Mftrs. List No.		Order Code	Price Each
E14 Core Size			
E Core	E14/3.5/5/R-3F3	**926-462**	
I Plate	PLT14/5/1.5/S-3F3	**926-474**	
E Core	E14/3.5/5/R-3C90	**305-5966**	
I Plate	PLT14/5/1.5/S-3C90	**305-5978**	
E Core	E14/3.5/5/R-3F4	**305-5980**	
I Plate	PLT14/5/1.5/S-3F4	**305-5991**	
Clip	CLM-E14/PLT14	**926-486**	
E18 Core Size			
E Core	E18/4/10/R-3F3	**926-498**	
I Plate	PLT18/10/2/S-3F3	**926-504**	
E Core	E18/4/10/R-3C90	**305-6004**	
I Plate	PLT18/10/2/S-3C90	**305-6016**	
E Core	E18/4/10/R-3F4	**305-6028**	
I Plate	PLT18/10/2/S-3F4	**305-6030**	
Clip	CLM-E18/PLT18	**926-516**	
E22 Core Size			
E Core	E22/6/16/R-3F3	**926-528**	
I Plate	PLT22/16/2.5/S-3F3	**926-530**	
E Core	E22/6/16/R-3C90	**305-6041**	
I Plate	PLT22/16/2.5/S-3C90	**305-6053**	
E Core	E22/6/16/R-3F4	**305-6065**	
I Plate	PLT22/16/2.5/S-3F4	**305-6077**	
Clip	CLM-E22/PLT22	**926-541**	
E32 Core Size			
E Core	E32/6/20-3F3	**926-577**	
I Plate	PLT32/20/3.2-3F3	**926-589**	
E Core	E32/6/20-3C90	**305-6089**	
I Plate	PLT32/20/3.2-3C90	**305-6090**	
E Core	E32/6/20-3F4	**305-6107**	
I Plate	PLT32/20/3.2-3F4	**305-6119**	
E38 Core Size			
E Core	E38/8/25-3F3	**926-619**	
I Plate	PLT38/25/3.8-3F3	**926-620**	
E Core	E38/8/25-3C90	**305-6144**	
I Plate	PLT38/25/3.8-3C90	**305-6156**	
E Core	E38/8/25-3F4	**305-6120**	
I Plate	PLT38/25/3.8-3F4	**305-6132**	
E43 Core Size			
E Core	E43/10/28-3F3	**926-656**	
I Plate	PLT43/28/4.1-3F3	**926-668**	
E Core	E43/10/28-3C90	**305-6168**	
E58 Core Size			
E Core	E58/11/38-3F3	**926-693**	
I Plate	PLT58/38/4-3F3	**926-700**	
E64 Core Size			
E Core	E64/10/50/50-3C90	**305-6247**	
I Plate	PLT64/50/5.1-3C90	**305-6259**	
I Plate		**305-6296**	

EFD Cores and Accessories, Surface Mount

FERROXCUBE

SMD

Material Grade 3F3, 3F4 and 3C90

A range of cores and bobbins offering a combination of very low build height and high throughput power densities. Applications include dc-dc converters, switch mode power supplies and other power conversion circuits. 3F3 is a material for designs up to 1MHz 3F4 is recommended for designs up to 3MHz, such as resonant converters. 3C90 is recommended for designs up to 200kHz, such as general purpose transformers.

	EFD10			EFD15		
	H	W	D	H	W	D
Half core	2.7	10.5	5.2	4.65	15	7.5
Bobbin	5.4	11.7	14.7	7.5	16.7	

Note: The most favoured method of fixing the half cores together is by adhesive bonding.

Mftrs. List Nos	Order Code	Mftrs. List Nos	Order Code	Mftrs. List Nos	Order Code
EFD10-3F3-S	482-602	CLM-EFD10	310-2427	EFD12-3C90-S	310-2397
EFD10-3F4-S	482-614	EFD12-3F3-S	482-638	CLM-EFD12	310-2439
CPHS-EFD10/3-1S-8P	482-626				

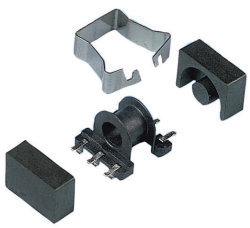
An assembly set is a full core, bobbin and one clamp

223881

EF10	Core Grade	Order Code	Price Each
Full core	3F3	SMD **482-602**	
Full core	3F4	SMD **482-614**	
Bobbin, 8 pin		SMD **482-626**	
Steel Clamp		SMD **310-2427**	
EFD12			
Full core	3F3	SMD **482-638**	
Full core	3C90	SMD **310-2397**	
Steel Clamp		SMD **310-2439**	

EP Cores and Accessories

FERROXCUBE



- Suitable for wideband transformer applications
- High pcb packing densities
- Design provides excellent magnetic shielding from adjacent cores

	H	W	D
EP7	6.5	7.5	6.5
EP10	7.6	11.5	10.2
EP13	9	12.8	13

3 Mftrs. List Nos	Order Code	3 Mftrs. List Nos	Order Code
EP7-3C90	305-6727	CSH-EP10-1S-8P	307-2551
EP7-3E6	305-6739	CLI-EP10	307-2563
EP7-3F3	305-6740	EP13-3C90	305-6697
CSH-EP7-1S-6P-B	116-2321	EP13-3E6	305-6703
CLI-EP7	307-2605	EP13-3F3	305-6715
EP10-3E6	305-6673	CSH-EP13-1S-10P	307-2575
EP10-3F3	305-6685	CLI-EP13	307-2587

An assembly set consists of a full core, bobbin and one clip.

223850

EP7	Material Grade	Order Code	Price Each
Full Core	3C90	**305-6727**	
Full Core	3E6	**305-6739**	
Full Core	3F3	**305-6740**	
Bobbin	Single Section 6 pin	**116-2321**	
Clip		**307-2605**	

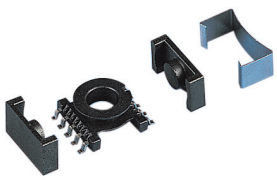
Ferrite Transformers - Ferroxcube - continued

EP Cores and Accessories - continued

	Material Grade	Order Code	Price Each
EP10			
Full Core	3E6	**305-6673**	
Full Core	3F3	**305-6685**	
Bobbin	Single Section 8 pin	**307-2551**	
Clip		**307-2563**	
EP13			
Full Core	3C90	**305-6697**	
Full Core	3E6	**305-6703**	
Full Core	3F3	**305-6715**	
Bobbin	Single Section	**307-2575**	
Clip		**307-2587**	

ER Cores and Accessories

FERROXCUBE



- Suitable for power and signal transformers
- Design provides low copper losses
- Surface mount bobbins

SMD

	Per Half Core H	W	D	Bobbin H	W	D
ER9.5	2.45	9.5	5.0	4.4	11.7	8.6
ER11	2.45	11.0		4.4	12.35	10.6

Mftrs. List No.	Order Code	Mftrs. List No.	Order Code
ER9.5-3E5-S	305-7033	ER11-3E5-S	305-7057
ER9.5-3F3-S	305-7045	ER11-3F3-S	305-7069
CPVS-ER95-1S-8P	116-2322	CPVS-ER11-1S-10P	116-2323
CLM-ER95	307-2629	CLM-ER11	307-2642

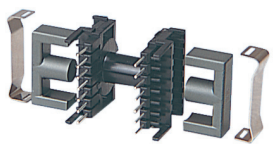
223852

	Material Grade	Order Code	Price Each
ER9.5			
Full Core	3E5	SMD **305-7033**	
Full Core	3F3	SMD **305-7045**	
Bobbin	**Single Section**		
	8 pin	SMD **116-2322**	
Clamp		SMD **307-2629**	
ER11			
Full Core	3E5	SMD **305-7057**	
Full Core	3F3	**305-7069**	
Bobbin	**Single Section**		
	10 pin	SMD **116-2323**	
Clamp		SMD **307-2642**	

Ferroxcube ETD Cores and Accessories

FERROXCUBE

Material Grade 3C90



A range of ungapped E cores suitable for power application where a high operating flux density and low total core-loss is required. 3C90 is a low loss, medium frequency ferrite for applications up to 200kHz, such as switched mode power supplies and inverters. Two cores, one bobbin and two stainless steel clips are required to make up a transformer.

Note: New design of bobbin has square pins instead of round and is 2-3mm lower in height but functionally is identical

Mftrs. List Nos	Order Code	Mftrs. List Nos	Order Code	Mftrs. List Nos	Order Code
ETD29/16/10-3C90	305-6375	CPH-ETD39-1S-16P	305-6314	CLI-ETD49	105-778
CPH-ETD29-1S-13P	178-506	CLI-ETD39	105-772	ETD54/28/19-3C90	305-6429
CLI-ETD29	178-507	ETD44/22/15-3C90	305-6405	CPH-ETD54-1S-22P	137-029
ETD34/17/11-3C90	305-6387	CPH-ETD44-1S-18P	305-6326	CLI-ETD54	137-030
CPH-ETD34-1S-14P	305-6302	CLI-ETD44	105-775	ETD59/31/22-3C90	305-6430
CLI-ETD34	105-769	ETD49/25/16-3C90	305-6417	CPH-ETD59-1S-24P	137-054
ETD39/20/13-3C90	305-6399	CPH-ETD49-1S-20P	305-6338	CLI-ETD59	137-066

223879

	Dimensions W	L	D	Order Code	Price Each
ETD29					
Half core	29	16	10	**305-6375**	
Bobbin	One section 13 pin			**178-506**	
Steel clip				**178-507**	
ETD34					
Half core	35	17	11	**305-6387**	
Bobbin	One section 14 pin			**305-6302**	
Steel clip				**105-769**	
ETD39					
Half core	39	20	12	**305-6399**	
Bobbin	One section 16 pin			**305-6314**	
Steel clip				**105-772**	

	Dimensions W	L	D	Order Code	Price Each
ETD29					
ETD44					
Half core	44	22	15	**305-6405**	
Bobbin	One section 18 pin			**305-6326**	
Steel clip				**105-775**	
ETD49					
Half core	49	25	16	**305-6417**	
Bobbin	One section 20 pin			**305-6338**	
Steel clip				**105-778**	
ETD54					
Half core	54	28	19	**305-6429**	
Bobbin	One section 22 pin			**137-029**	
Steel clip				**137-030**	
ETD59					
Half core	59	31	22	**305-6430**	
Bobbin	One section 24 pin			**137-054**	
Steel clip				**137-066**	

Without Centre Hole

FERROXCUBE

Transformer **Full-Core**	Material Grade	AL±25% @ 4kHz @ 0.1mT	Mftrs. List No.	Order Code
RM4/I	3E5	—	RM4/I-3E5	136-920
RM5/I	3E5	—	RM5/I-3E5	136-943
RM5/I	3C90	—	RM5/I-3C90	305-6910
RM6-SI	3H3	—	RM6S/I-3H3	305-6879
RM6-SI	3E5	—	RM6S/I-3E5	305-6818
RM6-SI	3C90	—	RM6S/I-3C90	305-6820
RM7/I	3C90	—	RM7/I-3C90	312-3431
RM8/I	3C90	—	RM8/I-3C90	305-6831
RM8/I	3H3	—	RM8/I-3H3	305-6880
RM10/I	3E5	—	RM10/I-3E5	305-6909
RM10/I	3C90	—	RM10/I-3C90	305-6843
RM12/I	3C90	—	RM12/I-3C90	305-6855
RM14/I	3C90	—	RM14/I-3C90	305-6867

AL=Inductance Factor (nH)= L / N^2

223880

Transformer **Full-Core**	Order Code	Price Each
RM4/I	**136-920**	
RM5/I	**136-943**	
RM5/I	**305-6910**	
RM6-SI	**305-6879**	
RM6-SI	**305-6818**	
RM6-SI	**305-6820**	
RM7/I	**312-3431**	
RM8/I	**305-6831**	
RM8/I	**305-6880**	
RM10/I	**305-6909**	
RM10/I	**305-6843**	
RM12/I	**305-6855**	
RM14/I	**305-6867**	

Accessories for RM Transformer

FERROXCUBE

Mftrs. List No.	Order Code	Mftrs. List No.	Order Code	Mftrs. List No.	Order Code
CPVS-RM4-1S-6P	136-967	CSV-RM7/I-2S-8P	200-736	CSV-RM10-2S-8P	178-921
CLI-RM4/5/I	137-005	CSV-RM8-1S-4P	178-916	CLI/P-RM10/I	443-773
CSV-RM5-1S-6P-G	136-980	CSV-RM8-1S-8PL	178-917	CPV-RM12/I-1S-12PD	178-513
CLI-RM4/5/I	137-005	CLI/P-RM8/I	443-750	CLI/P-RM12/I	433-135
CLI/P-RM6/I	136-815	CSV-RM10-1S-5P	178-919	CSV-RM14-1S-12P	200-657
CSV-RM6S-1S-6P-G	312-3443	CSV-RM10-1S-8P	178-920	CLI/P-RM14/I	291-432

223873

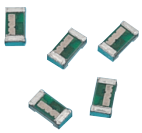
Core Size	Description	Order Code	Price Each
RM4	One section 6 pin bobbin	**136-967**	
	Retaining clip RM4/5	**137-005**	
RM5◆	One section 6 pin bobbin	**136-980**	
	Retaining clip RM4/5	**137-005**	
RM6-R	Retaining clip + earth tag	**136-815**	
RM-S◆	One section 6 pin bobbin	**312-3443**	
RM7	One section 8 pin bobbin	**200-736**	
RM8	One section 4 pin bobbin	**178-916**	
	One section 8 pin bobbin	**178-917**	
	Retaining clip + earth tag	**443-750**	
RM10	One section 5 pin bobbin	**178-919**	
	One section 8 pin bobbin	**178-920**	
	Two section 8 pin bobbin	**178-921**	
	Retaining clip + earth tag	**443-773**	
RM12	One section 12 pin bobbin	**178-513**	
	Retaining clip + earth tag	**433-135**	
RM14	One section 12 pin bobbin	**200-657**	
	Retaining clip + earth tag (RM14/i only)	**291-432**	

◆**Note:-** Retaining clip + earth tag is common to RM6-R and RM6-S transformers

Inductors - SMD Chip - Multicomp

Thin Film Inductors

0402 & 0603 Case Sizes



	H	W	D
0402	0.32	1	0.5 mm
0603	0.45	1.6	0.8 mm

- Thin film technology surface mount RF inductors
- 0402 and 0603 case sizes
- Photolithographic single layer ceramic chip
- High SRF, excellent Q, superior temperature stability
- Tight tolerance of ± 1% or ± 0.1nH
- Stable inductance in high frequency circuit
- Highly stable design for critical needs

Inductance (nH)	Tolerance	Q Min.	Resonant Freq. (GHz)	DC Res. (Ω)	Current Max. (mA)	Mftrs. List No.	Order Code
0402 Case Size							
1	± 0.1nH	13	12	0.15	700	MCFT000000	171-1705
1.5	± 0.1nH	13	10	0.25	700	MCFT000001	171-1706
2.2	± 0.1nH	13	8	0.35	440	MCFT000002	171-1707
3.3	± 0.1nH	13	6	0.45	380	MCFT000003	171-1708
4.7	± 0.1nH	13	6	0.65	320	MCFT000004	171-1709
6.8	± 0.1nH	13	6	1.05	260	MCFT000005	171-1710
8.2	± 0.1nH	13	5.5	1.25	220	MCFT000006	171-1711
10	± 1%	13	4.5	1.35	200	MCFT000007	171-1712
15	± 1%	13	3.3	1.75	130	MCFT000008	171-1713
22	± 1%	13	2.8	2.65	90	MCFT000009	171-1715
0603 Case Size							
1	± 0.1nH	15	13	0.35	800	MCFT000011	171-1717
1.5	± 0.1nH	15	10	0.35	800	MCFT000012	171-1718
2.2	± 0.1nH	15	8	0.35	300	MCFT000013	171-1719
3.3	± 0.1nH	15	6	0.45	300	MCFT000014	171-1720
4.7	± 0.1nH	15	5	0.55	300	MCFT000015	171-1721
6.8	± 0.1nH	15	5	0.75	300	MCFT000016	171-1722
10	± 1%	15	4	0.95	300	MCFT000017	171-1723
15	± 1%	15	3	1.35	300	MCFT000018	171-1724
22	± 1%	15	2	1.95	250	MCFT000019	171-1725
33	± 1%	15	1.5	2.75	250	MCFT000020	171-1727
47	± 1%	15	1.5	3	200	MCFT000021	171-1728
68	± 1%	15	1	5	150	MCFT000022	171-1729

536017

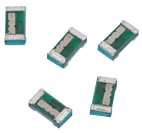
Price Each

Case Size	Order Code	
0402	**All Values** ● RL	
0603	**All Values** ● RL	

RL **FREE Re-reeling service.** Only buy what you need and improve assembly efficiency. For more information visit **local website**

Multilayer Ceramic Inductors

0402 & 0603 Case Sizes



	H	W	D
0402	0.5	1	0.5 mm
0603	0.8	1.6	0.8 mm

- A ceramic material construction for high frequency application up to 10GHz
- Tight inductance tolerance and excellent Q value
- Available in three compact sizes of 0402, 0603, 0805

Inductance (nH)	Tolerance	Q Typ.	Resonant Freq. (GHz)	DC Res. (Ω)	Current Max. (mA)	Mftrs. List No.	Order Code
0402 Case Size							
1	± 0.3nH	33	10	0.12	300	MCFT000024	171-1731
1.5	± 0.3nH	29	6	0.13	300	MCFT000025	171-1732
2.2	± 0.3nH	26	6	0.16	300	MCFT000026	171-1733
3.3	± 0.3nH	28	6	0.19	300	MCFT000027	171-1734
4.7	± 0.3nH	28	4	0.24	300	MCFT000028	171-1735
6.8	± 5%	26	3.9	0.32	300	MCFT000029	171-1736
10	± 5%	25	3.2	0.42	300	MCFT000030	171-1737
15	± 5%	24	2.3	0.55	300	MCFT000031	171-1739
22	± 5%	24	1.6	0.8	300	MCFT000032	171-1741
33	± 5%	23	1.2	1	200	MCFT000033	171-1742
47	± 5%	21	0.9	1.3	150	MCFT000034	171-1743
68	± 5%	19	0.75	2.2	100	MCFT000035	171-1744
100	± 5%	18	0.6	2.5	100	MCFT000036	171-1745
0603 Case Size							
1	± 0.3nH	36	6	0.1	500	MCFT000037	171-1746
1.5	± 0.3nH	34	6	0.1	500	MCFT000038	171-1747
2.2	± 0.3nH	38	6	0.1	500	MCFT000039	171-1748
3.3	± 0.3nH	40	6	0.13	500	MCFT000040	171-1749
4.7	± 0.3nH	37	4	0.2	500	MCFT000041	171-1750
6.8	± 5%	37	3.75	0.25	500	MCFT000042	171-1752
10	± 5%	37	3	0.3	300	MCFT000043	171-1753
15	± 5%	38	2.3	0.4	300	MCFT000044	171-1754
22	± 5%	40	1.6	0.5	300	MCFT000045	171-1755
33	± 5%	40	1.2	0.6	300	MCFT000046	171-1756
47	± 5%	36	0.9	0.7	300	MCFT000047	171-1757
68	± 5%	35	0.7	0.85	300	MCFT000048	171-1758
100	± 5%	28	0.6	1.2	300	MCFT000049	171-1759

536018

Price Each

Case Size	Order Code	
0402	**All Values** ● RL	
0603	**All Values** ● RL	

Wound Ferrite Chip

0805, 1008, 1210 & 1812 Case Sizes

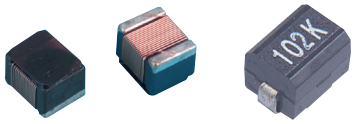


Fig. 1 Fig. 2

	H	W	D
0805 (Fig 1.)	1.45	2.29	1.71 mm
1008 (Fig 1.)	2.1	2.92	2.79 mm
1210 (Fig 2.)	2.5	3.5	2.8 mm
1812 (Fig 2.)	3.5	4.8	3.5 mm

- Very strong solderability by flow soldering, soldering iron or wave soldering.
- Terminals are highly resistant to pull forces.
- Highly resistant to mechanical shocks and pressure.
- Highly reliable in environments of sudden temperature change and humidity. Super Q characteristics.

Inductance (µH)	Tolerance	Q min.	Resonant Freq. (MHz)	DC Res. (Ω)	Current Max. (mA)	Mftrs. List No.	Order Code
0805 Case Size							
0.15	± 5%	20	900	0.18	1100	MCFT000152	171-1874
0.22	± 5%	20	550	0.25	700	MCFT000153	171-1875
0.33	± 5%	20	550	0.35	650	MCFT000154	171-1876
0.47	± 5%	20	350	0.45	600	MCFT000155	171-1877
0.68	± 5%	20	300	0.6	500	MCFT000156	171-1879
1	± 5%	15	280	0.8	450	MCFT000157	171-1881
1.5	± 5%	15	250	1.05	350	MCFT000158	171-1882
2.2	± 5%	15	110	1.1	320	MCFT000159	171-1883
3.3	± 5%	15	60	1.5	300	MCFT000160	171-1884
4.7	± 5%	15	45	2.1	200	MCFT000161	171-1885
6.8	± 5%	15	36	2.7	200	MCFT000162	171-1886
10	± 5%	10	30	4.5	180	MCFT000163	171-1887
1008 Case Size							
0.15	± 5%	30	800	0.15	1200	MCFT000164	171-1888
0.22	± 5%	30	600	0.25	1200	MCFT000165	171-1889
0.33	± 5%	30	400	0.2	1100	MCFT000166	171-1890
0.47	± 5%	30	350	0.45	900	MCFT000167	171-1892
0.68	± 5%	30	300	0.4	800	MCFT000168	171-1893
1	± 5%	25	245	0.5	600	MCFT000169	171-1894
1.5	± 5%	25	182	0.65	550	MCFT000170	171-1895
2.2	± 5%	25	105	0.95	500	MCFT000171	171-1896
3.3	± 5%	25	55	1.15	350	MCFT000172	171-1897
4.7	± 5%	25	43	1.28	300	MCFT000173	171-1898
6.8	± 5%	25	39	1.6	300	MCFT000174	171-1899
10	± 5%	20	33	2.3	250	MCFT000175	171-1900
15	± 5%	20	24	2.7	200	MCFT000176	171-1901
22	± 5%	20	18	3.3	180	MCFT000177	171-1902
33	± 5%	20	16	4	120	MCFT000178	171-1903
47	± 5%	18	14	5.9	110	MCFT000179	171-1904
68	± 5%	18	12	9.5	90	MCFT000180	171-1905
100	± 5%	12	8	11	120	MCFT000181	171-1906
1210 Case Size							
1	± 10%	30	120	0.7	400	MCFT000182	171-1907
1.5	± 10%	30	85	0.85	370	MCFT000183	171-1909
2.2	± 10%	30	75	1	320	MCFT000184	171-1911
3.3	± 10%	30	60	1.2	260	MCFT000185	171-1912
4.7	± 10%	30	50	1.5	220	MCFT000186	171-1913
6.8	± 10%	30	40	1.8	180	MCFT000187	171-1914
10	± 10%	30	30	2.1	150	MCFT000188	171-1915
15	± 10%	30	20	2.8	130	MCFT000189	171-1916
22	± 10%	30	20	3.7	110	MCFT000190	171-1917
33	± 10%	30	17	5.6	70	MCFT000191	171-1918
47	± 10%	30	15	7	60	MCFT000192	171-1919
68	± 10%	30	12	9	50	MCFT000193	171-1920
100	± 10%	20	10	10	40	MCFT000194	171-1922
150	± 10%	20	8	15	65	MCFT000195	171-1923
220	± 10%	20	7	21	50	MCFT000196	171-1924
1812 Case Size							
1	± 10%	50	100	0.5	450	MCFT000197	171-1925
1.5	± 10%	50	70	0.6	410	MCFT000198	171-1926
2.2	± 10%	50	55	0.7	380	MCFT000199	171-1927
3.3	± 10%	50	45	0.8	355	MCFT000200	171-1928
4.7	± 10%	50	35	1	315	MCFT000201	171-1929
6.8	± 10%	50	27	1.2	285	MCFT000202	171-1930
10	± 10%	50	20	1.6	250	MCFT000203	171-1931
15	± 10%	50	17	2.5	200	MCFT000204	171-1932
22	± 10%	50	13	3.2	180	MCFT000205	171-1934
33	± 10%	50	11	4	160	MCFT000206	171-1935
47	± 10%	50	10	5	140	MCFT000207	171-1936
68	± 10%	50	9	6	130	MCFT000208	171-1937
100	± 10%	40	8	8	110	MCFT000209	171-1938
150	± 10%	40	5	9	105	MCFT000210	171-1939
220	± 10%	40	4	10	100	MCFT000211	171-1940
330	± 10%	30	3.5	15	85	MCFT000212	171-1941
470	± 10%	30	3	26	62	MCFT000213	171-1942
680	± 10%	30	3	30	50	MCFT000214	171-1943

536020

Price Each

Case Size	Order Code	
0805	**All Values** ● RL	

Inductors - SMD Chip - Multicomp - continued

Wound Ferrite Chip - continued

0805, 1008, 1210 & 1812 Case Sizes - continued

Case Size	Order Code	Price Each
1008	All Values ● RL	
1210	All Values ● RL	
1812	All Values ● RL	

Wire Wound Chip

0402, 0603, 0805 & 1206 Case Sizes

multicomp SMD New

	H	W	D
0402	0.61	1.27	0.76 mm
0603	1.02	1.8	1.12 mm
0805	1.52	2.29	1.73 mm
0805 Low Profile	1.03	2.29	1.73 mm
1206	1.52	3.56	2.16 mm

- Wire wound ceramic construction provide high SRF
- Ultra-compact inductors provide exceptional Q values
- Low profile, high current are available
- Miniature SMD chip inductor for fully automated assembly
- Tighter tolerance down to ±2%

Inductance (nH)	Tolerance	Q min.	Resonant Freq. (GHz)	DC Res. (Ω)	Current Max. (mA)	Mftrs. List No.	Order Code
0402 Case Size							
1	± 10%	16	12.7	0.045	1360	MCFT000063	171-1774
2.2	± 0.3nH	19	10.8	0.07	960	MCFT000064	171-1776
3.3	± 0.3nH	19	7	0.066	840	MCFT000065	171-1777
4.7	± 0.3nH	18	4.7	0.13	640	MCFT000066	171-1778
6.8	± 5%	20	4.8	0.083	680	MCFT000067	171-1779
10	± 5%	21	3.9	0.195	480	MCFT000068	171-1780
12	± 5%	24	3.6	0.12	640	MCFT000069	171-1781
15	± 5%	24	3.28	0.172	560	MCFT000070	171-1782
18	± 5%	25	3.1	0.23	420	MCFT000071	171-1783
22	± 5%	25	2.8	0.3	400	MCFT000072	171-1784
27	± 5%	24	2.48	0.3	400	MCFT000073	171-1785
33	± 5%	24	2.35	0.35	400	MCFT000074	171-1786
39	± 5%	25	2.1	0.55	200	MCFT000075	171-1788
47	± 5%	25	2.1	0.83	150	MCFT000076	171-1789
56	± 5%	25	1.76	0.97	100	MCFT000077	171-1790
68	± 5%	22	1.62	1.12	100	MCFT000078	171-1791
0603 Case Size							
2.2	± 5%	15	6	0.1	700	MCFT000079	171-1792
3.3	± 5%	22	6	0.08	700	MCFT000080	171-1793
4.7	± 5%	25	5.8	0.12	700	MCFT000081	171-1794
6.8	± 5%	27	5.8	0.11	700	MCFT000082	171-1795
10	± 5%	31	4.8	0.13	700	MCFT000083	171-1796
12	± 5%	35	4	0.13	700	MCFT000084	171-1797
15	± 5%	35	4	0.17	700	MCFT000085	171-1798
18	± 5%	35	3.1	0.17	700	MCFT000086	171-1800
22	± 5%	38	3	0.19	700	MCFT000087	171-1801
27	± 5%	40	2.8	0.22	600	MCFT000088	171-1802
33	± 5%	40	2.3	0.22	600	MCFT000089	171-1803
39	± 5%	40	2.2	0.25	600	MCFT000090	171-1804
47	± 5%	38	2	0.28	600	MCFT000091	171-1806
56	± 5%	38	1.9	0.31	600	MCFT000092	171-1807
68	± 5%	37	1.7	0.34	600	MCFT000093	171-1808
82	± 5%	34	1.7	0.54	400	MCFT000094	171-1809
100	± 5%	34	1.4	0.58	400	MCFT000095	171-1810
120	± 5%	32	1.3	0.65	300	MCFT000096	171-1811
150	± 5%	28	1.3	0.95	280	MCFT000097	171-1812
180	± 5%	25	1.25	1.4	250	MCFT000098	171-1813
220	± 5%	25	1.2	1.6	250	MCFT000099	171-1814
270	± 5%	25	0.9	2.1	200	MCFT000100	171-1815
330	± 5%	25	0.9	3.8	100	MCFT000101	171-1816
390	± 5%	25	0.9	4.35	100	MCFT000102	171-1818
470	± 5%	23	0.6	3.6	80	MCFT000103	171-1819
0805 Case Size							
10	± 5%	60	4.2	0.1	600	MCFT000104	171-1820
12	± 5%	50	4	0.15	600	MCFT000105	171-1821
15	± 5%	50	3.4	0.17	600	MCFT000106	171-1822
18	± 5%	50	3.3	0.2	600	MCFT000107	171-1823
22	± 5%	55	2.6	0.22	500	MCFT000108	171-1824
27	± 5%	55	2.5	0.25	500	MCFT000109	171-1825
33	± 5%	60	2.05	0.27	500	MCFT000110	171-1826
39	± 5%	60	2	0.29	500	MCFT000111	171-1827
47	± 5%	60	1.65	0.31	500	MCFT000112	171-1828
56	± 5%	60	1.55	0.34	500	MCFT000113	171-1831
68	± 5%	60	1.45	0.38	500	MCFT000114	171-1832
82	± 5%	65	1.3	0.42	400	MCFT000115	171-1833
100	± 5%	65	1.2	0.46	400	MCFT000116	171-1834
120	± 5%	50	1.1	0.51	400	MCFT000117	171-1835
150	± 5%	50	0.92	0.56	400	MCFT000118	171-1836
180	± 5%	50	0.87	0.64	400	MCFT000119	171-1837
220	± 5%	50	0.86	0.66	400	MCFT000120	171-1838
270	± 5%	48	0.65	1	350	MCFT000121	171-1839
330	± 5%	48	0.6	1.4	310	MCFT000122	171-1840
390	± 5%	48	0.56	1.5	290	MCFT000123	171-1841
470	± 5%	33	0.375	1.7	250	MCFT000124	171-1843
560	± 5%	23	0.34	1.9	230	MCFT000125	171-1844
680	± 5%	23	0.2	2.2	190	MCFT000126	171-1845
820	± 5%	23	0.2	2.35	180	MCFT000127	171-1846
1000	± 5%	23	0.2	2.5	170	MCFT000128	171-1847
1500	± 5%	16	0.1	2.5	170	MCFT000129	171-1848
2200	± 5%	16	0.06	2.7	160	MCFT000130	171-1849
3300	± 5%	15	0.04	4.4	90	MCFT000131	171-1850
4700	± 5%	15	0.04	6.4	90	MCFT000132	171-1851
0805 Case Size (Low Profile)							
10	± 5%	55	3.3	0.08	800	MCFT000133	171-1852
15	± 5%	50	2.95	0.1	800	MCFT000134	171-1853
22	± 5%	50	2.9	0.15	800	MCFT000135	171-1855
33	± 5%	50	2.35	0.28	600	MCFT000136	171-1856
47	± 5%	50	2	0.39	600	MCFT000137	171-1857
68	± 5%	50	1.5	0.4	500	MCFT000138	171-1858
100	± 5%	50	1.2	0.64	400	MCFT000139	171-1859
1206 Case Size							
10	± 5%	40	4	0.08	1000	MCFT000140	171-1860
15	± 5%	40	3.2	0.1	1000	MCFT000141	171-1861
22	± 5%	50	2.2	0.1	1000	MCFT000142	171-1862
33	± 5%	55	1.8	0.11	1000	MCFT000143	171-1863
47	± 5%	55	1.5	0.13	1000	MCFT000144	171-1864
68	± 5%	55	1.2	0.26	950	MCFT000145	171-1865
150	± 5%	60	0.95	0.31	750	MCFT000146	171-1867
220	± 5%	55	0.76	0.5	670	MCFT000147	171-1868
330	± 5%	45	0.65	0.62	590	MCFT000148	171-1869
470	± 5%	45	0.55	1.3	490	MCFT000149	171-1870
680	± 5%	45	0.45	1.58	430	MCFT000150	171-1871
1000	± 5%	45	0.4	2.8	320	MCFT000151	171-1872

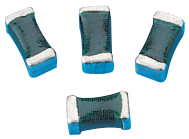
536019

Case Size	Order Code	Price Each
0402	All Values ● RL	
0603	All Values ● RL	
0805	All Values ● RL	
0805 (Low Profile)	All Values ● RL	
1206	All Values ● RL	

SIMID 0603 Series

0603 Case Size

EPCOS



- Ceramic cored SMD inductors in 0603 size case
- Same frequency of measure for L and Q values
- Suitable for IR, vapour phase and wave soldering
- Tolerance ±0.3nH up to 3.3nH and 5% above
- Climatic category 40/085/56
- Supplied on 8mm embossed tape

H=0.8, W=1.6, D=0.8

nH	Max. (Ω)	Current mA	(min)	Frequency MHz	Frequency MHz	Order Code
SIMID 0603C Series 0603 Case Size						
1.2	0.06	1800	7	100	6000	387-6949
1.5	0.07	1500	8	100	6000	387-6950
1.8	0.08	1500	8	100	6000	387-6962
3.3	0.12	1200	9	100	5500	387-6986
4.7	0.17	800	9	100	4800	387-6998
5.6	0.18	700	9	100	4600	387-7000
6.8	0.2	700	9	100	3550	387-7012
10	0.32	600	10	100	2800	387-7024
15	0.41	420	10	100	2500	387-7036
22	0.5	380	10	100	2000	387-7048
47	0.95	270	11	100	1800	387-7061
100	1.8	200	12	100	1300	387-7085
150	4.5	130	5	25.2	1100	387-7097
180	6.5	120	4	25.2	1000	387-7103
220	7.5	110	4	25.2	900	387-7115

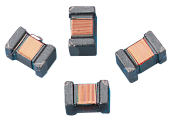
204164

Order Multiple=5

	Order Code	Price Each
SIMID 0603C Series	All Values ● RL	

SIMID 0805B Series

EPCOS



- Ceramic or ferrite cored inductors in 0805 package
- L and Q values measured at one frequency (fQ/fL)
- Suitable for IR, vapour phase and wave soldering
- Supplied on 8mm embossed tape

Tolerance ±5% Climatic category 55/125/56

H=1.6 W=2.2 D=14

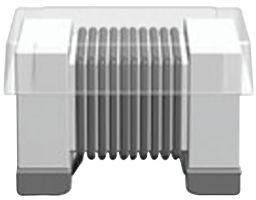
LN nH	Rmax Ω	Current mA	fQ/fL MHz	Frequency MHz	Q	Order Code
2.7	0.03	1000	250	6000	20	400-0341
6.8	0.05	800	250	5500	30	400-0353
8.2	0.06	700	250	5000	35	400-0365
10	0.06	700	250	4500	40	400-0377
12	0.06	700	250	4000	40	400-0389
15	0.07	670	250	3500	45	400-0390
18	0.07	670	250	3300	45	400-0407
22	0.09	600	250	2600	45	400-0419
33	0.12	520	250	2150	45	400-0420
39	0.1	560	250	2050	50	400-0432
47	0.13	500	200	1900	45	400-0444
68	0.19	410	200	1550	45	400-0456
82	0.21	390	150	1430	40	400-0468

LN	Rmax	Current	fQ/fL	Frequency		
100	0.26	350	150	1310	40	400-0470
120	0.44	270	150	1210	40	400-0481
150	0.44	270	100	1120	35	400-0493
180	0.47	260	100	1030	35	400-0500
220	0.55	240	100	950	35	400-0511
330	1	180	100	800	35	400-0523
390	1.9	130	100	730	35	400-0535
470	2.4	115	100	660	35	400-0547
680	0.5	250	25.2	450	20	400-0559
820	0.55	240	25.2	400	20	400-0560
1000	0.5	250	7.96	350	20	400-0572
1200	0.65	220	7.96	300	20	400-0584
1500	0.75	200	7.96	250	20	400-0596
1800	0.85	190	7.96	250	20	400-0602
2200	1.7	130	7.96	200	20	400-0614
3300	3.3	100	7.96	200	20	400-0626
3900	3.6	95	7.96	150	20	400-0638
4700	3.8	90	7.96	150	20	400-0640

204166

	Order Code	Price Each
SIMID 0805B Series	**All Values** ● RL	

SIMID 0805F Series



- Ceramic or ferrite cored inductors in 0805 package
- L and Q values measured at one frequency (fQ/fL)
- Suitable for IR, vapour phase and wave soldering
- Supplied on 8mm embossed tape

Tolerance ±10%
Climatic category 55/125/56

H=1.6 W=2.2 D=14

LN nH	Rmax Ω	Current mA	fQ/fL MHz	Frequency MHz	Q	Mftrs. List No.	Order Code
22	0.08	700	250	500	60	B82498F3220J	880-8120
33	0.11	600	250	500	65	B82498F3330J	880-8139
47	0.13	600	200	500	65	B82498F3470J	880-8147
100	0.28	450	150	500	55	B82498F3101J	880-8163
330	1.5	220	100	250	45	B82498F3331J	880-8180
470	1.9	190	50	100	30	B82498F3471J	880-8198
1000	0.5	250	7.96	7.96	15	B82498F1102J	880-8210
4700	3.8	90	7.96	7.96	15	B82498F1472J	880-8244

386500

Order Multiple=5 **Price Each**

	Order Code
SIMID 0805-F Series	**All Values** ● RL

RL **FREE Re-reeling service.** Only buy what you need and improve assembly efficiency. For more information visit **local website**

SIMID 1008, 1812, 1210 & 2220 Series

SIMID 1008 case size H=1.6, W=2.5, D=2

SIMID 1812 case size H=3.2, W=4.5, D=3.2

SIMID 2220 case size H=5, W=5.6, D=5

SIMID 1210A case size H=1.9, W=3.2, D=2.5

- Miniature, encapsulated ferrite and ceramic cored chip inductors sizes
- Suitable for wave and reflow soldering.
- SIMID 2220, 1812 and 1210A series are supplied on 12mm embossed tape in accordance with **IEC286 PT3**
- SIMID 1008 series are supplied on 8mm embossed tape in accordance with **EIAJ-RC-1009B**.
- The inductance value is clearly marked on each component body.

Inductance µH	Inductance Tolerance %	DC Resistance Max. Ω	Max. dc Current mA	Q factor Min	Test Frequency (MHz)	Self Res Frequency MHz	Order Code
SIMID 1008 Series 1008 Case Size							
2.2	20	1.05	155	25	7.96	80	200-517
SIMID 1812A series 1812 Case Size							
10	10	0.98	320	45	2.52	22	200-360
22	10	1.45	260	45	2.52	13	200-384
33	10	1.85	230	45	2.52	10.5	200-396
47	10	2.3	210	40	2.52	9.5	200-402
68	10	2.8	190	40	2.52	8	200-414
100	10	4.7	145	40	2.52	6.5	200-426
220	10	7.5	115	30	0.796	4.6	200-440
470	10	17.5	75	35	0.796	3.5	200-463
680	10	25	65	30	0.796	2.6	200-475
1000	10	31	55	30	0.796	2.3	200-487
SIMID 1812T series High Current 1812 Case Size							
1	10	0.08	1300	10	7.96	110	880-8406
3.3	10	0.19	900	10	7.96	50	880-8422
4.7	10	0.22	800	10	7.96	40	880-8430
10	10	0.35	650	10	2.52	25	880-8449
15	10	0.5	600	10	2.52	20	880-8457
22	10	0.7	450	10	2.52	15	880-8465
33	10	1.2	400	10	2.52	13	880-8473
47	10	1.35	350	10	2.52	11	880-8481
100	10	3.5	200	20	0.796	6.5	880-8503
220	10	7.5	130	20	0.796	4.5	880-8520
1000	10	30	70	20	0.252	2.3	880-8570

Inductance µH	Inductance Tolerance %	DC Resistance Max. Ω	Max. dc Current mA	Q factor Min	Test Frequency (MHz)	Self Res Frequency MHz	Order Code
SIMID 1210A Series 1210 Case size							
0.22	10	0.64	280	20	30	700	608-257
0.68	10	2.7	140	20	30	400	608-282
1	10	0.34	380	20	7.96	320	608-294
1.5	10	0.42	340	20	7.96	270	608-300
2.2	10	0.75	270	25	7.96	230	608-312
4.7	10	2.2	150	25	7.96	145	608-336
6.8	10	2.8	135	25	7.96	115	608-348
10	10	1.6	180	25	2.52	21	608-350
15	10	1.8	165	25	2.52	17.5	608-361
22	10	2.5	145	25	2.52	14	608-373
33	10	4.4	110	25	2.52	11.5	608-385
47	10	7	85	25	2.52	8	608-397
68	10	7.7	80	25	2.52	7.5	608-403
100	10	11.5	65	20	2.52	6	608-415
SIMID 1210T Series 1210 Case size							
0.1	10	0.31	450	28	100	900	387-7127
0.22	10	0.23	450	30	25.2	500	387-7140
0.47	10	0.34	450	30	25.2	300	387-7164
1	10	0.6	400	30	7.96	300	387-7190
2.2	10	0.8	320	30	7.96	100	387-7206
3.3	10	1.2	260	30	7.96	60	387-7218
4.7	10	1.5	220	30	7.96	50	387-7220
10	10	2.1	150	27	2.52	30	387-7231
22	10	3.5	110	27	2.52	20	387-7243
33	10	5.6	70	27	2.52	17	387-7255
47	10	7	60	27	2.52	15	387-7267
68	10	9	60	27	2.52	9	387-7279
100	10	11	60	20	7.96	8	387-7280
330	10	34	40	20	7.96	4	387-7346
SIMID 2220 Series 2220 Case Size							
1	10	0.03	1800	10	7.96	95	870-092
2.2	10	0.048	1300	10	7.96	42	158-720
3.3	10	0.08	1120	10	7.96	34	870-109
4.7	10	0.088	950	10	7.96	29	158-732
6.8	10	0.12	810	10	7.96	24	158-744
10	10	0.21	690	10	2.52	19	870-110
22	10	0.35	480	10	2.52	13	158-768
33	10	0.62	400	10	2.52	10.5	870-122
47	10	0.68	340	10	2.52	8.5	158-770
68	10	0.96	290	10	2.52	7	158-781
100	10	1.6	250	20	0.796	6	870-134
220	10	2.72	170	20	0.796	3.9	158-800
330	10	3.92	140	20	0.796	3.2	158-811
470	10	5.6	120	20	0.796	2.6	158-823
1000	10	12	85	30	0.252	1.8	158-847
1500	10	16	70	30	0.252	1.4	158-859
2200	10	28	55	30	0.252	1.2	158-860
4700	10	62.4	36	30	0.252	0.9	158-872
10000	10	120	25	30	0.0796	0.5	158-884
SIMID 2220H series High Current 2220 Case Size							
1	10	0.024	2.5	10	7.96	95	387-7360
2.2	10	0.048	1.8	10	7.96	42	387-7371
6.8	10	0.12	1.13	10	7.96	24	387-7401
10	10	0.168	1	10	2.52	19	387-7413
15	10	0.24	0.81	10	2.52	16	387-7425
22	10	0.35	0.67	10	2.52	13	387-7437
100	10	1.28	0.35	20	0.796	6	158-896
220	10	2.72	0.24	20	0.796	3.9	387-7450
330	10	3.92	0.2	20	0.796	3.2	158-902
1000	10	12	0.12	30	0.252	1.8	158-914
3300	10	48	0.055	30	0.252	1	158-926
10000	10	120	0.035	30	0.0796	0.5	158-938

204067

Order Multiple=10 **Price Each**

	Order Code
SIMID 1008 Series	**All Values** ● RL
SIMID 1812A Series	**All Values** ● RL
SIMID 1812T Series	**All Values** ● RL
SIMID 1210A Series	**All Values** ● RL
SIMID 1210T Series	**All Values** ● RL
SIMID 2220 Series	**All Values** ● RL
SIMID 2220H Series	**All Values** ● RL

SIMID 1210-H Series

- Ferrite drum core
- Laser welded winding
- Flame retardant encapsulation
- Very high current handling capability
- Suitable for reflow soldering
- AECQ200 qualified

Case size 1210
Tolerance ±10%

Inductance nH	Rmax Ω	Current Rating mA	Frequency KHz	Q	Mftrs. List	Order Code
1	0.1	1150	150	8	B82422H1102K	129-9970
2.2	0.16	800	90	8	B82422H1222K	129-9971
3.3	0.18	770	70	8	B82422H1332K	129-9972
4.7	0.25	700	46	8	B82422H1472K	129-9974
10	0.46	500	30	12	B82422H1103K	129-9975
22	1	330	21	12	B82422H1223K	129-9976

Inductors - SMD Chip - Epcos - continued

SIMID 1210-H Series - continued

Inductance	Rmax	Current	Frequency		Mftrs. List	Order Code
33	1.4	280	15	15	B82422H1333K	129-9977
47	2.1	230	12	15	B82422H1473K	129-9978
68	3.4	180	10	15	B82422H1683K	129-9981
100	4.8	150	8	20	B82422H1104K	129-9982
330	13	90	4.5	20	B82422H1334K	129-9983

452149

Order Multiple=10 **Price Each**

	Order Code
SIMID 1210-H Series	All Values ●

SIMID 1812C Series

EPCOS

- High Q factor
- Upright ferrite drum core
- Temperature range up to 150 °C
- Suitable for lead-free reflow soldering
- Qualified to AEC-Q200

Tolerance ± 10%

H=3.2 W=3.2 D=4.5

LN µH	Rmax Ω	Current mA	Frequency MHz	Q	Mftrs. List No.	Order Code
10	0.98	320	28	40	B82432C1103K000	164-4381
47	2.3	210	12	30	B82432C1473K000	164-4393
68	2.8	190	10	30	B82432C1683K000	164-4395
100	4.7	145	8	30	B82432C1104K000	164-4382
150	6.1	130	7	30	B82432C1154K000	164-4388
330	14.1	85	4.5	30	B82432C1334K000	164-4392
470	17.5	75	4	30	B82432C1474K000	164-4394

528639

Order Multiple=5 **Price Each**

	Order Code
SIMID 1812C Series	All Values ●

SIMID 2220A Series

EPCOS

- Very high current handling capability
- High L values
- Ferrite drum core
- Temperature range up to 150 °C
- Suitable for lead-free reflow soldering
- Qualified to AEC-Q200

Tolerance ± 20%

H=5 W=5 D=5.6

LN µH	Rmax Ω	Current mA	Frequency MHz	Q	Mftrs. List No.	Order Code
1	0.025	3510	111	15	B82442T1102M050	164-4424
1.5	0.033	3020	60	15	B82442T1152M050	164-4430
2.2	0.038	2710	46	15	B82442T1222M050	164-4434
3.3	0.046	2460	36	15	B82442T1332M050	164-4438
4.7	0.073	1950	30	15	B82442T1472M050	164-4444
6.8	0.106	1680	23	15	B82442T1682M050	164-4448
10	0.132	1510	19	15	B82442T1103K050	164-4425
22	0.238	1040	13	15	B82442T1223K050	164-4435
33	0.36	840	11	15	B82442T1333K050	164-4441
68	0.781	570	7	15	B82442T1683K050	164-4449
100	0.99	510	6.1	20	B82442T1104K050	164-4426
150	1.5	410	4.6	20	B82442T1154K050	164-4432
220	2.21	330	3.9	20	B82442T1224K050	164-4436
330	3.29	280	3.4	20	B82442T1334K050	164-4442
470	4.73	240	2.6	20	B82442T1474K050	164-4446
680	5.87	210	2.3	20	B82442T1684K050	164-4450
1000	9.5	150	1.8	20	B82442T1105K050	164-4428
1500	14.9	130	1.5	20	B82442T1155K050	164-4433
2200	22.5	100	1.2	20	B82442T1225K050	164-4437
3300	32.8	85	1	20	B82442T1335K050	164-4443
4700	48.6	73	0.8	20	B82442T1475K050	164-4447
6800	60.3	65	0.6	20	B82442T1685K050	164-4451
10000	112	46	0.5	20	B82442T1106K050	164-4429

528643

Price Each

	Order Code
SIMID 2220A Series	All Values ●

Transponder Coils

B82450 Series

EPCOS

SMD

- Ferrite core
- Enamel copper winding
- Moulded case
- High mechanical resistance

L = 11.4, W = 3.5, H = 2.4

Operating temperature -40°C to +125°C Tolerance ±3%

Inductance (mH)	Resonant Frequency (KHz)	Q Factor	DC resistance Max.(Ω)	Mftrs. List No.	Order Code
1	2700	33	15	B82450A1004A	129-9965
2.36	2000	34	25	B82450A2364A	129-9966

452106

Price Each

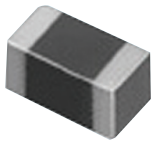
	Order Code
All Values ●	

Inductors - SMD Chip - Murata

LQM18 Series

0603 Case Size

muRata innovator in Electronics



SMD

- Magnetically shielded chip coil providing excellent characteristics in crosstalk and magnetic coupling
- Suitable for high density mounting due to compact size
- External electrodes with nickel barrier structure provide excellent solder heat resistance for both flow and reflow soldering

Operating temperature -40°C to +85°C

Inductance nH	Tolerance	Q Factor Min.	Test Frequency MHz	DC Resistance Ω Max.	Self Resonance Freq. MHz Min	Allowable Current mA	Mftrs. List No.	Order Code
47	±20%	10	50	0.3	260	50	LQM18NN47NM00D	134-3096
68	±20%	10	50	0.3	250	50	LQM18NN68NM00D	134-3097
100	±10%	15	25	0.5	240	50	LQM18NNR10K00D	134-3100
120	±10%	15	25	0.5	205	50	LQM18NNR12K00D	134-3101
150	±10%	15	25	0.6	180	50	LQM18NNR15K00D	134-3102
180	±10%	15	25	0.6	165	50	LQM18NNR18K00D	134-3103
220	±10%	15	25	0.8	150	50	LQM18NNR22K00D	134-3104
270	±10%	15	25	0.8	136	50	LQM18NNR27K00D	134-3106
330	±10%	15	25	0.85	125	35	LQM18NNR33K00D	134-3107
390	±10%	15	25	1	110	35	LQM18NNR39K00D	134-3108
470	±10%	15	25	1.35	105	35	LQM18NNR47K00D	134-3109
560	±10%	15	25	1.55	95	35	LQM18NNR56K00D	134-3110
680	±10%	15	25	1.7	90	35	LQM18NNR68K00D	134-3111
1000	±10%	35	10	0.6	75	25	LQM18NN1R0K00D	134-3113
1200	±10%	35	10	0.8	65	25	LQM18NN1R2K00D	134-3114
1500	±10%	35	10	0.8	60	25	LQM18NN1R5K00D	134-3115
1800	±10%	35	10	0.95	55	25	LQM18NN1R8K00D	134-3116
2200	±10%	35	10	1.15	50	15	LQM18NN2R2K00D	134-3118

463345

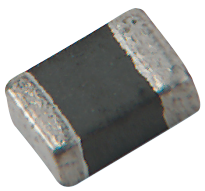
Price Each

	Order Code
All Values ● RL	

LQM21 Series

0805 Case Size

muRata innovator in Electronics



SMD

- Miniature SMD inductors using multilayer process technology and magnetic materials
- Magnetically shielded design – ideal for high density mounting
- Approximately ¼ the size of conventional chip coils while still retaining high reliability
- 0805 case size

L=2.0, W=1.25, H=0.85
(3.3, 4.7µH=1.25)

Operating temperature -40°C to +85°C Test Frequency 25MHz (up to 0.68µH) 25MHz (1.0 to 4.7µH)

Inductance µh	Inductance Tolance	Q Factor Min.	DC Resistance Ω Max.	Self Resonance Freq. MHz Min	Allowable Current mA	Order Code
0.1	±10%	20	0.26	340	250	952-7893
0.15	±10%	20	0.32	270	250	952-7907
0.22	±10%	20	0.38	220	250	952-7915
0.33	±10%	20	0.48	180	250	952-7923
0.47	±10%	25	0.57	150	200	952-7931
0.68	±10%	25	0.72	125	150	952-7940
1	±10%	45	0.4	107	50	952-7850
1.5	±10%	45	0.5	87	50	952-7869
3.3	±10%	45	0.8	59	30	952-7877
4.7	±10%	45	1	47	30	952-7885

LQM21NNR10K10D 952-7893 LQM21NNR47K10D 952-7931 LQM21NN1R5K10D 952-7869
LQM21NNR15K10D 952-7907 LQM21NNR68K10D 952-7940 LQM21NN3R3K10L 952-7877
LQM21NNR22K10D 952-7915 LQM21NN1R0K10D 952-7850 LQM21NN4R7K10L 952-7885
LQM21NNR33K10D 952-7923

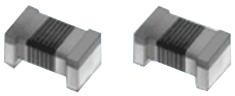
227187

Order Multiple=5 **Price Each**

	Order Code
All Values ● RL	

LQW04A Series

03015 Case Size



H=0.8mm, W=0.4mm, D=0.06mm

The LQW04A series consists of air core chip coil using a miniature alumina core. The LQW04A series has high Q value in high frequency range and high self resonant frequency. It is suitable for high frequency circuits which are used in telecommunications equipment.

Features:
- Resin-coated surface enables excellent mounting
- Low DC resistance design is ideal for low loss, high output and low power consumption

Applications:
- Mobile phones such as GSM, CDMA, PDC, etc.
- W-LAN & Bluetooth
- High frequency circuits in general

Inductance nH	Resistance Ω	Current mA	Mfts. List No.	Order Code
1.8	0.056	700	LQW04AN1N8D00D	111-5002
2.7	0.07	570	LQW04AN2N7D00D	111-5003
3.9	0.098	530	LQW04AN3N9D00D	111-5007
4.7	0.14	440	LQW04AN4N7D00D	111-5009
5.6	0.112	470	LQW04AN5N6D00D	111-5011
6.8	0.14	440	LQW04AN6N8D00D	111-5013
7.5	0.14	440	LQW04AN7N5D00D	111-5014
10	0.252	330	LQW04AN10NJ00D	111-5018
11	0.28	310	LQW04AN11NJ00D	111-5019
12	0.28	310	LQW04AN12NJ00D	111-5020
15	0.476	240	LQW04AN15NJ00D	111-5022
18	0.532	220	LQW04AN18NJ00D	111-5024
22	0.63	200	LQW04AN22NJ00D	111-5026

423323

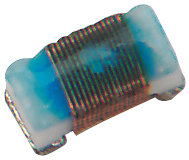
Price Each

Order Code

All Values

LQW15 Series

0402 Case Size



- Innovative coil and case structures
- Low DC resistance
- High-frequency characteristics
- Operating Temp: -55°C to +125°C
- Reel Qty: 10,000

New

H=0.5, W=0.1, D=0.6

Inductance nh	Inductance Tolance	Test Freq. (MHz)	Q Factor Min.	DC Resistance Ω Max.	Self Resonance Freq. GHz Min	Rated Current mA	Order Code
1.3	± 0.2nH	250	20	0.017	16	1200	176-2599
1.5	± 0.2nH	100	10	0.03	18	1000	176-2600
2.2	± 0.2nH	250	25	0.027	14	1000	176-2601
2.7	± 0.2nH	100	20	0.05	15	850	176-2602
3.3	± 0.5nH	250	30	0.04	12	900	176-2603
3.6	± 0.2nH	250	30	0.04	9.5	900	176-2604
3.9	± 0.1nH	100	25	0.07	10	750	176-2605
4.3	± 0.2nH	100	25	0.07	10	750	176-2607
4.7	± 0.2nH	100	25	0.07	8	750	176-2608
5.1	± 0.2nH	100	25	0.12	8	600	176-2609
5.6	± 0.2nH	100	30	0.051	8	800	176-2610
6.2	± 0.2nH	100	25	0.09	8	700	176-2611
6.8	± 2%	100	25	0.09	6	700	176-2612
7.5	± 2%	100	25	0.13	6	570	176-2613
8.2	± 2%	100	25	0.14	5.5	540	176-2614
8.7	± 2%	100	25	0.14	5.5	540	176-2615
9.1	± 2%	100	25	0.14	5.5	540	176-2616
10	± 2%	100	25	0.17	5.5	500	176-2617
12	± 2%	100	30	0.14	5.5	500	176-2619
15	± 2%	100	30	0.16	5	460	176-2621
18	± 2%	100	25	0.27	4.5	370	176-2622
22	± 2%	100	25	0.3	4	310	176-2623
24	± 2%	100	25	0.52	3.5	280	176-2624
27	± 2%	100	25	0.52	3.5	280	176-2625
33	± 2%	100	25	0.63	3.2	260	176-2626
39	± 2%	100	25	0.7	3	250	176-2627
47	± 2%	100	25	1.08	2.9	210	176-2628
68	± 2%	100	20	1.96	2.5	140	176-2629
82	± 2%	100	20	2.24	2.3	130	176-2630
100	± 5%	100	20	2.52	1.5	120	176-2632
120	± 5%	100	20	2.66	1	110	176-2633

Mftrs. List No.

LQW15AN1N3C10D =176-2599 LQW15AN6N2C00D =176-2611 LQW15AN22NG00D =176-2623
LQW15AN1N5C00D =176-2600 LQW15AN6N8G00D =176-2612 LQW15AN24NG00D =176-2624
LQW15AN2N2C10D =176-2601 LQW15AN7N5G00D =176-2613 LQW15AN27NG00D =176-2625
LQW15AN2N7C00D =176-2602 LQW15AN8N2G00D =176-2614 LQW15AN33NG00D =176-2626
LQW15AN3N3D10D =176-2603 LQW15AN8N7G00D =176-2615 LQW15AN39NG00D =176-2627
LQW15AN3N6C10D =176-2604 LQW15AN9N1G00D =176-2616 LQW15AN47NG00D =176-2628
LQW15AN3N9B00D =176-2605 LQW15AN10NG00D =176-2617 LQW15AN68NG00D =176-2629
LQW15AN4N3C00D =176-2607 LQW15AN12NG00D =176-2619 LQW15AN82NG00D =176-2630
LQW15AN4N7C00D =176-2608 LQW15AN15NG00D =176-2621 LQW15ANR10J00D =176-2632
LQW15AN5N1C00D =176-2609 LQW15AN18NG00D =176-2622 LQW15ANR12J00D =176-2633
LQW15AN5N6C10D =176-2610

547520

Order Multiple=10 **Price Each**

Order Code

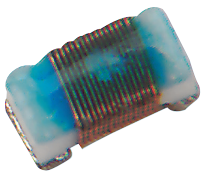
All Values

LQW15 Design Kit

176-2634

LQW18 Series

0603 Case Size



- Miniature SMD inductors with alumina core
- Unique winding technology minimises stray capacitance leading to increased SRF
- High Q and stable inductance at high frequencies
- Low DC resistance
- 0603 case size allows high density mounting

L=1.6, W=0.8, H=0.8

Operating temperature -55°C to +105°C Test Frequency 100MHz

Inductance nh	Inductance Tolance	Q Factor Min.	DC Resistance Ω Max.	Self Resonance Freq. MHz Min	Allowable Current mA	Order Code
5.6	±2%	35	0.082	6000	750	952-8016
10	±2%	35	0.11	6000	650	952-7958
12	±2%	35	0.13	6000	600	952-7966
15	±2%	40	0.13	6000	600	952-7974
22	±2%	40	0.17	4600	500	952-7982
33	±2%	40	0.23	3200	420	952-7990
47	±2%	38	0.29	2600	380	952-8008
68	±2%	38	0.38	2200	340	952-8024
100	±2%	34	0.68	1800	220	952-8032
150	±2%	32	1.5	1400	160	952-8040
220	±2%	25	2.5	1200	120	952-8059

Mftrs. List No.

LQW18AN5N6D00D =952-8016 LQW18AN22NG00D =952-7982 LQW18ANR10G00D =952-8032
LQW18AN10NG00D =952-7958 LQW18AN33NG00D =952-7990 LQW18ANR15G00D =952-8040
LQW18AN12NG00D =952-7966 LQW18AN47NG00D =952-8008 LQW18ANR22G00D =952-8059
LQW18AN15NG00D =952-7974 LQW18AN68NG00D =952-8024

227185

Price Each

Order Code

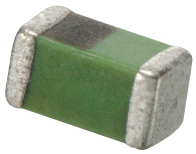
All Values

LQW18 Design Kit

NEW 176-0705

LQG15 Series

0402 Case Size



- Chip inductors designed for high frequency applications
- High Q, stable inductance achieved by original structure that minimizes stay capacitance
- Suitable for small or mobile equipment due to miniature size
- External electrodes with nickel barrier structure provide excellent solder heat resistance

Operating temperature -55°C to +125°C Test Frequency - Q Factor 100MHz
Test Frequency - Inductance 100MHz

Inductance nH	Inductance Tolerance	DC Resistance Ω Max.	Self Resonance Freq. MHz Min	Allowable Current mA	Mfrs. List No.	Order Code
1	± 0.3nH	0.1	6000	300	LQG15HN1N0S02D	134-3054
1.1	± 0.3nH	0.1	6000	300	LQG15HN1N1S02D	134-3056
1.2	± 0.3nH	0.1	6000	300	LQG15HN1N2S02D	134-3057
1.3	± 0.3nH	0.1	6000	300	LQG15HN1N3S02D	134-3058
1.5	± 0.3nH	0.1	6000	300	LQG15HN1N5S02D	134-3059
1.6	± 0.3nH	0.1	6000	300	LQG15HN1N6S02D	134-3060
1.8	± 0.3nH	0.1	6000	300	LQG15HN1N8S02D	134-3061
2	± 0.3nH	0.12	6000	300	LQG15HN2N0S02D	134-3062
2.2	± 0.3nH	0.15	6000	300	LQG15HN2N2S02D	134-3064
2.4	± 0.3nH	0.16	6000	300	LQG15HN2N4S02D	134-3065
2.7	± 0.3nH	0.17	6000	300	LQG15HN2N7S02D	134-3066
3	± 0.3nH	0.18	6000	300	LQG15HN3N0S02D	134-3067
3.3	± 0.3nH	0.19	6000	300	LQG15HN3N3S02D	134-3068
3.6	± 0.3nH	0.19	6000	300	LQG15HN3N6S02D	134-3069
3.9	± 0.3nH	0.19	6000	300	LQG15HN3N9S02D	134-3070
4.3	± 0.3nH	0.21	6000	300	LQG15HN4N3S02D	134-3071
4.7	± 0.3nH	0.23	6000	300	LQG15HN4N7S02D	134-3072
5.1	± 0.3nH	0.24	6000	300	LQG15HN5N1S02D	134-3073
5.6	± 0.3nH	0.26	5300	300	LQG15HN5N6S02D	134-3074
6.2	± 0.3nH	0.27	4300	300	LQG15HN6N2S02D	134-3076
6.8	±5%	0.29	4200	300	LQG15HN6N8J02D	134-3077
7.5	±5%	0.31	3900	300	LQG15HN7N5J02D	134-3078
8.2	±5%	0.33	3600	300	LQG15HN8N2J02D	134-3079
9.1	±5%	0.34	3400	300	LQG15HN9N1J02D	134-3080
10	±5%	0.35	3200	300	LQG15HN10NJ02D	134-3081
12	±5%	0.41	2800	300	LQG15HN12NJ02D	134-3082
15	±5%	0.46	2300	300	LQG15HN15NJ02D	134-3083
18	±5%	0.51	2100	300	LQG15HN18NJ02D	134-3084
22	±5%	0.58	1800	300	LQG15HN22NJ02D	134-3085
27	±5%	0.67	1600	300	LQG15HN27NJ02D	134-3086
33	±5%	0.67	1500	200	LQG15HN33NJ02D	134-3088
39	±5%	1.06	1200	200	LQG15HN39NJ02D	134-3089
47	±5%	1.15	1000	200	LQG15HN47NJ02D	134-3090
56	±5%	1.2	800	200	LQG15HN56NJ02D	134-3091
68	±5%	1.25	800	180	LQG15HN68NJ02D	134-3092
82	±5%	1.6	600	150	LQG15HN82NJ02D	134-3093
100	±5%	1.6	600	150	LQG15HNR10J02D	134-3094
120	±5%	1.6	600	150	LQG15HNR12J02D	134-3095

462836

Price Each

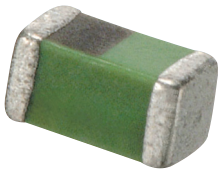
Order Code

All Values RL

Inductors - SMD Chip - Murata - continued

LQG18 Series

0603 Case Size



- 0603 chip coils for high frequency applications

LQG18 0603 Case Size ±0.3nH

Inductance nH	Resistance Ω	Current mA	Resonant Frequency MHz	Q Factor	Mfts. List No.	Order Code
1.2± 0.3nH	0.1	500	6000	12	LQG18HN1N2S00D	151-5377
1.5± 0.3nH	0.1	500	6000	12	LQG18HN1N5S00D	151-5379
1.8± 0.3nH	0.1	500	6000	12	LQG18HN1N8S00D	151-5381
2.2± 0.3nH	0.1	500	6000	12	LQG18HN2N2S00D	151-5384
2.7± 0.3nH	0.15	500	6000	12	LQG18HN2N7S00D	151-5385
3.3± 0.3nH	0.15	500	6000	12	LQG18HN3N3S00D	151-5388
3.9± 0.3nH	0.15	450	6000	12	LQG18HN3N9S00D	151-5389
5.6± 0.3nH	0.2	430	5000	12	LQG18HN5N6S00D	151-5393

Inductance nH	Order Code	Price Each
1.2	151-5377 ●	
1.5	151-5379 ●	
1.8	151-5381 ●	
2.2	151-5384 ●	
2.7	151-5385 ●	
3.3	151-5388 ●	
3.9	151-5389 ●	
5.6	151-5393 ●	

LQG18 0603 Case Size ±5%

Inductance nH	Resistance Ω	Current mA	Resonant Frequency MHz	Q Factor	Mfts. List No.	Order Code
6.8± 5%	0.25	430	5000	12	LQG18HN6N8J00D	151-5395
8.2± 5%	0.25	400	4000	12	LQG18HN8N2J00D	151-5397
10± 5%	0.3	400	3500	12	LQG18HN10NJ00D	151-5373
12± 5%	0.35	400	3000	12	LQG18HN12NJ00D	151-5374
15± 5%	0.4	350	2800	12	LQG18HN15NJ00D	151-5375
18± 5%	0.45	350	2600	12	LQG18HN18NJ00D	151-5376
22± 5%	0.5	300	2300	12	LQG18HN22NJ00D	151-5382
27± 5%	0.55	300	2000	12	LQG18HN27NJ00D	151-5383
33± 5%	0.6	300	1700	12	LQG18HN33NJ00D	151-5386
39± 5%	0.65	300	1500	12	LQG18HN39NJ00D	151-5387
47± 5%	0.7	300	1200	12	LQG18HN47NJ00D	151-5390
68± 5%	0.8	300	1000	12	LQG18HN68NJ00D	151-5394
82± 5%	0.85	300	900	12	LQG18HN82NJ00D	151-5396
100± 5%	0.9	300	800	12	LQG18HNR10J00D	151-5398

496430

Inductance nH	Order Code	Price Each
6.8	151-5395 ●	
8.2	151-5397 ●	
10	151-5373 ●	
12	151-5374 ●	
15	151-5375 ●	
18	151-5376 ●	
22	151-5382 ●	
27	151-5383 ●	
33	151-5386 ●	
39	151-5387 ●	
47	151-5390 ●	
68	151-5394 ●	
82	151-5396 ●	
100	151-5398 ●	

RL **FREE Re-reeling service.** Only buy what you need and improve assembly efficiency. For more information visit **local website**

LQH Series

- 1515, 2424 and 3131 case sizes
- DC-DC Converter Wire Wound Type

Operating temperature range:-40°C - 85°C

HxWxD 1515 Case	1.65 x 4 x 4mm
HxWxD 2424 Case	4.3 x 6 x 6mm
HxWxD 3131 Case	3.8 x 8 x 8mm

1515 Case Size

Inductance (µH)	Tolerance	S.R.F. (MHz)	DC Res. (mΩ)	Current Max. (A)	Mfrts. List No.	Order Code
1	± 30%	90	30	2.45	LQH44PN1R0NP0L	178-2795
2.2	± 20%	70	49	1.8	LQH44PN2R2MP0L	178-2796
3.3	± 20%	50	65	1.77	LQH44PN3R3MP0L	178-2797
4.7	± 20%	40	80	1.7	LQH44PN4R7MP0L	178-2798
6.8	± 20%	35	120	1.34	LQH44PN6R8MP0L	178-2799
10	± 20%	25	160	1.17	LQH44PN100MP0L	178-2801
22	± 20%	17	370	0.79	LQH44PN220MP0L	178-2802

2424 Case Size

Inductance (µH)	Tolerance	S.R.F. (MHz)	DC Res. (mΩ)	Current Max. (A)	Mfrts. List No.	Order Code
1	± 30%	110	9	4.3	LQH6PPN1R0N43L	178-2803
1.5	± 30%	60	10	4.15	LQH6PPN1R5N43L	178-2804
2.2	± 30%	30	14	4.1	LQH6PPN2R2N43L	178-2805
3.3	± 30%	30	16	3.8	LQH6PPN3R3N43L	178-2806
4.7	± 20%	25	20	3.2	LQH6PPN4R7M43L	178-2807
6.8	± 20%	20	28	2.85	LQH6PPN6R8M43L	178-2808
10	± 20%	15	44	2.6	LQH6PPN100M43L	178-2809
15	± 20%	10	65	2.2	LQH6PPN150M43L	178-2810
22	± 20%	10	108	1.55	LQH6PPN220M43L	178-2811
33	± 20%	6	137	1.29	LQH6PPN330M43L	178-2813
47	± 20%	6	230	1.1	LQH6PPN470M43L	178-2814
68	± 20%	5	289	1	LQH6PPN680M43L	178-2815
100	± 20%	3	436	0.8	LQH6PPN101M43L	178-2816

Order Code	Price Each
All Values ●	

3131 Case Size

Inductance (µH)	Tolerance	S.R.F. (MHz)	DC Res. (mΩ)	Current Max. (A)	Mfrts. List No.	Order Code
1	± 30%	100	6	8	LQH88PN1R0N38L	178-2817
1.5	± 30%	60	8	7.1	LQH88PN1R5N38L	178-2818
2.2	± 30%	50	9	6.4	LQH88PN2R2N38L	178-2819
3.3	± 30%	35	13	5	LQH88PN3R3N38L	178-2820
4.7	± 30%	30	17	4.2	LQH88PN4R7N38L	178-2821
6.8	± 30%	20	22	3.8	LQH88PN6R8N38L	178-2822
10	± 20%	18	29	3.15	LQH88PN100M38L	178-2823
15	± 20%	13	41	2.45	LQH88PN150M38L	178-2825
22	± 20%	10	66	2.25	LQH88PN220M38L	178-2826
33	± 20%	9	95	1.75	LQH88PN330M38L	178-2827
47	± 20%	7	157	1.45	LQH88PN470M38L	178-2828
68	± 20%	7	190	1.1	LQH88PN680M38L	178-2829
100	± 20%	4	265	1	LQH88PN101M38L	178-2830

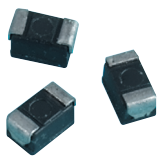
600585

Order Code	Price Each
All Values ●	

Inductors - SMD Chip - Panasonic

RF/RE/ND Series

Non Magnetic Core



- High Q
- Designed for automatic and high density mounting
- ±5% tolerance
- Suitable for CTV, VTC, HIC, HDD, FDD, pagers, cordless and portable telephones
- Constructed for use in high frequency circuits
- Stable L value against environmental conditions

RF Series - 0402 Case Size

Inductance (nH)	Q Min.	Resonant Freq. (MHz)	DC Res. (Ω)	DC current Max. (mA)	Mftrs. List No.	Order Code
2.7	21	5500	0.1	400	ELJRF2N7DFB	130-5090
3.3	21	5500	0.12	400	ELJRF3N3DFB	130-5091
3.9	20	5200	0.15	360	ELJRF3N9DFB	130-5092
5.6	20	4600	0.19	340	ELJRF5N6DFB	130-5093
6.8	19	4000	0.3	320	ELJRF6N8JFB	130-5094
8.2	19	3500	0.35	320	ELJRF8N2JFB	130-5095
10	19	2800	0.41	320	ELJRF10NJFB	130-5096

Order Multiple=5

Order Code	Price Each
All Values ● RL	

RE Series - 0603 Case Size

Inductance (nH)	Q Min.	Resonant Freq. (MHz)	DC Res. (Ω)	DC current Max. (mA)	Mftrs. List No.	Order Code
3.9	9	5500	0.15	450	ELJRE3N9JFA	119-8370
5.6	9	4600	0.18	430	ELJRE5N6JFA	119-8372
6.8	9	3550	0.2	430	ELJRE6N8JFA	119-8374
8.2	9	3500	0.28	400	ELJRE8N2JFA	119-8375
10	10	2800	0.32	400	ELJRE10NJFA	119-8376
12	10	2800	0.35	400	ELJRE12NJFA	119-8377
15	10	2500	0.41	350	ELJRE15NJFA	119-8378
18	10	2300	0.45	350	ELJRE18NJFA	119-8379
22	10	2000	0.5	300	ELJRE22NJFA	119-8381
27	10	2000	0.55	300	ELJRE27NJFA	119-8382

RE Series - 0603 Case Size

33	10	1800	0.6	300	ELJRE33NJFA	119-8383
39	11	1800	0.8	300	ELJRE39NJFA	119-8384
47	11	1800	0.95	250	ELJRE47NJFA	119-8386
56	12	1800	1.2	250	ELJRE56NJFA	119-8387
82	12	1500	1.5	250	ELJRE82NJFA	119-8389
100	12	1300	1.8	200	ELJRER10JFA	119-8390

Order Multiple=5

Price Each

Order Code

All Values ● RL

ND Series - 0805 Case Size

Inductance (nH)	Q Min.	Resonant Freq. (MHz)	DC Res. (Ω)	DC current Max. (mA)	Mftrs. List No.	Order Code
39	15	2000	0.41	390	ELJND39NJF	119-8400
56	15	1550	0.51	360	ELJND56NJF	119-8401
100	8	800	0.86	285	ELJNDR10JF	119-8405
330	10	200	2.16	160	ELJNDR33JF	119-8411
390	10	150	2.37	150	ELJNDR39JF	119-8412
470	10	150	2.56	145	ELJNDR47JF	119-8413
680	10	100	3.02	130	ELJNDR68JF	119-8416
1000	8	80	3.88	120	ELJND1R0JF	119-8418

234172

Price Each

Order Code

All Values ● RL

FC/FA/FB Series

Panasonic

Regular Type

- High Q
- ±5% tolerance

SMD

FC Series - 1008 Case Size

Inductance (µH)	Q Min.	Resonant Freq. (MHz)	DC Res. (Ω)	DC current Max. (mA)	Mftrs. List No.	Order Code
1	25	115	0.65	195	ELJFC1R0JF	119-8419
2.2	25	80	1.05	155	ELJFC2R2JF	119-8422
3.3	25	65	1.3	135	ELJFC3R3JF	119-8423
10	25	32	3.5	80	ELJFC100JF	119-8424
12	25	30	3.8	75	ELJFC120JF	119-8425
22	25	22	5.8	60	ELJFC220JF	119-8426
33	20	20	7.1	110	ELJFC330JF	119-8428
100	15	12	21	60	ELJFC101JF	119-8429

Price Each

Order Code

All Values ● RL

FA Series - 1210 Case Size

Inductance (µH)	Q Min.	Resonant Freq. (MHz)	DC Res. (Ω)	DC current Max. (mA)	Mftrs. List No.	Order Code
1	30	115	0.69	230	ELJFA1R0JF2	119-8443
1.2	30	100	0.75	215	ELJFA1R2JF2	119-8444
1.5	30	90	0.75	210	ELJFA1R5JF	119-8445
1.8	30	85	0.82	200	ELJFA1R8JF	119-8446
2.2	30	80	0.95	190	ELJFA2R2JF	119-8447
2.7	30	75	1.1	180	ELJFA2R7JF	119-8448
3.3	30	65	1.2	180	ELJFA3R3JF	119-8449
3.9	30	60	1.3	175	ELJFA3R9JF	119-8450
4.7	30	55	1.5	165	ELJFA4R7JF	119-8451
5.6	30	50	1.6	160	ELJFA5R6JFN	119-8453
6.8	30	45	1.8	150	ELJFA6R8JF	119-8454
8.2	30	40	2	140	ELJFA8R2JF	119-8455
10	30	36	2.1	140	ELJFA100JF	119-8456
12	30	33	2.5	125	ELJFA120JF	119-8457
15	30	30	2.8	120	ELJFA150JF	119-8458
18	30	27	3.3	110	ELJFA180JF	119-8459
22	30	25	3.7	105	ELJFA220JF	119-8460
27	30	22	5	90	ELJFA270JF	119-8461
33	30	20	5.6	85	ELJFA330JF	119-8462
47	30	15	7	75	ELJFA470JF	119-8465
68	30	15	9	65	ELJFA680JF	119-8467
100	20	10	10	60	ELJFA101JF	119-8469
150	20	8	15	50	ELJFA151JF	119-8471
220	20	7	21	45	ELJFA221JF	119-8473

Price Each

Order Code

All Values ●

FB Series - 1812 Case Size

Inductance (µH)	Q Min.	Resonant Freq. (MHz)	DC Res. (Ω)	DC current Max. (mA)	Mftrs. List No.	Order Code
2.2±10%	30	45	0.61	410	ELJFB2R2KF	119-8486
3.3±10%	50	39	0.66	380	ELJFB3R3KF	119-8489
4.7±10%	50	33	0.81	350	ELJFB4R7KF	119-8492
5.6±10%	50	30	0.88	330	ELJFB5R6KF	119-8493
10±10%	50	22	1.8	235	ELJFB100JF	119-8495
15	50	18	2.1	215	ELJFB150JF	119-8496
22	50	15	2.6	195	ELJFB220JF	119-8497
33	50	12	3.1	175	ELJFB330JF	119-8499
47	50	9.7	4.2	130	ELJFB470JF	119-8501
56	40	9	4.7	125	ELJFB560JF	119-8502
82	40	7.5	5.9	110	ELJFB820JF	119-8504
100	40	6.7	8.8	105	ELJFB101JF	119-8505

FB Series - 1812 Case Size

150	40	5.5	11	95	ELJFB151JF	119-8507
220	40	4.5	13	85	ELJFB221JF	119-8508
330	40	3.7	16	75	ELJFB331JF	119-8510
470	30	3.3	31	55	ELJFB471JF	119-8512
680	30	2.5	39	50	ELJFB681JF	119-8515
820	30	2.4	45	45	ELJFB821JF	119-8516
1000	30	2.1	53	50	ELJFB102JF	119-8517

234175

Price Each

Order Code

All Values ● RL

PC/PA Series

Panasonic

High Power type

- High Power types that can handle large dc currents
- Suitable for use as power line choke coil
- ±10% tolerance

L = 6mm, W = 6.4mm, H = 2.5mm

PC Series - 1008 Case Size

Inductance (µH)	Q Min.	Resonant Freq. (MHz)	DC resistance Max.(Ω)	DC Current Max.(mA)	Mftrs. List No.	Order Code
1±20%	10	95	0.45	475	ELJPC1R0MF	119-8430
4.7±20%	8	43	1.2	285	ELJPC4R7MF	119-8434
10	20	32	2.2	210	ELJPC100KF	119-8436
22	20	18	4	160	ELJPC220KF	119-8441

Order Multiple=5

Price Each

Order Code

All Values ● RL

PA 1210 Series

Inductance (µH)	Q Min.	Resonant Freq. (MHz)	DC resistance Max.(Ω)	DC Current Max.(mA)	Mftrs. List No.	Order Code
2.2	7	80	0.23	500	ELJPA2R2MF2	NEW 179-8567
4.7	7	46	0.34	350	ELJPA4R7MF2	NEW 179-8568
10	15	23	0.5	240	ELJPA100KF2	NEW 179-8569
10	15	23	0.5	240	ELJPA100KF	119-8474
15	15	18	0.74	220	ELJPA150KF	119-8475
22	15	15	1.15	185	ELJPA220KF	119-8477
22	15	15	1.15	185	ELJPA220KF2	NEW 179-8570
33	15	12	1.65	155	ELJPA330KF	119-8480
33	15	15	1.65	155	ELJPA330KF2	NEW 179-8572
47	15	9.5	2.25	135	ELJPA470KF	119-8481
47	15	9.5	2.25	135	ELJPA470KF2	NEW 179-8573
68	15	7.5	3.7	105	ELJPA680KF2	NEW 179-8574
100	20	6.5	5	90	ELJPA101KF	119-8483
100	20	6.5	5	90	ELJPA101KF2	NEW 179-8575
220	20	4	11	60	ELJPA221KF	119-8484
220	20	4	11	60	ELJPA221KF2	NEW 179-8576
330	20	3	16	50	ELJPA331KF	119-8485

234180

Order Multiple=5

Price Each

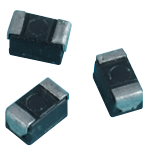
Order Code

All Values ● RL

DA & FA D Series

Panasonic ideas for life

Low & Super Low Distortion Type



New

- General use wire wound and resin molded chip inductor.
- Low distortion type suitable for Signal processing.
- 2 line-up of Super low distortion series and low distortion type.
- Good mounting characteristic.

Low Distortion Type
DA Series - 1210 Case Size

Inductance (µH)	Q Min.	Resonant Freq. (MHz)	DC Res. (Ω)	DC current Max. (mA)	Mftrs. List No.	Order Code
39	30	12	6	105	ELJFA390JFD	179-8553
47	30	12	6.7	100	ELJFA470JFD	179-8554
56	30	12	7	95	ELJFA560JFD	179-8555
68	30	12	9	85	ELJFA680JFD	179-8556
82	30	10	12	75	ELJFA820JFD	179-8557
10	24	10	14	70	ELJFA101JFD	179-8559

Price Each

Order Code

All Values ● RL

Super Low Distortion Type
FA D Series - 1210 Case Size

Inductance (µH)	Q Min.	Resonant Freq. (MHz)	DC Res. (Ω)	DC current Max. (mA)	Mftrs. List No.	Order Code
39	21	11	5.2	110	ELJDA390JF	179-8561
47	21	10	5.9	105	ELJDA470JF	179-8562
56	21	8.5	6.5	100	ELJDA560JF	179-8563

Inductors - SMD Chip - Panasonic - continued

DA & FA D Series - continued

Low & Super Low Distortion Type - continued

Super Low Distortion Type
FA D Series - 1210 Case Size

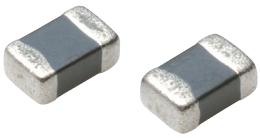
68	21	7.5	9	85	ELJDA680JF	179-8564
82	19	7	10	80	ELJDA820JF	179-8565
100	24	7	13	70	ELJDA101JF	179-8566

605661

Order Code	Price Each
All Values ● RL	

Inductors - SMD Chip - TDK

MLF1608/2012 Series Inductors



SMD

New

Features:
- High-reliability monolithic structure.
- Ferrite core and magnetic shielding enables the design of compact circuits with high packing density.
- Excellent solderability and high heat resistance permits either flow or reflow soldering.
- The products contain no lead and also support lead-free soldering.

Application
Digital mobile phone, car audio, TV, personal computers, or various electronic appliances.

Operating temperature	-25°C to +85°C	Case Style (MLF2012)	2012
Case Style (MLF1608)	1608	L x W	2 x 1.25mm
L x W	1.6 x 0.8mm		

MLF1608 Series

Inductance (µH)	Tolerance	Q Typ.	Self-resonant Frequency. Typ (MHz)	DC resistance Typ. Ω	Rated Current Max. mA	Order Code
0.22	± 10%	25	400	0.3	150	166-9534
0.33	± 10%	25	320	0.4	100	166-9535
0.47	± 10%	30	260	0.5	100	166-9536
0.56	± 10%	30	230	0.55	100	166-9537
0.68	± 10%	30	210	0.65	70	166-9538
1.2	± 10%	50	150	0.25	50	166-9528
1.5	± 10%	55	140	0.3	50	166-9529
2.7	± 10%	55	110	0.5	30	166-9530
3.3	± 10%	60	100	0.55	30	166-9531
6.8	± 10%	60	60	0.65	15	166-9542
8.2	± 10%	60	55	0.8	10	166-9543
10	± 10%	55	50	1	10	166-9541
22	± 10%	40	38	0.9	2	166-9532
27	± 10%	40	35	1.2	2	166-9533

MLF2012 Series

Inductance (µH)	Tolerance	Q Typ.	Self-resonant Frequency. Typ (MHz)	DC resistance Typ. Ω	Rated Current Max. mA	Order Code
0.047	± 20%	25	700	0.05	300	166-9555
0.082	± 20%	25	550	0.08	300	166-9556
0.12	± 10%	30	450	0.12	300	166-9557
0.15	± 10%	30	410	0.13	300	166-9558
0.27	± 10%	30	300	0.18	250	166-9559
0.33	± 10%	30	270	0.23	250	166-9560
0.56	± 10%	35	210	0.3	150	166-9561
0.68	± 10%	35	190	0.35	150	166-9562
1	± 10%	55	160	0.15	80	166-9544
1.2	± 10%	55	150	0.15	80	166-9545
1.8	± 10%	60	130	0.2	80	166-9546
2.2	± 10%	60	120	0.22	50	166-9547
2.7	± 10%	70	100	0.25	50	166-9548
3.3	± 10%	70	90	0.28	50	166-9549
10	± 10%	75	50	0.4	15	166-9563
5.6	± 10%	75	65	0.3	15	166-9565
6.8	± 10%	75	60	0.32	15	166-9566
18	± 10%	45	38	0.38	5	166-9551
27	± 10%	45	33	0.5	5	166-9553
33	± 10%	45	28	0.55	5	166-9554
47	± 10%	55	20	1.6	4	166-9567
100	± 10%	45	12	2.5	2	166-9550

531670

Order Multiple=5 **Price Each**

Inductance (µH)	Order Code MLF1608	
0.22	166-9534●	
0.33	166-9535●	
0.47	166-9536●	
0.56	166-9537●	
0.68	166-9538●	
1.2	166-9528●	
1.5	166-9529●	
2.7	166-9530●	
3.3	166-9531●	

Order Multiple=5 **Price Each**

Inductance (µH)	Order Code MLF1608	
6.8	166-9542●	
8.2	166-9543●	
10	166-9541●	
22	166-9532●	
27	166-9533●	
	MLF2012	
0.047	166-9555●	
0.082	166-9556●	
0.12	166-9557●	
0.15	166-9558●	
0.27	166-9559●	
0.33	166-9560●	
0.56	166-9561●	
0.68	166-9562●	
1	166-9544●	
1.2	166-9545●	
1.8	166-9546●	
2.2	166-9547●	
2.7	166-9548●	
3.3	166-9549●	
5.6	166-9565●	
6.8	166-9566●	
10	166-9563●	
18	166-9551●	
27	166-9553●	
33	166-9554●	
47	166-9567●	
100	166-9550●	

MLK/MLG Series Inductors

High Frequency

MLG

MLK

SMD

New

Features:
- Advanced monolithic structure is formed using a multilayering and sintering process with ceramic and conductive materials for high-frequency.
- The products contain no lead and also support lead-free soldering.

Applications:
For high-frequency applications including mobile phones, high frequency modules (PA, VCO, FEM etc.), Bluetooth, W-LAN, UWB and tuners.

Inductance (nH)	Tolerance	Q Typ.	Self-resonant Frequency. Typ (GHz)	DC resistance Typ. Ω	Rated Current Max. mA	Order Code
MLG0603S Type						
3	± 0.3nH	20	7.8	0.2	300	166-9570
6.2	± 0.3nH	19	5.1	0.32	200	166-9573
22	± 5%	18	2.5	0.88	150	166-9568
33	± 5%	17	2	1.2	100	166-9569
47	± 5%	12	1.5	1.48	50	166-9571
68	± 5%	5	1.2	2.4	50	166-9572
MLG1005S Type						
0.7	± 0.2nH	28	18.7	0.02	1000	166-9574
0.9	± 0.2nH	29	17.7	0.04	1000	166-9575
1	± 0.3nH	29	13.8	0.04	1000	166-9577
1.3	± 0.3nH	29	11.7	0.04	1000	166-9578
1.8	± 0.3nH	29	10.3	0.06	900	166-9579
2.2	± 0.3nH	29	8.6	0.08	900	166-9581
2.7	± 0.3nH	30	7.3	0.08	800	166-9582
3.6	± 0.3nH	31	6.7	0.09	700	166-9583
3.9	± 0.3nH	31	6.5	0.11	700	166-9584
6.2	± 0.3nH	30	4.7	0.16	600	166-9585
6.8	± 5%	30	4.4	0.15	600	166-9586
7.5	± 5%	30	4.1	0.15	500	166-9587
8.2	± 5%	30	4	0.19	500	166-9589
9.1	± 5%	30	3.8	0.2	500	166-9591
22	± 5%	27	2.2	0.46	350	166-9580
MLG1608 Type						
1	± 0.3nH	8	20	0.03	600	166-9596
1.2	± 0.3nH	8	20	0.04	600	166-9597
1.5	± 0.3nH	8	19.6	0.03	600	166-9598
1.8	± 0.3nH	8	16.6	0.04	600	166-9599
2.2	± 0.3nH	10	10.8	0.05	600	166-9602
2.7	± 0.3nH	10	8.8	0.06	600	166-9603
3.3	± 0.3nH	10	8.8	0.06	600	166-9607
3.9	± 0.3nH	10	7.9	0.06	600	166-9608
4.7	± 0.3nH	10	6.8	0.08	600	166-9610
5.6	± 0.5nH	10	6.8	0.08	600	166-9612
6.8	± 0.5nH	10	5.7	0.1	600	166-9614
8.2	± 0.5nH	10	5.6	0.1	600	166-9616
10	± 5%	12	4.5	0.11	600	166-9592
12	± 5%	12	3.8	0.13	600	166-9593
15	± 5%	12	3.6	0.14	600	166-9594
18	± 5%	12	3.3	0.16	600	166-9595
22	± 5%	12	3	0.19	500	166-9600

Inductance	Tolerance	Q Typ.	Self-resonant Frequency. Typ	DC resistance Typ.	Rated Current Max.	
MLG1608 Type						
27	± 5%	12	2.7	0.21	500	166-9601
33	± 5%	12	2.3	0.25	500	166-9604
39	± 5%	12	2	0.26	400	166-9605
47	± 5%	14	1.8	0.35	400	166-9609
56	± 5%	14	1.8	0.41	400	166-9611
68	± 5%	14	1.6	0.43	300	166-9613
82	± 5%	14	1.4	0.5	300	166-9615
100	± 5%	14	1.2	0.64	300	166-9617
MLK1005 Type						
1	± 0.3nH	5	16.9	0.05	500	166-9624
1.2	± 0.3nH	5	14.4	0.05	500	166-9625
1.5	± 0.3nH	6	12.2	0.06	500	166-9626
1.8	± 0.3nH	6	10.9	0.07	500	166-9627
2.2	± 0.3nH	6	9.6	0.08	500	166-9630
2.7	± 0.3nH	6	9.1	0.1	500	166-9632
3.3	± 0.3nH	7	8.3	0.11	400	166-9635
3.9	± 0.3nH	7	7.8	0.12	400	166-9636
4.7	± 0.3nH	7	6.9	0.13	400	166-9638
5.6	± 0.5nH	7	6.7	0.15	400	166-9640
6.8	± 0.5nH	7	6.3	0.18	400	166-9642
8.2	± 0.5nH	7	6	0.21	350	166-9645
10	± 5%	7	5.2	0.23	350	166-9619
12	± 5%	7	5.3	0.27	350	166-9621
15	± 5%	7	4.8	0.33	300	166-9622
18	± 5%	7	4.7	0.38	250	166-9623
22	± 5%	7	4.4	0.46	200	166-9628
27	± 5%	7	3.9	0.53	200	166-9629
33	± 5%	7	3.5	0.59	200	166-9633
39	± 5%	6	3.1	0.65	200	166-9634
47	± 5%	6	3	0.74	200	166-9637
56	± 5%	6	2.6	0.84	200	166-9639
68	± 5%	6	2.4	1.01	150	166-9641
82	± 5%	6	2.2	1.39	150	166-9644
100	± 5%	6	1.9	1.6	100	166-9646

531687

Order Multiple=5

Inductance (nH)	Order Code	Price Each
MLG0603 Type		
6.2	**166-9573**	
3	**166-9570**	
22	**166-9568**	
33	**166-9569**	
47	**166-9571**	
68	**166-9572**	
MLG1005S Type		
0.7	**166-9574**	
0.9	**166-9575**	
1	**166-9577**	
1.3	**166-9578**	
1.8	**166-9579**	
2.2	**166-9581**	
2.7	**166-9582**	
3.6	**166-9583**	
3.9	**166-9584**	
6.2	**166-9585**	
6.8	**166-9586**	
7.5	**166-9587**	
8.2	**166-9589**	
9.1	**166-9591**	
22	**166-9580**	
MLG1608 Type		
1	**166-9596**	
1.2	**166-9597**	
1.5	**166-9598**	
1.8	**166-9599**	
2.2	**166-9602**	
2.7	**166-9603**	
3.3	**166-9607**	
3.9	**166-9608**	
4.7	**166-9610**	
5.6	**166-9612**	
6.8	**166-9614**	
8.2	**166-9616**	
10	**166-9592**	
12	**166-9593**	
15	**166-9594**	
18	**166-9595**	
22	**166-9600**	
27	**166-9601**	
33	**166-9604**	
39	**166-9605**	
47	**166-9609**	
56	**166-9611**	
68	**166-9613**	
82	**166-9615**	
100	**166-9617**	
MLK1005 Type		
1	**166-9624**	
1.2	**166-9625**	
1.5	**166-9626**	
1.8	**166-9627**	
2.2	**166-9630**	
2.7	**166-9632**	
3.3	**166-9635**	
3.9	**166-9636**	
4.7	**166-9638**	
5.6	**166-9640**	
6.8	**166-9642**	
8.2	**166-9645**	
10	**166-9619**	
12	**166-9621**	
15	**166-9622**	
18	**166-9623**	
22	**166-9628**	
27	**166-9629**	
33	**166-9633**	
39	**166-9634**	
47	**166-9637**	
56	**166-9639**	
68	**166-9641**	
82	**166-9644**	
100	**166-9646**	

NLV32T Series

TDK

- Miniature wound coil SMD inductors
- Industry standard 1210 case size
- High Q factor
- Tight inductance tolerance of ±5%
- Self resonant frequencies ranging from 60 to 2500MHz minimum depending upon inductance
- Excellent performance characteristics for use in all types of electrical equipment

SMD

Operating temperature -20°C to +85°C Tolerance ±5%

Inductance (µh)	Q min.	Test Frequency (MHz)	Self Res. Frequency (MHz) Min.	DC Res. (Ω) max	Current (mA) max.	Mftrs. List No.	Order Code
0.01	15	100	2500	0.13	450	NLV32T-010J-PF	962-1407
0.012	17	100	2300	0.14	450	NLV32T-012J-PF	NEW 166-9918
0.015	19	100	2100	0.16	450	NLV32T-015J-PF	NEW 166-9919
0.018	21	100	1900	0.18	450	NLV32T-018J-PF	NEW 166-9920
0.022	23	100	1700	0.2	450	NLV32T-022J-PF	962-1415
0.027	23	100	1500	0.22	450	NLV32T-027J-PF	962-1423
0.033	25	100	1400	0.24	450	NLV32T-033J-PF	962-1431
0.039	25	100	1300	0.27	450	NLV32T-039J-PF	NEW 166-9921
0.047	26	100	1200	0.3	450	NLV32T-047J-PF	962-1440
0.056	26	100	1100	0.33	450	NLV32T-056J-PF	NEW 166-9922
0.068	27	100	1000	0.36	450	NLV32T-068J-PF	NEW 166-9923
0.082	27	100	900	0.4	450	NLV32T-082J-PF	NEW 166-9924
0.1	28	100	700	0.44	450	NLV32T-R10J-PF	962-1458
0.12	30	25.2	500	0.22	450	NLV32T-R12J-PF	NEW 166-9957
0.15	30	25.2	450	0.25	450	NLV32T-R15J-PF	NEW 166-9958
0.18	30	25.2	400	0.28	450	NLV32T-R18J-PF	NEW 166-9959
0.22	30	25.2	350	0.32	450	NLV32T-R22J-PF	NEW 166-9960
0.27	30	25.2	320	0.36	450	NLV32T-R27J-PF	NEW 166-9961
0.33	30	25.2	300	0.4	450	NLV32T-R33J-PF	962-1466
0.39	30	25.2	250	0.45	450	NLV32T-R39J-PF	NEW 166-9962
0.47	30	25.2	220	0.5	450	NLV32T-R47J-PF	NEW 166-9963
0.56	30	25.2	180	0.55	450	NLV32T-R56J-PF	NEW 166-9964
0.68	30	25.2	160	0.6	450	NLV32T-R68J-PF	962-1474
0.82	30	25.2	140	0.65	450	NLV32T-R82J-PF	962-1482
1	30	7.96	120	0.7	400	NLV32T-1R0J-PF	962-1490
1.2	30	7.96	100	0.75	390	NLV32T-1R2J-PF	NEW 166-9935
1.5	30	7.96	85	0.85	370	NLV32T-1R5J-PF	962-1504
1.8	30	7.96	80	0.9	350	NLV32T-1R8J-PF	962-1512
2.2	30	7.96	75	1	320	NLV32T-2R2J-PF	962-1520
2.7	30	7.96	70	1.1	290	NLV32T-2R7J-PF	NEW 166-9940
3.3	30	7.96	60	1.2	260	NLV32T-3R3J-PF	962-1539
3.9	30	7.96	55	1.3	250	NLV32T-3R9J-PF	NEW 166-9946
4.7	30	7.96	50	1.5	220	NLV32T-4R7J-PF	NEW 166-9949
5.6	30	7.96	45	1.6	200	NLV32T-5R6J-PF	NEW 166-9951
6.8	30	7.96	40	1.8	180	NLV32T-6R8J-PF	NEW 166-9954
8.2	30	7.96	35	2	170	NLV32T-8R2J-PF	NEW 166-9956
10	30	2.52	30	2.1	150	NLV32T-100J-PF	NEW 166-9925
12	30	2.52	20	2.5	140	NLV32T-120J-PF	NEW 166-9927
15	30	2.52	20	2.8	130	NLV32T-150J-PF	NEW 166-9931
18	30	2.52	20	3.3	120	NLV32T-180J-PF	NEW 166-9933
22	30	2.52	20	3.7	110	NLV32T-220J-PF	NEW 166-9936
27	30	2.52	20	5	80	NLV32T-270J-PF	NEW 166-9938
33	30	2.52	17	5.6	70	NLV32T-330J-PF	NEW 166-9942
39	30	2.52	16	6.4	65	NLV32T-390J-PF	NEW 166-9944
47	30	2.52	15	7	60	NLV32T-470J-PF	NEW 166-9947
56	30	2.52	13	8	55	NLV32T-560J-PF	NEW 166-9950
68	30	2.52	12	9	50	NLV32T-680J-PF	NEW 166-9952
82	30	2.52	11	10	45	NLV32T-820J-PF	NEW 166-9955
100	20	0.796	10	10	40	NLV32T-101J-PF	NEW 166-9926
120	20	0.796	10	11	70	NLV32T-121J-PF	NEW 166-9929
150	20	0.796	8	15	65	NLV32T-151J-PF	NEW 166-9932
180	20	0.796	7	17	60	NLV32T-181J-PF	NEW 166-9934

Inductors - SMD Chip - TDK - continued

NLV32T Series - continued

		Test	Self Res.				
220	20	0.796	7	21	50	NLV32T-221J-PF	NEW 166-9937
270	20	0.796	6	28	45	NLV32T-271J-PF	NEW 166-9939
330	20	0.796	5	34	40	NLV32T-331J-PF	NEW 166-9943
390	20	0.796	5	36	35	NLV32T-391J-PF	NEW 166-9945
470	20	0.796	4	40	25	NLV32T-471J-PF	NEW 166-9948

243232

Order Multiple=5

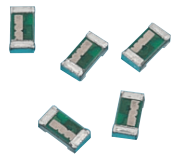
Order Code	Price Each
All Values RL	
NEW All Values RL	

Inductors - SMD Chip - Tyco Electronics

3640 Series

0402 & 0603 Case Sizes

Tyco Electronics



- Thin film technology surface mount RF inductors
- 0402 and 0603 case sizes
- Tight tolerances with narrow distributions
- High Q factor
- Suitable for telecommunications applications

SMD

H=0.5, W=0.8, L=1.6
Supplied on 8mm tape (reel=500pcs)

Operating temperature -40°C to +85°C
Temperature coefficient 0 to +125ppm/°C
Self resonant frequency 6000MHz

Inductance (nH)	Tolerance	Q Min.	Test. Freq (MHz)	DC Res. (Ω)	Current Max. (mA)	Mftrs. List No.	Order Code
0402 Case Size							
0.2	± 0.2nH	13	500	0.1	800	36401E0N2ATDF	176-0946
0.4	± 0.2nH	13	500	0.1	800	36401E0N4ATDF	176-0947
0.8	± 0.2nH	13	500	0.15	700	36401E0N8ATDF	176-0948
1	± 0.2 nH	13	300	0.1	700	36401E1N0ATDF	117-4118
1.1	± 0.2nH	13	500	0.15	700	36401E1N1ATDF	176-0949
1.2	± 0.2nH	13	500	0.15	700	36401E1N2ATDF	176-0950
1.3	± 0.2nH	13	500	0.25	700	36401E1N3ATDF	176-0951
1.4	± 0.2nH	13	500	0.25	700	36401E1N4ATDF	176-0952
1.5	± 0.2 nH	13	300	0.2	700	36401E1N5ATDF	117-4119
1.6	± 0.2nH	13	500	0.25	560	36401E1N6ATDF	176-0953
1.7	± 0.2nH	13	500	0.25	560	36401E1N7ATDF	176-0954
1.8	± 0.2nH	13	500	0.25	560	36401E1N8ATDF	176-0955
1.9	± 0.2nH	13	500	0.35	560	36401E1N9ATDF	176-0957
2	± 0.2nH	13	500	0.35	560	36401E2N0ATDF	176-0958
2.1	± 0.2nH	13	500	0.35	440	36401E2N1ATDF	176-0959
2.2	± 0.2 nH	13	300	0.3	440	36401E2N2ATDF	117-4120
2.3	± 0.2nH	13	500	0.35	440	36401E2N3ATDF	176-0960
2.4	± 0.2nH	13	500	0.35	440	36401E2N4ATDF	176-0961
2.5	± 0.2nH	13	500	0.35	440	36401E2N5ATDF	176-0962
2.6	± 0.2nH	13	500	0.35	440	36401E2N6ATDF	176-0963
2.7	± 0.2nH	13	500	0.35	440	36401E2N7ATDF	176-0964
2.8	± 0.2nH	13	500	0.45	380	36401E2N8ATDF	176-0965
2.9	± 0.2nH	13	500	0.45	380	36401E2N9ATDF	176-0966
3	± 0.2nH	13	500	0.45	380	36401E3N0ATDF	176-0967
3.1	± 0.2nH	13	500	0.45	380	36401E3N1ATDF	176-0969
3.2	± 0.2nH	13	500	0.45	380	36401E3N2ATDF	176-0971
3.3	± 0.2 nH	13	300	0.4	380	36401E3N3ATDF	117-4121
3.4	± 0.2nH	13	500	0.55	380	36401E3N4ATDF	176-0972
3.5	± 0.2nH	13	500	0.55	380	36401E3N5ATDF	176-0973
3.6	± 0.2nH	13	500	0.55	380	36401E3N6ATDF	176-0974
3.7	± 0.2nH	13	500	0.55	340	36401E3N7ATDF	176-0975
3.8	± 0.2nH	13	500	0.55	340	36401E3N8ATDF	176-0976
3.9	± 0.2nH	13	500	0.55	340	36401E3N9ATDF	176-0977
4.7	± 0.2 nH	13	300	0.6	320	36401E4N7ATDF	117-4122
5.6	± 0.2nH	13	500	0.85	280	36401E5N6ATDF	176-0978
5.9	± 0.2nH	13	500	0.85	280	36401E5N9ATDF	176-0979
6.8	± 0.2 nH	13	300	0.9	260	36401E6N8ATDF	117-4123
7.2	± 0.2nH	13	500	1.05	260	36401E7N2ATDF	176-0980
8	± 0.2nH	13	500	1.25	220	36401E8N0ATDF	176-0982
8.2	± 0.2 nH	13	300	1.1	220	36401E8N2ATDF	117-4124
9.1	± 0.2nH	13	500	1.25	220	36401E9N1ATDF	176-0983
10	±5%	13	300	1.3	200	36401E10NGTDF	117-4126
12	± 2%	13	500	1.55	180	36401E12NGTDF	176-0984
13.8	± 2%	13	500	1.75	180	36401E13N8GTDF	176-0985
15	± 2%	13	500	1.75	130	36401E15NGTDF	176-0986
17	± 2%	13	500	1.95	100	36401E17NGTDF	176-0987
18	± 2%	13	500	2.15	100	36401E18NGTDF	176-0988
20.8	± 2%	13	500	2.55	90	36401E20N8GTDF	176-0989
22	±5%	13	300	2.6	90	36401E22NJ	117-4127
33	±5%	13	200	3.6	130	36401E33NJTDF	117-4128
27	± 2%	13	500	3.25	75	36401E27NGTDF	176-0990
0603 Case Size							
1	± 0.2 nH	15	300	0.2	800	36401J1N0A	117-4040
1.2	± 0.2nH	15	300	0.35	800	36401J1N2ATDF	176-0991
1.5	± 0.2 nH	15	300	0.2	800	36401J1N5A	117-4041
1.8	± 0.2nH	15	300	0.35	300	36401J1N8ATDF	176-0992
2.2	± 0.2 nH	15	300	0.2	300	36401J2N2ATDF	117-4042
2.7	± 0.2nH	15	300	0.45	300	36401J2N7ATDF	176-0994
3.3	± 0.2 nH	15	300	0.2	300	36401J3N3ATDF	117-4043
3.9	± 0.2nH	15	300	0.45	300	36401J3N9ATDF	176-0995
4.7	± 0.2 nH	15	300	0.2	300	36401J4N7ATDF	117-4044
5.6	± 0.2nH	15	300	0.65	300	36401J5N6ATDF	176-0996
6.8	± 0.2 nH	15	300	0.5	300	36401J6N8ATDF	117-4045
8.2	± 0.2nH	15	300	0.95	300	36401J8N2ATDF	176-0997
10	±2%	15	300	1	300	36401J10NGTDF	117-4047
12	± 2%	15	300	1.05	300	36401J12NGTDF	176-0998
15	±2%	15	300	1	300	36401J15NGTDF	117-4048
18	± 2%	15	300	1.65	300	36401J18NGTDF	176-0999
22	±2%	15	300	2	250	36401J22NGTDF	117-4049
27	± 2%	15	300	2.35	250	36401J27NGTDF	176-1000
33	±2%	15	200	2	250	36401J33NGTDF	117-4050
39	±2%	15	200	3	200	36401J39NG	117-4051
47	±2%	15	200	3	200	36401J47NGTDF	117-4052
56	± 2%	15	300	5	150	36401J56NGTDF	176-1001
68	±2%	15	200	5	150	36401J68NGTDF	117-4053
100	±2%	15	200	8.5	100	36401JR10GTDF	117-4054

204184

Kit Contains 20 each of:
Size 0402 values are: 0.2nH, **0.3nH,** 0.4nH, **0.5nH**, 0.8nH, **0.9nH**, 1.0nH, **1.1nH**, 1.2nH, **1.3nH**, 1.4nH, **1.5nH**, 1.6nH, **1.7nH**, 1.8nH, **1.9nH**, 2.0nH, **2.1nH**, 2.2nH, **2.3nH**, 2.4nH, **2.5nH**, 2.6nH, **2.7nH**, 2.8nH, **2.9nH**, 3.0nH, **3.1nh**, 3.2nH, **3.3nH**, 3.4nH, **3.5nH**, 3.6nH, **3.7nH**, 3.8nH, **3.9nH**, 4.3nH, **4.7nH**, 5.4nH, **5.6nH**, 5.9nH, **6.5nH**, 6.8nH, **7.2nH**, 8.0nH, **8.1nH**, 8.2nH, **9.1nH**, 10nH, **10.8nH**, 12nH, **13.8nH**, 15nH, **17nH**, 18nH, **20.8nH**, 22nH, **27nh**, 33nH
Size 0603 values are: 1.0nH, **1.2nH** 1.5nH, **1.8nH,** 2.2 nH, **2.7nH**, 3.3nH, **3.9nH,** 4.7nH, **5.6nH** ,6.8nH, **8.2nH,** 10nH, **12nH**, 15nH, **18nH**, 22nH, **27nH,** 33nH, **39nH**, 47nH, **56nH**, 68nH, **100nH**

Order Multiple=10

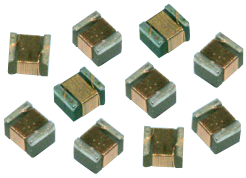
Case Size	Order Code	Price Each
0402	All Values RL	
0603	All Values RL	

Lab Kit 3640	176-1002	

RL **FREE Re-reeling service.** Only buy what you need and improve assembly efficiency. For more information visit **local website**

3650 Series

Tyco Electronics



- Low inductance, high frequency chip inductors
- 0402, 0603, 0805 and 1008 case sizes
- Smooth top aids placement
- High Q factor and S.R.F.

SMD

Operating temperature -40°C to +125°C

0402 Case Size

Inductance (nH)	Tolerance	Q Min.	S.R.F. (GHz)	DC Res. (Ω)	Current Max. (mA)	Mftrs. List No.	Order Code
1	±10%	16	12.7	0.045	1360	36501E1N0KTDG	126-5391
2	±5%	16	11.1	0.07	1040	36501E2N0JTDG	126-5393
2.2	±5%	19	10.8	0.07	960	36501E2N2JTDG	126-5394
2.7	±5%	16	10.4	0.12	640	36501E2N7JTDG	126-5396
3.3	±5%	19	7	0.066	840	36501E3N3JTDG	126-5397
3.6	±5%	19	6.8	0.066	840	36501E3N6JTDG	126-5399
3.9	±5%	19	5.8	0.066	840	36501E3N9JTDG	126-5400
4.7	±5%	15	4.7	0.13	640	36501E4N7JTDG	126-5402
5.1	±5%	20	4.8	0.083	800	36501E5N1JTDG	126-5405
5.6	±5%	20	4.8	0.083	760	36501E5N6JTDG	126-5406
6.2	±5%	20	4.8	0.083	760	36501E6N2JTDG	126-5407
6.8	±5%	20	4.8	0.083	680	36501E6N8JTDG	126-5408
7.5	±5%	22	4.8	0.104	680	36501E7N5JTDG	126-5409
8.2	±5%	22	4.4	0.104	680	36501E8N2JTDG	126-5410
8.7	±5%	18	4.1	0.2	480	36501E8N7JTDG	126-5411
10	±5%	21	3.9	0.195	480	36501E10NJTDG	126-5414
12	±5%	24	3.6	0.12	640	36501E12NJTDG	126-5418
13	±5%	24	3.45	0.21	440	36501E13NJTDG	126-5419
15	±5%	24	3.28	0.172	560	36501E15NJTDG	126-5420
16	±5%	24	3.1	0.22	560	36501E16NJTDG	126-5421
18	±5%	24	3.1	0.23	420	36501E18NJTDG	126-5422
20	±5%	25	3	0.25	420	36501E20NJTDG	126-5424
22	±5%	25	2.8	0.3	400	36501E22NJTDG	126-5425
24	±5%	25	2.7	0.3	400	36501E24NJTDG	126-5427
27	±5%	24	2.48	0.3	400	36501E27NJTDG	126-5429
30	±5%	25	2.35	0.35	400	36501E30NJTDG	126-5431
33	±5%	24	2.35	0.35	400	36501E33NJTDG	126-5432
36	±5%	24	2.32	0.44	320	36501E36NJTDG	126-5433
39	±5%	25	2.1	0.55	200	36501E39NJTDG	126-5434
43	±5%	25	2.03	0.81	100	36501E43NJTDG	126-5436
47	±5%	20	2.1	0.83	150	36501E47NJTDG	126-5437
56	±5%	22	1.76	0.97	100	36501E56NJTDG	126-5439
68	±5%	22	1.62	1.12	100	36501E68NJTDG	126-5440

Order Code	Price Each
All Values	

0603 Case Size

Inductance (nH)	Tolerance	Q Min.	S.R.F. (GHz)	DC Res. (Ω)	Current Max. (mA)	Mftrs. List No.	Order Code
1.6	±5%	16	12500	0.04	700	36501J1N6JTDG	126-5442
1.8	±5%	16	12500	0.045	700	36501J1N8JTDG	126-5443
2.2	±5%	20	6000	0.1	700	36501J2N2JTDG	126-5444
3.3	±5%	22	6000	0.08	700	36501J3N3JTDG	126-5445
3.6	±5%	22	5800	0.063	700	36501J3N6JTDG	126-5446
3.9	±5%	22	6000	0.08	700	36501J3N9JTDG	126-5447

Inductance (nH)	Tolerance	Q Min.	S.R.F. (GHz)	DC Res. (Ω)	Current Max. (mA)	Mftrs. List No.	Order Code
4.3	±5%	22	5800	0.063	700	36501J4N3JTDG	126-5448
4.7	±5%	20	5800	0.12	700	36501J4N7JTDG	126-5449
5.1	±5%	20	5800	0.16	700	36501J5N1JTDG	126-5450
5.6	±5%	20	5800	0.17	700	36501J5N6JTDG	126-5451
6.8	±5%	27	5800	0.11	700	36501J6N8JTDG	126-5452
7.5	±5%	27	4800	0.11	700	36501J7N5JTDG	126-5454
8.2	±5%	27	4800	0.11	700	36501J8N2JTDG	126-5455
8.7	±5%	27	4800	0.11	700	36501J8N7JTDG	126-5456
9.5	±5%	27	4800	0.13	700	36501J9N5JTDG	126-5457
10	±5%	31	4800	0.13	700	36501J010JTDG	126-5458
12	±5%	35	4000	0.13	700	36501J012JTDG	126-5460
15	±5%	35	4000	0.17	700	36501J15NJTDG	126-5461
16	±5%	35	3300	0.11	700	36501J16NJTDG	126-5462
18	±5%	35	3100	0.17	700	36501J18NJTDG	126-5463
22	±5%	38	3000	0.19	700	36501J022JTDG	126-5464
24	±5%	36	2800	0.13	700	36501J24NJTDG	126-5467
27	±5%	40	2800	0.22	600	36501J027JTDG	126-5468
30	±5%	37	2800	0.15	600	36501J30NJTDG	126-5469
33	±5%	40	2300	0.22	600	36501J033JTDG	126-5470
36	±5%	37	2300	0.25	600	36501J36NJTDG	126-5471
39	±5%	40	2200	0.25	600	36501J039JTDG	126-5472
47	±5%	38	2000	0.28	600	36501J047JTDG	126-5474
51	±5%	35	1900	0.28	600	36501J51NJTDG	126-5475
56	±5%	38	1900	0.31	600	36501J56NJTDG	126-5476
68	±5%	37	1700	0.34	600	36501J068JTDG	126-5478
82	±5%	34	1700	0.54	400	36501J82NJTDG	126-5480
100	±5%	34	1400	0.58	400	36501JR10JTDG	126-5481
110	±5%	32	1350	0.61	300	36501JR11JTDG	126-5482
120	±5%	32	1300	0.65	300	36501JR12JTDG	126-5483
150	±5%	32	1300	0.95	280	36501JR15JTDG	126-5485
180	±5%	25	1250	1.4	250	36501JR18JTDG	126-5487
220	±5%	25	1200	1.6	250	36501JR22JTDG	126-5488
270	±5%	25	900	2.1	200	36501JR27JTDG	126-5492
330	±5%	25	900	3.8	100	36501JR33JTDG	126-5493
390	±5%	25	900	4.35	100	36501JR39JTDG	126-5494

Price Each

Order Code	
All Values ●	

0805 Case Size

Inductance (nH)	Tolerance	Q Min.	S.R.F. (GHz)	DC Res. (Ω)	Current Max. (mA)	Mftrs. List No.	Order Code
3.3	±5%	50	6000	0.08	600	36502A3N3JTDG	126-5497
5.6	±5%	65	5500	0.08	600	36502A5N6JTDG	126-5498
6.8	±5%	50	5500	0.11	600	36502A6N8JTDG	126-5499
8.2	±5%	50	4700	0.12	600	36502A8N2JTDG	126-5501
8.7	±5%	50	3900	0.21	400	36502A8N7JTDG	126-5502
10	±5%	60	4200	0.1	600	36502A10NJTDG	126-5503
12	±5%	50	4000	0.15	600	36502A12NJTDG	126-5504
15	±5%	50	3400	0.17	600	36502A15NJTDG	126-5505
18	±5%	50	3300	0.2	600	36502A18NJTDG	126-5506
22	±5%	55	2600	0.22	500	36502A22NJTDG	126-5508
27	±5%	55	2500	0.25	500	36502A27NJTDG	126-5510
33	±5%	60	2050	0.27	500	36502A33NJTDG	126-5511
39	±5%	60	2000	0.29	500	36502A39NJTDG	126-5513
47	±5%	60	1650	0.31	500	36502A47NJTDG	126-5515
56	±5%	60	1550	0.34	500	36502A56NJTDG	126-5516
68	±5%	60	1450	0.38	500	36502A68NJTDG	126-5517
82	±5%	65	1300	0.42	400	36502A82NJTDG	126-5521
100	±5%	65	1200	0.46	400	36502AR10JTDG	126-5523
110	±5%	50	1000	0.48	400	36502AR11JTDG	126-5524
120	±5%	50	1100	0.51	400	36502AR12JTDG	126-5526
150	±5%	50	920	0.56	400	36502AR15JTDG	126-5527
180	±5%	50	870	0.64	400	36502AR18JTDG	126-5528
220	±5%	50	850	0.7	400	36502AR22JTDG	126-5530
270	±5%	48	650	1	350	36502AR27JTDG	126-5534
300	±5%	48	620	1.2	330	36502AR30JTDG	126-5535
330	±5%	48	600	1.4	310	36502AR33JTDG	126-5536
390	±5%	48	560	1.5	290	36502AR39JTDG	126-5538
470	±5%	33	375	1.7	220	36502AR47JTDG	126-5540
560	±5%	23	340	1.9	210	36502AR56JTDG	126-5541
680	±5%	23	200	2.2	190	36502AR68JTDG	126-5543
820	±5%	23	200	2.35	180	36502AR82JTDG	126-5546
1000	±5%	20	100	2.5	170	36502A1R0JTDG	126-5547
1800	±5%	16	80	2.5	170	36502A1R8JTDG	126-5550
2200	±5%	16	60	2.7	160	36502A2R2JTDG	126-5551
2700	±5%	16	50	2.95	150	36502A2R7JTDG	126-5552

Price Each

Order Code	
All Values ●	

1008 Case Size

Inductance (nH)	Tolerance	Q Min.	S.R.F. (GHz)	DC Res. (Ω)	Current Max. (mA)	Mftrs. List No.	Order Code
10	±5%	50	4100	0.08	1000	36502C10NJTDG	126-5554
22	±5%	55	2400	0.12	1000	36502C22NJTDG	126-5559
33	±5%	60	1600	0.14	1000	36502C33NJTDG	126-5562
39	±5%	60	1500	0.15	1000	36502C39NJTDG	126-5563
47	±5%	65	1500	0.16	1000	36502C47NJTDG	126-5564
56	±5%	65	1300	0.18	1000	36502C56NJTDG	126-5565
68	±5%	65	1300	0.2	1000	36502C68NJTDG	126-5567
82	±5%	60	1000	0.22	1000	36502C82NJTDG	126-5571
100	±5%	60	1000	0.56	650	36502CR10JTDG	126-5572
120	±5%	60	950	0.63	650	36502CR12JTDG	126-5573
180	±5%	45	750	0.77	620	36502CR18JTDG	126-5575
220	±5%	45	700	0.84	500	36502CR22JTDG	126-5576
270	±5%	45	600	0.91	500	36502CR27JTDG	126-5578
330	±5%	45	570	1.05	450	36502CR33JTDG	126-5580
390	±5%	45	500	1.12	470	36502CR39JTDG	126-5583
470	±5%	45	450	1.19	470	36502CR47JTDG	126-5585
560	±5%	45	415	1.33	400	36502CR56JTDG	126-5586
680	±5%	45	375	1.47	400	36502CR68JTDG	126-5588
1000	±5%	35	290	1.75	370	36502C1R0JTDG	126-5592
4700	±5%	20	90	4	260	36502C4R7JTDG	126-5602
8200	±5%	15	25	6	170	36502C8R2JTDG	126-5606
10000	±5%	15	20	9	150	36502C103JTDG	126-5607
15000	±5%	15	15	11.5	120	36502C153JTDG	126-5609

451386

Price Each

Order Code	
All Values ●	

3613C Series

Tyco Electronics

1812 Case Size, Fully Encapsulated

SMD

- Ferrite cored wound chip inductor suitable for dip and reflow soldering
- Excellent Q factor
- Encapsulated in thermoset plastic body with copper lead terminations
- Full reels to **IEC 286 Pt 3**

Supplied on 8mm embossed tape, individually marked (reel = 500 pcs)

Note: 1 Inductance tolerance marking M±20% K±10%
2 The 3613C replaces the Meggit Sigma 3613A which is now obsolete

Inductance µH	Inductance Tolerance %	DC Resistance Ω	Max dc Current mA	Q factor Min	Test. Frequency MHz	Self Res Frequency MHz	Order Code
0.22	20	0.25	665	40	25.2	200	117-4063
0.33	20	0.28	605	40	25.2	165	117-4064
0.47	20	0.32	545	40	25.2	145	117-4065
0.68	20	0.4	500	40	25.2	135	117-4066
1	10	0.5	450	50	7.96	100	117-4067
2.2	10	0.7	380	50	7.96	55	117-4068
3.3	10	0.8	355	50	7.96	45	117-4069
4.7	10	1	315	50	7.96	35	117-4070
5.6	10	1.1	300	50	7.96	33	117-4072
10	10	1.6	250	50	2.52	20	117-4073
22	10	3.2	180	50	2.52	13	117-4074
33	10	4	160	50	2.52	11	117-4075
47	10	5	140	50	2.52	10	117-4076
100	10	8	110	40	0.796	8	117-4077
150	10	9	105	40	0.796	5	117-4078
220	10	10	100	40	0.796	4	117-4080
470	10	26	62	40	0.796	3	117-4081

227205

Price Each

Order Code	
All Values ● RL	

3650 Series - Design Kits

Tyco Electronics

- Designs kits for 3650 Series inductors

SMD

Case size
0402 Kit contains 50 each of 43 values
0603 Kit contains 50 each of 46 values
0805 Kit contains 50 each of 52 values

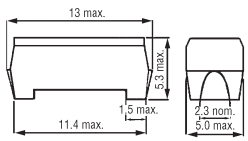
494120

Price Each

	Order Code
0402 Lab Kit	**150-2947**●
0603 Lab Kit	**150-2948**●
0805 Lab Kit	**150-2949**●

High Current - 3615 Series

Tyco Electronics



SMD

Supplied on 24mm tape, Individually marked (Reel=1k pcs)

- High current, wound, surface mount inductors
- One case size covers all inductance values
- High reliability
- Suitable for DIP and wave soldering
- Epoxy moulded construction

Insulation resistance 1000mΩ
Inductance tolerance ±10%
Operating temperature -55°Cto +100°C

Inductance µH	DC Resistance Ω	Max DC Current (mA)	**Q factor (Min)**	Test. Frequency MHz	Self Res Frequency MHz	Order Code
0.1	0.027	3500	50	25	550	117-4504
0.22	0.035	2570	50	25	415	117-4506
0.47	0.08	1700	50	25	300	117-4507
1	0.25	930	50	25	200	117-4508
2.2	0.9	505	35	7.9	140	117-4509
4.7	0.21	1050	35	7.9	60	117-4510
10	0.6	620	35	7.9	42	117-4511
100	4.9	216	55	2.5	8	117-4513

Inductors - SMD Chip - Tyco Electronics - continued

High Current - 3615 Series - continued

Inductance	DC Resistance	Max DC Current	Q factor (Min)	Test. Frequency	Self Res Frequency	
220	7.5	175	60	0.79	5.8	117-4515
470	11	144	60	0.79	4	117-4516
1000	16.5	118	60	0.79	2.5	117-4517

Mftrs. List No. 3615A + value + K

204121

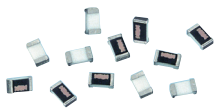
Order Multiple=5 **Price Each**

Inductance value	Order Code
0.1µH to 47µH	**All Values** ● RL
100µH to 1000µH	**All Values** ● RL

Inductors - SMD Chip - Würth Elektronik

WE-TCI Series

0402 & 0603 Case Sizes



- High self resonant frequency
- Excellent Q-factor
- Tight tolerances of 2% (1% on request) or ± 0.1 nH
- Outstanding temperature stability
- In high frequency circuit the inductance is very stable
- Low inductance values
- Recommended soldering profile: Reflow
- Operating temperature range -40°C up to +125°C

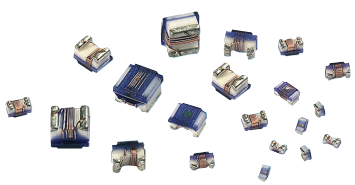
Inductance (nH)	Tolerance	Q Min.	Test. Freq (MHz)	DC Res. (Ω)	Current Max. (mA)	SRF (GHz)	Mftrs. List No.	Order Code
0402 Case Size								
1	± 0.1nH	13	500	0.1	700	12	744901010	180-0294
1.2	± 0.1nH	13	500	0.1	700	12	744901012	180-0295
1.5	± 0.1nH	13	500	0.2	700	10	744901015	180-0296
1.8	± 0.1nH	13	500	0.2	560	10	744901018	180-0297
2.2	± 0.1nH	13	500	0.3	440	8	744901022	180-0298
2.7	± 0.1nH	13	500	0.3	440	8	744901027	180-0299
3.3	± 0.1nH	13	500	0.4	380	6	744901033	180-0300
3.9	± 0.1nH	13	500	0.5	340	6	744901039	180-0301
4.7	± 0.1nH	13	500	0.6	320	6	744901047	180-0302
5.6	± 0.1nH	13	500	0.7	280	6	744901056	180-0303
6.8	± 0.1nH	13	500	0.9	260	6	744901068	180-0304
8.2	± 0.1nH	13	500	1.1	220	5.5	744901082	180-0305
10	± 2%	13	500	1.3	200	4.5	744901110	180-0306
12	± 2%	13	500	1.6	180	3.7	744901112	180-0307
15	± 2%	13	500	1.8	130	3.3	744901115	180-0308
18	± 2%	13	500	2	100	3.1	744901118	180-0311
22	± 2%	13	500	2.6	90	2.8	744901122	180-0312
0603 Case Size								
1	± 0.1nH	15	300	0.2	800	13	744902010	180-0313
1.2	± 0.1nH	15	300	0.2	800	13	744902012	180-0314
1.5	± 0.1nH	15	300	0.2	800	10	744902015	180-0315
1.8	± 0.1nH	15	300	0.2	300	10	744902018	180-0316
2.2	± 0.1nH	15	300	0.2	300	8	744902022	180-0317
2.7	± 0.1nH	15	300	0.2	300	6	744902027	180-0318
3.3	± 0.1nH	15	300	0.2	300	6	744902033	180-0319
3.9	± 0.1nH	15	300	0.2	300	6	744902039	180-0320
4.7	± 0.1nH	15	300	0.2	300	5	744902047	180-0321
5.6	± 0.1nH	15	300	0.5	300	5	744902056	180-0323
6.8	± 0.1nH	15	300	0.5	300	5	744902068	180-0324
8.2	± 0.1nH	15	300	0.5	300	4	744902082	180-0325
10	± 2%	15	300	1	300	4	744902110	180-0326
12	± 2%	15	300	1	300	3	744902112	180-0327
15	± 2%	15	300	1	300	3	744902115	180-0328
18	± 2%	15	300	2	300	2	744902118	180-0329
22	± 2%	15	300	2	250	2	744902122	180-0330
27	± 2%	15	300	2	250	2	744902127	180-0331
33	± 2%	15	300	2	250	1.5	744902133	180-0332
39	± 2%	15	300	3	200	1.5	744902139	180-0333
47	± 2%	15	300	3	200	1.5	744902147	180-0335
56	± 2%	15	300	5	150	1	744902156	180-0336
68	± 2%	15	300	5	150	1	744902168	180-0337

605757

Order Multiple=10 **Price Each**

Case Size	Order Code
0402	**All Values** ●
0603	**All Values** ●

WE-KI Series



- Excellent Q Factor
- High Thermal Stability
- Applications include bluetooth & wireless LAN

Dimensions	(HxWxD)
0402	0.5 x 1 x 0.55mm
0603 (7447xxxxxA)	1.05 x 1.6 x 1.05mm
0603 (7447xxxxxC)	0.9 x 1.65 x 1.15mm
0805 (7447xxxxxA)	1.2 x 2 x 1.25mm
0805 (7447xxxxxC)	1.28 x 2.28 x 1.7mm

0402 Case Size

Inductance nH	Inductance Tolerance	DC Resistance (mΩ)	Self-Resonant Freq. (MHz)	Max. Rated Current (mA)	Mftrs. List No.	Order Code
1	± 0.2nH	45	6000	1.36 A	744765010A	174-8697
1.9	± 0.2nH	70	6000	1.04 A	744765019A	174-8698
2	± 0.2nH	70	6000	1.04 A	744765020A	174-8699
2.2	± 0.2nH	70	6000	960	744765022A	174-8700
2.4	± 0.2nH	68	6000	790	744765024A	174-8702
2.7	± 0.2nH	120	6000	640	744765027A	174-8703
3.3	± 5%	66	6000	840	744765033A	174-8704
3.6	± 5%	66	6000	840	744765036A	174-8705
3.9	± 5%	66	5800	840	744765039A	174-8706
4.3	± 5%	91	6000	700	744765043A	174-8707
4.7	± 5%	130	4775	640	744765047A	174-8708
5.1	± 5%	83	5800	800	744765051A	174-8709
5.6	± 5%	83	5800	760	744765056A	174-8710
6.2	± 5%	83	5800	760	744765062A	174-8711
6.8	± 5%	83	4800	680	744765068A	174-8712
7.5	± 5%	104	5800	680	744765075A	174-8714
8.2	± 5%	104	4400	680	744765082A	174-8715
8.7	± 5%	200	4100	480	744765087A	174-8716
9	± 5%	104	4160	680	744765090A	174-8717
9.5	± 5%	200	4000	680	744765095A	174-8718
10	± 5%	195	3900	480	744765110A	174-8719
11	± 5%	120	3680	640	744765111A	174-8720
12	± 5%	120	3600	640	744765112A	174-8721
13	± 5%	210	3450	560	744765113A	174-8722
15	± 5%	172	3280	560	744765115A	174-8723
16	± 5%	220	3100	560	744765116A	174-8724
18	± 5%	230	3100	420	744765118A	174-8726
19	± 5%	202	3040	480	744765119A	174-8727
20	± 5%	250	3000	420	744765120A	174-8728
22	± 5%	300	2800	400	744765122A	174-8729
23	± 5%	214	2720	400	744765123A	174-8730
24	± 5%	300	2700	400	744765124A	174-8731
27	± 5%	298	2480	400	744765127A	174-8732
30	± 5%	300	2350	400	744765130A	174-8733
33	± 5%	350	2350	400	744765133A	174-8734
36	± 5%	403	2320	320	744765136A	174-8735
39	± 5%	550	2100	320	744765139A	174-8736
40	± 5%	438	2240	320	744765140A	174-8738
43	± 5%	810	2030	100	744765143A	174-8739
47	± 5%	830	2100	100	744765147A	174-8740
51	± 5%	820	1750	100	744765151A	174-8741
56	± 5%	970	1760	100	744765156A	174-8742
100	± 5%	2.52 ohm	1300	100	744765210A	174-8743

Price Each

Order Code	
All Values ●	

0603 Case Size

Inductance nH	Inductance Tolerance	DC Resistance (mΩ)	Self-Resonant Freq. (MHz)	Max. Rated Current (mA)	Mftrs. List No.	Order Code
1.6	± 5%	30	12500	700	744761016A	174-8744
1.8	± 0.2nH	50	12500	700	744761018A	174-8745
2	± 0.2nH	80	6900	700	744761020A	174-8746
3.3	± 0.2nH	60	5800	700	744761033A	174-8747
3.6	± 0.2nH	60	5900	700	744761036A	174-8748
3.9	± 5%	70	6900	700	744761039C	174-8751
4.3	± 5%	70	5900	700	744761043C	174-8752
4.7	± 5%	80	5800	700	744761047C	174-8753
5.1	± 5%	150	5700	700	744761051C	174-8754
5.6	± 5%	190	5700	700	744761056C	174-8755
6.8	± 5%	110	5800	700	744761068A	174-8756
7.5	± 5%	100	4800	700	744761075C	174-8757
8.2	± 5%	100	4700	700	744761082C	174-8758
8.7	± 5%	100	4600	700	744761087C	174-8759
10	± 5%	130	4800	700	744761110A	174-8760
11	± 5%	100	4000	700	744761111C	174-8761
12	± 5%	100	4000	700	744761112C	174-8763
15	± 5%	170	4000	700	744761115A	174-8764
16	± 5%	170	3300	700	744761116A	174-8765
18	± 5%	120	3100	700	744761118C	174-8766
20	± 5%	120	3100	700	744761120C	174-8767
22	± 5%	220	3000	700	744761122A	174-8768
24	± 5%	140	2650	700	744761124C	174-8769
27	± 5%	220	2800	600	744761127A	174-8770
30	± 5%	220	2500	600	744761130A	174-8771
33	± 5%	200	2300	600	744761133C	174-8772
36	± 5%	200	2080	600	744761136C	174-8773
39	± 5%	210	2200	600	744761139C	174-8775
47	± 5%	230	2000	600	744761147C	174-8776
51	± 5%	240	1950	600	744761151C	174-8777
56	± 5%	250	1900	600	744761156C	174-8778
68	± 5%	350	1700	600	744761168C	174-8779
72	± 5%	490	1700	400	744761172A	174-8780
82	± 5%	580	1700	400	744761182C	174-8781
100	± 5%	630	1400	400	744761210A	174-8782
120	± 5%	650	1300	300	744761212C	174-8783
150	± 5%	850	990	280	744761215C	174-8784
180	± 5%	1 ohm	990	250	744761218C	174-8785
220	± 5%	1.8 ohm	900	250	744761222C	174-8787
270	± 5%	2.1 ohm	822	200	744761227C	174-8788
330	± 5%	2 ohm	500	150	744761233A	174-8789
390	± 5%	2.2 ohm	900	100	744761239A	174-8790

Price Each

Order Code

All Values ●

0805 Case Size

Inductance nH	Inductance Tolerance	DC Resistance (mΩ)	Self-Resonant Freq. (MHz)	Max. Rated Current (mA)	Mftrs. List No.	Order Code
2.2	± 0.2nH	60	6000	800	744760022A	174-8791
2.7	± 5%	100	7900	800	744760027C	174-8792
3.3	± 0.2nH	80	6000	800	744760033A	174-8793
3.9	± 0.2nH	60	6000	600	744760039A	174-8794
4.7	± 0.2nH	60	5800	600	744760047A	174-8795
5.6	± 5%	100	5500	600	744760056C	174-8796
6.8	± 5%	110	5500	600	744760068C	174-8797
8.2	± 5%	60	5500	600	744760082A	174-8799
10	± 5%	120	4200	600	74476010C	174-8800
12	± 5%	150	4000	600	744760112C	174-8801
15	± 5%	170	3400	600	744760115C	174-8802
18	± 5%	200	3300	500	744760118C	174-8803
22	± 5%	220	2600	500	74476012C	174-8805
27	± 5%	250	2500	500	744760127C	174-8806
33	± 5%	270	2050	500	74476013C	174-8807
36	± 5%	180	2000	500	744760136A	174-8808
39	± 5%	290	2000	500	744760139C	174-8809
47	± 5%	310	1650	500	74476014C	174-8810
56	± 5%	340	1550	500	74476015C	174-8811
68	± 5%	380	1450	500	74476016C	174-8812
82	± 5%	420	1300	400	74476018C	174-8813
100	± 5%	460	1200	400	7447602C	174-8814
120	± 5%	510	1100	400	744760212C	174-8815
150	± 5%	560	920	400	744760215C	174-8817
180	± 5%	960	870	400	744760218C	174-8818
220	± 5%	1 ohm	850	400	744760222C	174-8819
270	± 5%	1.29 ohm	650	350	744760227C	174-8820
330	± 5%	1.56 ohm	600	310	744760233C	174-8821
390	± 5%	2.1 ohm	560	290	744760239C	174-8822
470	± 5%	2.3 ohm	375	250	74476032C	174-8823
560	± 5%	2.5 ohm	340	230	744760256C	174-8824
620	± 5%	2.7 ohm	188	400	744760262C	174-8825
680	± 5%	2.8 ohm	188	190	7447604C	174-8826
820	± 5%	3.9 ohm	215	180	744760282C	174-8827
1000	± 5%	4.2 ohm	285	150	744760310C	174-8829
1200	± 5%	4.6 ohm	200	150	744760312C	174-8831
1500	± 5%	5.3 ohm	200	130	744760315C	174-8832

544674

Price Each

Order Code

All Values ●

WE-LQ Series

- Miniature chip inductor wound on a special ferrite core
- High Q at high frequencies
- Low DC-resistance
- Operating temperature: -40 °C to +125 °C
- Recommended solder profile: Reflow
- Inductance tolerance 5 % on request

Inductance µH	Resistance Ω	Q Factor	Tolerance	Current A	Resonant Frequency MHz	Mftrs. List No.	Order Code
1210 Case							
1	0.1	20	± 20%	0.75	100	744032001	180-0375
1.5	0.13	20	± 20%	0.66	75	7440320015	180-0376
1.8	0.14	20	± 20%	0.64	60	7440320018	180-0377
2.2	0.15	20	± 20%	0.62	50	744032002	180-0378
2.7	0.18	20	± 20%	0.6	43	7440320027	180-0379
3.3	0.2	20	± 20%	0.58	38	744032003	180-0380
3.9	0.25	20	± 20%	0.54	35	7440320039	180-0381
4.7	0.28	20	± 20%	0.49	31	744032004	180-0382
5.6	0.36	20	± 20%	0.44	28	7440320056	180-0384
6.8	0.4	20	± 20%	0.42	25	744032006	180-0385
8.2	0.45	20	± 20%	0.39	23	744032008	180-0386
10	0.65	35	± 20%	0.32	20	744032100	180-0387
12	0.7	35	± 10%	0.29	18	744032120	180-0388
15	1	35	± 10%	0.27	16	744032150	180-0389
18	1.1	35	± 10%	0.24	15	744032180	180-0390
22	1.3	35	± 10%	0.22	14	744032220	180-0391
68	3.8	35	± 10%	0.13	9	744032680	180-0392
100	6.5	40	± 10%	0.1	8	744032101	180-0393
120	7	40	± 10%	0.095	7	744032121	180-0394
220	11.8	40	± 10%	0.075	5	744032221	180-0396
1812 Case							
1	0.08	40	± 20%	1.8	165	744045001	180-0397
1.5	0.09	42	± 20%	1.75	130	7440450015	180-0398
1.8	0.1	45	± 20%	1.7	100	7440450018	180-0399
2.2	0.11	40	± 20%	1.6	80	744045002	180-0400
2.7	0.12	40	± 20%	1.5	63	7440450027	180-0402
3.2	0.13	45	± 20%	1.4	58	744045003	180-0403
3.9	0.14	40	± 20%	1.32	54	7440450039	180-0404
4.7	0.15	36	± 20%	1.24	45	744045004	180-0405
5.6	0.18	36	± 20%	1.18	41	7440450056	180-0406
6.8	0.2	36	± 20%	1.1	37	744045006	180-0407
8.2	0.25	36	± 20%	1	34	744045008	180-0408
10	0.3	48	± 20%	0.95	30	744045100	180-0409
12	0.42	48	± 20%	0.8	28	744045120	180-0410
15	0.5	45	± 20%	0.73	26	744045150	180-0411
18	0.6	42	± 20%	0.68	22	744045180	180-0412
22	0.7	50	± 10%	0.63	20	744045220	180-0414
33	1.1	55	± 10%	0.43	18	744045330	180-0415
47	1.5	55	± 10%	0.33	15	744045470	180-0417
68	2.2	55	± 10%	0.27	12	744045680	180-0418
82	2.5	55	± 10%	0.24	10	744045820	180-0419

Inductance µH	Resistance Ω	Q Factor	Tolerance	Current A	Resonant Frequency MHz	Mftrs. List No.	Order Code
1812 Case							
100	2.5	60	± 10%	0.27	10	744045210	180-0416
150	3.7	55	± 10%	0.22	8	744045215	180-0417
390	13	50	± 10%	0.11	5	744045391	180-0418
470	14.2	50	± 10%	0.105	5	744045471	180-0419
680	16.8	45	± 10%	0.09	3	744045681	180-0420
820	20	50	± 10%	0.085	2	744045821	180-0421
1000	30	28	± 10%	0.07	2	744045102	180-0422

605778

Price Each

Order Code

1210 All Values ●

1812 All Values ●

WE-PMI Series

1008 Case Size

- Compact multilayer type
- No crosstalk
- Operating temperature: -40 °C to +125 °C
- Recommended soldering profile: Reflow

Inductance µH	Resistance Ω	Q Factor @ 1MHz	Resonant Frequency MHz	Mftrs. List No.	Order Code
1	0.29	15	100	74479887210	179-5098
2.2	0.4	19	70	74479887222	179-5099
4.7	0.53	26	50	74479887247	179-5100
6.8	0.65	30	40	74479887268	179-5101
10	0.7	35	30	74479887310	179-5102

603902

Price Each

Order Code

All Values ●

SMD Line Filter

WE-SLM Series, Common Mode

- Small size, High current up to 300mA
- Nominal Voltage: 80V DC (42V AC)
- Operating temperature: -40°C to +125°C
- Recommended soldering profile: Reflow
- For USB, CAN, FireWire, Data Lines
- Filter for measurement signals and power supplies

Inductance (µH)	Induct. Tolerance	R_{DC} max (Ω)	Current rating (mA)	Impedance max. (Ω)	Mftrs. List No.	Order Code
11	+50%, -30%	0.18	300	800	744242110	163-6264
51	+50%, -30%	0.32	300	2500	744242510	163-6265
100	+50%, -30%	0.58	300	4000	744242101	163-6266

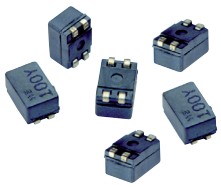
522475

Price Each

Inductance (µH)	Order Code
11	163-6264 ●
51	163-6265 ●
100	163-6266 ●

Common mode Chokes

WE-SL2 Series, for Signal Lines



- For distortion-free removal of noise from transmitted electrical signals
- Double current-compensated choke
- Offering a wide bandwidth with the core materials NiZn / MnZn
- Ambient temperature: -40°C to +85°C
- Nominal voltage: 80V DC (42V AC)
- UL compliant housing
- for current compensated choke for data and signal lines, power supply systems, filter for measurement signals

Inductors - SMD Chip - Würth Elektronik - continued

Common mode Chokes - continued

WE-SL2 Series, for Signal Lines - continued

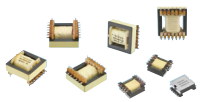
2x Inductance (µH)	Inductance tolerance	R_{DC} max (Ω)	Current rating (A)	Impedance max. (kΩ)	Mftrs. List No.	Order Code
51	± 30%	0.16	1	5.5	744227	163-6267
6500	± 50%	0.95	0.4	18.4	744229	163-6268
10	± 30%	0.08	1.6	0.92	744226	163-6269
25	± 30%	0.12	1	2.8	744228	163-6270
250	± 50%	0.13	1.2	1.8	744224	163-6272
500	± 50%	0.15	1	3.3	744223	163-6274
1000	± 50%	0.31	0.8	6	744222	163-6275
2000	± 50%	0.42	0.6	9.2	744221	163-6276
4700	± 50%	0.75	0.5	20	744220	163-6277

522476

2x Inductance (µH)	Order Code	Price Each
51	**163-6267**	
6500	**163-6268**	
10	**163-6269**	
25	**163-6270**	
250	**163-6272**	
500	**163-6274**	
1000	**163-6275**	
2000	**163-6276**	
4700	**163-6277**	

Flyback Transformer

WE-FB 3751 Series



New

Inductance µH	Max. Winding Resistance (Ω)	Turns Ratio	Mfts. List No.	Order Code
10	0.7	1:10	750032051	174-8692
10	1.06	1:10	750032052	174-8693
5	0.5	1:10	750310349	174-8694
2.5	0.25	1:10	750310355	174-8696

544624

Order Code	Price Each
174-8692	
174-8693	
174-8694	
174-8696	

Flyback Transformer

WE-FB 3573 Series

New

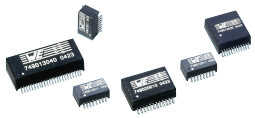
Inductance µH	Max. Winding Resistance (mΩ)	Output Voltage (V)	Turns Ratio	Mfts. List No.	Order Code
24	64	3.3	4:1:1	750310559	174-8680
25	88	5	3:1:1	750310471	174-8681
25	135	12	2:1:1	750310562	174-8682
25	275	12	2:2:1	750310563	174-8685
63	95	±5	3:1:1:1	750310564	174-8686
30	236	5	3:1:1	750370040	174-8687
50	370	5	3:1:1	750370041	174-8688
25	195	15	3:3:1	750310799	174-8689
30	60	5	3:1:1	750370047	174-8690
15	480	5	1:1:1:1	750370042	174-8691

544589

Order Code	Price Each
174-8680	
174-8681	
174-8682	
174-8685	
174-8686	
174-8687	
174-8688	
174-8689	
174-8690	
174-8691	

Over 500 000 products available online QGO

WE-LAN Transformers



- Flyback Transformers
- SMD
- Ethernet
- Power over Ethernet
- Hub, Router, Switches
- Operating Temp: 0°C to +70°C

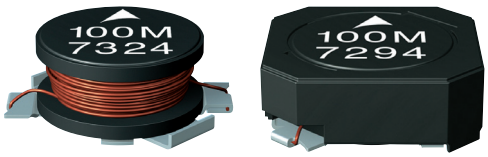
547809

Mftr. No	Order Code	Price Each
749090010	**163-6343**	
749010011	**163-6344**	
749010012	**163-6345**	
749010013	**163-6346**	
749010014	**163-6347**	
749013011	**163-6349**	
749013010	**163-6350**	
749013020	**163-6351**	
749013021	**163-6353**	
749013022	**163-6354**	
749013040	**163-6355**	
749020010	**163-6356**	
749020011	**163-6357**	
749020013	**163-6358**	
749020100	**163-6359**	
749023010	**163-6360**	
749023020	**163-6361**	
749023015	**163-6362**	
749023016	**163-6363**	
749012011	**163-6365**	
749022011	**163-6367**	
Design Kit		
749119	**163-6398**	

Inductors - SMD Power Coil - Epcos

Low Profile Power Inductors 6x6mm

B82462*2 Series



- Low profile of 2.5mm
- Size: 6x6mm
- Choice of shielded or unshielded
- Winding: enamel copper wire, welded to terminals
- Wide temperature range
- Very high rated current, low DC resistance
- Suitable for reflow soldering

Rated Inductance L_R	Measured with HP4294A, measuring voltage 100mV
Rated Current I_R	Max permissable DC with temperature increase of ≤ 40k @ 85°C
Saturation Current I_{sat}	Max permissable DC wih inductance decrease $\Delta L/L_0 \approx 10\%$
Self-resonance frequency f_{res}	Measured with network analyser HP8753 (-55°C/+125°C/56 days damp heat test)
Solderability	5d, 235°C, wetting >90%
Resistance to soldering heat	acc. o IEC 60068-2-58, leadfree reflow soldering profile
DC resitance R_{max}	Measured at 20 ambient temperature
Weight	Unshielded: 0.75g, shielded: 1.5g

Inductance (µH)	$Freq_L$ (MHz)	Tolerance (%)	I_R (A)	R_{max} (Ω)	Mftrs. List No.	Order Code
Shielded						
3.3	0.1	± 20%	2	0.04	B82462G2332M000	164-4479
4.7	0.1	± 20%	1.6	0.061	B82462G2472M000	164-4482
6.8	0.1	± 20%	1.45	0.078	B82462G2682M000	164-4484
10	0.1	± 20%	1.25	0.106	B82462G2103M000	164-4472
33	0.1	± 20%	0.68	0.345	B82462G2333M000	164-4480
47	0.1	± 20%	0.62	0.42	B82462G2473M000	164-4483
68	0.1	± 20%	0.48	0.635	B82462G2683M000	164-4485
100	0.1	± 20%	0.41	0.95	B82462G2104M000	164-4473
150	0.1	± 20%	0.33	1.48	B82462G2154M000	164-4475
220	0.1	± 20%	0.28	2.1	B82462G2224M000	164-4478
330	0.1	± 20%	0.22	3.25	B82462G2334M000	164-4481
Unshielded						
1	0.1	± 20%	3	0.024	B82462A2102M000	164-4454
1.5	0.1	± 20%	2.55	0.032	B82462A2152M000	164-4457
2.2	0.1	± 20%	2.1	0.048	B82462A2222M000	164-4460
3.3	0.1	± 20%	1.8	0.065	B82462A2332M000	164-4463
3.3	0.1	± 20%	2	0.06	B82462A4332M000	164-4471
4.7	0.1	± 20%	1.55	0.084	B82462A2472M000	164-4467
6.8	0.1	± 20%	1.28	0.125	B82462A2682M000	164-4469
10	0.1	± 20%	1.03	0.18	B82462A2103M000	164-4455
33	0.1	± 10%	0.6	0.47	B82462A2333K000	164-4465
47	0.1	± 10%	0.49	0.69	B82462A2473K000	164-4468
68	0.1	± 10%	0.39	1.1	B82462A2683K000	164-4470
100	0.1	± 10%	0.3	1.6	B82462A2104K000	164-4456
150	0.1	± 10%	0.25	2.55	B82462A2154K000	164-4459
220	0.1	± 10%	0.21	3.8	B82462A2224K000	164-4462
330	0.1	± 10%	0.17	5.05	B82462A2334K000	164-4466

528645

Order Code	Price Each
Shielded	
All Values ●	
Unshielded	
All Values ●	

Power Inductors 6x6mm

B82462 Series

EPCOS

SMD

- Size: 6x6mm
- Choice of shielded or unshielded
- Shielded is better for high density population as can be placed closer to other components
- Winding: enamel copper wire, welded to terminals
- Wide temperature range
- Very high rated current, low DC resistance
- Suitable for reflow soldering

Rated Inductance L_R	Measured with HP4294A, measuring voltage 100mV
Rated Current I_R	Max permissable DC with temperature increase of ≤ 40k @ 85°C
Saturation Current I_{sat}	Max permissable DC wih inductance decrease $\Delta L/L_0 \approx 10\%$
Self-resonance frequency f_{res}	Measured with network analyser HP8753
Climatic category	In accordance with IEC 60068-1 55/125/56 (-55°C/+125°C/56 days damp heat test)
Solderability	5d, 235°C, wetting >90%
Resistance to soldering heat	acc. o IEC 60068-2-58, leadfree reflow soldering profile
DC resitance R_{max}	Measured at 20 ambient temperature
Weight	Unshielded: 0.75g, shielded: 1.5g

Inductance (µH)	Freq$_L$ (MHz)	Tolerance (%)	I_{Sat} (A)	I_R (A)	R_{max} (Ω)	f_{res} (MHz)	Mftrs. List No.	Order Code
Shielded								
1	0.1	20	4.40	3.4	0.016	180	B82462G4102M	742-9967
1.5	0.1	20	3.60	3.1	0.02	100	B82462G4152M	742-9975
2.2	0.1	20	2.60	2.55	0.025	75	B82462G4222M	742-9983
3.3	0.1	20	2.15	2.3	0.031	60	B82462G4332M	742-9991
4.7	0.1	20	1.80	2	0.04	55	B82462G4472M	743-0000
6.8	0.1	20	1.50	1.65	0.05	40	B82462G4682M	743-0019
10	0.1	20	1.30	1.5	0.062	31	B82462G4103M	743-0027
15	0.1	20	1.05	1.25	0.097	23	B82462G4153M	743-0035
22	0.1	20	0.85	1.05	0.15	20	B82462G4223M	743-0043
33	0.1	20	0.72	0.85	0.23	16	B82462G4333M	743-0051
47	0.1	20	0.60	0.75	0.34	13	B82462G4473M	743-0060
68	0.1	20	0.50	0.65	0.42	10	B82462G4683M	743-0078
100	0.1	20	0.42	0.53	0.58	8.5	B82462G4104M	743-0086
150	0.1	20	0.33	0.38	0.96	6.5	B82462G4154M	743-0094
220	0.1	20	0.28	0.35	1.35	5.5	B82462G4224M	743-0108
330	0.1	20	0.24	0.27	2.3	4.5	B82462G4334M	743-0116
Unshielded								
2.2	0.1	20	3.8	2.3	0.042	76	B82462A4222M	742-9797
4.7	0.1	20	2.8	1.65	0.08	50	B82462A4472M	742-9819
6.8	0.1	20	2.3	1.4	0.1	40	B82462A4682M	742-9827
10	0.1	20	1.8	1.15	0.14	32	B82462A4103M	742-9835
47	0.1	10	0.82	0.54	0.64	12	B82462A4473K	742-9878
68	0.1	10	0.69	0.43	0.86	10	B82462A4683K	742-9886
100	0.1	10	0.57	0.35	1.28	9	B82462A4104K	742-9894
330	0.1	10	0.34	0.2	3.9	5	B82462A4334K	742-9924
470	0.1	10	0.28	0.17	5.6	4	B82462A4474K	742-9932
680	0.1	10	0.23	0.14	8	3.2	B82462A4684K	742-9940
1000	0.1	10	0.18	0.11	13	2.8	B82462A4105K	742-9959

349820

Order Multiple=5

Order Code	Price Each
Shielded	
All Values ●	
Unshielded	
All Values ●	

Power Inductors 10x10mm

B82464 Series

EPCOS

SMD

- Size: 10x10mm
- Choice of shielded or unshielded
- Shielded is better for high density population as can be placed closer to other components
- Wide temperature range
- Very high rated current, low DC resistance
- Suitable for reflow soldering

Rated Inductance L_R	Measured with HP4294A, measuring voltage 100mV
Rated Current I_R	Max permissable DC with temperature increase of ≤ 40k @ 85°C
Saturation Current I_{sat}	Max permissable DC wih inductance decrease $\Delta L/L_0 \approx 10\%$
Self-resonance frequency f_{res}	Typical self-resonance frequency measured with network analyser HP8753
Climatic category	In accordance with IEC 60068-1 55/125/56
	(-55°C/+125°C/56 days damp heat test)
Solderability	5d, 235°C, wetting >90%
Resistance to soldering heat	acc. o IEC 60068-2-58, leadfree reflow soldering profile
DC resitance R_{max}	Measured at 20 ambient temperature
Weight	Unshielded: 1.5g, shielded: 2g

Inductance (µH)	Freq$_L$ (MHz)	Tolerance (%)	I_{Sat} (A)	I_R (A)	R_{max} (Ω)	f_{res} (MHz)	Mftrs. List No.	Order Code
Shielded								
1	0.1	20	10	7.5	0.007	135	B82464G4102M	742-9380
2.2	0.1	20	7.00	6.5	0.01	72	B82464G4222M	742-9401
3.3	0.1	20	5.90	5.5	0.012	50	B82464G4332M	742-9410
4.7	0.1	20	5.20	4.9	0.015	37	B82464G4472M	742-9428
6.8	0.1	20	4.60	4.3	0.02	28	B82464G4682M	742-9436
10	0.1	20	3.50	3.4	0.03	22	B82464G4103M	742-9444
15	0.1	20	3.10	2.75	0.04	15	B82464G4153M	742-9452
22	0.1	20	2.50	2.25	0.052	13	B82464G4223M	742-9460
33	0.1	20	2.10	1.85	0.075	10	B82464G4333M	742-9479
47	0.1	20	1.80	1.55	0.095	9	B82464G4473M	742-9487
68	0.1	20	1.45	1.3	0.13	8	B82464G4683M	742-9495
100	0.1	20	1.15	1.05	0.22	6.5	B82464G4104M	742-9509
220	0.1	20	0.75	0.7	0.44	4	B82464G4224M	742-9525
330	0.1	20	0.65	0.59	0.65	3.2	B82464G4334M	742-9533
470	0.1	20	0.55	0.5	0.93	2.6	B82464G4474M	742-9541
680	0.1	20	0.46	0.42	1.3	2	B82464G4684M	742-9550
1000	0.1	20	0.35	0.34	2.2	1.8	B82464G4105M	742-9568
Unshielded								
1	0.1	20	11	7	0.009	120	B82464A4102M	742-9576
1.5	0.1	20	9.8	6.5	0.01	80	B82464A4152M	742-9584
4.7	0.1	20	5.6	4.3	0.018	42	B82464A4472M	742-9614
10	0.1	20	3.9	2.9	0.038	24	B82464A4103M	742-9630
15	0.1	10	3.2	2.5	0.046	18	B82464A4153K	742-9649
22	0.1	10	2.6	2.1	0.085	15	B82464A4223K	742-9657
33	0.1	10	2.2	1.8	0.1	13	B82464A4333K	742-9665
47	0.1	10	1.8	1.5	0.14	11	B82464A4473K	742-9673
68	0.1	10	1.5	1.25	0.2	9	B82464A4683K	742-9681
100	0.1	10	1.2	1.03	0.28	8	B82464A4104K	742-9690
150	0.1	10	1.0	0.86	0.4	6	B82464A4154K	742-9703
220	0.1	10	0.85	0.69	0.61	5	B82464A4224K	742-9711
330	0.1	10	0.70	0.58	1	4	B82464A4334K	742-9720
470	0.1	10	0.55	0.5	1.27	3.2	B82464A4474K	742-9738
1000	0.1	10	0.38	0.33	3	2	B82464A4105K	742-9762

349533

Order Code	Price Each
Shielded	
All Values ●	
Unshielded	
All Values ●	

Power Inductors 12x12mm

B82477 Series

EPCOS

SMD

- Size: 12x12mm
- Magnetically shielded - better for high density population as can be placed closer to other components
- Winding: enamel copper wire, welded to terminals
- Wide temperature range
- Very high rated current, low DC resistance
- Suitable for reflow soldering

Rated Inductance L_R	Measured with HP4284A, measuring voltage 100mV
Rated Current I_R	Max permissable DC with temperature increase of ≤ 40k @ 85°C
Saturation Current I_{sat}	Max permissable DC wih inductance decrease $\Delta L/L_0 \approx 10\%$
Self-resonance frequency f_{res}	Measured with network analyser HP8753
Climatic category	In accordance with IEC 60068-1 55/125/56
	(-55°C/+125°C/56 days damp heat test)
Solderability	5d, 235°C, wetting >90%
Resistance to soldering heat	acc. o IEC 60068-2-58, leadfree reflow soldering profile
DC resitance R_{max}	Measured at 20 ambient temperature
Weight	4g

Inductance (µH)	Freq$_L$ (MHz)	Tolerance (%)	I_R (A)	R_{max} (Ω)	Mftrs. List No.	Order Code
1	100	20	9.8	0.007	B82477G4102M	743-0299
2.2	100	20	8	0.01	B82477G4222M	743-0302
3.9	100	20	7.5	0.0125	B82477G4392M	743-0310
4.7	100	20	6.8	0.014	B82477G4472M	743-0329
6.8	100	20	6.5	0.0185	B82477G4682M	743-0345
10	100	20	5.4	0.022	B82477G4103M	743-0353
15	100	20	4.5	0.027	B82477G4153M	743-0370
22	100	20	3.6	0.038	B82477G4223M	743-0388
33	100	20	3	0.053	B82477G4333M	743-0396
47	100	20	2.5	0.082	B82477G4473M	743-0400
82	100	20	1.9	0.145	B82477G4823M	743-0426
100	100	20	1.7	0.165	B82477G4104M	743-0434
150	100	20	1.42	0.225	B82477G4154M	743-0442
220	100	20	1.16	0.38	B82477G4224M	743-0450
330	100	20	0.95	0.6	B82477G4334M	743-0469
470	100	20	0.8	0.79	B82477G4474M	743-0477
1000	100	20	0.55	1.68	B82477G4105M	743-0493

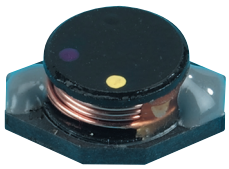
350160

Order Code	Price Each
All Values ●	

Inductors - SMD Power Coil - Epcos - continued

Power Inductors - B82476/8/9 Series

EPCOS SMD



- High current rating
- Low dc resistance
- Suitable for reflow soldering (IR and vapour phase)

A range of surface mount power inductors designed for filtering supply voltages, coupling/decoupling, dc/dc converters, telecommunications and automotive electronics

B82476 - L = 9.4mm, W = 12.9mm, H = 5.08mm
B82478 - L = 11.6mm, W = 12.6mm, H = 8.5mm
B82479 - L =15.24mm, W = 18.54mm, H = 7.11mm

Inductance uH	Inductance Tolerance	DC Resistance Max. (Ω)	Max dc Current	Test Frequency	Self Res. Frequency	
B82476	%		mA	MHz	MHz	Order Code
10	20	0.025	3800	100	20	387-7486
22	20	0.05	2600	100	20	387-7498
47	20	0.12	1600	100	20	387-7504
100	20	0.23	1200	100	20	387-7516
220	20	0.53	800	100	20	387-7528
330	20	0.81	600	100	20	387-7530
470	20	1.1	500	100	20	387-7541
B82478						
22	20	0.1	2600	10	20	387-7577
33	20	0.12	2300	10	20	387-7589
47	20	0.17	1950	10	20	387-7590
220	20	0.73	950	10	20	387-7619
330	20	1.15	800	10	20	387-7620
1000	20	3	460	10	20	387-7644
B82479						
10	20	0.032	4300	100	20	387-7656
22	20	0.047	3500	100	20	387-7668
33	20	0.066	3000	100	20	387-7670
47	20	0.087	2600	100	20	387-7681
100	20	0.19	1800	100	20	387-7693
220	20	0.38	1200	100	20	387-7700
330	20	0.56	1000	100	20	387-7711
470	20	0.85	820	100	20	387-7723
1000	20	1.8	560	100	20	387-7735

234192

Order Multiple=5 **Price Each**

Type	Order Code
B82476	**All Values** ●
B82478	**All Values** ●
B82479	**All Values** ●

Helically wound power inductor

HPI B82559 Series

EPCOS

- Very high rated current
- Extremely low DC resistance
- Suitable for pick and place processes
- Applications includes energy storage chokes for DC/DC & POL converter

DC resistance	Measured at 20°C ambient temperature
Operating temperature	-40°C to 130°C
Tolerance	±10%
Weight	2.2g

Inductance (µH)	Current max. (I dc)	Dimensions (mm) L	W	H	R_{max} (Ω)	Mftrs. List No.	Order Code
0.5	30	13.1	11	4.95	1.1	B82559A0501A013	111-2809
0.95	25	13.1	11	5.95	1.4	B82559A0951A013	111-2810
1.1	20	13.1	11	4.95	2.2	B82559A0112A013	111-2811
1.4	22	13.1	11	5.95	1.8	B82559A0142A013	111-2812
2.2	15	13.1	11	4.95	4.2	B82559A0222A013	111-2813
3.9	12	13.1	11	5.95	6	B82559A0392A013	111-2816

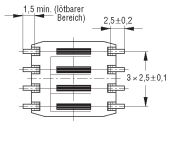
423468

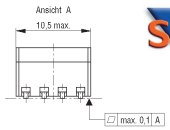
Price Each

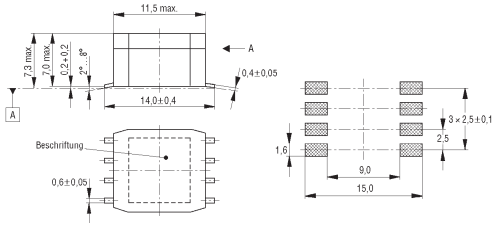
Order Code
All Values ●

Data and Signal Line Chokes

EPCOS SMD







- Ring core double and Quad chokes in a **UL94V-0** flame
- retardant case
- Applications include CAN-BUS and telecom systems

Voltage rating	80Vdc/42Vac
IEC climatic category	40/125/56

L_N (mH)	I_N (A)	L_S (µh)	Application	Mftrs. List No.	Order Code
Double Chokes					
0.011	0.5	0.05	4 CAN-Bus	B82790C113N201	975-2234
0.051	0.5	1.5	4 CAN-Bus	B82790S513N201	975-2250
1	0.5	0.2	4 Telecom	B82790C105N240	975-2277
4.7	0.5	0.25	4 Telecom	B82790C475N265	975-2285
4.7	0.2	0.25	8 Telecom	B82792C475N365	524-657
10	0.2	0.4	8 Telecom	B82792C106N365	524-840
Quad Chokes					
0.47	0.5	0.15	8 ISDN	B82792C2474N315	524-852
1	0.5	0.2	8 ISDN	B82792C2105N365	524-876
4.7	0.2	0.3	8 ISDN	B82792C2475N365	524-943

204146

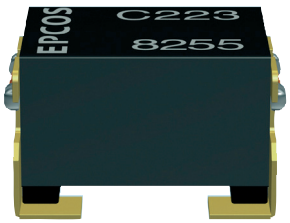
Order Multiple=5 **Price Each**

Mftrs. List No.	Order Code
Double chokes	
B82790C113N201	SMD **975-2234** ●
B82790S513N201	SMD **975-2250** ●
B82790C105N240	SMD **975-2277** ●
B82790C475N265	SMD **975-2285** ●
B82792C475N365	SMD **524-657** ●
B82792C106N365	SMD **524-840** ●
Quad chokes	
B82792C2474N315	SMD **524-852** ●
B82792C2105N365	SMD **524-876** ●
B82792C2475N365	SMD **524-943** ●

Data Line Choke

B82789 Series

EPCOS SMD



- Current compensated double choke with ferrite core
- Suitable for automatic placement
- Suitable for reflow soldering
- Supression of asymmerical interface coupled in on lines, whereas data signals up to several MHz can pass unaffected
- Tinned terminals

Rated Voltage	42V (50/60 Hz), 80V DC
Rated Current	Referred to 50Hz and 85°C ambient temperature
Rated Inductance	Measured with HP4275A at 100kHz, 0.1A
Inductance Tolerance	-30%/+50%
Stray Inductance	typical value measured with HP4275A at 100kHz, 5mA
DC resistance	ypical value measured at 20°C ambient temperature
Operating Temperature	-40°C to +125°C
Test Voltage	250V-, 2s

Inductance (µH)	Leakage Inductance (nH)	Current RMS (mA)	Test Voltage (V-, 2s)	Resistance max (mΩ)	Mftrs. List No.	Order Code
11	60	300	250	200	B82789C113N2	743-0507
22	100	250	250	500	B82789C223N2	743-0515
22	3000	250	250	550	B82789S223N2	743-0523
51	100	250	250	450	B82789C513N2	743-0531
100	250	150	250	1000	B82789C104N002	743-0540

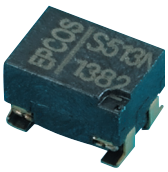
350184

Price Each

Order Code
All Values ●

CANBus Inductors - B82799 Series

EPCOS



- Case flame retardant to **UL94V-0**
- Operation up to 150°C
- Suitable for reflow soldering and conductive adhesion

SMD

Voltage Rating	42 Vac, 80 Vdc
Inductive Tolerance	±30%
Climatic category	40/125/56
Rated current @ 50 Hz, 60°C	100mA

L=3.2mm, W=4.5mm, H=3.2mm

A range of current compensated ring core double choke with ferrite core devices for suppression of interference on data and signal lines. Bifilar winding (B82799C) and sector winding (B82799S)available.
B82799C - Suppression of asymmetrical interference coupled in on lines, whereas data signals up to some MHz can pass unaffectedly.
B82799S - Suppression of asymmetrical and symmetrical interference coupled in on lines. The high frequency portions of the symmetrical data signal are decreased so far that EMC problems can be significantly reduced.

Inductance nH	Stray inductance nH	DC Resistance Max. (Ω)	Mftrs. List No.	Order Code
11	45	150	B82799C113N1	387-7747
22	1300	200	B82799S223N1	387-7759
51	2700	300	B82799S513N1	387-7772

234193

Price Each

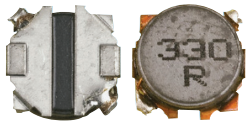
Order Code

All Values

Inductors - SMD Power Coil - Panasonic

ELLV Series Choke Coils

Panasonic ideas for life



ELLVEG	3x3x1mm
ELLVFG-C	3x3x1.2mm
ELLVGG	3x3x1.5mm

SMD

New

- Magnetically shielded structure
- Low DC resistance and large current capability
- Shock resistant
- DC-DC converter circuitry for computer peripherals and mobile phones.
- Chopper circuit decoupling chokes for DC-DC converter circuitry.

Inductance (µH)	@ Freq (kHz)	Tolerance (%)	I_R	R_{max} (mΩ)	Mftrs. List No.	Order Code
ELLVEG						
1	100	± 30%	1.9 A	61	ELLVEG1R0N	171-7396
1.5	100	± 30%	1.2 A	74	ELLVEG1R5N	171-7397
2.2	100	± 30%	1.1 A	110	ELLVEG2R2N	171-7398
3.3	100	± 30%	1 A	210	ELLVEG3R3N	171-7399
4.7	100	± 30%	750 mA	240	ELLVEG4R7N	171-7400
6.8	100	± 30%	580 mA	350	ELLVEG6R8N	171-7401
10	100	± 20%	520 mA	480	ELLVEG100M	171-7402
15	100	± 20%	430 mA	710	ELLVEG150M	171-7403
ELLVFG-C						
1	100	± 30%	1.5 A	50	ELLVFG1R0NC	171-7404
1.5	100	± 30%	1.3 A	61	ELLVFG1R5NC	171-7405
10	100	± 20%	550 mA	380	ELLVFG100MC	171-7407
22	100	± 20%	350 mA	710	ELLVFG220MC	171-7408
33	100	± 20%	280 mA	1.16 ohm	ELLVFG330MC	171-7409
ELLVGG						
1	100	± 30%	2.2 A	52	ELLVGG1R0N	171-7410
1.6	100	± 30%	1.8 A	73	ELLVGG1R6N	171-7411
2.2	100	± 30%	1.6 A	92	ELLVGG2R2N	171-7412
3.3	100	± 30%	1.35 A	130	ELLVGG3R3N	171-7413
4.7	100	± 30%	1.2 A	170	ELLVGG4R7N	171-7414
6.8	100	± 30%	1 A	230	ELLVGG6R8N	171-7415
10	100	± 20%	800 mA	280	ELLVGG100M	171-7416
22	100	± 20%	500 mA	800	ELLVGG220M	171-7417
33	100	± 20%	450 mA	1.33 ohm	ELLVGG330M	171-7419

539834

Order Multiple=5 **Price Each**

Order Code

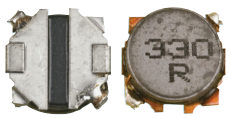
ELLVEG - All Values

ELLVFG-C - All Values

ELLVGG - All Values

ELL4 Series Choke Coils

Panasonic



ELL4FG-A	3.8x3.8x1.2mm
ELL4GG	3.8x3.8x1.4mm
ELL4LG-A	3.8x3.8x1.8mm

SMD

New

- Magnetically shielded structure
- Low DC resistance and large current capability
- Shock resistant
- DC-DC converter circuitry for computer peripherals and mobile phones.
- Chopper circuit decoupling chokes for DC-DC converter circuitry.

Inductance (µH)	@ Freq (kHz)	Tolerance (%)	I_R	R_{max} (mΩ)	Mftrs. List No.	Order Code
ELL4FG-A						
1		± 30%	1.9 A	45	ELL4FG1R0NA	171-7421
2		± 30%	1.3 A	70	ELL4FG2R0NA	171-7422
3.3		± 30%	1.1 A	110	ELL4FG3R3NA	171-7423
4.7		± 30%	1 A	160	ELL4FG4R7NA	171-7424
6.8		± 30%	800 mA	220	ELL4FG6R8NA	171-7425
10		± 20%	700 mA	290	ELL4FG100MA	171-7426
15		± 20%	600 mA	480	ELL4FG150MA	171-7427
22		± 20%	420 mA	620	ELL4FG220MA	171-7428
ELL4GG						
1.2		± 30%	2.4 A	50	ELL4GG1R2N	171-7429
1.8		± 30%	1.9 A	71	ELL4GG1R8N	171-7430
2.2		± 30%	1.7 A	88	ELL4GG2R2N	171-7432
3.3		± 30%	1.5 A	110	ELL4GG3R3N	171-7433
4.7		± 30%	1.2 A	160	ELL4GG4R7N	171-7434
6.8		± 30%	1.05 A	200	ELL4GG6R8N	171-7435
10		± 20%	900 mA	250	ELL4GG100M	171-7436
15		± 20%	700 mA	500	ELL4GG150M	171-7437
22		± 20%	600 mA	640	ELL4GG220M	171-7438
33		± 20%	450 mA	980	ELL4GG330M	171-7439
47		± 20%	400 mA	1.25 ohm	ELL4GG470M	171-7440
100		± 20%	290 mA	2.4 ohm	ELL4GG101M	171-7441
ELL4LG-A						
4.7		± 30%	1.1 A	90	ELL4LG4R7NA	171-7442
10		± 20%	800 mA	200	ELL4LG100MA	171-7444
22		± 20%	550 mA	390	ELL4LG220MA	171-7445

540275

Order Multiple=5 **Price Each**

Order Code

ELL4FG-A - All Values

ELL4GG - All Values

ELL4LG-A - All Values

ELL5PS Series Choke Coils

Panasonic

ELL5PS	5x5x2mm

SMD

New

- Magnetically shielded structure
- Low DC resistance and large current capability
- Available on tape and reel for automatic insertion
- DC-DC converter circuitry for computer peripherals and mobile phones.
- Chopper circuit decoupling chokes for DC-DC converter circuitry

Inductance (µH)	@ Freq (kHz)	Tolerance (%)	I_R	R_{max} (mΩ)	Mftrs. List No.	Order Code
1.2	100	± 30%	2.5 A	22	ELL5PS1R2N	171-7446
1.5	100	± 30%	2.4 A	28	ELL5PS1R5N	171-7447
2.2	100	± 30%	2.1 A	34	ELL5PS2R2N	171-7448
2.7	100	± 30%	2 A	40	ELL5PS2R7N	171-7449
3.3	100	± 30%	1.9 A	46	ELL5PS3R3N	171-7450
4.7	100	± 30%	1.5 A	61	ELL5PS4R7N	171-7451
10	100	± 20%	1 A	120	ELL5PS100M	171-7452
15	100	± 20%	790 mA	170	ELL5PS150M	171-7453
22	100	± 20%	650 mA	290	ELL5PS220M	171-7454
33	100	± 20%	490 mA	470	ELL5PS330M	171-7456
47	100	± 20%	450 mA	620	ELL5PS470M	171-7457
56	100	± 20%	430 mA	680	ELL5PS560M	171-7458
68	100	± 20%	380 mA	750	ELL5PS680M	171-7459
100	100	± 20%	300 mA	1.32 ohm	ELL5PS101M	171-7460

540344

Order Multiple=5 **Price Each**

Order Code

All Values

ELL6 Series Choke Coils

Panasonic

Magnetic shielded type

L = 6mm, W = 6.4mm

- Separated terminal and internal connection provides high reliability
- Small physical dimensions
- Capable of handling large currents
- 105°C max. operating temperature (including self-temperature rise)

SMD

Suitable for in dc/dc converter circuits and choke coils in chopper circuit decoupling. Applications include videos, audio, mobile communications and electric battery driving equipment.

Inductance (µH)	Device Marking	Tolerance	DC resistance Max.(Ω)	DC Current Max.	Mftrs. List No.	Order Code
ELL6GG (H=1.6mm)						
1.5	1R5	± 30%	36	2.3 A	ELL6GG1R5N	171-7461
10	100	± 20%	170	900 mA	ELL6GG100M	171-7462
22	220	± 20%	300	620 mA	ELL6GG220M	171-7463
47	470	± 20%	610	400 mA	ELL6GG470M	171-7464
ELL6PG (H=2mm)						
0.8	R08	± 30%	24	3.8 A	ELL6PGR08N	171-7465
1.5	1R5	± 30%	30	2.5 A	ELL6PG1R5N	171-7466
2.2	2R2	± 30%	37	2.2 A	ELL6PG2R2N	171-7468
3.3	3R3	± 30%	44	1.7 A	ELL6PG3R3N	171-7469

Inductors - SMD Power Coil - Panasonic - continued

ELL6 Series Choke Coils - continued

Magnetic shielded type - continued

Inductance (µH)	Device Marking	Tolerance	DC resistance Max.(Ω)	DC Current Max.	Mftrs. List No.	Order Code
ELL6PG (H=2mm)						
4.7	4R7	± 30%	58	1.5 A	ELL6PG4R7N	171-7470
5.6	5R6	± 30%	65	1.45 A	ELL6PG5R6N	171-7471
10	100	± 20%	110	1.3 A	ELL6PG100M	171-7472
15	150	± 20%	150	1 A	ELL6PG150M	171-7473
22	220	± 20%	230	800 mA	ELL6PG220M	171-7474
27	270	± 20%	260	730 mA	ELL6PG270M	171-7475
33	330	± 20%	300	700 mA	ELL6PG330M	171-7476
47	470	± 20%	470	550 mA	ELL6PG470M	171-7477
56	560	± 20%	520	500 mA	ELL6PG560M	171-7478
68	680	± 20%	700	420 mA	ELL6PG680M	171-7481
100	101	± 20%	1	380 mA	ELL6PG101M	171-7482
ELL6RH (H=2.5mm)						
1	1R0	± 20%	0.019	3 A	ELL6RH1R0M	119-8589
2.7	2R7	± 20%	0.039	1.8 A	ELL6RH2R7M	119-8590
3.3	3R3	± 20%	0.044	1.6 A	ELL6RH3R3M	119-8591
6.2	6R2	± 20%	0.062	1.4 A	ELL6RH6R2M	119-8593
8.2	8R2	± 20%	0.087	1.2 A	ELL6RH8R2M	119-8594
10	100	± 20%	0.095	1.1 A	ELL6RH100M	119-8595
15	150	± 20%	0.15	850 mA	ELL6RH150M	119-8596
18	180	± 20%	0.17	800 mA	ELL6RH180M	119-8597
22	220	± 20%	0.22	700 mA	ELL6RH220M	119-8598
33	330	± 20%	0.38	600 mA	ELL6RH330M	119-8599
47	470	± 20%	0.48	500 mA	ELL6RH470M	119-8601
68	680	± 20%	0.77	400 mA	ELL6RH680M	119-8602
82	820	± 20%	0.87	350 mA	ELL6RH820M	119-8603
100	101	± 20%	1	300 mA	ELL6RH101M	119-8604
150	151	± 20%	1.8	250 mA	ELL6RH151M	119-8605
220	221	± 20%	2.3	200 mA	ELL6RH221M	119-8606
ELL6SH (H=3mm)						
1.5	1R5	± 20%	0.024	3.2 A	ELL6SH1R5M	153-9562
2.7	2R7	± 20%	0.031	2.4 A	ELL6SH2R7M	153-9558
3.3	3R3	± 20%	0.034	2.2 A	ELL6SH3R3M	153-9564
4.7	4R7	± 20%	0.042	2 A	ELL6SH4R7M	153-9545
6.8	6R8	± 20%	0.052	1.5 A	ELL6SH6R8M	153-9557
8.2	8R2	± 20%	0.061	1.4 A	ELL6SH8R2M	153-9574
10	100	± 20%	0.065	1.3 A	ELL6SH100M	153-9555
12	120	± 20%	0.071	1.2 A	ELL6SH120M	153-9561
15	150	± 20%	0.096	1.1 A	ELL6SH150M	153-9547
22	220	± 20%	0.14	300 mA	ELL6SH220M	153-9554
27	270	± 20%	0.26	800 mA	ELL6SH270M	153-9570
33	330	± 20%	0.18	700 mA	ELL6SH330M	153-9559
47	470	± 20%	0.27	600 mA	ELL6SH470M	153-9551
68	680	± 20%	0.52	500 mA	ELL6SH680M	153-9568
100	101	± 20%	0.68	400 mA	ELL6SH101M	153-9552
120	121	± 20%	0.75	350 mA	ELL6SH121M	153-9566
150	151	± 20%	0.86	365 mA	ELL6SH151M	153-9569
220	221	± 20%	1.4	280 mA	ELL6SH221M	153-9563
330	331	± 20%	2.7	240 mA	ELL6SH331M	153-9567
470	471	± 20%	3.2	200 mA	ELL6SH471M	153-9573
ELL6UH (H=5mm)						
10	100	± 20%	63	1.8 A	ELL6UH100M	171-7483
12	120	± 20%	71	1.7 A	ELL6UH120M	171-7484
15	150	± 20%	79	1.6 A	ELL6UH150M	171-7485
18	180	± 20%	88	1.4 A	ELL6UH180M	171-7486
22	220	± 20%	98	1.3 A	ELL6UH220M	171-7487
27	270	± 20%	110	1.2 A	ELL6UH270M	171-7488
33	330	± 20%	130	1.1 A	ELL6UH330M	171-7489
39	390	± 20%	150	1 A	ELL6UH390M	171-7490
47	470	± 20%	160	900 mA	ELL6UH470M	171-7491
56	560	± 20%	210	800 mA	ELL6UH560M	171-7493
68	680	± 20%	230	700 mA	ELL6UH680M	171-7494
82	820	± 20%	260	650 mA	ELL6UH820M	171-7495
100	101	± 20%	360	600 mA	ELL6UH101M	171-7496
120	121	± 20%	480	580 mA	ELL6UH121M	171-7497
150	151	± 20%	680	500 mA	ELL6UH151M	171-7498
180	181	± 20%	750	470 mA	ELL6UH181M	171-7499
220	221	± 20%	840	410 mA	ELL6UH221M	171-7500
270	271	± 20%	1.2	370 mA	ELL6UH271M	171-7501
330	331	± 20%	1.36	330 mA	ELL6UH331M	171-7502
390	391	± 20%	1.5	300 mA	ELL6UH391M	171-7503
470	471	± 20%	1.68	270 mA	ELL6UH471M	171-7504
560	561	± 20%	2.53	260 mA	ELL6UH561M	171-7505
680	681	± 20%	2.83	240 mA	ELL6UH681M	171-7506
820	821	± 20%	3.14	200 mA	ELL6UH821M	171-7507
1000	102	± 20%	3.67	180 mA	ELL6UH102M	171-7508

234166

Order Code	Price Each
ELL6RH - All Values ●	
ELL6SH - All Values ●	
NEW **ELL6GG - All Values** ●	
NEW **ELL6PG - All Values** ●	
NEW **ELL6UH - All Values** ●	

ELLATV Series Choke Coils

Magnetic shielded structure

Panasonic SMD

- Low DC resistance and large current capability
- Small physical dimensions

Applications

- DC-DC converter circuitry for computer peripherals and mobile phones
- Chopper circuit decoupling chokes for DC-DC converter circuitry

L = 6mm, W = 6.4mm

Inductance (µH)	Tolerance	DC resistance (mΩ)	DC Current Max.(A)	Mftrs. List No.	Order Code
3.3	± 30%	8.8	5.35	ELLATV3R3N	153-9532
5.1	± 30%	14	4.35	ELLATV5R1N	153-9537
6.8	± 30%	16	4	ELLATV6R8N	153-9539
8.2	± 30%	18	3.7	ELLATV8R2N	153-9542
10	± 20%	23	3.3	ELLATV100M	153-9522
12	± 20%	25	2.3	ELLATV120M	153-9524
22	± 20%	45	2.2	ELLATV220M	153-9525
47	± 20%	94	1.53	ELLATV470M	153-9535
100	± 20%	18	1	ELLATV101M	153-9523
220	± 20%	360	0.7	ELLATV221M	153-9527

526981

Order Code	Price Each
All Values ●	

ELLCTV Series Choke Coils

Panasonic New SMD

- Magnetically shielded structure
- Low DC resistance and large current capability
- DC-DC converter circuitry for computer peripherals and mobile phones.
- Chopper circuit decoupling chokes for DC-DC converter circuitry

ELLCTV 12x12x4.5mm

Inductance (µH)	@ Freq (kHz)	Tolerance (%)	I_R	R_{max} (mΩ)	Mftrs. List No.	Order Code
1.2	100	± 30%	6.5 A	4.6	ELLCTV1R2N	171-7511
2	100	± 30%	6.3 A	5.6	ELLCTV2R0N	171-7512
2.7	100	± 30%	5.7 A	7	ELLCTV2R7N	171-7513
3.9	100	± 30%	5.6 A	8.5	ELLCTV3R9N	171-7514
4.7	100	± 30%	5.2 A	9.9	ELLCTV4R7N	171-7515
5.6	100	± 30%	4.9 A	11	ELLCTV5R6N	171-7516
6.8	100	± 30%	4.5 A	14	ELLCTV6R8N	171-7517
8.2	100	± 30%	4.4 A	15	ELLCTV8R2N	171-7518
10	100	± 20%	3.9 A	17	ELLCTV100M	171-7519
12	100	± 20%	3.7 A	22	ELLCTV120M	171-7520
15	100	± 20%	3.1 A	25	ELLCTV150M	171-7521
18	100	± 20%	3 A	30	ELLCTV180M	171-7523
22	100	± 20%	2.7 A	37	ELLCTV220M	171-7524
27	100	± 20%	2.3 A	43	ELLCTV270M	171-7525
33	100	± 20%	2.2 A	50	ELLCTV330M	171-7526
39	100	± 20%	2.1 A	61	ELLCTV390M	171-7527
47	100	± 20%	1.9 A	69	ELLCTV470M	171-7528
56	100	± 20%	1.6 A	87	ELLCTV560M	171-7529
68	100	± 20%	1.5 A	100	ELLCTV680M	171-7530
82	100	± 20%	1.4 A	120	ELLCTV820M	171-7531
100	100	± 20%	1.2 A	150	ELLCTV101M	171-7532
120	100	± 20%	1.1 A	190	ELLCTV121M	171-7533
150	100	± 20%	1 A	220	ELLCTV151M	171-7535
180	100	± 20%	930 mA	270	ELLCTV181M	171-7536
220	100	± 20%	840 mA	310	ELLCTV221M	171-7537
270	100	± 20%	810 mA	400	ELLCTV271M	171-7538
330	100	± 20%	660 mA	500	ELLCTV331M	171-7539
390	100	± 20%	630 mA	560	ELLCTV391M	171-7540
470	100	± 20%	580 mA	690	ELLCTV471M	171-7541
560	100	± 20%	540 mA	810	ELLCTV561M	171-7542
680	100	± 20%	470 mA	1.01 ohm	ELLCTV681M	171-7543
820	100	± 20%	440 mA	1.14 ohm	ELLCTV821M	171-7544
1000	100	± 20%	410 mA	1.5 ohm	ELLCTV102M	171-7545

540366

Order Multiple=5	Price Each
Order Code	
All Values ●	

ETQP3 Series

Panasonic ideas for life New

- Downsize circuit space due to small and low profile package size
- Excellent DC bias performance and high reliability under high humidity
- Reduce number of components by high power and low loss
- Realize excellent performance by capability to high frequency range
- Low buzz noise

L=6, W=6.5, H=3

ETQP3LR33XFN - L=6.5, W=7.5, H=3

Inductance Tolerance ± 20% DC Resistance Tolerance ± 10%

Inductance (µH)	DC Res. (mΩ)	Rated current (A)	Mftrs. List No.	Order Code
0.33	2	17	ETQP3LR33XFN	177-1850
0.68	6.3	7.4	ETQP3MR68YFN	177-1852
1	7.9	6.6	ETQP3M1R0YFN	177-1853
1.5	11	5.6	ETQP3M1R5YFN	177-1854

549287

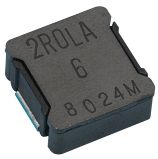
Price Each

Order Code

SMD **All Values** ●

Power Choke Coils - ETQP

Panasonic



- Surface mount high power choke coils
- Variety of different case sizes
- Moulded resin construction

SMD

Supplied on 24mm embossed tape (reel=500pcs)

Operating temperature -40°Cto +100°C Insulation resistance 10MΩ

Inductance @ 25°C (µH)	Tolerance	DC Current Max. (A)	Max.DC resistance @ 20°C (mΩ)	Dimensions H	W	D	Mftrs. List No.	Order Code
0.2	± 20%	28	0.7	11.5	10	4	ETQP4LR19WFC	153-9575
0.37	± 20%	24	1.1	11.5	10	4	ETQP4LR36WFC	153-9576
0.5	± 20%	27	0.8	14.5	12.5	5	ETQP5LR50XFA	153-9579
0.58	± 20%	19	1.44	12.5	12.5	6	ETQP6F0R6BFA	153-9581
0.6	± 20%	21	1.56	11.5	10	4	ETQP4LR56WFC	153-9578
0.6	± 20%	30	1.1	14.5	12.5	5	ETQP5LR60XFA	153-9580
0.7	± 30%	22.6	1	17.2	16.8	9	ETQPAF0R7EFA	153-9588
1.06	± 20%	16	2.24	12.5	12.5	6	ETQP6F1R1BFA	153-9582
1.2	± 30%	22.6	1	17.2	16.8	9	ETQPAF1R2HFA	153-9591
1.2	± 30%	14.3	2.24	12.5	12.5	5.7	ETQP6F1R2HFA	969-4145
1.3	± 25%	17.5	1.56	17.2	16.8	9	ETQPAF1R3EFA	153-9592
1.71	± 20%	14	3.3	12.5	12.5	6	ETQP6F1R8BFA	153-9583
2	± 30%	10.7	3.3	12.5	12.5	5.7	ETQP6F2R0HFA	969-4153
2.45	± 20%	12	4.92	12.5	12.5	6	ETQP6F2R5BFA	153-9584
2.45	± 20%	4.5	7.6	8.5	8	5.4	ETQP5M2R5YFK	153-9596
2.5	± 20%	5.6	7.73	10	10	4.95	ETQP5M2R5YFC	153-9600
2.5	± 30%	11.3	4.92	12.5	12.5	5.7	ETQP6F2R5SFA	969-4161
2.7	± 30%	17.5	1.56	17.2	16.8	9	ETQPAF2R7HFA	153-9587
3.2	± 25%	8.6	4.92	12.5	12.5	5.7	ETQP6F3R2HFA	969-4170
3.3	± 20%	8.6	7.1	10	10.7	5.4	ETQP5M3R3YFC	179-8549
3.32	± 20%	10	6.48	12.5	12.5	6	ETQP6F3R4BFA	153-9585
4.6	± 25%	7.3	6.48	12.5	12.5	5.7	ETQP6F4R6HFA	969-4188
4.7	± 20%	2.8	20.4	7	7.5	5.4	ETQP5M4R7YFM	179-8550
4.7	± 20%	4.4	10.2	10	10.7	5.4	ETQP5M4R7YFC	179-8551
4.8	± 30%	14.4	2.29	17.2	16.8	9	ETQPAF4R8HFA	153-9586
6.4	± 25%	6.2	8.64	12.5	12.5	5.7	ETQP6F6R4HFA	969-4196
7.2	± 30%	12	3.31	17.2	16.8	9	ETQPAF7R2HFA	153-9593
10.2	± 25%	4.7	13.3	12.5	12.5	5.7	ETQP6F102HFA	969-4200
22	± 20%	1.6		8.5	8	5.4	ETQP5M220YFK	153-9597
47	± 20%	1.1	127	8.5	8	5.4	ETQP5M470YFK	153-9599
48	± 20%	1	156	7.5	7	5.4	ETQP5M470YFM	153-9595
100	± 20%	1	208	10	10.7	5	ETQP5M101YGC	179-8552

204187

Inductance µH	Order Code	Price Each
0.2	SMD 153-9575 ● RL	
0.37	SMD 153-9576 ●	
0.5	SMD 153-9579 ●	
0.58	SMD 153-9581 ● RL	
0.6	SMD 153-9578 ●	
0.6	SMD 153-9580 ●	
0.7	153-9588 ● RL	
1.06	SMD 153-9582 ● RL	
1.2	SMD 153-9591 ● RL	
1.2	SMD 969-4145 ●	
1.3	153-9592 ● RL	
1.71	SMD 153-9583 ● RL	
2	SMD 969-4153 ●	
2.45	SMD 153-9584 ●	
2.45	SMD 153-9596 ● RL	
2.5	SMD 153-9600 ●	
2.5	SMD 969-4161 ●	
2.7	SMD 153-9587 ●	
3.2	SMD 969-4170 ●	
3.3	NEW 179-8549 ●	
3.32	SMD 153-9585 ●	
4.6	SMD 969-4188 ●	
4.7	NEW 179-8550 ●	
4.7	NEW 179-8551 ●	
4.8	SMD 153-9586 ●	
6.4	SMD 969-4196 ●	
7.2	SMD 153-9593 ●	
10.2	SMD 969-4200 ●	
22	SMD 153-9597 ● RL	
47	SMD 153-9599 ●	
48	SMD 153-9595 ●	
100	NEW 179-8552 ●	

Inductors - SMD Power Coil - TDK

VLF Series

TDK

Inductor Coils for Power Lines

- Miniature size
- Generic use for portable DC to DC converter line
- High magnetic shield construction should actualize high resolution for EMC protection
- Available for automatic mounting in tape and real package

SMD

VLF3010A= L 2.8 mm, W 2.6mm, H 1mm
VLF3012A= L 2.8 mm, W 2.6mm, H 1mm
VLF4012A= L 3.7mm, W 3.5mm, H 1.2mm

Inductance (µH)	Tolerance ± %	DC resistance Max.(Ω)	DC Current Max.(A)	Mftrs. List No.	Order Code
VLF3010A					
1.5	30	0.068	1.2	VLF3010AT-1R5N1R2	NEW 167-0115
2.2	20	0.1	1	VLF3010AT-2R2M1R0	NEW 167-0118
3.3	20	0.15	0.87	VLF3010AT-3R3MR87	NEW 167-0119
4.7	20	0.24	0.7	VLF3010AT-4R7MR70	NEW 167-0120
10	20	0.58	0.49	VLF3010AT-100MR49	NEW 167-0114
22	20	1.3	0.33	VLF3010AT-220MR33	NEW 167-0117
VLF3012A					
2.2	20	0.088	1	VLF3012AT-2R2M1R0	NEW 167-0123
3.3	20	0.11	0.87	VLF3012AT-3R3MR87	NEW 167-0124
4.7	20	0.16	0.74	VLF3012AT-4R7MR74	NEW 167-0125
10	20	0.36	0.49	VLF3012AT-100MR49	NEW 167-0121
22	20	0.66	0.33	VLF3012AT-220MR33	NEW 167-0122
VLF4012A					
1.5	20	0.09	1.8	VLF4012AT-1R5M1R6	130-1682
2.2	20	0.076	1.5	VLF4012AT-2R2M1R5	NEW 167-0126
3.3	20	0.1	1.3	VLF4012AT-3R3M1R3	130-1686
4.7	20	0.14	1.1	VLF4012AT-4R7M1R1	130-1689
6.8	20	0.2	0.96	VLF4012AT-6R8MR96	130-1691
10	20	0.3	0.8	VLF4012AT-100MR79	130-1680
15	20	0.46	0.63	VLF4012AT-150MR63	130-1681
22	20	0.71	0.52	VLF4012AT-220MR51	130-1683
33	20	1.2	0.44	VLF4012AT-330MR39	130-1685
47	20	2	0.36	VLF4012AT-470MR30	130-1687

451977

Price Each

Order Code

All Values ●

VLCF Series Inductors

TDK

Power Line

Dimensions (LxWxD)	
VLCF4018-2	4 x 4.3 x 1.8mm
VLCF4020	4 x 4.3 x 2mm
VLCF5020	5 x 5.3 x 2mm

SMD

New

Features:
- Miniature size
- Mount area: 4 x 4mm (VLCF5020 5 x 5mm)
- Height: 2.0mm max.
- Generic use for portable DC to DC converter line
- High magnetic shield construction should actualize high resolution for EMC protection.

Applications:
DC to DC converters for DVC, DSC, PDA, MD, LCD displays, HDDs, etc.

Inductance (µH)	Tolerance	DC resistance Typ. Ω	Rated Current Max. A	Order Code
VLCF4018-2 Type				
1.6	± 30%	0.044	1.72	167-0072
2.2	± 30%	0.052	1.44	167-0073
4.7	± 30%	0.088	1.07	167-0076
6.8	± 30%	0.108	0.94	167-0077
10	± 20%	0.163	0.74	167-0071
47	± 20%	0.661	0.34	167-0075
VLCF4020 Type				
1.8	± 30%	0.046	1.97	167-0081
2.2	± 30%	0.054	1.72	167-0084
3.3	± 30%	0.071	1.52	167-0087
4.7	± 30%	0.089	1.24	167-0089
6.8	± 30%	0.119	1.05	167-0090
10	± 20%	0.168	0.85	167-0078
15	± 20%	0.275	0.68	167-0080
22	± 20%	0.391	0.56	167-0082
27	± 20%	0.451	0.48	167-0083
33	± 20%	0.571	0.47	167-0085
47	± 20%	0.849	0.39	167-0088
100	± 20%	1.308	0.26	167-0079
VLCF5020 Type				
1.8	± 30%	0.049	2.07	167-0096
2.2	± 30%	0.058	2.62	167-0100
2.7	± 30%	0.058	1.76	167-0101
2.7	± 30%	0.069	2.28	167-0102
3.3	± 30%	0.069	1.6	167-0106
3.3	± 30%	0.079	2.02	167-0107
4.7	± 30%	0.079	1.4	167-0110
4.7	± 30%	0.102	2.09	167-0111
6.8	± 30%	0.102	1.11	167-0112
6.8	± 30%	0.138	1.39	167-0113
10	± 20%	0.198	1.13	167-0091

Inductors - SMD Power Coil - TDK - continued

VLCF Series Inductors - continued

Power Line - continued

Inductance	Tolerance	DC resistance Typ.	Rated Current Max.	
VLCF5020 Type				
10	± 20%	0.151	0.87	167-0092
15	± 20%	0.214	0.71	167-0094
15	± 20%	0.292	0.9	167-0095
22	± 20%	0.311	0.58	167-0097
22	± 20%	0.413	0.75	167-0099
33	± 20%	0.435	0.48	167-0103
33	± 20%	0.597	0.62	167-0105
47	± 20%	0.623	0.4	167-0108
47	± 20%	0.875	0.51	167-0109
100	± 20%	1.375	0.27	167-0093

532099

Inductance (µH)	Order Code	Price Each
VLCF4018-2 Type		
1.6	**167-0072**	
2.2	**167-0073**	
4.7	**167-0076**	
6.8	**167-0077**	
10	**167-0071**	
47	**167-0075**	
VLCF4020 Type		
1.8	**167-0081**	
2.2	**167-0084**	
3.3	**167-0087**	
4.7	**167-0089**	
6.8	**167-0090**	
10	**167-0078**	
15	**167-0080**	
22	**167-0082**	
27	**167-0083**	
33	**167-0085**	
47	**167-0088**	
100	**167-0079**	
VLCF5020 Type		
1.8	**167-0096**	
2.2	**167-0100**	
2.7	**167-0101**	
2.7	**167-0102**	
3.3	**167-0106**	
3.3	**167-0107**	
4.7	**167-0110**	
4.7	**167-0111**	
6.8	**167-0112**	
6.8	**167-0113**	
10	**167-0091**	
10	**167-0092**	
15	**167-0094**	
15	**167-0095**	
22	**167-0097**	
22	**167-0099**	
33	**167-0103**	
33	**167-0105**	
47	**167-0108**	
47	**167-0109**	
100	**167-0093**	

RLF Series Inductors

TDK SMD New

Power Line

Dimensions (LxWxT)

RLF12545	12.5 x 12.8 x 4.5mm
RLF12560	12.5 x 12.8 x 6.0mm
RLF7030	7.3 x 6.8 x 3.2mm

Applications:

RLF12545 / RLF12560

Choke coils in power circuit of note book computers, LCD, DVD, STB, PDP, amusement equipments, etc.

RLF7030

Notebook type and mobile computers, amusement equipments, VRMs, automotive equipments, etc.

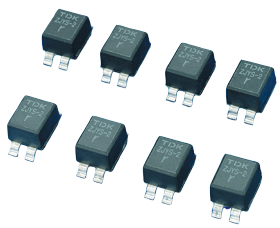
Inductance (µH)	Tolerance	DC resistance Typ. mΩ	Rated Current Max. A	Order Code
RLF12545 Type				
1.9	± 30%	3.6	13	166-9971
2.7	± 30%	4.5	12	166-9972
4.2	± 30%	7.4	9.5	166-9973
5.6	± 30%	8.5	8	166-9974
7.8	± 30%	10.2	7	166-9975
10	± 20%	12.4	6	166-9970
RLF12560 Type				
10	± 20%	12.4	7.5	166-9976
1	± 30%	2.8	18.5	166-9978
1.9	± 30%	3.6	15.6	166-9979
2.7	± 30%	4.5	14.4	166-9980
4.2	± 30%	7.4	10.2	166-9981
5.6	± 30%	8.5	9.7	166-9982
7.8	± 30%	10.2	8.2	166-9983
RLF7030 Type				
1	± 30%	7.3	7.9	166-9984
1.5	± 30%	8	6.5	166-9985
2.2	± 20%	10	5.5	166-9986
3.3	± 20%	17.4	4.4	166-9987
4.7	± 20%	26	3.5	166-9988
6.8	± 20%	37.3	3	166-9991

531741

Inductance (µH)	Order Code	Price Each
RLF12545 Type		
1.9	**166-9971**	
2.7	**166-9972**	
4.2	**166-9973**	
5.6	**166-9974**	
7.8	**166-9975**	
10	**166-9970**	
RLF12545 Type		
1	**166-9978**	
1.9	**166-9979**	
2.7	**166-9980**	
4.2	**166-9981**	
5.6	**166-9982**	
7.8	**166-9983**	
10	**166-9976**	
RLF12545 Type		
1	**166-9984**	
1.5	**166-9985**	
2.2	**166-9986**	
3.3	**166-9987**	
4.7	**166-9988**	
6.8	**166-9991**	

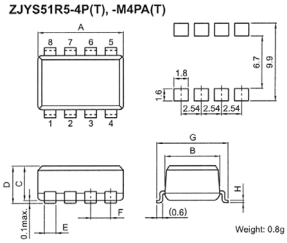
ZJYS Series - Common Mode Choke Coils for Signal Lines

TDK SMD



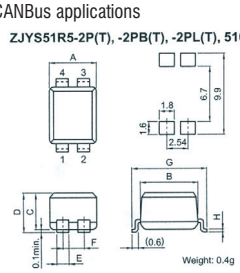
- Common-mode filters for distortion free noise removal from transmitted signals
- Optimised for the transmission of high quality signals
- Ideal for countering common mode noise resulting from data signal processing
- Surface mount packages for miniaturisation in portable applications
- High current handling of up to 5A allows use in power line noise reduction
- Key applications include, PC's, Telephones, LAN's, ISDN, Digital PBX, electronics games and portable electronic equipment
- ZJYS81R5 is a high inductance version for CANBus applications

ZJYS51R5-4P(T), -M4PA(T)



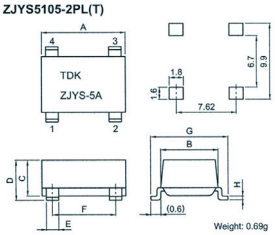
Weight: 0.8g

ZJYS51R5-2P(T), -2PB(T), -2PL(T), 5103-2PL(T)



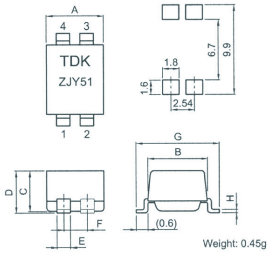
Weight: 0.4g

ZJYS5105-2PL(T)



Weight: 0.69g

ZJYS81R5-2PL25(T)-G, -2PL51(T)-G



Weight: 0.45g

CIRCUIT DIAGRAMS
ZJYS51R5-2P(T), -2PB(T), -2PL(T)
ZJYS5103-2PL(T)
ZJYS81R5-2PL25(T)-G
ZJYS81R5-2PL51(T)-G

ZJYS51R5-4P(T)

ZJYS51R5-M4PA(T)

ZJYS5105-2PL(T)

A max	B max	C max	D max	E	F	G max	H	Style
5.5	6.86	4.57	5.08	1.3	2.54	9	0.25	ZJYS51R5-2P/5103
10.5	6.86	4.57	5.08	1.3	2.54	9	0.25	ZJYS51R5-4P
10.5	7.5	4.57	5.08	1.3	7.62	9	0.25	ZJYS5105
6	7.1	4.5	5	1.3	2.54	9	0.25	ZJYS81R5

Voltage (V) dc	Current (A)	Test Voltage	Insulation Res.(MΩ)	DC Res.(Ω)	Impedance (Ω)	Oper. Temp. (°C)	Mftrs. List No.	Order Code
50	2	125	100	0.06	200	-25 to +85	ZJYS51R5-2PT-01	962-1261
50	2	125	100	0.06	200	-25 to +85	ZJYS51R5-4PT-01	962-1326
50	0.5	125	100	0.2	200	-25 to +85	ZJYS51R5-M4PAT-01	962-1334
80	0.5	200	100	0.25	600	-40 to +125	ZJYS81R5-2PL25T-G01	962-1300
80	0.5	200	100	0.3	1000	-40 to +125	ZJYS81R5-2PL51T-G01	962-1318

*1 Enhanced low frequency impedance characteristics
*2 Separate windings for communications

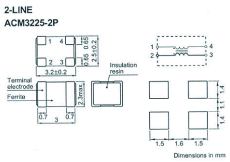
243229

Mftrs. List No.	Order Code	Price Each
ZJYS51R5-2PT-01	SMD 962-1261 RL	
ZJYS51R5-4PT-01	SMD 962-1326 RL	
ZJYS51R5-M4PAT-01	SMD 962-1334 RL	
ZJYS81R5-2PL25T-G01	SMD 962-1300 RL	
ZJYS81R5-2PL51T-G01	SMD 962-1318 RL	

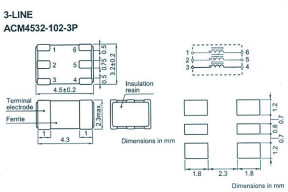
ACM Series- Common Mode Choke Coils for Signal Lines

- Ultra-miniature wire wound chip filters with performance levels usually associated with much larger devices
- Common mode inductance >1000Ω @ 100MHz
- Virtually no effect upon high speed signal shape due to ultra low differential mode impedance
- Ideally suited to suppression of both radiated and common mode emissions
- Applications include USB, IEEE1394 and LVDS link lines for LCD panels

2-LINE
ACM3225-2P



3-LINE
ACM4532-102-3P



	Impedance (typ) (Ω) @ 100MHz	DC resistance (Ω) max.	Voltage (V) dc	Current (A)	Mftrs. List No.	Order Code
2 Line						
	1000	0.5	20	0.2	ACM3225-102-2P-T001	962-1350
3 Line						
	1000	0.6	20	0.2	ACM4532-102-3P-T001	962-1369

243230

Mftrs. List No.	Order Code	Price Each
2 Line		
ACM3225-102-2P-T001	SMD 962-1350 RL	
3 Line		
ACM4532-102-3P-T001	SMD 962-1369 RL	

ACM Series Common Mode Chokes

High-speed Differential Signal Line / General Signal Line

Operating temperature -25°C to +85°C

Features:
- Although greatly miniaturised, this wire-wound chip-type filter maintains the characteristics needed for a common-mode filter.
- Common-mode impedance is 1000Ω [at 100MHz], so this filter is greatly effective in supporting noise.
- Almost no affect upon even high speed signals since differential mode impedance is kept low.
- This series includes both 2-line and 3-line types. They are used for various types of circuits and noise.

Applications
- Used for radiation noise suppression for any electronic devices.
- Used to counter common-mode noise affecting signals within high speed lines.
- USB line for personal computers and peripheral equipment.
- IEEE1394 line for personal computers, DVC, STB, etc.
- LVDS, panel link line for liquid crystal display panels.

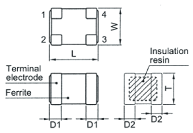
Current Max. (A)	Resistance (Ω)	Impedance (Ω)	Dimensions (mm) L	W	D	Mftrs. List No.	Order Code
0.15	0.4	450	1.2	2.5	2	ACM2520-451-2P	166-9301
0.15	0.45	600	1.2	2.5	2	ACM2520-601-2P	166-9302
0.15	1.6	800	1.2	2.5	2	ACM2520-801-3P	166-9303
0.2	0.9	1000	1.2	2.5	2	ACM2520-102-2P	166-9299
0.2	0.35	300	1.2	2.5	2	ACM2520-301-2P	166-9300
0.35	0.25	200	1.3	2	0.5	ACM2012-201-2P	166-9294
0.36	0.2	160	2.3	3	2.5	ACM3225-161-2P	166-9304
0.36	0.3	270	2.3	3	2.5	ACM3225-271-2P	166-9305
0.36	0.15	80	2.3	3	2.5	ACM3225-800-2P	166-9306
0.37	0.22	120	1.3	2	0.5	ACM2012-121-2P	166-9293
0.37	0.5	360	1.3	2	0.5	ACM2012-361-2P	166-9295
0.4	0.19	90	1.3	2	0.5	ACM2012-900-2P	166-9296

531628

Current Max. (A)	Order Code	Price Each
0.15	166-9301	
0.15	166-9302	
0.15	166-9303	
0.2	166-9299	
0.2	166-9300	
0.35	166-9294	
0.36	166-9304	
0.36	166-9305	
0.36	166-9306	
0.37	166-9293	
0.37	166-9295	
0.4	166-9296	

ACM Series - Common Mode Choke Coils for DC Power Lines

SHAPES AND DIMENSIONS
ACM3225, 4532 TYPES



CIRCUIT DIAGRAM

- Common mode chip filters for high current applications
- Common mode impedence >600 to 800Ω at 100MHz
- Exceptional noise suppression in a small package ideally suited for miniaturised or portable equipment
- Perform extremely well in countering adaptor/battery noise
- Ideal for power line noise supression in any electronic device

Impedance (typ) (Ω) @100MHz	DC resistance (Ω) max	Voltage (V) dc	Current (A)	Mftrs. List No.	Order Code
600	0.2	50	1	ACM3225-601-2P-T001	962-1377
600	0.1	50	1.5	ACM4532-601-2P-T001	962-1385
800	0.1	50	1	ACM4532-801-2P-T001	962-1393

243231

Mftrs. List No.	Order Code	Price Each
ACM3225-601-2P-T001	SMD 962-1377 RL	
ACM4532-601-2P-T001	SMD 962-1385 RL	
ACM4532-801-2P-T001	SMD 962-1393 RL	

ACM Series Common Mode Chokes

For DVI / HDMI

Operating temperature -25°C to +85°C

Features:
- These are a series of broadband common mode filters developed for high-speed differential signal interfaces, such as DVI and HDMI.
- The cutoff frequencies in differential mode for ACM2012D and ACM2012H are 3.5GHz and 6.0GHz respectively, so they do not interfere with high-speed differential signals.
- The characteristic impedance is approximated to 100Ω, conforming to the TDR standard for HDMI.

Applications
- For new HDMI interfaces used in digital video devices: ACM2012H is suited for use on the transmission side (Source) of digital TVs, DVD recorders and liquid crystal projectors. ACM2012D is suited for use on the receiving side (Sink).
- For digital video signal interfaces DVI (UXGA) used in PCs and other devices/High-speed differential signal interfaces for USB 2.0, IEEE1394 and Serial-ATA.

Current Max. (A)	Impedance (Ω)	Dimensions (mm) L	W	D	Mftrs. List No.	Order Code
0.4	90	1.2	2	1.2	ACM2012D-900-2P	166-9297
0.4	90	1.2	2	1.2	ACM2012H-900-2P	166-9298

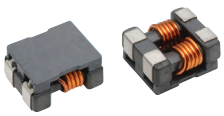
531634

Order Code	Price Each
166-9297	
166-9298	

Inductors - SMD Power Coil - TDK - continued

ACM Series Common Mode Filters

2 Line



Features
- A chip-type common mode filter for large current applications
- Capable of handling the highest current (up to 10A) of any chip-type common mode filter
- Applicable for the miniaturization required to reduce the size and weight of portable equipment

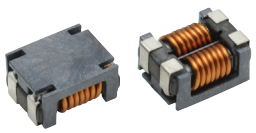
Applications
- Used for power line noise suppression for any electrical devices.
- Used to counter adapter/battery line noise for relatively large electronic devices such as notebook PCs

Impedance Ω @ 100 MHz	Current Max. (A)	Resistance m(Ω)	Dimensions (mm) L	W	H	Mftrs. List No.	Order Code
300	5	10	7	6	3.5	ACM7060-301-2PL	150-3723
550	10	4	15	13	6	ACM1513-551-2PL	150-3729
700	4	15	7	6	3.5	ACM7060-701-2PL	150-3724
700	5	10	9	7	4.5	ACM9070-701-2PL	150-3725
700	8	6	9	7	6	ACM1211-701-2PL	150-3726
900	2	0.06	4.5	4.7	2	ACM4520-901-2P	166-9309
1000	6	14	12	11	6	ACM1211-102-2PL	150-3727
1400	2	0.08	4.5	4.7	2	ACM4520-142-2P	166-9307

490788

Order Code	Price Each
150-3723	
150-3724	
150-3725	
150-3726	
150-3727	
150-3729	
NEW 166-9307	
NEW 166-9309	

ACM-V Series Common Mode Chokes



Operating temperature -40°C to +125°C

Features:
- Have achieved miniaturization while keeping characteristics by adoption of exclusive square type closed magnetic cores.
- Due to the low profile design, it is suitable for a surface mount.
- High impedance characteristic has been achieved a superior effect for common mode noise suppression.

Applications

Common mode noise countermeasures for DC power lines of electronic control equipment, multi-media equipment for automotives and various electronic equipment power supply lines.

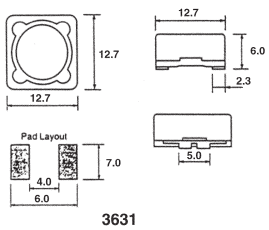
Current Max. (A)	Resistance (Ω)	Impedance (Ω)	Dimensions (mm) L	W	D	Mftrs. List No.	Order Code
4	15	700	7	6	3.5	ACM70V-701-2PL	166-9311
5	10	700	9	7	4.5	ACM90V-701-2PL	166-9312
8	6	700	12	11	6	ACM12V-701-2PL	166-9292

531624

Current Max. (A)	Order Code	Price Each
4	166-9311	
5	166-9312	
8	166-9292	

Inductors - SMD Power Coil - Tyco Electronics

3631/3632 Series - Shielded Signal Line Chokes



- High power, ferrite cored surface mount inductors
- Fully shielded moulded construction
- Suitable for switching regulators, filter and power line applications and power decoupling

Operating temperature -20°C to +80°C

Inductance (µH)	Tolerance %	L Test Frequency	DC resistance Max.(Ω)	DC Current Max.(A)	Mftrs. List No.	Order Code
2.5	20	1kHz	0.016	6.2	3631B2R5ML	117-4023
10	20	1kHz	0.035	3.3	3631B100ML	117-4025
22	20	1kHz	0.062	2.3	3631B220ML	117-4026
33	15	1kHz	0.09	1.9	3631B330LL	117-4027
47	15	1kHz	0.13	1.6	3631B470LL	117-4028
100	15	1kHz	0.22	1.1	3631B101LL	117-4029
220	15	1kHz	0.46	0.7	3631B221KL	117-4030
330	15	1kHz	0.66	0.6	3631B331KL	117-4031
470	15	1kHz	0.97	0.5	3631B471KL	117-4032
820	15	1kHz	1.7	0.35	3631B821KL	117-4035
1000	15	0.252MHz	2.5	0.3	3632B102LL	117-4036
2200	15	0.252MHz	5	0.2	3632B222LL	117-4037
10000	15	79.6MHz	26	0.095	3632B103LL	117-4038

204188

Order Code		Price Each
3631 Series	All Values RL	
3632 Series	All Values RL	

Inductors - SMD Power Coil - Vishay

IHLP-1616 Series

IHLP-1616AB-01/11 & IHLP-1616BZ-01/11 Models

- Shielded construction
- Frequency range up to 5.0 MHz & 1MHz
- Handles high transient current spikes without saturation
- Ultra low buzz noise, due to composite construction
- Reel Qty: 4000

Operating temperature -55°C to +125°C
Self resonant frequency ± 20%

IHLP-1616AB-01/11 L=4.06, W=4.45, H=1.2mm
IHLP-1616BZ-01/11 L=4.06, W=4.45, H=2mm

Inductance (µH)	DC Res. (mΩ @ 25°C)	Saturation Current. DC (A)	Heat Rating Current. DC (A)	Mftrs. List No.	Order Code
IHLP1616AB-01 (5MHz)					
0.047	3.25	32	13	IHLP1616ABER47NM01	174-1280
0.1	5.5	25	11.5	IHLP1616ABERR10M01	174-1281
0.22	11	20	8.5	IHLP1616ABERR22M01	174-1282
0.47	20	13	5	IHLP1616ABERR47M01	174-1283
1	50	8.5	4	IHLP1616ABER1R0M01	174-1284
IHLP1616AB-11 (1MHz)					
0.047	3	15	15	IHLP1616ABER47NM11	174-1285
0.1	5	12	12	IHLP1616ABERR10M11	174-1286
0.22	9.5	9.5	9.5	IHLP1616ABERR22M11	174-1288
0.47	19	6	6	IHLP1616ABERR47M11	174-1289
1	43	4.5	4.5	IHLP1616ABER1R0M11	174-1290
1.2	55.6	3.75	3.75	IHLP1616ABER1R2M11	174-1291
1.5	68	3.25	3.25	IHLP1616ABER1R5M11	174-1292
2.2	90	3	2.75	IHLP1616ABER2R2M11	174-1293
IHLP1616BZ-01 (5MHz)					
0.1	4.5	35	11	IHLP1616BZERR10M01	174-1294
0.22	7.3	24	13	IHLP1616BZERR22M01	174-1295
0.47	16	11.5	5.6	IHLP1616BZERR47M01	174-1296
1	33	8.5	3.75	IHLP1616BZER1R0M01	174-1297
2.2	80	6	2.85	IHLP1616BZER2R2M01	174-1298
IHLP1616BZ-11 (1MHz)					
0.1	4.1	12	12	IHLP1616BZERR10M11	174-1300
0.22	6.5	9	9	IHLP1616BZERR22M11	174-1301
0.47	14.5	7	7	IHLP1616BZERR47M11	174-1302
1	24	5	4.5	IHLP1616BZER1R0M11	174-1303
2.2	61	3.25	3.25	IHLP1616BZER2R2M11	174-1304
4.7	95	1.75	1.7	IHLP1616BZER4R7M11	174-1306

541986

Model	Order Code	Price Each
IHLP-1616AB	All Values	
IHLP-1616BZ	All Values	

IHLP-2020 Series

Low Profile - High Current

(HxWxD) 2 x 5.49 x 5.18mm

Features:
- Shielded construction
- Frequency range up to 5.0 MHz
- Handles high transient current spikes without saturation

Applications:
- PDA/Notebook/Desktop/Server applications
- Low profile, high current power supplies
- Battery powered devices
- DC/DC converters

Inductance µH	DC Res mΩ @ 25°C	Saturartion Current, DC (A)	Heat Rating Current, DC (A)	Mftrs. List No.	Order Code
0.1	3.6	45	17	IHLP2020BZERR10M01	169-8002
0.1	2.7	25	21	IHLP2020BZERR10M11	174-1307
0.1	2.6	25	21	IHLP2020CZERR10M11	174-1318
0.22	4.9	22	15	IHLP2020BZERR22M01	169-8003
0.22	4.1	13	17	IHLP2020BZERR22M11	174-1308
0.22	3.5	14.5	21	IHLP2020CZERR22M11	174-1319
0.33	7.6	25	12	IHLP2020BZERR33M01	169-8004
0.33	5.5	7.5	13	IHLP2020BZERR33M11	174-1309
0.33	4.5	9	16.5	IHLP2020CZERR33M11	174-1320
0.47	8.9	21	11.5	IHLP2020BZERR47M01	169-8005
0.47	7.1	8	12.5	IHLP2020BZERR47M11	174-1310
0.47	5.4	9	14	IHLP2020CZERR47M11	174-1321
0.68	11.2	15	10	IHLP2020BZERR68M01	169-8006
1	18.9	16	7	IHLP2020BZER1R0M01	169-8007
1	16.8	7	7.5	IHLP2020BZER1R0M11	174-1311
1	10	6.5	10	IHLP2020CZER1R0M11	174-1322
1.5	17.1	7	7.5	IHLP2020CZER1R5M11	174-1323
2.2	45.6	12.5	4.2	IHLP2020BZER2R2M01	169-8008
2.2	34.9	5.5	5	IHLP2020BZER2R2M11	174-1312
2.2	22.5	5.5	6.75	IHLP2020CZER2R2M11	174-1324
3.3	79.2	8.5	3.3	IHLP2020BZER3R3M01	169-8009
3.3	53.5	4.7	4.1	IHLP2020BZER3R3M11	174-1313
3.3	36.4	7	5.5	IHLP2020CZER3R3M11	174-1325
4.7	108	5	2.8	IHLP2020BZER4R7M01	169-8010
4.7	75.3	3	3.2	IHLP2020BZER4R7M11	174-1314
4.7	54	5.2	4.5	IHLP2020CZER4R7M11	174-1326
5.6	113	4.5	2.5	IHLP2020BZER5R6M01	169-8012
5.6	85.2	2.2	3	IHLP2020BZER5R6M11	174-1315
5.6	63	3.5	4.25	IHLP2020CZER5R6M11	174-1327
6.8	139	4.3	2.4	IHLP2020BZER6R8M01	169-8013
10	184	4	2.3	IHLP2020BZER100M01	169-8014
10	169.3	2	2.2	IHLP2020BZER100M11	174-1316
10	122.1	2.25	2.75	IHLP2020CZER100M11	174-1328
22	250	1.7	1.9	IHLP2020CZER220M11	174-1331

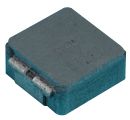
532234

Inductance µH	Order Code	Price Each
0.1	169-8002	
0.1	NEW 174-1307	
0.1	NEW 174-1318	
0.22	169-8003	
0.22	NEW 174-1308	
0.22	NEW 174-1319	
0.33	169-8004	
0.33	NEW 174-1309	
0.33	NEW 174-1320	
0.47	169-8005	
0.47	NEW 174-1310	
0.47	NEW 174-1321	
0.68	169-8006	
1	169-8007	
1	NEW 174-1311	
1	NEW 174-1322	
1.5	NEW 174-1323	
2.2	169-8008	
2.2	NEW 174-1312	
2.2	NEW 174-1324	
3.3	169-8009	
3.3	NEW 174-1313	
3.3	NEW 174-1325	
4.7	169-8010	
4.7	NEW 174-1314	
4.7	NEW 174-1326	
5.6	169-8012	
5.6	NEW 174-1315	
5.6	NEW 174-1327	
6.8	169-8013	
10	169-8014	
10	NEW 174-1316	
10	NEW 174-1328	
22	NEW 174-1331	

FREE Re-reeling service. Only buy what you need and improve assembly efficiency. For more information visit **local website**

IHLP-2525 Series

Low profile - High Current



- Ferrite cored wound surface mount inductors
- Shielded construction
- Low profile, high current rating
- Low loss and dc resistance up to 5MHz
- Applications include DC/DC converters and energy storage in mobile phones, computers, digital cameras and other handheld electronic devices

Operating temperature -55°C to +125°C
Tolerance ± 20%
AH Dimensions (HxWxD) 1.8 x 6.86 x 6.47mm
BD Dimensions (HxWxD) 0.095 x 6.86 x 6.47mm
CZ Dimensions (HxWxD) 0.118 x 6.86 x 6.47mm
EZ Dimensions (HxWxD) 5 x 6.86 x 6.47mm

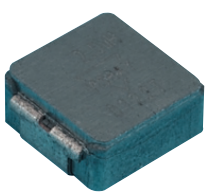
Inductance µH	DC Res mΩ @ °25C	Saturation Current, DC (A)	Heat Rating Current, DC (A)	Mftrs. List No.	Order Code
CZ (5MHz)					
0.1	1.7	60	32.5	IHLP2525CZERR10M01	118-7058
0.2	3	41	24	IHLP2525CZERR20M01	118-7059
0.47	4	26	17.5	IHLP2525CZERR47M01	118-7060
0.68	5.2	25	15.5	IHLP2525CZERR68M01	118-7061
1	10	22	11	IHLP2525CZER1R0M01	118-7062
1.5	15	18	9	IHLP2525CZER1R5M01	118-7063
2.2	20	14	8	IHLP2525CZER2R2M01	118-7064
3.3	30	13.5	6	IHLP2525CZER3R3M01	118-7066
4.7	40	10	5.5	IHLP2525CZER4R7M01	118-7067
CZ (1MHz)					
1	7.6	9.5	12.5	IHLP2525CZER1R0M11	NEW 174-1361
2.2	15.7	7	9	IHLP2525CZER2R2M11	NEW 174-1362
3.3	24.8	6.5	7	IHLP2525CZER3R3M11	NEW 174-1363
4.7	31.8	4	6	IHLP2525CZER4R7M11	NEW 174-1364
6.8	44.6	4	5.5	IHLP2525CZER6R8M11	NEW 174-1365
8.2	52.3	4	5	IHLP2525CZER8R2M11	NEW 174-1367
10	67.8	3.5	4	IHLP2525CZER100M11	NEW 174-1368
22	128.9	2.5	2.9	IHLP2525CZER220M11	NEW 174-1369
AH (5MHz)					
0.1	3	40	18	IHLP2525AHERR10M01	NEW 174-1332
0.15	4.7	38	15	IHLP2525AHERR15M01	NEW 174-1333
0.22	5.3	26	14	IHLP2525AHERR22M01	NEW 174-1334
0.33	6.6	18	12	IHLP2525AHERR33M01	NEW 174-1335
0.47	8.4	18	11	IHLP2525AHERR47M01	NEW 174-1336
0.68	12.7	17	9	IHLP2525AHERR68M01	NEW 174-1337
0.82	13.8	17	8	IHLP2525AHERR82M01	NEW 174-1338
1	17.5	14	7	IHLP2525AHER1R0M01	NEW 174-1339
1.5	32.6	11.5	4	IHLP2525AHER1R5M01	NEW 174-1340
2.2	40.3	13	3.75	IHLP2525AHER2R2M01	NEW 174-1341
2.5	49.9	10.4	3.5	IHLP2525AHER2R5M01	NEW 174-1343
3.3	56.2	10	3.25	IHLP2525AHER3R3M01	NEW 174-1344
4.7	76.6	8	3	IHLP2525AHER4R7M01	NEW 174-1345
BD (5MHz)					
0.1	1.5	50	30	IHLP2525BDERR10M01	NEW 174-1346
0.22	2.9	34	21	IHLP2525BDERR22M01	NEW 174-1347
0.33	3.7	22	18	IHLP2525BDERR33M01	NEW 174-1348
0.47	6	21	13.5	IHLP2525BDERR47M01	NEW 174-1349
0.68	8.7	18	11	IHLP2525BDERR68M01	NEW 174-1350
0.82	10.6	17	10	IHLP2525BDERR82M01	NEW 174-1351
1	13.1	16	9	IHLP2525BDER1R0M01	NEW 174-1352
1.5	18.5	15	7.5	IHLP2525BDER1R5M01	NEW 174-1353
2.2	28	14	6.5	IHLP2525BDER2R2M01	NEW 174-1355
3.3	36.5	13	5	IHLP2525BDER3R3M01	NEW 174-1356
4.7	45.2	10	4.5	IHLP2525BDER4R7M01	NEW 174-1357
6.8	72.5	9	3.5	IHLP2525BDER6R8M01	NEW 174-1358
8.2	84.2	8	3	IHLP2525BDER8R2M01	NEW 174-1359
10	115.6	7	2.5	IHLP2525BDER100M01	NEW 174-1360
EZ (5MHz)					
0.56	3.4	12	20	IHLP2525EZERR56M01	NEW 174-1370
0.68	4.2	11.5	18	IHLP2525EZERR68M01	NEW 174-1371
0.82	4.6	13	16.5	IHLP2525EZERR82M01	NEW 174-1372
1	5.6	15	13	IHLP2525EZER1R0M01	NEW 174-1373
1.5	8.6	12	12	IHLP2525EZER1R5M01	NEW 174-1374
2.2	13	10	10	IHLP2525EZER2R2M01	NEW 174-1375
3.3	19.9	8	8	IHLP2525EZER3R3M01	NEW 174-1376
4.7	28.9	7	6.5	IHLP2525EZER4R7M01	NEW 174-1377
5.6	32.7	7	6	IHLP2525EZER5R6M01	NEW 174-1379
6.8	42.5	5.5	5.5	IHLP2525EZER6R8M01	NEW 174-1381
8.2	48.3	5	5	IHLP2525EZER8R2M01	NEW 174-1382
10	67.9	4.5	4.5	IHLP2525EZER100M01	NEW 174-1383

234780

Inductance	Order Code	Price Each
0.1µH to 1µH	All Values	
1.5µH to 4.7µH	All Values	
6.8µH to 10µH	All Values	

IHLP-4040 Series

IHLP-4040DZ-01 and IHLP-4040DZ-11 Models



L=11.5, W=10.3, H=4

- Low profile high current inductors,
- Shielded construction
- Lowest DCR/µH, in this package size
- Handles high transient current spikes without saturation
- Ultra low buzz noise, due to composite construction

Operating temperature -55°C to +125°C
Tolerance ± 20%

Inductors - SMD Power Coil - Vishay - continued

IHLP-4040 Series - continued

IHLP-4040DZ-01 and IHLP-4040DZ-11 Models - continued

Inductance (µH)	DC Res. (mΩ @ 25°C)	Saturation Current DC (A)	Heat Rating Current DC (A)	Mftrs. List No.	Order Code
IHLP-4040DZ-11 (1MHz)					
0.19	0.7	46	40	IHLP4040DZERR19M11	154-7042
0.24	0.85	44	33	IHLP4040DZERR24M11	154-7043
0.36	1.05	30	32	IHLP4040DZERR36M11	154-7044
0.47	1.53	30	30	IHLP4040DZERR47M11	154-7046
0.56	1.6	22	32	IHLP4040DZERR56M11	154-7047
0.78	1.8	22	27	IHLP4040DZERR78M11	154-7048
1	2.3	20	25	IHLP4040DZER1R0M11	154-7050
1.8	4.5	16	17	IHLP4040DZER1R8M11	154-7051
2	5.2	14	16	IHLP4040DZER2R0M11	154-7052
4.7	12.9	7.6	9.5	IHLP4040DZER4R7M11	154-7053
6.8	17.5	7.5	9	IHLP4040DZER6R8M11	154-7054
10	27.8	7.1	7.5	IHLP4040DZER100M11	154-7055
15	40.9	6	6.25	IHLP4040DZER150M11	154-7056
22	60.4	4.5	5	IHLP4040DZER220M11	154-7058
47	132	3	3.3	IHLP4040DZER470M11	154-7059
100	249	2.25	2.5	IHLP4040DZER101M11	154-7060
IHLP-4040DZ-01 (5MHz)					
0.19	0.875	90	40	IHLP4040DZERR19M01	154-7030
0.36	1.3	60	31.5	IHLP4040DZERR36M01	154-7031
0.56	1.7	49	27.5	IHLP4040DZERR56M01	154-7032
1	3.7	36	17.5	IHLP4040DZER1R0M01	154-7034
1.5	5.3	27.5	15	IHLP4040DZER1R5M01	154-7035
2.2	8.2	25.6	12	IHLP4040DZER2R2M01	154-7036
3.3	13.7	18.6	10	IHLP4040DZER3R3M01	154-7037
4.7	15	17	9.5	IHLP4040DZER4R7M01	154-7038
5.6	17.6	16	8.5	IHLP4040DZER5R6M01	154-7039
6.8	21.2	13.5	8	IHLP4040DZER6R8M01	154-7040
10	33.2	12	6.8	IHLP4040DZER100M01	154-7041

527058

Price Each

Order Code	
All Values ●	

IHLP-5050 Series

IHLP-5050CE / FD & EZ Models

- Low profile high current inductor
- Shielded construction
- Frequency range up to 5.0 MHz
- Handles high transient current spikes without saturation
- Ultra low buzz noise, due to composite construction
- Choice of two case sizes

Operating temperature -55°C to +125°C
Self resonant frequency 20%

IHLP-5050CE-01 L=13.2, W=12.9, H=3.5
IHLP-5050FD-01 L=13.2, W=12.9, H=6.5

Inductance (µH)	DC Res. (mΩ @ 25°C)	Saturation Current. DC (A)	Heat Rating Current. DC (A)	Mftrs. List No.	Order Code
IHLP-5050CE-01 (5MHz)					
0.22	1.1	65	38.5	IHLP5050CEERR22M01	128-9479
0.33	1.3	62	36.5	IHLP5050CEERR33M01	128-9480
0.6	1.8	51	29	IHLP5050CEERR60M01	128-9485
1.8	6.5	30	16.5	IHLP5050CEER1R8M01	128-9467
2.2	7.2	29	16	IHLP5050CEER2R2M01	128-9468
3.3	11	27	12	IHLP5050CEER3R3M01	128-9472
4.7	14.3	24	10	IHLP5050CEER4R7M01	128-9473
5.6	18.3	19	9.5	IHLP5050CEER5R6M01	128-9474
6.8	19.8	18	9	IHLP5050CEER6R8M01	128-9475
8.2	24.8	16	8.5	IHLP5050CEER8R2M01	128-9476
10	30.4	14	7	IHLP5050CEER100M01	128-9465
IHLP-5050FD-01 (5MHz)					
0.1	0.47	120	60	IHLP5050FDERR10M01	128-9454
0.22	0.63	112	53	IHLP5050FDERR22M01	128-9456
0.33	0.83	65	46	IHLP5050FDERR33M01	128-9459
0.4	0.9	64	44	IHLP5050FDERR40M01	128-9460
0.68	1.4	60	35	IHLP5050FDERR68M01	128-9463
0.82	1.6	50	33	IHLP5050FDERR82M01	128-9464
1.2	2.1	48	30	IHLP5050FDER1R2M01	128-9443
1.5	2.5	45	27	IHLP5050FDER1R5M01	128-9444
2.2	3.5	40	22	IHLP5050FDER2R2M01	128-9447
3.3	5.7	35	18	IHLP5050FDER3R3M01	128-9448
4.7	9.3	30	13.5	IHLP5050FDER4R7M01	128-9449
5.6	9.3	26.5	13.5	IHLP5050FDER5R6M01	128-9450
6.8	13.1	16.5	11.5	IHLP5050FDER6R8M01	128-9452
8.2	14.5	16	10.5	IHLP5050FDER8R2M01	128-9453
10	15.8	15.5		IHLP5050FDER100M01	128-9442
IHLP-5050EZ-01 (5MHz)					
0.1	0.53	118	55	IHLP5050EZERR10M01	174-1384
0.22	0.64	110	51	IHLP5050EZERR22M01	174-1385
0.56	1.3	55	36	IHLP5050EZERR56M01	174-1388
0.68	1.5	54	34	IHLP5050EZERR68M01	174-1389
0.82	2	53	31	IHLP5050EZERR82M01	174-1390
1	2.1	50	29	IHLP5050EZER1R0M01	174-1392
1.5	3.4	48	23	IHLP5050EZER1R5M01	174-1393
1.8	4.2	40	19	IHLP5050EZER1R8M01	174-1394
2.2	4.6	32	20	IHLP5050EZER2R2M01	174-1395
3.3	7.7	32	15	IHLP5050EZER3R3M01	174-1396
4.7	12.8	27	12	IHLP5050EZER4R7M01	174-1397
5.6	14	22	11.5	IHLP5050EZER5R6M01	174-1398
6.8	15.4	21	11	IHLP5050EZER6R8M01	174-1399
7.8	17.2	18	10	IHLP5050EZER7R8M01	174-1400
8.2	18.9	18	9.5	IHLP5050EZER8R2M01	174-1401
10	21.4	16	9	IHLP5050EZER100M01	174-1402

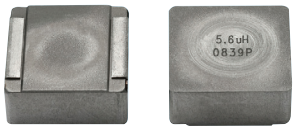
451779

Price Each

Model	Order Code
IHLP-5050CE-01	All Values ●
IHLP-5050FD-01	All Values ●
IHLP-5050EZ-01	All Values ●

IHLP-6767 Series

Low Profile - High Current



IHLP-6767GZ L=17.15, W=17.15, H=7mm

- Shielded construction
- Frequency range up to 2.0 MHz
- Handles high transient current spikes without saturation
- Ultra low buzz noise, due to composite construction
- Reel Qty: 200

Operating temperature -55°C to +125°C Self resonant frequency ± 20%

Inductance (µH)	DC Res. (mΩ @ 25°C)	Saturation Current. DC (A)	Heat Rating Current. DC (A)	Mftrs. List No.	Order Code
0.22	0.63	129	80	IHLP6767GZERR22M01	174-1403
0.33	0.71	126	65	IHLP6767GZERR33M01	174-1404
0.47	0.84	123	62	IHLP6767GZERR47M01	174-1405
0.56	0.91	88	56	IHLP6767GZERR56M01	174-1406
0.82	1.17	73	50	IHLP6767GZERR82M01	174-1407
1	1.28	73	48	IHLP6767GZER1R0M01	174-1409
1.5	1.78	65	42	IHLP6767GZER1R5M01	174-1411
1.8	1.96	65	38	IHLP6767GZER1R8M01	174-1412
2.2	2.4	62	35	IHLP6767GZER2R2M01	174-1413
3.3	3.68	54	28	IHLP6767GZER3R3M01	174-1414
4.7	4.84	41	25	IHLP6767GZER4R7M01	174-1415
5.6	6.68	40	21	IHLP6767GZER5R6M01	174-1416
6.8	8.37	32	19	IHLP6767GZER6R8M01	174-1417
8.2	10.1	25	18	IHLP6767GZER8R2M01	174-1418
10	11.6	25	16.5	IHLP6767GZER100M01	174-1419
15	18.8	25	12.5	IHLP6767GZER15M01	174-1420
22	25.1	23	11	IHLP6767GZER220M01	174-1422

541992

Price Each

Order Code	
All Values ●	

Inductors - SMD Power Coil - Würth Elektronik

Flat Wire Inductors

WE-HC series, High Current

- Low stray field, extremely low profile design
- Current capability up to 40 A
- Operating temperature: -40°C to +150°C/155°C
- Recommended soldering profile: reflow
- 30% less deficit compared to standard material at 500kHz, no thermal aging
- For graphic cards, Laptops, Industrial computers, Motherboards, High current switching regulators, High temperature electronics, Polyphase-switching regulators
- Recommended for applications with ICś of National, Linear Tech., TI, Fairchild and STM

Inductance (µH)	Tolerance	Selfres. frequency (MHz)	R_{DC} typ. (mΩ)	Current rating (A)	Mftrs. List No.	Order Code
0.21	± 20%	275	1.86	18	744312025	163-6180
0.58	± 20%	150	7.2	12	744312072	163-6183
0.75	± 20%	110	8.11	11	744312100	163-6184
1.17	± 20%	87	9.57	9	744312150	163-6186
0.11	± 20%	400	0.91	22	744310013	163-6187
0.22	± 20%	220	1.6	18	744310024	163-6188
0.52	± 20%	105	3.1	17	744311068	163-6190
1.75	± 20%	52	11.4	9	744311220	163-6192
2.75	± 20%	43	17.2	6.5	744311330	163-6193
4.7	± 20%	33	19.5	6	744311470	163-6195
3.3	± 20%	65	9	9	744314330	163-6196
4.9	± 20%	56	14.5	6.5	744314490	163-6197
0.14	± 20%	363	0.62	24	744324015	163-6199
0.3	± 20%	174	1.36	22	744324033	163-6201
1	± 20%	77	4.48	14	744324100	163-6203

Inductance (µH)	Tolerance	Selfres. frequency (MHz)	R_{DC} typ. (mΩ)	Current rating (A)	Mftrs. List No.	Order Code
1.5	± 20%	54	5.35	13	744324140	163-6204
1.8	± 20%	n.D.	4.6	14	744325240	163-6205
2.4	± 20%	n.D.	5.9	12	744325330	163-6206
3.3	± 20%	33	7.1	11	744325420	163-6207
1.45	± 20%	48	5.6	14	744313180	163-6209
1.75	± 20%	40	5.7	14	744313220	163-6210
2.45	± 20%	30	8.1	12	744313330	163-6211
1	± 20%	87	3	18	744315120	163-6214
0.9	± 20%	64	1.79	22	744318120	163-6215
1.4	± 20%	68	3.19	18	744318180	163-6216
2.15	± 20%	39	4	16	744318270	163-6217

522390

Inductance (µH)	Order Code	Price Each
0.21	**163-6180**	
0.58	**163-6183**	
0.75	**163-6184**	
1.17	**163-6186**	
0.11	**163-6187**	
0.22	**163-6188**	
0.52	**163-6190**	
1.75	**163-6192**	
2.75	**163-6193**	
4.7	**163-6195**	
3.3	**163-6196**	
4.9	**163-6197**	
0.14	**163-6199**	
0.3	**163-6201**	
1	**163-6203**	
1.5	**163-6204**	
1.8	**163-6205**	
2.4	**163-6206**	
3.3	**163-6207**	
1.45	**163-6209**	
1.75	**163-6210**	
2.45	**163-6211**	
1	**163-6214**	
0.9	**163-6215**	
1.4	**163-6216**	
2.15	**163-6217**	

High Current Inductors

WE-HCA Series, Shielded

- New core material WE-Perm: 50% less deficit compared to Superflux 200 at 500 kHz and 0.5T, no thermal aging
- Optimized for high ripple current because of extremely low core losses
- Flat wire coil for lower losses at high frequency ranges
- Low leakage field and extremely low profile design
- Current capability up to 60A
- Operating temperature: -40°C to +155°C
- Recommended soldering profile: Reflow
- For graphic cards, laptops, industrial computers, motherboards, high current switching regulators, high temperature electronics, polyphase-switching regulators recommended for applications with ICś of National, Linear Tech., TI, Fairchild and STM

Inductance (µH)	Tolerance	Selfres. frequency (MHz)	R_{DC} typ. (mΩ)	Current rating (A)	Mftrs. List No.	Order Code
0.19	± 20%	225	0.5	29	744355019	163-6227
0.47	± 20%	95	0.9	26	744355047	163-6228
0.9	± 20%	72	1.65	24	744355090	163-6229
1.4	± 20%	60	2.4	22	7443550140	163-6230
2.3	± 20%	N/A	3.7	17.5	7443550230	163-6231
3.2	± 20%	34	5.3	16	7443550320	163-6232
0.2	± 20%	230	0.35	32	744355122	163-6234
0.47	± 20%	100	0.67	30	744355147	163-6235
0.82	± 20%	72	0.9	27	744355182	163-6237
3.7	± 20%	26	4.9	17	7443551370	163-6239
9.2	± 20%	N/A	7.8	12	7443551920	163-6242
15.4	± 20%	15	14.8	9	7443551151	163-6243
0.15	± 30%	N/A	N/A	N/A	744355215	163-6244
0.3	± 20%	170	1.1	22	744355230	163-6245
0.56	± 20%	100	1.61	20	744355256	163-6246
1	± 20%	80	3.3	16	7443552100	163-6247
1.5	± 20%	63	5.3	14	7443552150	163-6249
2.8	± 20%	46	10.6	9.5	7443552280	163-6251
4.3	± 20%	33	14	8	7443552430	163-6252

522403

Inductance (µH)	Order Code	Price Each
0.19	**163-6227**	
0.47	**163-6228**	
0.9	**163-6229**	
1.4	**163-6230**	
2.3	**163-6231**	
3.2	**163-6232**	
0.2	**163-6234**	

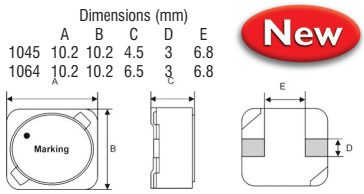
Inductance (µH)	Order Code	Price Each
0.47	**163-6235**	
0.82	**163-6237**	
3.7	**163-6239**	
9.2	**163-6242**	
15.4	**163-6243**	
0.15	**163-6244**	
0.3	**163-6245**	
0.56	**163-6246**	
1	**163-6247**	
1.5	**163-6249**	
2.8	**163-6251**	
4.3	**163-6252**	

Power Chokes

WE-PDF Series

Dimensions (mm)

	A	B	C	D	E
1045	10.2	10.2	4.5	3	6.8
1064	10.2	10.2	6.5	3	6.8



- Core material: NiZn
- Flat power inductor
- High storage capability
- Magnetically shielded which results in a low leakage field
- High saturation current
- Flat wire coil for lower losses at high frequency ranges
- High Self Resonance Frequency
- Operating temperature: -40°C up to +150°C
- Recommended solder profile: Reflow

Inductance (µH)	Tolerance	Selfres. frequency (MHz)	R_{DC} (Ω)	Current rating (A)	Mftrs. List No.	Order Code
1045						
0.22	± 30%	350	0.01	8.8	7447797022	180-0262
0.5	± 30%	200	0.0125	8.5	7447797050	180-0263
1.1	± 30%	127	0.014	7.6	7447797110	180-0264
1.8	± 20%	90	0.016	7.3	7447797180	180-0266
3	± 20%	70	0.018	7	7447797300	180-0268
3.6	± 20%	56	0.02	6.8	7447797360	180-0269
4.7	± 20%	52	0.027	5.8	7447797470	180-0270
6.2	± 20%	43	0.03	5.5	7447797620	180-0271
8.2	± 20%	31	0.035	4.8	7447797820	180-0272
1064						
0.22	± 30%	380	0.007	10.3	7447798022	180-0273
0.5	± 30%	180	0.0075	9.5	7447798050	180-0274
1.1	± 30%	115	0.0086	9.25	7447798110	180-0275
1.8	± 30%	78	0.0096	9	7447798180	180-0276
2.5	± 30%	63	0.013	8.6	7447798250	180-0277
3.6	± 30%	50	0.0111	7.9	7447798360	180-0278
4.7	± 30%	43	0.0132	7.5	7447798470	180-0281
6.2	± 30%	40	0.0147	7	7447798620	180-0282
7.2	± 30%	34	0.0159	6.5	7447798720	180-0283
10	± 30%	30	0.0194	6.2	7447798910	180-0284
11	± 20%	27	0.0214	5.8	7447798111	180-0285
13	± 20%	24	0.0271	5.2	7447798131	180-0286
15	± 20%	22	0.0289	4.9	7447798151	180-0287
18	± 20%	20	0.0311	4.7	7447798181	180-0288
22	± 20%	18	0.0402	4.1	7447798221	180-0289
24	± 20%	17	0.0429	4	7447798241	180-0290
27	± 20%	16	0.0458	3.9	7447798271	180-0291
30	± 20%	14	0.0492	3.7	7447798301	180-0293

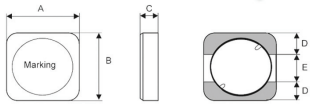
605754

	Order Code	Price Each
1045	**All Values**	
1064	**All Values**	

RL **FREE Re-reeling service.** Only buy what you need and improve assembly efficiency. For more information visit **local website**

Shielded Power Inductors

WE-TPC Series, Extremly Flat



- Extremely flat power inductor
- High current capability
- High reliability and perfect soldering characteristics because of an integrated soldering pad
- Magnetically shielded which results in a low leakage field
- Operating temperature range: -40°C up to +125°C
- For portable applications like PDA, digital camera, PCMICA-cards, displays or DC/DC-converter
- Recommended for switching regulator IC's from Linear Techn., National Semiconductor, TI and Fairchild Semiconductor

Inductors - SMD Power Coil - Würth Elektronik - continued

Shielded Power Inductors - continued

WE-TPC Series, Extremly Flat - continued

Dimensions (mm)

	A	B	C	D	E
Type T	2.8	2.8	1.1	0.9	0.9
Type TH	2.8	2.8	1.35	0.9	0.9
Type XS	3.3	3.5	0.95	1.1	0.5
Type S	3.8	3.8	1.65	1.3	1.2
Type M	4.8	4.8	1.8	1.6	1.6
Type MH	4.8	4.8	2.8	1.6	1.6
Type L	5.8	5.8	1.8	1.9	2
Type LH	5.8	5.8	2.8	1.9	2
Type X	6.8	6.8	2.3	2.3	2.2
Type 8x8x1.2	8	8	1.1	3.2	2.4
Type 8x8x1.5	8	8	1.35	3.2	2.4
Type 8x8x2	8	8	1.8	3.2	2.4
Type XMH	8	8	2	3.2	2.4
Type XL	10	10	2.8	3.2	7.4
Type XLH	10	10	3.8	3.2	7.4

Inductance (µH)	Tolerance	Selfres. frequency (MHz)	R_{DC} (Ω)	Current rating (A)	Mftrs. List No.	Order Code
Type T						
0.33	± 35%	550	0.027	3	74402800033	NEW 174-8583
0.47	± 35%	350	0.036	2.5	74402800047	163-5819
0.82	± 35%	180	0.053	2.2	74402800082	NEW 174-8584
2.2	± 30%	100	0.125	1.5	744028002	NEW 174-8585
3.3	± 30%	80	0.185	1.1	744028003	NEW 174-8586
4.7	± 30%	70	0.265	0.9	744028004	163-5821
6.8	± 30%	60	0.325	0.83	744028006	NEW 174-8587
10	± 30%	45	0.55	0.63	744028100	163-5822
22	± 30%	25	1.22	0.4	744028220	NEW 174-8588
Type TH						
0.11	± 35%	1000	0.011	4.8	74402900011	163-5823
0.33	± 35%	500	0.023	3.2	74402900033	NEW 174-8589
0.82	± 35%	200	0.036	2.6	74402900082	NEW 174-8590
1	± 30%	150	0.045	2.5	744029001	163-5825
2.2	± 30%	90	0.088	1.7	744029002	NEW 174-8591
3.3	± 30%	70	0.11	1.4	744029003	NEW 174-8593
4.7	± 30%	65	0.17	1.2	744029004	163-5826
6.8	± 30%	55	0.25	0.95	744029006	NEW 174-8594
10	± 30%	40	0.39	0.75	744029100	163-5828
22	± 30%	25	0.9	0.48	744029220	NEW 174-8595
Type XS						
1.2	+20%, -35%	210	0.095	1	744030001	163-5829
4.7	± 30%	100	0.252	0.48	744030004	163-5830
10	± 30%	60	0.58	0.28	744030100	163-5831
22	± 30%	40	1.39	0.22	744030220	163-5832
Type S						
1.5	± 30%	125	0.04	1.75	744031001	163-5833
4.7	± 30%	75	0.09	1.2	744031004	163-5834
10	± 30%	45	0.185	0.74	744031100	163-5835
47	± 30%	20	0.94	0.39	744031470	163-5836
100	± 30%	10	1.93	0.25	744031101	163-5837
Type M						
1	± 30%	177	0.028	2.7	744042001	163-5838
4.7	± 30%	70	0.07	1.72	744042004	163-5841
10	± 30%	45	0.12	1.3	744042100	163-5842
22	± 30%	26	0.255	0.88	744042220	163-5843
100	± 30%	10	1.06	0.4	744042101	163-5844
Type MH						
4.7	± 30%	60	0.052	1.55	744043004	163-5846
10	± 30%	40	0.095	1.19	744043100	163-5847
22	± 30%	20	0.155	0.925	744043220	163-5848
100	± 30%	11	0.52	0.51	744043101	163-5849
470	± 30%	3	2.31	0.24	744043471	163-5850
Type L						
1.2	± 30%	120	0.02	3	7440520012	163-5851
5	± 30%	55	0.047	1.65	744052005	163-5853
10	± 30%	40	0.106	1.1	744052100	163-5854
22	± 30%	25	0.21	0.8	744052220	163-5855
47	± 30%	18	0.47	0.77	744052470	163-5856
68	± 30%	14	0.66	0.64	744052680	163-5857
220	± 30%	7	1.89	0.23	744052221	163-5858
470	± 30%	N/A	4.175	0.14	744052471	163-5859
Type LH						
2.6	± 30%	55	0.022	3	744053002	163-5860
4.7	± 30%	40	0.03	2.4	7440530047	163-5861
10	± 30%	35	0.05	1.5	744053100	163-5862
22	± 30%	20	0.095	1.15	744053220	163-5863
47	± 30%	13	0.22	0.82	744053470	163-5865
100	± 30%	10	0.36	0.45	744053101	163-5866
220	± 30%	20	0.92	0.3	744053221	163-5867
Type X						
5	± 30%	50	0.038	2.15	744062005	163-5869
10	± 30%	35	0.053	1.6	744062100	163-5870
22	± 30%	20	0.09	1.22	744062220	163-5871
100	± 30%	10	0.44	0.55	744062101	163-5873
Type 8x8x1.2						
1	± 30%	110	0.032	2.8	7440680010	NEW 174-8596
2.7	± 20%	80	0.052	2.2	7440680027	NEW 174-8597
4.7	± 20%	55	0.072	1.85	7440680047	NEW 174-8598
10	± 20%	25	0.177	1.2	7440680100	NEW 174-8599
15	± 20%	20	0.213	1.1	7440680150	NEW 174-8600
22	± 20%	10	0.35	0.85	7440680220	NEW 174-8601
Type 8x8x1.5						
1	± 20%	90	0.021	3.6	7440690010	NEW 174-8602
Type 8x8x1.5						
2.2	± 20%	50	0.035	2.8	7440690022	NEW 174-8603
4.7	± 20%	30	0.056	2.2	7440690047	NEW 174-8604
10	± 20%	10	0.112	1.55	7440690100	NEW 174-8605
12	± 20%	9	0.148	1.35	7440690120	NEW 174-8606
18	± 20%	7	0.225	1.1	7440690180	NEW 174-8607
Type 8x8x2						
3.3	± 30%	80	0.03	3.2	7440700033	NEW 174-8608
5.6	± 30%	60	0.047	2.6	7440700056	NEW 174-8611
15	± 30%	25	0.117	1.65	7440700150	NEW 174-8612
Type XMH						
0.18	± 30%	600	0.00351	8.5	74407000018	163-5875
1.2	± 30%	150	0.0125	4.6	7440700012	163-5878
4.7	± 30%	65	0.037	3	7440700047	163-5879
10	± 30%	30	0.078	2	7440700100	163-5880
Type XL						
1	± 30%	100	0.0058	8	744065001	163-5882
4.7	± 30%	40	0.02	4.6	7440650047	163-5883
10	± 30%	25	0.045	3	744065100	163-5884
22	± 30%	16	0.11	1.8	744065220	163-5885
47	± 30%	11	0.18	1.4	744065470	163-5886
100	± 30%	7	0.33	1	744065101	163-5887
150	± 30%	5	0.53	0.85	744065151	163-5889
Type XLH						
5	± 30%	30	0.0165	4.9	744066005	163-5892
10	± 30%	20	0.028	3.6	744066100	163-5893
22	± 30%	12	0.06	2.5	744066220	163-5894
47	± 30%	8	0.132	1.75	744066470	163-5896
100	± 30%	6	0.255	1.2	744066101	163-5897
220	± 30%	6	0.57	0.75	744066221	163-5898
680	± 30%	2	1.65	0.46	744066681	163-5899

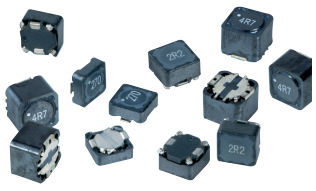
521708

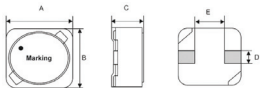
Price Each

Order Code	Order Code
Type T	**All Values**
Type TH	**All Values**
Type XS	**All Values**
Type S	**All Values**
Type M	**All Values**
Type MH	**All Values**
Type L	**All Values**
Type LH	**All Values**
Type X	**All Values**
Type 8x8x1.2	**All Values**
Type 8x8x1.5	**All Values**
Type 8x8x2	**All Values**
Type XMH	**All Values**
Type XL	**All Values**
Type XLH	**All Values**

Shielded Power Inductors

WE-PD Series





- Magnetically shielded version which results in a low leakage field
- High storage capacity, low self-losses
- Highest possible current loading for SMD-Inductors
- Operating temperature: -40°C to +85°C
- For switching regulators with low operating voltages (computer, laptop, mobile phones, pagers) or extremely high efficiency
- For Integrated DC-/DC-converter and graphics cards
- Perfectly suitable for switching regulators e.g. National Semiconductor, Linear Technology, Texas Instruments, STMicroelectronics, Maxim, Micrel, Semtech

Dimensions (mm)

	A	B	C	D	E
Type L	12	12	6	8	5
Type XL	12	12	8	8	5
Type XXL	12	12	10	7.6	5
Type XS	5.9	6.2	3.3	1.5	2.8
Type S	7.3	3.2	1.5	1.5	4
Type M	7.3	4.5	1.5	1.5	4

Inductance (µH)	Tolerance	Selfres. frequency (MHz)	R_{DC} (mΩ)	Current rating (mA)	Mftrs. List No.	Order Code
Type L						
1.5	± 20%	60	4	10.5	744771001	163-5900
2.2	± 20%	50	5	10	744771002	163-5901
8.2	± 20%	25	14	6.25	744771008	163-5905
10	± 20%	21.5	18	5	74477110	163-5907
15	± 20%	16.6	25	3.75	744771115	163-5908
22	± 20%	13	31	3.37	744771122	163-5909
47	± 20%	8	72	2.21	744771147	163-5910
68	± 20%	6	96	1.91	744771168	163-5911
100	± 20%	4.9	150	1.53	74477120	163-5912
150	± 20%	4.4	185	1.21	744771215	163-5913
220	± 20%	3.8	290	0.96	744771220	163-5914

Inductance (µH)	Tolerance	Selfres. frequency (MHz)	R_{DC} (mΩ)	Current rating (mA)	Mftrs. List No.	Order Code
Type L						
470	± 20%	2.6	660	0.64	74477124	163-5915
680	± 20%	2.3	880	0.55	74477126	163-5916
1000	± 20%	1.9	1430	0.43	74477130	163-5917
Type XL						
1.2	+40%, -20%	45	5	12	74477001	163-5921
2.4	+40%, -20%	41	9	10.1	74477002	163-5922
4.7	+40%, -20%	31.2	12	8.5	74477004	163-5923
6.1	+40%, -20%	25	15	7.6	74477006	163-5924
10	± 20%	18	19	6.2	74477010	163-5925
15	± 20%	14.5	24	5	744770115	163-5926
22	± 20%	12	33	4.1	744770122	163-5927
47	± 20%	7.9	76	2.7	744770147	163-5928
68	± 20%	6.4	90	2.3	744770168	163-5929
100	± 20%	5.2	102	2.2	74477020	163-5930
180	± 20%	4.2	188	1.4	744770218	163-5932
220	± 20%	3.8	247	1.3	744770222	163-5933
470	± 20%	2.6	496	0.9	744770247	163-5935
680	± 20%	2.2	840	0.7	744770268	163-5936
1000	± 20%	1.8	1040	0.6	74477030	163-5937
Type XXL						
1	± 20%	120	3.86	13	7447709001	163-5938
2.2	+40%, -20%	65	4.94	11.5	7447709002	163-5939
4.7	± 20%	38	7.42	9.3	7447709004	163-5940
6.8	± 20%	23	9.1	8.4	7447709006	163-5941
10	± 20%	21	12.94	7.1	7447709100	163-5942
15	± 20%	17	20.75	6.5	7447709150	163-5944
22	± 20%	10	23.3	5.3	7447709220	163-5945
47	± 20%	6.5	45.93	3.8	7447709470	163-5946
68	± 20%	6	68.64	3.2	7447709680	163-5947
100	± 20%	6	100	2.5	7447709101	163-5948
150	± 20%	5.5	151	2.1	7447709151	163-5949
220	± 20%	2.2	193	1.8	7447709221	163-5950
470	± 20%	2	437	1.4	7447709471	163-5951
680	± 20%	1.5	660	1.1	7447709681	163-5952
1000	± 20%	N/A	930	0.9	7447709102	163-5953
1500	± 20%	0.9	1800	0.9	7447709152	163-5956
Type XS						
2.2	± 25%	93	43	2.9	7447785002	163-5958
4.7	± 25%	60	60	2.2	7447785004	163-5959
10	± 25%	37	100	1.9	744778510	163-5961
15	± 25%	28	165	1.6	7447785115	163-5962
22	± 25%	23	210	1.35	7447785122	163-5963
47	± 25%	16.5	500	0.85	7447785147	163-5964
100	± 25%	11	950	0.65	744778520	163-5965
Type S						
2.2	± 20%	36	19	4.02	7447789002	163-5968
4.7	± 20%	30	33	2.9	7447789004	163-5969
6.8	± 20%	26	41.5	2.5	7447789006	163-5970
10	± 20%	23	64	1.83	744778910	163-5971
15	± 20%	20.8	100	1.51	7447789115	163-5972
22	± 20%	18	119	1.38	7447789122	163-5973
47	± 20%	13	315	0.85	7447789147	163-5974
68	± 20%	10.2	427	0.74	7447789168	163-5975
100	± 20%	7	585	0.62	744778920	163-5976
150	± 20%	6.5	720	0.56	7447789215	163-5977
470	± 20%	3.8	2600	0.3	744778924	163-5981
680	± 20%	3	4500	0.22	744778926	163-5982
1000	± 20%	2	5570	0.2	744778930	163-5983
Type M						
1	± 20%	49	10	5.3	7447779001	163-5984
2.2	± 20%	43	16	4.2	7447779002	163-5985
4.7	± 20%	35	28	3.16	7447779004	163-5986
6.8	± 20%	30	33	2.91	7447779006	163-5987
10	± 20%	23	45	2	744777910	163-5988
15	± 20%	19	70	1.6	7447779115	163-5989
22	± 20%	15	90	1.41	7447779122	163-5991
47	± 20%	10	190	1.03	7447779147	163-5993
68	± 20%	9	239	0.87	7447779168	163-5994
100	± 20%	7	290	0.79	744777920	163-5995
150	± 20%	6.3	529	0.52	7447779215	163-5996
220	± 20%	4.8	920	0.44	7447779222	163-5997
470	± 20%	3.8	1600	0.29	744777924	163-5998
680	± 20%	3.2	2600	0.23	744777926	163-5999
1000	± 20%	2.3	3270	0.2	744777930	163-6000

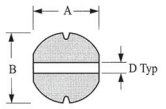
521864

Price Each

Order Code		
Type L	**All Values**	
Type XL	**All Values**	
Type XXL	**All Values**	
Type XS	**All Values**	
Type S	**All Values**	
Type M	**All Values**	

Unshielded Power Inductors

WE-PD2 Series



SMD

- Non magnetically shielded
- Operating temperature: -40°C to +85°C
- 1kHz test frequency
- For switching regulators with low operating voltage (computer, laptop, mobiles, pagers)
- For integrated DC/DC-converter
- Perfectly suitable for switching regulators e.g. from National Semiconductor, Linear Technology, Texas Instruments, STMicroelelctronics, Maxim, Micrel, Semtech
- Perfectly suitable for switching regulators with extremely high efficiency or graphics cards

	Dimensions (mm)			
	A	B	C	D
Type S	4	4.5	3.2	1
Type M	5.2	5.8	4.5	2
Type MS	5.2	5.8	2	2
Type L	7	7.8	5	3
Type XL	9	10	5.4	3.5

Inductance (µH)	Tolerance	Selfres. frequency (MHz)	R_{DC} (mΩ)	Current-rating (A)	Mftrs. List No.	Order Code
Type S						
1	± 20%	110	14	4	7447730	163-6001
2.2	± 20%	74	34	2.5	744773022	163-6002
4.7	± 20%	45	59	1.82	744773047	163-6003
6.8	± 20%	35	76	1.54	744773068	163-6004
10	± 20%	30	118	1.45	74477310	163-6006
15	± 20%	27	204	1.2	744773115	163-6007
22	± 20%	20	261	1	744773122	163-6008
47	± 10%	12	523	0.68	744773147	163-6009
68	± 10%	11	754	0.56	744773168	163-6010
Type M						
10	± 20%	26	78	2.2	74477410	163-6014
15	± 20%	20	89	1.53	744774115	163-6015
22	± 20%	16	109	1.28	744774122	163-6016
47	± 15%	10	260	0.86	744774147	163-6018
100	± 10%	7	510	0.57	74477420	163-6020
150	± 10%	6	720	0.46	744774215	163-6021
220	± 10%	5	945	0.42	744774222	163-6023
Type MS						
0.12	± 20%	250	2.5	10	74477450012	163-6024
0.27	± 20%	180	4.4	8.2	74477450027	163-6025
1.2	± 20%	96	17	4.8	7447745012	163-6027
4.7	± 20%	42	57	2.5	7447745047	163-6031
6.2	± 20%	30	80	2.1	7447745062	163-6032
10	± 20%	28	120	1.7	7447745100	163-6033
33	± 20%	10	480	0.9	7447745330	163-6034
Type L						
10	± 20%	23	44	2.3	74477510	163-6035
15	± 10%	18	44	1.93	744775115	163-6036
22	± 10%	15	65	1.76	744775122	163-6037
47	± 10%	10	134	1.17	744775147	163-6038
68	± 10%	8	218	0.99	744775168	163-6039
100	± 10%	7	208	0.77	74477520	163-6040
150	± 10%	6	467	0.6	744775215	163-6041
220	± 10%	5	614	0.51	744775222	163-6043
Type XL						
10	± 20%	22	28	2.98	74477610	163-6045
15	± 20%	19	34	2.47	744776115	163-6046
22	± 20%	16	51	2.04	744776122	163-6047
47	± 10%	11	95	1.45	744776147	163-6048
68	± 10%	8	138	1.19	744776168	163-6049
100	± 10%	7	200	1.02	74477620	163-6050
150	± 10%	5	300	0.81	744776215	163-6051
220	± 10%	4.5	451	0.67	744776222	163-6052
680	± 10%	2.5	1245	0.36	744776268	163-6055

521973

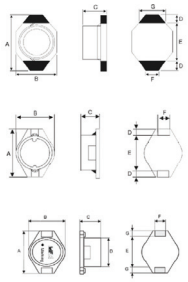
Price Each

Order Code	Order Code	
Type S	**All Values**	
Type M	**All Values**	
Type MS	**All Values**	
Type L	**All Values**	
Type XL	**All Values**	

Inductors - SMD Power Coil - Würth Elektronik - continued

Shielded Power Inductor

WE-PD3 Series



- Magnetically shielded version which results in a low leakage field
- Extremely low profile of type M: 2.7mm
- Low inherent losses, high storage capacity
- Operating temperature: -40°C to +125°C
- Operating frequencies up to 10 MHz
- EMI-filter, perfectly suitable for switching regulators e.g. of National Semiconductor, Linear Technology, Texas Instruments, STMicroelectronics, Maxim, Micrel, Semtech
- Perfectly suitable for switching regulators with extremely high efficiency

Dimensions (mm)

	A	B	C	D	E	F	G
Type S	6.6	4.45	2.92	1	4.32	3.05	1.27
Type M	12.7 ±0.2	10.3 ±0.2	2.7 ±0.3	2.4 ±0.2	7.6 ±0.3	2.5 ±0.2	-
Type L	12.7 ±0.2	10.0 ±0.2	4.9 ±0.3	2.4 ±0.2	7.6 ±0.3	2.0 ref.	-
Type X	18.54	15.24	7.62	2.54	12.7	2.54	-

Inductance (µH)	Tolerance	Selfres. frequency (MHz)	R_{DC} typ. (Ω)	Current rating (A)	Mftrs. List No.	Order Code
Type S						
2.2	± 20%	120	0.021	1.8	74451022	163-6058
4.7	± 20%	105	0.045	1.4	74451047	163-6060
6.8	± 20%	50	0.055	1.2	74451068	163-6061
10	± 20%	38	0.056	1	7445110	163-6062
15	± 20%	33	0.075	0.8	74451115	163-6063
22	± 20%	25	0.09	0.7	74451122	163-6064
47	± 20%	20	0.16	0.5	74451147	163-6065
68	± 20%	15	0.221	0.4	74451168	163-6067
150	± 20%	9	0.41	0.26	74451215	163-6069
220	± 20%	6	0.58	0.22	74451222	163-6070
470	± 20%	4	1.7	0.19	74451247	163-6071
Type M						
1.5	± 20%	78	0.029	3	7445301	163-6072
2.2	± 20%	68	0.037	2.76	7445302	163-6073
6.8	± 20%	43	0.064	1.6	7445306	163-6075
10	± 20%	36	0.117	1.24	74453010	163-6076
15	± 20%	29	0.17	1	74453115	163-6077
22	± 20%	21	0.248	0.8	74453122	163-6079
47	± 20%	13	0.481	0.6	74453147	163-6081
100	± 20%	9.3	1.164	0.4	7445320	163-6083
Type L						
2.2	± 20%	108	0.023	3.8	7445402	163-6084
4.7	± 20%	30.4	0.034	2.7	7445404	163-6085
6.8	± 20%	23.3	0.041	2.2	74454068	163-6086
10	± 20%	20	0.048	2	74454010	163-6087
15	± 20%	14.6	0.064	1.7	74454115	163-6088
22	± 15%	13.5	0.076	1.4	74454122	163-6089
47	± 15%	9.3	0.158	1	74454147	163-6090
68	± 15%	6.9	0.285	0.82	74454168	163-6092
100	± 10%	5.9	0.373	0.68	7445420	163-6093
150	± 10%	4.8	0.456	0.55	74454215	163-6094
220	± 10%	4	0.683	0.45	74454220	163-6095
470	± 10%	2.9	1.35	0.3	74454247	163-6096
1000	± 10%	1.9	2.75	0.22	7445430	163-6098
Type X						
10	± 20%	30	0.023	3.9	74459010	163-6099
15	± 20%	20	0.03	3.5	74459115	163-6100
22	± 20%	18	0.048	3.4	74459122	163-6101
47	± 20%	10	0.085	2.8	74459147	163-6102
68	± 20%	9	0.105	2.2	74459168	163-6103
100	± 20%	7	0.151	1.7	7445920	163-6104
150	± 20%	6	0.209	1.3	74459215	163-6105
470	± 20%	3	0.661	0.8	74459247	163-6107
680	± 20%	2.5	1.059	0.7	74459268	163-6109
1000	± 20%	2	1.427	0.6	7445930	163-6111

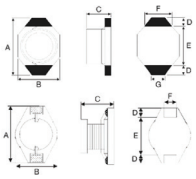
522115

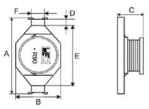
Price Each

Order Code	Order Code	
Type S	All Values	
Type M	All Values	
Type L	All Values	
Type X	All Values	

35 Amp Power Inductors

WE-PD4 series





- Current loading up to 35A
- Compact size, ilndustry standardized size
- Low-loss ferrite core and high storage capacity
- Operating temperature: -40°C to +125°C
- application frequency range up to 10MHz
- For noise suppression
- Perfectly suitable for switching regulators e.g. from National Semiconductor, Linear Technology, TI, STMicroelectronics, Maxim, Micrel, Semtech or for switching regulators with extremely high efficiency

Dimensions (mm)

	A	B	C	D	E	F	G
Type S	6.6	4.45	2.92	1	4.32	3.05	1.27
Type L	12.7	10	5	2.4	7.6	2	-
Type X	18.54	15.24	7.11	12.7	13.15	2.54	2.54
Type XL	22	15	7	2.3	15	8	-

Inductance (µH)	Tolerance	Selfres. frequency (MHz)	R_{DC} typ. (mΩ)	Current rating (A)	Mftrs. List No.	Order Code
Type S						
1	± 20%	130	17	2.9	7445501	163-6112
2.2	± 20%	90	28	2.4	74455022	163-6113
4.7	± 20%	50	63	1.5	74455047	163-6114
6.8	± 20%	45	92	1.4	74455068	163-6115
10	± 20%	35	121	1.2	7445510	163-6116
15	± 20%	30	176	1.1	74455115	163-6117
22	± 20%	20	255	0.8	74455122	163-6118
47	± 20%	14	556	0.5	74455147	163-6119
68	± 20%	11	790	0.4	74455168	163-6120
100	± 20%	9	1080	0.3	7445520	163-6122
220	± 20%	5.5	2580	0.2	74455222	163-6124
1000	± 20%	2	11500	0.07	7445530	163-6126
Type L						
1	± 20%	170	4.1	8.6	7445601	163-6127
4.7	± 20%	45	14.6	5	74456047	163-6129
6.8	± 20%	35	26	3.8	74456068	163-6130
10	± 20%	25	34.9	3.3	7445610	163-6131
15	± 20%	23	43.2	2.9	74456115	163-6132
22	± 20%	18	71	2.6	74456122	163-6134
47	± 10%	12	142.1	1.8	74456147	163-6135
68	± 10%	10	187	1.6	74456168	163-6136
100	± 10%	8	253	1.4	7445620	163-6137
150	± 10%	6	447.6	1	74456215	163-6138
220	± 10%	5	601	0.9	74456222	163-6139
470	± 10%	3.5	1315	0.6	74456247	163-6140
680	± 10%	3	1942	0.5	74456268	163-6141
1000	± 10%	2	2940	0.4	7445630	163-6142
Type X						
1	± 20%	80	5	8.6	74458001	163-6143
2.2	± 20%	45	8	7.1	74458002	163-6144
10	± 20%	20	21	4.3	74458010	163-6147
15	± 20%	15	30	4	74458115	163-6149
22	± 20%	14	43	3.5	74458122	163-6150
47	± 20%	9	76	2.6	74458147	163-6152
68	± 20%	7	110	2.3	74458168	163-6153
100	± 20%	6	141	1.8	7445820	163-6154
150	± 20%	4	210	1.5	74458215	163-6155
220	± 20%	3.5	326	1.2	74458220	163-6156
470	± 20%	2.5	633	0.82	74458247	163-6158
680	± 20%	2.2	954	0.72	74458268	163-6159
1000	± 20%	2	1370	0.56	7445830	163-6160
Type XL						
0.47	± 20%	134.3	1.3	18	74457006	163-6161
1	± 25%	72.7	3.1	15	74457010	163-6162
2.7	± 20%	51	7	10	74457027	163-6163
4.7	± 20%	33	8.8	8.5	74457047	163-6164
6.8	± 20%	27	14.1	7.5	74457068	163-6165
10	± 20%	20	17.2	6.5	7445710	163-6166
15	± 15%	16	28.8	5	74457115	163-6167
22	± 15%	14	39.3	4	74457122	163-6168
47	± 10%	9	91.1	2.8	74457147	163-6171
68	± 10%	7.9	112	2.4	74457168	163-6172
100	± 10%	6.2	168	2	7445720	163-6173
150	± 10%	4.87	223	1.5	74457215	163-6174
220	± 10%	3.97	323	1.2	74457222	163-6175
470	± 10%	2.55	674	0.82	74457247	163-6176
680	± 10%	2.3	1002	0.72	74457268	163-6177
1000	± 10%	1.6	1506	0.56	74457230	163-6178

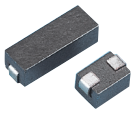
522356

Price Each

Order Code	Order Code	
Type S	All Values	
Type L	All Values	
Type X	All Values	
Type XL	All Values	

Inductors - Ferrite Inductors & Beads - Multicomp

Ferrite Bead Inductors



- Chip ferrite inductors
- Applications include filtering circuits in digital equipment

Current rating 5A
Reel Quantity 500 pieces

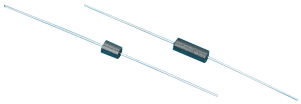
Impedance Min. (Ω) @ 25MHz	@ 100MHz	DC Resistance Max. (mΩ)	Dimensions L	W	H	Solder Pad	Distance Between Pads	Order Code
20	35	0.6	4	3	2.55	3 x 3	1.9	926-5260
45	85	0.9	8.5	3	2.55	3 x 3	6.4	926-5279

204206

Order Multiple=5

Order Code	Price Each
SMD 926-5260	
SMD 926-5279	

Ferrite Bead Inductors



- Axial ferrite bead inductors
- Applications include suppression in digital equipment and clock circuits

Supplied bandoliered on reels of 5000 suitable for automatic insertion

Min. Impedance (Ω) @ 10MHz	@ 100MHz	Bead Dimensions L	Dia.	Current rating	Order Code
25	65	6	3.5	3A	926-5236
30	75	7.5	3.5	3A	926-5244
40	105	9	3.5	3A	926-5252

204207

Order Multiple=10

Bead Length (mm)	Order Code	Price Each
6	926-5236	
7.5	926-5244	
9	926-5252	

Inductors - Ferrite Inductors & Beads - Epcos

Axial Ferrite Bead

Body= 13, Dia. 6.2, Lead Length 45, Wire Gauge 0.5mm

- 6 aperture ferrite bead with wire passed through to form an RF inductor. Approved to **VDE0565-2**.
- Suitable for interference suppression in the HF and VHF range.

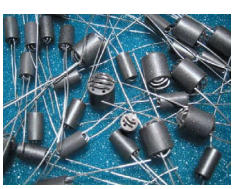
Max Current (A)		Impedance at Resonance (Ω)	Self Res. Frequency MHz	Mftrs List No	Order Code
1	B82114RA4	900	60	B82114RA4	975-3397
1	B82114RA1	800	100	B82114RA1	975-2226

204079

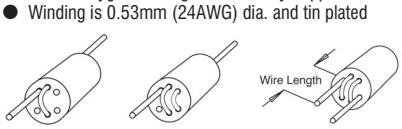
Order Code	Price Each
975-3397	
975-2226	

Inductors - Ferrite Inductors & Beads - Fair-Rite

Wound EMI beads



- 6 hole wound ferrite beads
- Wire is oxygen free high conductivity copper
- Winding is 0.53mm (24AWG) dia. and tin plated



Diag. No. 1 - 1 Diag. No. 1 - 3 Diag. No. 1 - 5

Length mm (body)	Diameter mm (A)	Weight g	Impedance Ω @ 25 MHz	@ 100 MHz	Diag. No.	Mftrs List No.	Order Code
10	6	1.4	850	550	1-5	2944666631	119-1415
10	6	1.4	700	580	1.3	2944666671	119-1416
10	6	1.4	650	625	1-5	2961666631	119-1312
10	6	1.3	250	425	1-1	2961666661	119-1313
10	6	1.4	600	675	1-3	2961666671	119-1314

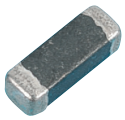
233506

Order Multiple=10

Mftrs. List No.	Order Code	Price Each
2944666631	119-1415	
2944666671	119-1416	
2961666631	119-1312	
2961666661	119-1313	
2961666671	119-1314	

Inductors - Ferrite Inductors & Beads - Ferroxcube

MLS Series



0603 case size: L=1.6±0.15, W=0.8±0.15, H=0.74±0.15, Tape width=8.0, Reel=4000pcs
0805 case size: L=2.0±0.2, W=0.8±0.2, H=0.74±0.2, Tape width=8.0, Reel=3000pcs
1206 case size: L=3.2±0.2, W=1.6±0.2, H=1.1±0.2, Tape width=8.0, Reel=3000pcs
1806 case size: L=4.5±0.25, W=1.6±0.25, H=1.6±0.25, Tape width=12, Reel=2000pcs

- Ferrite chip bead suppressors
- 0603, 0805, 1206 and 1806 case sizes
- Suitable for EMI/RFI attenuation in electronic equipment
- Applications include computers, audio/video, automotive, digital communications, mobile phones etc.

Operating temperature -55°C to +125°C Impedance tolerance ±25%

Case Size	Impedance @ 100MHz (Ω)	Rated Current Max. (mA)	DC Resistance Max. (Ω)	Mftrs. List No.	Order Code
0603	60	300	0.4	MLS0603-4S7-600	305-6491
0603	120	200	0.8	MLS0603-4S7-121	305-6466
0603	150	200	0.9	MLS0603-4S7-151	305-6478
0603	300	150	1.2	MLS0603-4S7-301	305-6480
0603	600	150	1.8	MLS0603-4S7-601	305-6508
0805	30	600	0.1	MLS0805-4S4-300	305-6510
0805	60	400	0.2	MLS0805-4S4-600	305-6521
0805	120	300	0.3	MLS0805-4S7-121	305-6545
0805	300	200	0.3	MLS0805-4S7-301	305-6557
0805	600	200	0.6	MLS0805-4S7-601	305-6569
0805	1000	150	0.8	MLS0805-4S7-102	305-6533
1206	30	600	0.1	MLS1206-4S4-300	305-6582
1206	70	400	0.2	MLS1206-4S4-700	305-6600
1206	90	400	0.2	MLS1206-4S4-900	305-6612
1206	120	300	0.2	MLS1206-4S4-121	305-6570
1206	600	200	0.4	MLS1206-4S4-601	305-6594
1206	1000	150	0.6	MLS1206-4S7-102	305-6624
1806	80	600	0.1	MLS1806-4S4-800	305-6648
1806	150	500	0.2	MLS1806-4S4-151	305-6636

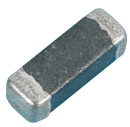
204194

Case size	Order Code	Price Each
0603	All Values	
0805	All Values	
1206	All Values	
1806	All Values	

Inductors - Ferrite Inductors & Beads - Kitagawa

MLB Series

High Current Ferrite Chip Beads



- Combination of high frequency noise suppression with capability of handling high current
- Current ratings up to 6 Amps with low DCR
- Application fields include high current DC power lines and circuits where a stable ground in unavailable
- Reflow or Wave Soldering, suitable for lead free soldering

Operating temperature -55°C to +125°C Impedance tolerance ±25%

Impedance @ 100MHz (Ω)	Rated Current Max. (A)	DC Resistance Max. (Ω)	Mftrs. List No.	Order Code
0603 Case Size				
30	3	0.04	MLB-160808-0030PQ	130-8763
60	3	0.04	MLB-160808-0060PQ	130-8764
80	3	0.04	MLB-160808-0080PQ	130-8765
120	2.5	0.07	MLB-160808-0120PP	130-8766
220	2	0.09	MLB-160808-0220PN	130-8767
300	2	0.09	MLB-160808-0300PQ	130-8768
600	1	0.2	MLB-160808-0600PL	130-8770
0805 Case Size				
11	6	0.015	MLB-201209-0011PW	130-8771
40	4	0.03	MLB-201209-0040PR	130-8773
80	5	0.02	MLB-201209-0080PU	130-8776
120	5	0.02	MLB-201209-0120PU	130-8778
250	3	0.04	MLB-201209-0250PQ	130-8780
300	2	0.9	MLB-201209-0300PN	130-8781
600	2	0.09	MLB-201209-0600PN	130-8783

Inductors - Ferrite Inductors & Beads - Kitagawa - continued

MLB Series - continued

High Current Ferrite Chip Beads - continued

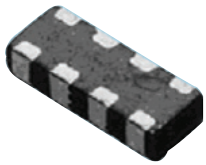
Impedance	Rated Current	DC Resistance		
1206 Case Size				
50	6	0.015	MLB-321611-0050PW	130-8784
60	3	0.04	MLB-321611-0060PQ	130-8785
75	3	0.04	MLB-321611-0075PQ	130-8787
80	4	0.03	MLB-321611-0080PR	130-8788
90	3	0.04	MLB-321611-0090PQ	130-8789
120	6	0.015	MLB-321611-0120PW	130-8790
150	2	0.09	MLB-321611-0150PN	130-8791
500	2.5	0.07	MLB-321611-0500PP	130-8792
600	2.5	0.07	MLB-321611-0600PP	130-8793
1200	1	0.2	MLB-321611-1200PL	130-8794

452201

Case size	Order Code	Price Each
0603	**All Values** ●	
0805	**All Values** ●	
1206	**All Values** ●	

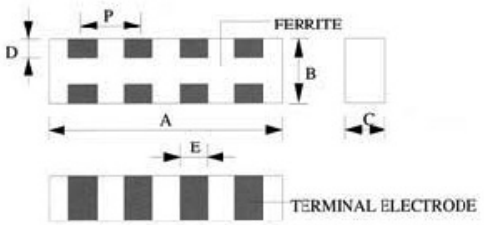
Ferrite Bead Array

MEC KITAGAWA



Features include:

- Combines 4 single ferrite beads into a 1206 package, which reduces board space and placement time
- Wide range of impedance values from 30~1000 ohms
- Wide operating temperature range -55 to 125 °C
- Suitable for Re-flow or flow soldering method



L = 3.2, D = 0.9, W = 0.9 (mm)

Tol: ±0.20

Applications include:

- Filtering between analogue and digital circuits
- Clock generation circuitry
- I/O interconnects
- Isolation between RF noisy circuits and logic devices
- Power supply filtering to prevent RF energy from corrupting the power generation circuitry

High frequency EMI prevention for computers, TV, mobile phone. etc

Insulation Resistance	100MHz	IDC (mA) max.	Mftrs List No.	Order Code
0.4ohm	30	350	MLB-3216-0030M4-N2	941-5980
0.4ohm	60	250	MLB-3216-0060M4-N2	941-5998
0.8ohm	120	150	MLB-3216-0120M4-N2	941-6005
0.8ohm	240	150	MLB-3216-0240M4-N2	941-6013
0.8ohm	300	150	MLB-3216-0300M4-N2	941-6021
1ohm	470	100	MLB-3216-0470M4-N2	941-6030
1.5ohm	600	100	MLB-3216-0600M4-N2	941-6048
1.7ohm	1000	50	MLB-3216-1000M4-N2	941-6056

411298

Order Multiple=5

Mftrs List No.	Order Code	Price Each
MLB-3216-0030M4-N2	**941-5980** ●	
MLB-3216-0060M4-N2	**941-5998** ●	
MLB-3216-0120M4-N2	**941-6005** ●	
MLB-3216-0240M4-N2	**941-6013** ●	
MLB-3216-0300M4-N2	**941-6021** ●	
MLB-3216-0470M4-N2	**941-6030** ●	
MLB-3216-0600M4-N2	**941-6048** ●	
MLB-3216-1000M4-N2	**941-6056** ●	

Inductors - Ferrite Inductors & Beads - Murata

BLM15 Series – 0402 Case Size

muRata innovator in Electronics

- Miniature ferrite beads for space saving
- 0402 case size
- Wide variety of applications

SMD

Operating temperature -55°C to +125°C

Impedance, typical @ 100MHz Ω	Resistance Ω	Current mA	Mftrs. List No.	Order Code
BLM15 AG Series – General Use				
10	0.05	1000	BLM15AG100SN1D	151-5758
70	0.15	500	BLM15AG700SN1D	151-5763
120	0.25	500	BLM15AG121SN1D	151-5760
220	0.35	300	BLM15AG221SN1D	151-5761
600	0.6	300	BLM15AG601SN1D	151-5762
1000	1	200	BLM15AG102SN1D	151-5759
BLM15 BB Series – High Speed Signal Lines				
5	0.08	500	BLM15BB050SN1D	151-5764
10	0.1	300	BLM15BB100SN1D	151-5765
22	0.2	300	BLM15BB220SN1D	151-5768
47	0.35	300	BLM15BB470SN1D	151-5770
75	0.4	300	BLM15BB750SN1D	151-5771
120	0.55	300	BLM15BB121SN1D	151-5766
220	0.8	200	BLM15BB221SN1D	151-5769
BLM15 BD Series – High Speed Signal Lines				
75	0.2	300	BLM15BD750SN1D	151-5778
120	0.3	300	BLM15BD121SN1D	151-5773
220	0.4	300	BLM15BD221SN1D	151-5775
600	0.65	200	BLM15BD601SN1D	151-5777
1000	0.9	200	BLM15BD102SN1D	151-5772
1800	1.4	100	BLM15BD182SN1D	151-5774
BLM15 EG Series – GHz Noise				
120	0.095	1500	BLM15EG121SN1D	151-5781
220	0.28	700	BLM15EG221SN1D	151-5782
BLM15 HB Series				
120	0.7	300	BLM15HB121SN1D	151-5783
220	1	250	BLM15HB221SN1D	151-5784
BLM15 HD Series – GHz Band High Speed Signal Line				
600	0.85	300	BLM15HD601SN1D	151-5787
1000	1.25	250	BLM15HD102SN1D	151-5785
1800	2.2	200	BLM15HD182SN1D	151-5786
BLM15 HG Series – GHz Band General Use				
600	0.7	300	BLM15HG601SN1D	151-5789
1000	1.1	250	BLM15HG102SN1D	151-5788

496195

Impedance	Order Code	Price Each
BLM15 AG	**All Values** ●	
BLM15 BB	**All Values** ●	
BLM15 BD		
75	**151-5778** ●	
120	**151-5773** ●	
220	**151-5775** ●	
600	**151-5777** ●	
1000	**151-5772** ●	
1800	**151-5774** ●	
BLM15 EG	**All Values** ●	
BLM15 HB	**All Values** ●	
BLM15 HD		
600	**151-5787** ●	
1000	**151-5785** ●	
1800	**151-5786** ●	
BLM15 HG	**All Values** ●	
	Order Code	
BLM15 Design Kit	NEW **176-0703** ●	

BLM18 Series – 0603 Case Size

muRata innovator in Electronics

- Compact ferrite beads
- 0603 case size
- Wide variety of applications

SMD

Operating temperature -55°C to +125°C

Impedance, typical @ 100MHz Ω	Resistance Ω	Current mA	Mftrs. List No.	Order Code
BLM18 AG Series – General Use				
120	0.18	500	BLM18AG121SN1D	151-5672
150	0.25	500	BLM18AG151SN1D	151-5673
220	0.25	500	BLM18AG221SN1D	151-5674
330	0.3	500	BLM18AG331SN1D	151-5675
470	0.35	500	BLM18AG471SH1D	151-5677
470	0.35	500	BLM18AG471SN1D	151-5678
600	0.38	500	BLM18AG601SN1D	151-5679
1000	0.5	400	BLM18AG102SN1D	151-5671
BLM18 BA Series – High Speed Signal Lines				
5	0.2	500	BLM18BA050SN1D	151-5680
10	0.25	500	BLM18BA100SN1D	151-5681
22	0.35	500	BLM18BA220SN1D	151-5683
47	0.55	300	BLM18BA470SN1D	151-5684
75	0.7	300	BLM18BA750SN1D	151-5685
120	0.9	200	BLM18BA121SN1D	151-5682
BLM18 BB Series – High Speed Signal Lines				
10	0.15	500	BLM18BB100SN1D	151-5687
22	0.25	500	BLM18BB220SN1D	151-5694
47	0.3	500	BLM18BB470SN1D	151-5697
60	0.35	200	BLM18BB600SN1D	151-5699
75	0.35	200	BLM18BB750SN1D	151-5700
120	0.5	200	BLM18BB121SN1D	151-5689
140	0.55	200	BLM18BB141SN1D	151-5691
150	0.55	200	BLM18BB151SN1D	151-5693
220	0.65	200	BLM18BB221SN1D	151-5695
470	1	50	BLM18BB471SN1D	151-5698
BLM18 BD Series – High Speed Signal Lines				

Impedance, typical @ 100MHz Ω	Resistance Ω	Current mA	Mfts. List No.	Order Code
120	0.4	200	BLM18BD121SN1D	151-5702
150	0.4	200	BLM18BD151SN1D	151-5703
220	0.45	200	BLM18BD221SN1D	151-5707
330	0.5	200	BLM18BD331SN1D	151-5710
470	0.55	200	BLM18BD471SN1D	151-5712
600	0.65	200	BLM18BD601SN1D	151-5713
1000	0.85	100	BLM18BD102SN1D	151-5701
1500	1.2	50	BLM18BD152SN1D	151-5704
1800	1.5	50	BLM18BD182SN1D	151-5705
2200	1.5	50	BLM18BD222SN1D	151-5708
2500	1.5	50	BLM18BD252SN1D	151-5709
BLM18 EG Series – GHz Band Low Rdc Type				
100	0.045	2000	BLM18EG101TN1D	151-5714
120	0.04	2000	BLM18EG121SN1D	151-5715
220	0.05	2000	BLM18EG221SN1D	151-5716
220	0.15	1000	BLM18EG221TN1D	151-5717
330	0.21	500	BLM18EG331TN1D	151-5719
390	0.3	500	BLM18EG391TN1D	151-5721
470	0.21	500	BLM18EG471SN1D	151-5722
600	0.35	500	BLM18EG601SN1D	151-5723
BLM18 GG Series – High GHz Band General Use				
470	1.3	200	BLM18GG471SN1D	151-5724
BLM18 HB Series – GHz Band High Speed Signal Line				
120	0.5	200	BLM18HB121SN1D	151-5725
220	0.8	100	BLM18HB221SN1D	151-5726
BLM18 HD Series – GHz Band High Speed Signal Lines				
470	1.2	100	BLM18HD471SN1D	151-5728
600	1.5	100	BLM18HD601SN1D	151-5729
1000	1.8	50	BLM18HD102SN1D	151-5727
BLM18 HG Series – GHz Band General Use				
600	1	200	BLM18HG601SN1D	151-5733
1000	1.6	100	BLM18HG102SN1D	151-5730
BLM18 HK Sseries – GHz Band Digital Interface				
330	0.5	200	BLM18HK331SN1D	151-5735
470	0.7	200	BLM18HK471SN1D	151-5736
600	0.9	100	BLM18HK601SN1D	151-5737
1000	1.5	50	BLM18HK102SN1D	151-5734
BLM18 PG Series – Power Supplies				
30	0.05	1000	BLM18PG300SN1D	151-5741
33	0.025	3000	BLM18PG330SN1D	151-5742
60	0.1	500	BLM18PG600SN1D	151-5746
120	0.05	2000	BLM18PG121SN1D	151-5738
180	0.09	1500	BLM18PG181SN1D	151-5739
220	0.1	1400	BLM18PG221SN1D	151-5740
330	0.15	1200	BLM18PG331SN1D	151-5744
470	0.2	1000	BLM18PG471SN1D	151-5745
BLM18 KG Series – Power Supplies				
26	0.007	6000	BLM18KG260TN1D	178-1087
BLM18 RK Series – Digital Interface				
220	0.3	200	BLM18RK221SN1D	151-5749
470	0.5	200	BLM18RK471SN1D	151-5750
600	0.6	200	BLM18RK601SN1D	151-5751
1000	0.8	200	BLM18RK102SN1D	151-5747
BLM18 SG Series – Power Supplies				
26	0.007	6000	BLM18SG260TN1D	151-5754
70	0.02	4000	BLM18SG700TN1D	151-5757
120	0.025	3000	BLM18SG121TN1D	151-5752
220	0.04	2500	BLM18SG221TN1D	151-5753
330	0.07	1500	BLM18SG331TN1D	151-5756

496260

Impedance	Order Code	Price Each
BLM18 AG		
120	**151-5672**	
150	**151-5673**	
220	**151-5674**	
330	**151-5675**	
470	**151-5677**	
470	**151-5678**	
600	**151-5679**	
1000	**151-5671**	
BLM18 BA	**All Values**	
BLM18 BB	**All Values**	
BLM18 BD		
120	**151-5702**	
150	**151-5703**	
220	**151-5707**	
330	**151-5710**	
470	**151-5712**	
600	**151-5713**	
1000	**151-5701**	
1500	**151-5704**	
1800	**151-5705**	
2200	**151-5708**	
2500	**151-5709**	
BLM18 EG	**All Values**	
BLM18 GG	**All Values**	
BLM18 HB	**All Values**	
BLM18 HD	**All Values**	
BLM18 HG	**All Values**	
BLM18 HK	**All Values**	
BLM18 PG		
30	**151-5741**	
33	**151-5742**	
60	**151-5746**	

Impedance	Order Code	Price Each
120	**151-5738**	
180	**151-5739**	
220	**151-5740**	
330	**151-5744**	
470	**151-5745**	
NEW BLM18 KG	**All Values**	
BLM18 RK	**All Values**	
BLM18 SG	**All Values**	
	Order Code	
BLM18 Design Kit	NEW **176-0704**	

FREE Re-reeling service. Only buy what you need and improve assembly efficiency. For more information visit **local website**

BLM18T Series - 0603 Case

The chip ferrite beads BLM series is designed to function nearly as a resistor at noise frequencies, which greatly reduces the possibility of resonance and leaves signal wave forms undistorted.
The BLM series is effective in circuits without stable ground lines because the BLM series does not need a connection to ground.

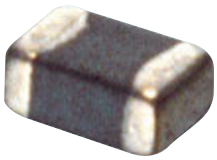
- Excellent solder heat resistance
- Effective in noise suppression in a wide frequency range (10MHz to several hundred MHz)

Impedence Ω	Tolerance %	Resistance Ω	Current A	Current A	Order Code
120		0.25	200	BLM18TG121TN1D	111-5048
220		0.3	200	BLM18TG221TN1D	111-5049
600		0.45	200	BLM18TG601TN1D	111-5050
1000		0.6	100	BLM18TG102TN1D	111-5051

423248

Order Code	Price Each
All Values	

BLM21 Series – 0805 Case Size



- Ferrite beads
- 0805 case size

Operating temperature -55°C to +125°C

Impedance, typical @ 100MHz Ω	Resistance Ω	Current mA	Mfts. List No.	Order Code
BLM21 AG Series – General Use				
120	0.15	200	BLM21AG121SN1D	151-5617
150	0.15	200	BLM21AG151SN1D	151-5618
220	0.2	200	BLM21AG221SN1D	151-5619
330	0.25	200	BLM21AG331SN1D	151-5620
470	0.25	200	BLM21AG471SN1D	151-5621
600	0.3	200	BLM21AG601SN1D	151-5622
1000	0.45	200	BLM21AG102SN1D	151-5616
BLM21 BB Series – High Speed Signal Lines				
5	0.07	500	BLM21BB050SN1D	151-5623
60	0.2	200	BLM21BB600SN1D	151-5634
75	0.25	200	BLM21BB750SN1D	151-5635
120	0.25	200	BLM21BB121SN1D	151-5624
200	0.35	200	BLM21BB201SH1D	151-5626
200	0.35	200	BLM21BB201SN1D	151-5628
220	0.35	200	BLM21BB221SH1D	151-5629
220	0.35	200	BLM21BB221SN1D	151-5630
330	0.4	200	BLM21BB331SH1D	151-5631
330	0.4	200	BLM21BB331SN1D	151-5632
470	0.45	200	BLM21BB471SN1D	151-5633
BLM21 BD Series – High Speed Signal Lines				
120	0.25	200	BLM21BD121SN1D	151-5637
420	0.3	200	BLM21BD421SN1D	151-5651
600	0.35	200	BLM21BD601SN1D	151-5655
1000	0.4	200	BLM21BD102SN1D	151-5636
1500	0.45	200	BLM21BD152SN1D	151-5641
1800	0.5	200	BLM21BD182SN1D	151-5642
2200	0.6	200	BLM21BD222SN1L	151-5644
2200	0.6	200	BLM21BD222TN1D	151-5645
2700	0.8	200	BLM21BD272SH1L	151-5646
2700	0.8	200	BLM21BD272SN1L	151-5647
BLM21 PG Series – Power Supplies				
22	0.01	6000	BLM21PG220SH1D	151-5658
22	0.01	6000	BLM21PG220SN1D	151-5659
30	0.015	3000	BLM21PG300SN1D	151-5662
60	0.025	3000	BLM21PG600SN1D	151-5665
220	0.05	2000	BLM21PG221SH1D	151-5660

Inductors - Ferrite Inductors & Beads - Murata - continued

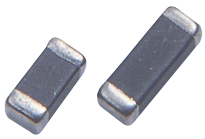
BLM21 Series – 0805 Case Size - continued

Impedance, typical @ 100MHz Ω	Resistance Ω	Current mA	Mfts. List No.	Order Code
220	0.05	2000	BLM21PG221SN1D	151-5661
330	0.09	1500	BLM21PG331SN1D	151-5663
BLM21 RK Series – Digital Interface				
600	0.3	200	BLM21RK601SN1D	151-5670
1000	0.5	200	BLM21RK102SN1D	151-5666

496319

Impedance	Order Code	Price Each
BLM21 AG		
120	151-5617	
150	151-5618	
220	151-5619	
330	151-5620	
470	151-5621	
600	151-5622	
1000	151-5616	
BLM21 BB		
5	151-5623	
60	151-5634	
75	151-5635	
120	151-5624	
200	151-5626	
200	151-5628	
220	151-5629	
220	151-5630	
330	151-5631	
330	151-5632	
470	151-5633	
BLM21 BD		
120	151-5637	
420	151-5651	
600	151-5655	
1000	151-5636	
1500	151-5641	
1800	151-5642	
2200	151-5644	
2200	151-5645	
2700	151-5646	
2700	151-5647	
BLM21 PG		
22	151-5658	
22	151-5659	
30	151-5662	
60	151-5665	
220	151-5660	
220	151-5661	
330	151-5663	
BLM21 RK		
1000	151-5666	
600	151-5670	

Solid Inductor – Surface Mount



- Solid ferrite inductor, designed to reduce spurious oscillations in high frequency amplifiers.

SMD

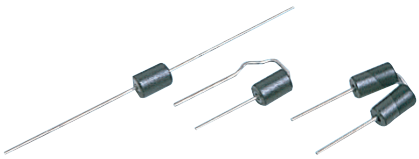
List No.	Impedance. Ω @ 100MHz	Rated Current (mA)	DC Resistance (Ω max.)	L	W	H
BLM31AF700SN1L	70	200	0.5	3.2	1.6	1.1
BLM31AJ601SN1L	600	200	1	3.2	1.6	1.1
BLM41AF151SN1L	150	200	0.7	4.5	1.6	1.6
BLM41PG600SN1L	60	6000	0.01	4.5	1.6	1.6
BLM41PG750SN1L	75	3000	0.03	4.5	1.6	1.6
BLM41PF800SN1L	80	1000	0.15	4.5	1.6	1.6
BLM41AF800SN1L	80	500	0.3	4.5	1.6	1.6

204044

10 — Price Each

Mftrs. List No.	Order Code
BLM31AF700SN1L	SMD 952-6854 RL
BLM31AJ601SN1L	SMD 952-6862 RL
BLM41AF151SN1L	SMD 952-6870 RL
BLM41PG600SN1L	SMD 952-6900 RL
BLM41PG750SN1L	SMD 952-6919 RL
BLM41PF800SN1L	SMD 952-6897 RL
BLM41AF800SN1L	SMD 952-6889 RL

Bead Inductors



108-267	108-268	108-269	581-124
Body L=5.0	H=7.5, W=7.1	H=7.5, W=9.0	H=6.5, W=8.3
Body dia.=3.6	∅=3.5	∅=3.4	∅=2.3
Lead L=20	Lead pitch=5.0	Lead pitch=5.0	Lead pitch=5.0
Lead dia.=0.65	Lead dia=0.65	Lead dia.=0.65	Lead dia.=0.6

- Ferrite bead inductors available in axial or radial styles, the radial version being available with single or double bead to provide even more effective suppression.
- Typical applications include high frequency suppression in low impedance circuits, e.g. power supplies, high speed amplifier circuits, high speed digital circuits, clocks.

Mftrs. List No.	range (Z=50Ω min.)	Current rating	Mftrs. List No.	range (Z=50Ω min.)	Current rating
BL01RN1A1D2B	20MHz to 1000Mhz	7A	BL02RN2R1M2B	4MHz to 1000MHz	7A
BL02RN1R2M2B	20MHz to 1000MHz	7A			

204239

Order Multiple=10 — Price Each

	Order Code
Axial	952-6820
Radial (Single)	952-6838
Radial (Double)	952-6846

Inductors - Ferrite Inductors & Beads - Panasonic

EXC Series

Chip Bead Cores

- Effective noise suppression for power lines and high speed signal lines
- Easy pattern layout on PC Board
- For flow soldering and reflow soldering

SMD

Impedance @ 100MHz (Ω)	Impedance Tolerance %	Rated Current Max. (mA)	DC Resistance Max. (Ω)	Mftrs. List No.	Order Code
0603 Case Size					
60	25	1000	0.07	EXC3BP600H	129-2700
120	25	500	0.1	EXC3BP121H	129-2698
220	25	200	0.3	EXC3BB221H	129-2696
600	25	100	0.8	EXC3BB601H	129-2697
1000	25	50	1	EXC3BB102H	129-2695
0805 Case Size					
27	25	4000	0.006	EXCML16A270U	129-2701
39	25	4000	0.008	EXCML20A390U	129-2703
1206 Case Size					
25	25	2000	0.05	EXCCL3216U1	129-2721
68	25	3000	0.012	EXCML32A680U	129-2704
1210 Case Size					
45	25	2000	0.05	EXCCL3225U1	129-2722
1806 Case Size					
91	25	3000	0.016	EXCML45A910H	129-2706
1812 Case Size					
115	25	2000	0.1	EXCCL4532U1	129-2723

452170

Price Each

Impedance	Order Code
0603 Case Size	
60	SMD 129-2700 RL
120	SMD 129-2698 RL
220	SMD 129-2696 RL
600	SMD 129-2697 RL
1000	SMD 129-2695 RL
0805 Case Size	
27	SMD 129-2701 RL
39	SMD 129-2703 RL
1206 Case Size	
25	SMD 129-2721 RL
68	SMD 129-2704 RL

Impedance	Order Code	Price Each
1210 Case Size		
45	SMD 129-2722 RL	
1806 Case Size		
91	SMD 129-2706 RL	
1812 Case Size		
115	SMD 129-2723 RL	

Inductors - Ferrite Inductors & Beads - TDK

MMZ Series

Chip Beads for Signal Lines

0603 Type (0201): H=0.6, W=0.3, L=0.3
1005 Type (0402): H=1.0, W=0.5, L=0.5
1608 Type (0603): H=1.6, W=0.8, L=0.28
2012 Type (0805): H=2.0, W=1.2, L=0.8

- High reliability due to an entirely monolithic structure
- Closed magnetic circuit structure allows high-density installation while preventing cross-talk between circuits
- Low DC resistance structure of electrode prevents wasteful electric power consumption
- Size standardized for use by automatic assembly equipment - no preferred orientation

Material Code	Description
R	For wide frequency applications calling for broad impedance characteristics
S	Standard type that features impedance characteristics similar to those of a ferrite core
Y	High frequency range type intended for the 100MHz region and above
D	For applications calling for low insertion loss at low frequencies and sharply increasing impedance at high frequencies
F	Inherits the characteristic of our Dmaterial, namely its sharp impedance rise time, and its impedance peak frequency has been shifted higher into range

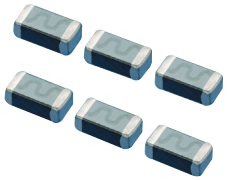
Impedance @ 100MHz (Ω)	DC Res. Max. (Ω)	Current rating (mA)	Material Code	Mftrs. List No.	Order Code
0603 Type (0201 Case Size)					
10	0.8	200	F	MMZ0603F100C	166-9652
33	1	100	D	MMZ0603D330C	166-9651
600	1.5	100	S	MMZ0603S601C	166-9653
1005 Type (0402 Case Size)					
10	0.1	500	D	MMZ1005D100C	166-9658
22	0.2	400	D	MMZ1005D220C	166-9660
33	0.35	400	D	MMZ1005D330C	166-9662
33	0.6	200	F	MMZ1005F330C	NEW 166-9664
40	0.12	550	Y	MMZ1005Y400C	NEW 166-9678
47	0.8	100	F	MMZ1005F470C	166-9665
56	0.8	100	F	MMZ1005F560C	NEW 166-9666
68	0.55	400	D	MMZ1005D680C	166-9663
80	0.2	450	B	MMZ1005B800C	NEW 166-9657
80	0.2	500	S	MMZ1005S800C	NEW 166-9672
80	0.17	450	Y	MMZ1005Y800C	NEW 166-9683
120	0.75	350	D	MMZ1005D121C	166-9659
120	0.25	500	S	MMZ1005S121C	NEW 166-9669
120	0.21	400	Y	MMZ1005Y121C	NEW 166-9674
240	1.2	200	D	MMZ1005D241C	166-9661
240	0.4	400	S	MMZ1005S241C	NEW 166-9670
240	0.33	300	Y	MMZ1005Y241C	NEW 166-9676
300	0.38	250	Y	MMZ1005Y301C	NEW 166-9677
470	0.5	250	Y	MMZ1005Y471C	166-9681
600	0.85	200	B	MMZ1005B601C	NEW 166-9656
600	0.6	300	S	MMZ1005S601C	NEW 166-9671
600	0.56	250	Y	MMZ1005Y601C	NEW 166-9682
1000	1	200	S	MMZ1005S102C	NEW 166-9668
1500	1.15	100	Y	MMZ1005Y152C	166-9675
1500	2	100	A	MMZ1005A152E	NEW 166-9654
1608 Type (0603 Case Size)					
15	0.05	1500	R	MMZ1608R150A	166-9696
15	0.05	1500	Y	MMZ1608Y150B	166-9712
30	0.05	1500	R	MMZ1608R300A	166-9697
30	0.05	1500	Y	MMZ1608Y300B	166-9714
40	0.1	600	S	MMZ1608S400A	NEW 166-9705
50	0.3	500	D	MMZ1608D500C	NEW 166-9691
60	0.1	800	R	MMZ1608R600A	166-9699
60	0.15	500	Y	MMZ1608Y600B	166-9716
80	0.35	500	D	MMZ1608D800B	NEW 166-9693
80	0.15	500	S	MMZ1608S800A	NEW 166-9707
120	0.18	500	R	MMZ1608R121A	166-9695
120	0.2	500	Y	MMZ1608Y121B	166-9711
120	0.15	600	B	MMZ1608B121C	NEW 166-9685
120	0.45	400	D	MMZ1608D121B	NEW 166-9688
120	0.2	500	S	MMZ1608S121A	NEW 166-9702
180	0.2	500	S	MMZ1608S181A	NEW 166-9703
240	0.6	300	D	MMZ1608D241C	NEW 166-9689
300	0.25	500	B	MMZ1608B301C	166-9686
300	0.25	500	R	MMZ1608R301A	166-9698
300	0.3	500	Y	MMZ1608Y301B	166-9715
300	0.7	300	D	MMZ1608D301B	NEW 166-9690
300	0.3	500	S	MMZ1608S301A	NEW 166-9704
600	0.4	500	R	MMZ1608R601A	166-9700
600	0.4	500	Y	MMZ1608Y601BTA00	130-1668
600	0.4	500	Y	MMZ1608Y601CTAH0	130-1669
600	0.4	500	B	MMZ1608B601C	NEW 166-9687
600	0.4	500	S	MMZ1608S601A	NEW 166-9706
1000	0.5	400	R	MMZ1608R102A	166-9694
1000	0.5	400	Y	MMZ1608Y102B	166-9708
1000	0.5	400	S	MMZ1608S102A	NEW 166-9701
1500	0.6	300	Y	MMZ1608Y152B	NEW 166-9713
2500	0.8	200	A	MMZ1608A252B	NEW 166-9684
2012 Type (0805 Case Size)					
15	0.05	1500	R	MMZ2012R150A	166-9721
15	0.05	1500	Y	MMZ2012Y150B	166-9729
30	0.05	1500	R	MMZ2012R300A	166-9723
30	0.05	1500	Y	MMZ2012Y300B	166-9731
60	0.1	1000	Y	MMZ2012Y600B	166-9733
80	0.3	500	D	MMZ2012D800B	NEW 166-9718
120	0.12	800	R	MMZ2012R121A	166-9720
120	0.12	800	Y	MMZ2012Y121B	166-9728
120	0.3	500	D	MMZ2012D121B	NEW 166-9717
120	0.15	800	S	MMZ2012S121A	NEW 166-9726
300	0.5	400	D	MMZ2012D301BTA0C	130-1670
300	0.15	600	R	MMZ2012R301A	166-9724
300	0.15	600	Y	MMZ2012Y301B	166-9732
600	0.2	500	R	MMZ2012R601AT000	130-1672
600	0.3	500	S	MMZ2012S601AT000	130-1673
600	0.2	500	Y	MMZ2012Y601B	166-9735
1000	0.3	500	R	MMZ2012R102A	166-9719
1000	0.3	500	Y	MMZ2012Y102B	166-9727
1000	0.35	500	S	MMZ2012S102A	NEW 166-9725
1500	0.4	500	Y	MMZ2012Y152BTA0C	130-1674
2000	0.5	400	Y	MMZ2012Y202B	166-9730

451968

Order Multiple=5	Order Code	Price Each
0603 Type	All Values	
1005 Type	All Values	
1608 Type	All Values	
2012 Type	All Values	

MPZ Series

Chip Beads for Power Lines



- Multilayer chip impeders for power supply line applications
- Miniaturized but parts nonetheless exhibit low DC resistance and high current handling capability
- These products are the best for energy-saving in the low DC resistance

1005 Type (0402): H=1.0, W=0.5, L=0.5
1608 Type (0603): H=1.6, W=0.8, L=0.28
2012 Type (0805): H=2.0, W=1.2, L=0.8

Material Code	Description
R	For wide frequency applications calling for broad impedance characteristics
S	Standard type that features impedance characteristics similar to those of a ferrite core
Y	High frequency range type intended for the 100MHz region and above
D	For applications calling for low insertion loss at low frequencies and sharply increasing impedance at high frequencies

Impedance @ 100MHz (Ω)	DC Res. Max. (Ω)	Current rating (mA)	Material Code	Mftrs. List No.	Order Code
1005 Type (0402 Case Size)					
10	0.04	2	S	MPZ1005S100C	166-9736
60	0.07	1.5	S	MPZ1005S600C	166-9739
120	0.09	1.2	S	MPZ1005S121C	166-9737
1608 Type (0603 Case Size)					
30	0.06	1.8	D	MPZ1608D300B	166-9741
30	0.01	5	S	MPZ1608S300A	166-9744
60	0.1	1.2	D	MPZ1608D600B	166-9742
60	0.02	3.5	S	MPZ1608S600A	166-9745
60	0.03	2.3	Y	MPZ1608Y600B	166-9750
100	0.15	1	D	MPZ1608D101B	166-9740
100	0.03	3	S	MPZ1608S101A	166-9743
100	0.04	2	Y	MPZ1608Y101B	166-9748
150	0.05	1.8	Y	MPZ1608Y151B	166-9749
220	0.05	2	S	MPZ1608S221ATA00	130-1677
390	0.12	1.2	R	MPZ1608R391ATA00	130-1675
600	0.15	1	S	MPZ1608S601A	166-9747
2012 Type (0805 Case Size)					
30	0.01	5	S	MPZ2012S300AT000	130-1678
100	0.02	4	S	MPZ2012S101A	166-9751
220	0.04	0.04	S	MPZ2012S221A	166-9752
330	0.05	2.5	S	MPZ2012S331AT000	130-1679
600	0.1		S	MPZ2012S601A	166-9753

451975

Order Multiple=5	Order Code	Price Each
1005 Type	All Values	
1608 Type	All Values	
2012 Type	All Values	

Inductors - Ferrite Inductors & Beads - Tyco Electronics

BMB Series - Ferrite Chip Beads

Tyco Electronics

0805 Case Size

H=0.9, W=1.2, L=2.0
Supplied on 8mm tape (reel=500pcs)

- Surface mount ferrite noise reduction beads
- 0805 case size
- Types A and L for general use
- Type B for high frequency to minimise signal waveform attenuation
- Type R for low frequency to prevent signal ringing in digital circuits

SMD

Type	Impedance @ 100MHz (Ω)	DC Res. Max. (Ω)	Current rating (mA)	Mftrs. List No.	Order Code
A	120	0.6	200	BMB2A0120AN1	119-3413
A	120	0.3	300	BMB2A0120AN4	119-3414
A	150	0.6	200	BMB2A0150AN1	119-3415
A	220	0.5	200	BMB2A0220AN4	119-3416
A	300	1	200	BMB2A0300AN1	119-3418
L	60	0.1	700	BMB2A0060LN2	119-3419
L	300	0.2	400	BMB2A0300LN2	119-3420
L	1000	0.3	300	BMB2A1000LN2	119-3421
B	120	0.4	300	BMB2A0120BN3	119-3422
B	600	0.5	200	BMB2A0600BN3	119-3423
B	1000	0.7	200	BMB2A1000BN3	119-3424
R	600	0.5	200	BMB2A0600RS2	119-3425

204185

Order Multiple=10 **Price Each**

	Order Code
Type A	**All Values** ● RL
Type L and B	**All Values** ● RL
Type R	**All Values** ● RL

RL **FREE Re-reeling service.** Only buy what you need and improve assembly efficiency. For more information visit **local website**

Inductors - Ferrite Inductors & Beads - Würth Elektronik

SMD Ferrites - EMI Suppression

WÜRTH ELEKTRONIK

WE-CBF series

- Reliable Ni-Sn electrodes
- Suitable for wave and reflow soldering as well as pasting
- Perfect as data lined filter and for uncoupling of distribution voltage
- High rated current up to 6A
- Highly extended spectrum

SMD

These chip bead ferrites can be put directly on the printed circuit board. They offer excellent anti-EMI properties and low DC-resistance. Placed very close next to the interference source even with smallest size 0402, maximal impedances at 660 W can be reached.

0402 Case Size

Impedance (Ω) @ 100MHz	R_{DC} (Ω)	I_N DC max. (mA)	Mftrs. List No.	Order Code
10	0.05	500	742792701	180-0338
20	0.2	300	74279273	163-5672
30	0.25	300	74279274	180-0339
40	0.3	300	74279270	163-5673
60	0.35	300	74279276	163-5674
70	0.35	300	74279277	163-5675
120	0.4	300	74279271	163-5676
220	0.35	300	742792780	180-0340
240	0.7	200	74279278	163-5677
300	0.8	200	74279272	163-5678
600	1	200	74279279	163-5679
1000	1.5	200	742792796	180-0341

0402 **Price Each**

Order Code
NEW **180-0338**●
163-5672●
NEW **180-0339**●
163-5673●
163-5674●
163-5675●
163-5676●
NEW **180-0340**●
163-5677●
163-5678●
163-5679●
NEW **180-0341**●

0603 Case Size

Impedance (Ω) @ 100MHz	R_{DC} (Ω)	I_N DC max. (mA)	Mftrs. List No.	Order Code
15	0.1	500	74279268	163-5680
22	0.05	1000	742792604	163-5701
28	0.03	4000	742792603	163-5702
30	0.04	3000	742792609	163-5703
33	0.1	500	742792605	180-0342
40	0.15	400	74279260	180-0343
30	0.03	1000	742792601	180-0354
47	0.1	500	742792608	163-5681
60	0.3	500	74279267	163-5683
60	0.04	3000	742792602	163-5704
68	0.3	300	742792607	180-0344
80	0.3	200	74279261	163-5684
100	0.15	500	742792620	180-0350
120	0.35	200	742792606	180-0345
120	0.3	500	74279262	163-5687
80	0.2	200	742792621	180-0347
180	0.09	1500	742792624	180-0355
180	0.3	500	742792622	163-5688
220	0.3	500	74279263	163-5689
240	0.4	200	742792631	180-0351
300	0.35	200	74279264	163-5685
300	0.35	300	742792640	180-0348
300	0.15	2000	742792641	163-5705
470	0.45	200	742792642	163-5690
470	0.35	400	742792643	180-0349
600	0.2	1000	742792651	163-5706
600	0.65	300	742792653	163-5686
600	0.45	200	74279265	163-5691
750	0.35	400	742792656	163-5692
1000	0.6	200	74279266	163-5693
1000	0.85	100	742792663	180-0352
1100	0.6	300	742792664	180-0353
1200	0.7	50	74279269	163-5695
1500	0.7	50	742792691	163-5696
1800	0.8	50	742792692	163-5697
2200	0.8	50	742792693	163-5698
2500	1	50	742792695	163-5699

0603 **Price Each**

Order Code
163-5680●
163-5701●
163-5702●
163-5703●
NEW **180-0342**●
NEW **180-0343**●
NEW **180-0354**●
163-5681●
163-5683●
163-5704●
NEW **180-0344**●
163-5684●
NEW **180-0350**●
NEW **180-0345**●
163-5687●
NEW **180-0347**●
NEW **180-0355**●
163-5688●
163-5689●
NEW **180-0351**●
163-5685●
NEW **180-0348**●
163-5705●
163-5690●
NEW **180-0349**●
163-5706●
163-5686●
163-5691●
163-5692●
163-5693●
NEW **180-0352**●
NEW **180-0353**●
163-5695●
163-5696●
163-5697●
163-5698●
163-5699●

0805 Case Size

Impedance (Ω) @ 100MHz	R_{DC} (Ω)	I_N DC max. (mA)	Mftrs. List No.	Order Code
5	0.07	700	742792005	180-0356
10	0.03	3000	742792011	163-5727
11	0.15	600	7427920	163-5707
22	0.008	6000	742792021	163-5728
30	0.025	3000	74279206	163-5729
32	0.15	500	74279201	163-5708
33	0.008	4000	742792012	180-0367
40	0.15	500	74279208	163-5709
60	0.025	3000	742792063	163-5730
75	0.2	300	742792064	163-5710
80	0.2	500	742792062	180-0359
100	0.15	1000	74279207	163-5731
120	0.03	3000	742792023	163-5732

Impedance (Ω) @ 100MHz	R_{DC} (Ω)	I_N DC max. (mA)	Mftrs. List No.	Order Code
120	0.1	500	74279202	163-5711
150	0.25	300	74279203	163-5713
220	0.3	300	742792034	163-5714
220	0.05	2000	742792022	163-5733
240	0.4	200	742792038	180-0361
300	0.3	300	742792035	163-5715
300	0.3	200	742792036	163-5718
300	0.05	3000	742792031	163-5734
330	0.08	2000	742792037	180-0368
400	0.3	300	742792032	180-0362
600	0.3	500	7427920415	180-0363
600	0.5	200	742792042	163-5716
600	0.65	200	742792043	163-5717
600	0.35	200	74279204	163-5719
600	0.4	200	742792041	163-5720
600	0.15	2000	742792040	163-5735
750	0.3	200	742792045	180-0357
1000	0.45	200	74279205	163-5721
1000	0.3	1000	742792096	163-5737
1200	0.55	200	74279209	163-5722
1500	0.55	200	742792091	163-5723
1500	0.3	1000	742792097	163-5738
1800	0.4	200	742792090	163-5725
2000	0.6	200	742792092	180-0364
2200	0.6	200	742792093	163-5726
2200	0.5	200	742792094	180-0365
2700	0.6	200	742792095	180-0366

0805

Order Code	Price Each
180-0356	
163-5727	
163-5707	
163-5728	
163-5729	
163-5708	
NEW 180-0367	
163-5709	
163-5730	
163-5710	
NEW 180-0359	
163-5731	
163-5732	
163-5711	
163-5713	
163-5714	
163-5733	
NEW 180-0361	
163-5715	
163-5718	
163-5734	
NEW 180-0368	
NEW 180-0362	
NEW 180-0363	
163-5716	
163-5717	
163-5719	
163-5720	
163-5735	
NEW 180-0357	
163-5721	
163-5737	
163-5722	
163-5723	
163-5738	
163-5725	
NEW 180-0364	
163-5726	
NEW 180-0365	
NEW 180-0366	

1206 Case Size

Impedance (Ω) @ 100MHz	R_{DC} (Ω)	I_N DC max. (mA)	Mftrs. List No.	Order Code
19	0.04	3000	742792110	180-0372
26	0.04	3000	742792111	163-5752
31	0.04	3000	742792112	180-0373
32	0.2	500	7427921	163-5739
50	0.025	3000	742792114	163-5753
60	0.2	500	7427922	163-5740
70	0.3	300	742792151	163-5741
80	0.03	3000	74279215	163-5754
90	0.3	300	74279211	163-5742
120	0.03	3000	742792113	163-5755
150	0.3	300	74279212	163-5743
200	0.5	200	74279216	163-5751
220	0.3	300	742792122	163-5744
300	0.06	3000	742792121	163-5756
470	0.3	200	742792124	163-5745
500	0.06	2500	742792116	163-5757
600	0.1	2000	74279218	163-5758
600	0.3	200	74279213	163-5746
600	0.3	200	742792131	180-0369
600	0.3	500	742792133	180-0370
600	0.07	2500	742792118	180-0374
700	0.65	200	74279219	163-5747
1000	0.45	200	74279214	163-5749
1000	0.3	1000	742792141	163-5759

1206

Order Code	Price Each
NEW 180-0372	
163-5752	
NEW 180-0373	
163-5739	
163-5753	
163-5740	
163-5741	
163-5754	
163-5742	
163-5755	
163-5743	
163-5751	
163-5744	
163-5756	
163-5745	
163-5757	
163-5758	
163-5746	
NEW 180-0369	
NEW 180-0370	
NEW 180-0374	
163-5747	
163-5749	
163-5759	

1210 Case Size

Impedance (Ω) @ 100MHz	R_{DC} (Ω)	I_N DC max. (mA)	Mftrs. List No.	Order Code
32	0.3	400	74279230	163-5760
60	0.3	400	74279231	163-5762
90	0.3	400	7427923	163-5763
30	0.05	3000	742792310	163-5764
65	0.03	3000	742792312	163-5765

1210

Order Code	Price Each
163-5760	
163-5762	
163-5763	
163-5764	
163-5765	

1806 Case Size

Impedance (Ω) @ 100MHz	R_{DC} (Ω)	I_N DC max. (mA)	Mftrs. List No.	Order Code
60	0.3	400	7427924	163-5766
80	0.3	400	74279241	163-5767
150	0.5	200	74279242	163-5768
60	0.01	6000	742792410	163-5769
75	0.025	3000	74279243	163-5770
80	0.04	3000	742792411	163-5771
110	0.035	4000	74279245	163-5772
850	0.1	1500	74279244	163-5774

1806

Order Code	Price Each
163-5766	
163-5767	
163-5768	
163-5769	
163-5770	
163-5771	
163-5772	
163-5774	

1812 Case Size

Impedance (Ω) @ 100MHz	R_{DC} (Ω)	I_N DC max. (mA)	Mftrs. List No.	Order Code
120	0.3	300	7427925	163-5775
70	0.3	300	74279250	163-5776
70	0.03	6000	742792510	163-5777
120	0.05	3000	742792511	163-5778
530	0.05	3000	742792515	163-5779
600	0.04	3000	742792514	163-5780
680	0.035	4000	74279252	163-5781

Inductors - Ferrite Inductors & Beads - Würth Elektronik - continued

SMD Ferrites - EMI Suppression - continued

WE-CBF series - continued

520871

1812 Order Code	Price Each
163-5775	
163-5776	
163-5777	
163-5778	
163-5779	
163-5780	
163-5781	

Ferrite Bead

WE-CBF HF Series

Operating temperature -55°C to 125°C

New

	Impedance, typical @ 100MHz Ω	Resistance Ω	Current mA	Mfts. List No.	Order Code
0402					
	220	380 mohm	500	742843122	174-8571
	600	1.6	100	742841160	174-8572
	1000	1.8	50	742841210	174-8573
0603					
	180	550 mohm	200	742861118	174-8574
	220	250 mohm	600	742863122	174-8575
	470	320 mohm	500	742863147	174-8576
	600	1	200	742861160	174-8577
	600	1.5	100	742862160	174-8578
	600	350 mohm	500	742863160	174-8581
	1000	1.8	50	742861210	174-8582

544517

Order Code	Price Each
0402 All Values	
0603 All Values	

SMD Noise Suppressor

WE-CNSW Series

- High common-mode noise suppression at high frequency
- Small influence for high speed signals through winding symmetry
- For USB 2.0 , Firewire/IEEE 1394, LVDS, High speed data lines, common Mode Filters

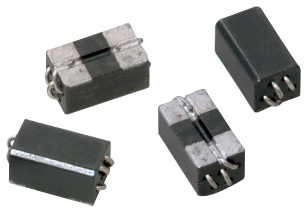
Impedance @ 100MHz (Ω)	Voltage rating (V)	R_{DC} max (Ω)	Current rating (mA)	Mfts. List No.	Order Code
90	50	0.3	370	744231091	163-6469
180	50	0.35	0.33	744231181	163-6471
260	50	0.4	0.3	744231261	163-6472
370	50	0.45	0.28	744231371	163-6473
90	50	0.3	370	744232090	163-6474
160	50	0.4	340	744232161	163-6475
260	50	0.5	310	744232261	163-6476
600	50	0.8	260	744232601	163-6477
2.2	50	1.2	0.4	744232222	163-6481

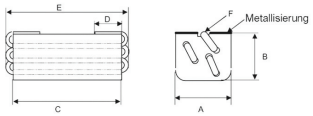
523300

Impedance @ 100MHz (Ω)	Order Code	Price Each
90	SMD 163-6469	
180	SMD 163-6471	
260	SMD 163-6472	
370	SMD 163-6473	
90	SMD 163-6474	
160	SMD 163-6475	
260	SMD 163-6476	
600	SMD 163-6477	
2.2	SMD 163-6481	

5-Hole Ferrite Beads

WE-SUKW Series





- Maximum current up to 5 Amp
- Low DC resistance with 3 mΩ
- Impedances up to 400Ω
- For SMD construction for easy installation on the PCB
- Protection against radio frequency interferences of components on PCBś of PCś, text processing and other digital devices

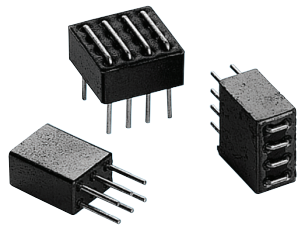
Impedance (Ω) @ 25MHz	@ 100MHz	Dimensions (mm) A	B	C	D	E	F	Mftrs. List No.	Order Code
272	416	5	4.6	5.5	2	8	0.5	7427511	163-5782
425	580	4.65	5	8.5	2	11	0.5	7427512	163-5783

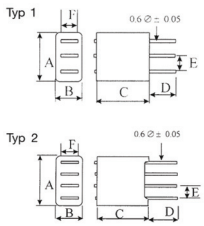
520957

Order Code	Price Each
163-5782	
163-5783	

Mulitline Ferrite

WE-MLS Series, EMI Suppression





- Filter for common mode or differential mode
- High impedance common mode inductor with 2x2 win. made by PCB line connection
- High rated current with typ. 4 A
- Broadband filtering because of the NiZn- ferrite core
- RF-common mode inductor for 2, 3 or 4 lines in one component
- Perfect suitable for EMC-absorption of common or differential mode
- For high-current DC output filters of power supplies e.g. battery chargers, industrial power supplies

Impedance (Ω) @ 25MHz	@ 100MHz	Dimensions (mm) A	B	C	D	E	F	Mftrs. List No.	Order Code
212	264	7.62	5.08	10	5.8	2.54	2.54	74273001	163-5786
209	249	10.88	5.49	10	3.19	2.54	2.54	74273002	163-5787
208	248	11.2	11.2	8	3.5	2.54	2.54	742730022	163-5788

521028

	Order Code	Price Each
3 line	163-5786	
4 line	163-5787	
4 line	163-5788	

Inductors - Axial - Epcos

B78108S Series – RF Inductors

L=9.2, Dia=4.0 max Lead Length=25, Dia =0.63

- Ferrite drum cored inductors with flame retardant encapsulation

I_N(mA)	L_N (µH)	Tol.	f_L (MHz)	Q_{min}	f_0 (MHz)	R_{max} (Ω)	f_{res} (MHz)	Mftrs List No.	Order Code
1200	1	±10	1	55	0.0796	0.16	205	B78108S1102K	608-427
1000	2.2	±10	1	55	7.96	0.25	140	B78108S1222K	608-440
900	3.3	±10	1	60	7.96	0.29	115	B78108S1332K	608-452
820	4.7	±10	1	60	7.96	0.34	95	B78108S1472K	608-464
780	5.6	±10	1	60	7.96	0.38	85	B78108S1562K	509-929
680	10	±10	0.1	70	2.52	0.49	35	B78108S1103K	608-488
610	15	±10	0.1	60	2.52	0.6	20	B78108S1153K	608-506
560	22	±10	0.1	55	2.52	0.74	13	B78108S1223K	511-614
500	33	±10	0.1	55	2.52	0.92	9	B78108S1333K	608-518
470	39	±10	0.1	50	2.52	1.02	8	B78108S1393K	511-626
450	47	±5	0.1	45	2.52	1.1	7.5	B78108S1473J	608-520
410	68	±5	0.1	40	2.52	1.35	6.5	B78108S1683J	608-531
390	82	±5	0.1	35	2.52	1.54	6	B78108S1823J	511-638
370	100	±5	0.1	70	0.796	1.7	5	B78108S1104J	608-543
300	120	±5	0.1	70	0.796	2.4	4.5	B78108S1124J	608-555
280	150	±5	0.1	70	0.796	2.8	4.2	B78108S1154J	608-567
250	220	±5	0.1	70	0.796	3.3	3.7	B78108S1224J	511-651
190	330	±5	0.1	70	0.796	6.4	2.7	B78108S1334J	608-579

I_N(mA)	L_N (µH)	Tol. (%)	f_L (MHz)	Q_{min}	f_Q (MHz)	R_{max} (Ω)	f_{res} (MHz)	Mftrs List No.	Order Code
170	470	±5	0.1	70	0.796	7.9	2.2	B78108S1474J	608-580
150	680	±5	0.1	55	0.796	10	1.9	B78108S1684J	608-592
130	1000	±5	0.1	55	0.252	14	1.6	B78108S1105J	608-609
80	2200	±5	0.1	40	0.252	34.7	1.1	B78108S1225J	608-622
62	3300	±5	0.1	40	0.252	59.5	0.9	B78108S1335J	608-634
55	4700	±5	0.1	35	0.252	78	0.7	B78108S1475J	608-646

204143

Inductance µH	Order Code	Price Each
1.0µH to 39µH	**All Values** ●	
47µH to 820µH	**All Values** ●	
1000µH to 4700µH	**All Values** ●	

B82144 Series – RF Inductors

Body L=14.8 max dia.=5.2 max
Lead dia.=0.63

- Ferrite drum core RF inductors with flame retardant lacquer coating

IEC climatic category 55/125/56

I_N(mA)	L_N (µH)	Tol (%)	f_L (MHz)	Q_{min}	f_Q (MHz)	R_{max} Ω	f_{res} (MHz)	Mftrs List No.	Order Code
2200	1	±10	1	40	7.96	0.08	200	B82144A2102K	513-532
1600	4.7	±10	1	40	7.96	0.16	120	B82144A2472K	515-036
1400	10	±10	0.1	60	2.52	0.22	60	B82144A2103K	515-565
1100	22	±10	0.1	50	2.52	0.35	12	B82144A2223K	516-533
800	47	±5	0.1	40	2.52	0.5	5	B82144A2473J	516-545
600	100	±5	0.1	50	0.796	0.7	3.5	B82144A2104J	516-570
400	220	±5	0.1	50	0.796	1.6	2.4	B82144A2224J	516-995
280	470	±5	0.1	40	0.796	2.5	1.5	B82144A2474J	517-070
200	1000	±5	0.1	60	0.252	3.8	1.2	B82144A2105J	517-896
120	2200	±5	0.1	60	0.252	9	0.8	B82144A2225J	517-902
90	4700	±5	0.1	60	0.252	20	0.5	B82144A2475J	517-914
50	10000	±5	0.01	50	0.0796	42	0.35	B82144A2106J	517-926
40	22000	±5	0.01	50	0.0796	120	0.26	B82144A2226J	517-938
20	100000	±5	1	40	0.0796	360	0.12	B82144A2107J	518-300

204141

Order Multiple=5		Price Each
Inductance µH	Order Code	
1	**513-532** ●	
4.7	**515-036** ●	
10	**515-565** ●	
22	**516-533** ●	
47	**516-545** ●	
100	**516-570** ●	
220	**516-995** ●	
470	**517-070** ●	
1000	**517-896** ●	
2200	**517-902** ●	
4700	**517-914** ●	
10000	**517-926** ●	
22000	**517-938** ●	
100000	**518-300** ●	

B82130 Series – RF Inductors

- Single layer winding on a carbonyl iron core with insulating sleeve
- Approved to **VDE 565-2**

Voltage rating 500Vac/dc Tolerance ±20%
IEC Climatic category 55/125/56

L_N (µH)	Tol (%)	f_L (MHz)	Q_{min}	F_{res} (MHz)	Dimensions Dia.		L	Mftrs List No.	Order Code
80	0.15	0.1	11	22	5	x	14	B82131A5151M	506-930
27	0.4	0.1	2	40	5	x	14	B82131A5401M	508-287
50	0.4	0.1	3	37	5.5	x	19	B82132A5401M	508-226
150	0.4	0.1	3.5	18	7.5	x	29	B82134A5401M	508-329
14	0.7	0.1	0.76	53	5	x	14	B82131A5701M	506-552
23	0.7	0.1	0.73	55	5.5	x	19	B82132A5701M	508-251
6	1.5	1	0.19	84	5	x	14	B82131A5152M	506-448
25	1.5	0.1	0.32	40	7.5	x	24	B82133A5152M	506-916
3	2	1	0.9	113	5	x	14	B82131A5202M	506-564
6	2	1	0.11	108	5.5	x	19	B82132A5202M	506-886
2	3	1	0.038	147	5	x	14	B82131A5302M	524-130
10	3	1	0.077	69	7.5	x	24	B82133A5302M	506-540
12	3	0.1	0.09	75	7.5	x	24	B82134A5302M	508-317
1	4	1	0.015	199	5	x	14	B82131A5402M	508-240
2	4	1	0.02	186	5.5	x	19	B82132A5402M	508-275

204140

Inductance µH	Order Code	Price Each
80	**506-930** ●	
27	**508-287** ●	
50	**508-226** ●	
150	**508-329** ●	
14	**506-552** ●	
23	**508-251** ●	
6	**506-448** ●	
25	**506-916** ●	
3	**506-564** ●	
6	**506-886** ●	
2	**524-130** ●	
10	**506-540** ●	
12	**508-317** ●	
1	**508-240** ●	
2	**508-275** ●	

B82500 Series – Low Current

- Ferrite cored multilayer wound Inductors
- Voltage rating 250V ac/dc
- IEC climatic category 55/125/126.

L_N (µH)	I_N (A)	f_{res} (MHz)	R_{typ} (Ω)	Body Dimensions Dia.	L	Mftrs. List No.	Order Code
3900	0.2	1.8	20	10	32	B82500CA2	504-749
820	0.5	3	2.5	10	32	B82500CA5	976-441
330	1	4.2	0.6	10	32	B82500CA8	976-453
120	2	5.8	0.15	10	32	B82500CA10	976-465

204150

Order Code	Price Each
All Values ●	

B82111E Series – Medium Current

- Single layer winding on ferrite core with insulation sleeving
- Approved to **VDE 565-2**
- Tolerance ±20%

Voltage rating 500 V ac/dc IEC climatic category 55/125/126

L_N (µH)	I_N (A)	f_{res} (MHz)	R_{typ} (Ω)	Body Dimensions Dia.	L	Mftrs. List No.	Order Code
470	0.3	25	6.5	6	26	B82111EC27	975-4121
220	0.5	32	2.6	6.5	26	B82111EC26	975-4130
100	1	55	0.65	6.5	26	B82111EC25	975-2102
56	1.5	70	0.3	6.5	26	B82111EC24	975-3346
40	2	90	0.18	7	26	B82111EC23	975-3354
22	3	110	0.07	7	26	B82111EC22	975-3362
12	4	140	0.04	7	26	B82111EC21	975-3370
7	6	180	0.02	7.5	26	B82111EC20	975-3389

204081

Order Code	Price Each
All Values ●	

B82111B Series – up to 10A

- Wound inductor on a ferrite core
- Approved to **VDE 565-2**

Voltage Rating 500V ac/dc IEC climatic category 55/125/56
Tolerance ±20%

	L_N (µH)	I_N (A)	f_{res} (MHz)	R_{typ} (Ω)	Body Dimensions Dia.	L	Mftrs. List No.	Order Code
B82111BC14	17	2	100	0.063	7	24	B82111BC14	975-2196
B82111BC13	8	3	145	0.025	7	24	B82111BC13	975-2218
B82111BC20	20	3	125	0.054	6	29	B82111BC20	975-2153
B82111BC24	25	3	85	0.046	8.5	34	B82111BC24	975-2110
B82111BC18	11	4	150	0.02	6.5	29	B82111BC18	975-2188
B82111BC23	15	4	120	0.024	8.5	34	B82111BC23	975-2137
B82111BC11	4	6	205	0.014	7.5	24	B82111BC11	975-2200
B82111BC17	6	6	200	0.01	7	29	B82111BC17	975-2170
B82111BC22	9	6	150	0.012	9	34	B82111BC22	975-2161
B82111BC16	3	9	220	0.006	7.5	29	B82111BC16	975-4113
B82111BC21	5	10	175	0.005	9.5	34	B82111BC21	975-2129

Inductors - Axial - Epcos - continued

B82111B Series – up to 10A - continued

204151

Inductance µH	Order Code	Price Each
17	975-2196	
8	975-2218	
20	975-2153	
25	975-2110	
11	975-2188	
15	975-2137	
4	975-2200	
6	975-2170	
9	975-2161	
3	975-4113	
5	975-2129	

Inductors - Axial - Tyco Electronics

C30 Series – 0.25 Watt

Tyco Electronics

Body L=7.0 max., Dia.=2.8 max.
Lead length=25.0 min, Lead dia.=0.6

- Popular range of miniature RF inductors encapsulated in a flame retardant resin sleeve providing protection against extremes of temperature, mechanical vibration and abrasion
- Tolerance ±10%

Body Colour: Yellow

Inductance µH	Max. dc Res Ω 20°C	Max dc Current(mA) 70°C	Q factor Min	Test. Frequency MHz	Self Res Frequency MHz	Order Code
0.1	0.08	1240	35	25	625	117-3894
0.12	0.09	1240	35	25	625	117-4250
0.15	0.1	1240	35	25	625	117-4251
0.18	0.12	1240	35	25	625	117-4252
0.22	0.14	940	33	25	470	117-3895
0.27	0.16	940	33	25	430	117-4254
0.33	0.22	750	30	25	380	117-3896
0.47	0.35	590	30	25	310	117-3897
0.56	0.5	590	30	25	800	117-4256
0.68	0.6	540	28	25	275	117-4257
0.82	0.85	380	28	25	230	117-3898
1	1	350	25	25	210	117-3860
1.5	0.22	895	28	7.9	140	117-4258
2.2	0.4	550	30	7.9	105	117-3861
2.7	0.55	470	37	7.9	92	117-3899
3.3	0.85	380	45	7.9	83	117-3862
3.9	1	380	45	7.8	80	117-4259
4.7	1.2	320	45	7.9	69	117-3863
5.6	1.8	260	50	7.9	60	117-3901
6.8	2	260	50	7.9	60	117-4260
8.2	2.7	215	55	7.9	50	117-3902
10	3.7	180	55	7.9	46	117-3864
15	2.8	210	45	2.5	32	117-3903
22	3.3	195	50	2.5	23	117-3865
33	3.4	190	45	2.5	20	117-3866
47	4.5	165	45	2.5	17	117-3867
56	5.2	148	45	2.5	15	117-3869
68	6.7	148	50	2.5	15	117-4262
100	8	124	50	2.5	11	117-3871
150	15	91	30	0.79	9	117-3872
220	21	77	30	0.79	7.5	117-3873
330	28	66	30	0.79	6	117-3875
470	42	54	30	0.79	5.1	117-3876
820	65	43	30	0.79	3.2	117-3905
1000	72	41	30	0.79	2.9	117-3878

204269

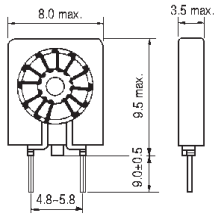
Order Multiple=5

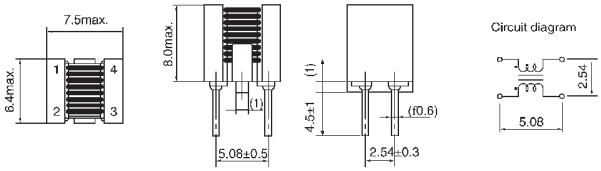
Inductance µH	Order Code	Price Each
0.1µH to 100µH	All Values	
150µH to 1000µH	All Values	

Inductors - Radial - Multicomp

PCB Mounting

multicomp





- A range of compact data line filters employing a high performance toroidal core
- These common mode and differential mode chokes have a plastic carrier for ease of PCB mounting.

Voltage rating 50V
Operating temperature
Current rating
Differential mode chokes 25°C to +85°C
Common mode chokes 25°C to +70°C
500mA

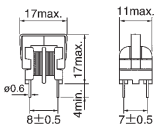
Inductance @ 1kHzµH	Inductance Tolerance %	Resistance mΩ	Order Code
Differential Mode			
5.6	± 50	<25	925-3556
20	± 35	<35	925-3564
56	± 35	<0.06	925-3548
Common Mode			
40	± 35	40	926-5783
80	± 35	55	926-5791

204017

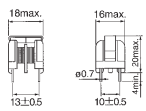
Inductance µH	Order Code	Price Each
Differential Mode		
5.6	925-3556	
20	925-3564	
56	925-3548	
Common Mode		
40	926-5783	
80	926-5791	

Common Mode - Low Current

multicomp



SU9V Series



SU10V Series

- A range of compact high inductance common mode chokes to provide excellent attenuation of RFI.
- Suitable for filtering of power supply rails and use in audio/communication equipment

Voltage rating 250V ac/dc
Frequency range 0.1 to 10MHz
Insulation resistance 100MΩ at 500
Operating temperture -25°C to +80°C (SU10V = +65°C)
Inductance measured at 1kHz @20°C

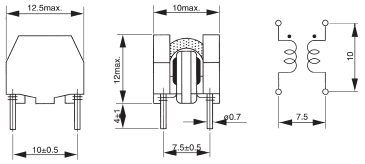
Current Rating (A)	Inductance (mH) min.	DC resistance (Ω/line)	Mftrs. List No.	Order Code
0.1A	10	8	SU9V-01100	926-5813
0.5A	2	1	SU9V-05020	926-5821
0.7A	1	0.6	SU9V-07010	926-5830
1A	0.5	0.3	SU9V-10005	926-5848
0.5A	5	1.5	SU10V-05050	926-5856
1.5A	1	0.2	SU10V-15010	926-5864
2A	0.6	0.15	SU10V-20006	926-5872

204082

Current Rating	Order Code	Price Each
SU9V Series		
0.1A	926-5813	
0.5A	926-5821	
0.7A	926-5830	
1A	926-5848	
SU10V Series		
0.5A	926-5856	
1.5A	926-5864	
2A	926-5872	

PCB Mounting – 3A

multicomp



- Common mode chokes wound on a high performance ferrite core suitable for the attenuation of common mode noise in switch mode power supplies, AC adaptors, microprocessor systems etc

Operating temperture	-25°C to +80°C	Voltage Rating	150V dc
Insulation resistance	<10MΩ	Test Voltage	600Vdc (2 seconds between lines)

204065

Order Code	Price Each
926-5805●	

Inductors - Radial - Epcos

B82732/3F Series

EPCOS

Power Line Chokes

- Current-compensated double choke
- Closed magnetic circuit with frame construction
- 4-section winding with direct winding of the core
- Excellent differential-mode suppression
- High pulse-handling capability
- Tolerance = +30%, -50%

Inductance(mH)	Current (A)	Resistance Typical (Ω)	Dimensions H	W	D	Mftrs. List No.	Order Code
B82732F Series							
10	1.6	0.29	13.5	24.5	14.5	B82732F2162B001	164-4856
15	1.3	0.43	13.5	24.5	14.5	B82732F2132B001	164-4855
27	0.9	0.77	13.5	24.5	14.5	B82732F2901B001	164-4861
47	0.7	1.26	13.5	24.5	14.5	B82732F2701B001	164-4859
68	0.6	1.97	13.5	24.5	14.5	B82732F2601B001	164-4858
B82733F Series							
10	2.3	0.188	14	26.5	24.8	B82733F2232B001	164-4870
15	1.9	0.279	14	26.5	24.8	B82733F2192B001	164-4869
27	1.4	0.44	14	26.5	24.8	B82733F2142B001	164-4868
39	1.2	0.696	14	26.5	24.8	B82733F2122B001	164-4867
47	1.1	0.804	14	26.5	24.8	B82733F2112B001	164-4866
68	0.9	1.1	14	26.5	24.8	B82733F2901B001	164-4872

528662

Inductance mH	Order Code	Price Each
B82732F Series		
10	**164-4856**●	
15	**164-4855**●	
27	**164-4861**●	
47	**164-4859**●	
68	**164-4858**●	
B82733F Series		
10	**164-4870**●	
15	**164-4869**●	
27	**164-4868**●	
39	**164-4867**●	
47	**164-4866**●	
68	**164-4872**●	

Common Mode - D Core - Vertical

EPCOS

- Common mode chokes with vertical core for reduced PCB footprint
- 4 section polycarbonate coil former flame retardant to **UL94V-0**
- Suitable for attenuation of RFI in switch mode power supplies in audio and computer equipment

Voltage Rating 250V ac/dc IEC climatic category 40/125/56

L_N (mH)	I_N (A)	R_{typ} (mΩ)	Dimensions H	W	D	Mftrs. List No.	Order Code
88	0.4	2400	20	20.5	15	B82731M2401A30	121-9118
3.3	2.2	110	23	24	16	B82732R2222B30	121-9123
27	1.7	320	31	32.5	21	B82734R2172B30	121-9126
15	2.3	185	31	32.5	21	B82734R2232B30	121-9127
10	2.6	130	31	32.5	21	B82734R2262B30	121-9128
6.8	3.2	85	31	32.5	21	B82734R2322B30	121-9129
3.3	4.6	46	31	32.5	21	B82734R2462B30	121-9130

204118

Inductance mH	Order Code	Price Each
88	**121-9118**●	
3.3	**121-9123**●	
27	**121-9126**●	
15	**121-9127**●	
10	**121-9128**●	
6.8	**121-9129**●	
3.3	**121-9130**●	

Current Compensated

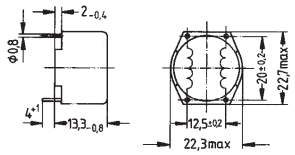
EPCOS

Twin Coil

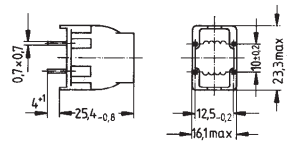
- Current compensated, ferrite ring core chokes
- Case flame retardant to **UL94V-0**
- Approved to **VDE 565-2**

Voltage rating 250V ac
IEC climatic category 40/125/56

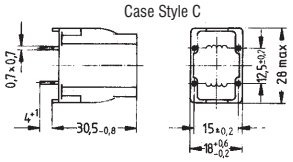
Case Style A



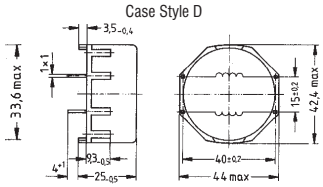
Case Style B



Case Style C



Case Style D



LH (mH)	IN (A)	R typ (mΩ)	Dimensions H	W	D	Pin Spacing x	y	Mftrs List No.	Order Code
Vertical									
39	0.4	2000	20.3	13.2	18.2	10	15	B82721K2401N20	121-9099
10	0.7	600	20.3	13.2	18.2	10	15	B82721K2701N20	121-9100
6.8	1.2	280	20.3	13.2	18.2	10	15	B82721K2122N20	121-9097
0.4	3.6	35	20.3	13.2	18.2	10	15	B82721K2362N1	121-9098
Vertical									
10	1	480	25.4	16.1	23.3	12.5	10	B82722J2102N1	121-9101
2.2	2	130	25.4	16.1	23.3	12.5	10	B82722J2202N1	121-9102
1.2	3	56	25.4	16.1	23.3	12.5	10	B82722J2302N1	121-9103
Vertical									
27	1	750	30.5	18.6	28	15	12.5	B82723J2102N1	121-9104
5.6	2	160	30.5	18.6	28	15	12.5	B82723J2202N1	121-9105
2.7	4	60	30.5	18.6	28	15	12.5	B82723J2402N1	121-9106
Vertical									
27	1.4	500	33.2	18.5	31.3	15	12.5	B82724J2142N1	121-9112
3.3	4	66	33.2	18.5	31.3	15	12.5	B82724J2402N1	121-9114
Horizontal									
1.8	6	23	25.0	33.1	32.6	20	30	B82724B2602N1	121-9109
18	2	350	25.0	44.0	42.4	20	30	B82725A2202N1	121-9116
2.7	8	22	25.0	44.0	42.4	20	30	B82725A2802N1	121-9117
1.8	10	14	25.0	44.0	42.4	20	30	B82725A2103N1	121-9115

204075

Inductance mH	Order Code	Price Each
Vertical		
39	**121-9099**●	
10	**121-9100**●	
6.8	**121-9097**●	
0.4	**121-9098**●	
Vertical		
10	**121-9101**●	
2.2	**121-9102**●	
1.2	**121-9103**●	
Vertical		
27	**121-9104**●	
5.6	**121-9105**●	
2.7	**121-9106**●	
Vertical		
27	**121-9112**●	
3.3	**121-9114**●	
Horizontal		
1.8	**121-9109**●	
18	**121-9116**●	
2.7	**121-9117**●	
1.8	**121-9115**●	

Inductors - Radial - Panasonic

High Power Series - ELC09

Panasonic

- High power fixed inductors for line noise filtering
- Compact size due to high permeability and high flux density ferrite cores
- Wide inductance range
- Applications include TV, VCR, PCs, Audio, Fax machines etc.

Height above PCB=13, Dia.=10
Lead length=4.0, Lead dia.=1.0, Fixing pitch=5.0

Inductance (µH)	Tolerance %	Max. DC Current @ 20°C (A)	DC resistance @ 20°C(Ω)	Mftrs. List No.	Order Code
2.2	±20	3.5	0.012	ELC09D2R2F	809-4810
3.3	±20	3.2	0.015	ELC09D3R3F	809-4861
3.9	±20	3.1	0.016	ELC09D3R9F	809-4870
4.7	±20	3	0.018	ELC09D4R7F	809-4942
6.8	±20	2.8	0.021	ELC09D6R8F	809-4985
8.2	±20	2.6	0.024	ELC09D8R2F	809-5035
10	±20	2.5	0.027	ELC09D100F	809-4756
15	±20	2.1	0.035	ELC09D150F	809-4799
22	±10	1.8	0.051	ELC09D220F	809-4829
27	±10	1.6	0.058	ELC09D270F	809-4853
33	±10	1.4	0.081	ELC09D330F	809-4888
47	±10	1.2	0.11	ELC09D470F	809-4950
68	±10	1	0.14	ELC09D680F	809-4993
100	±10	0.82	0.2	ELC09D101F	809-4764
150	±10	0.74	0.32	ELC09D151F	809-4802
220	±10	0.58	0.41	ELC09D221F	809-4837
330	±10	0.49	0.65	ELC09D331F	809-4896
390	±10	0.46	0.86	ELC09D391F	809-4926
470	±10	0.39	0.98	ELC09D471F	809-4969
680	±10	0.34	1.4	ELC09D681F	809-5000
1000	±10	0.28	2.1	ELC09D102F	809-4772
2200	±10	0.17	4.4	ELC09D222F	809-4845
3300	±10	0.14	7	ELC09D332F	809-4900
3900	±10	0.13	8	ELC09D392F	809-4934
10000	±10	0.08	18.8	ELC09D103F	809-4780

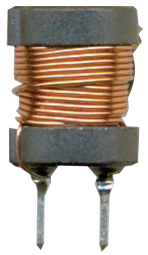
204189

Price Each

Order Code	
All Values ●	

ELC10 Series

Panasonic



- High power fixed inductors for line noise filtering
- Compact size due to high permeability and high flux density ferrite cores
- Applications include TV, VCR, PCs, Audio, Fax machines etc.

Height above PCB=15, Dia.=10
Lead length=4.0, Lead dia.=0.8, Fixing pitch=5.0

Inductance (µH)	Tolerance	Max. DC Current @ 20°C (A)	DC resistance @ 20°C(Ω)	Mftrs. List No.	Order Code
2.2	± 20%	5.9	0.014	ELC10D2R2E	NEW 174-9049
2.7	± 20%	5.5	0.015	ELC10D2R7E	NEW 174-9050
3.3	± 20%	5.2	0.016	ELC10D3R3E	130-8457
3.9	± 20%	4.8	0.018	ELC10D3R9E	NEW 174-9051
4.7	± 20%	4.6	0.019	ELC10D4R7E	130-8458
5.6	± 20%	5.3	0.021	ELC10D5R6E	NEW 174-9052
6.8	± 20%	4.2	0.022	ELC10D6R8E	NEW 174-9053
8.2	± 20%	4	0.024	ELC10D8R2E	NEW 174-9054
10	± 20%	3.9	0.026	ELC10D100E	NEW 174-9056
12	± 20%	3.8	0.028	ELC10D120E	NEW 174-9057
15	± 20%	3.5	0.033	ELC10D150E	NEW 174-9058
18	± 20%	3.4	0.036	ELC10D180E	NEW 174-9059
22	± 10%	3.2	0.04	ELC10D220E	NEW 174-9060
27	± 10%	3	0.044	ELC10D270E	NEW 174-9061
33	± 10%	2.8	0.051	ELC10D330E	NEW 174-9062
39	± 10%	2.7	0.054	ELC10D390E	NEW 174-9063
47	± 10%	2.5	0.06	ELC10D470E	NEW 174-9064
56	± 10%	2.3	0.067	ELC10D560E	NEW 174-9065
68	± 10%	2.1	0.075	ELC10D680E	NEW 174-9066
82	± 10%	1.8	0.095	ELC10D820E	NEW 174-9068
100	± 10%	1.7	0.11	ELC10D101E	130-8459
120	± 10%	1.6	0.12	ELC10D121E	NEW 174-9069
150	± 10%	1.4	0.16	ELC10D151E	NEW 174-9070
180	± 10%	1.3	0.18	ELC10D181E	NEW 174-9071
220	± 10%	1.1	0.21	ELC10D221E	130-8460
270	± 10%	1	0.28	ELC10D271E	NEW 174-9072
330	± 10%	0.9	0.32	ELC10D331E	NEW 174-9073
390	± 10%	0.8	0.4	ELC10D391E	130-8461
470	± 10%	0.7	0.45	ELC10D471E	NEW 174-9074
560	± 10%	0.68	0.56	ELC10D561E	130-8462
680	± 10%	0.64	0.66	ELC10D681E	NEW 174-9075
820	± 10%	0.55	0.8	ELC10D821E	NEW 174-9076
1000	± 10%	0.5	1	ELC10D102E	NEW 174-9077
1200	± 10%	0.45	1.2	ELC10D122E	NEW 174-9078
1500	± 10%	0.42	1.5	ELC10D152E	NEW 174-9081
1800	± 10%	0.4	1.8	ELC10D182E	NEW 174-9082
2200	± 10%	0.36	2.1	ELC10D222E	NEW 174-9083
2700	± 10%	0.32	2.7	ELC10D272E	NEW 174-9084
3300	± 10%	0.28	3.2	ELC10D332E	NEW 174-9085
3900	± 10%	0.26	3.5	ELC10D392E	NEW 174-9086

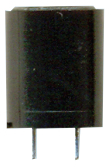
451832

Price Each

Order Code	
All Values ●	

ELC11 Series

Panasonic



- High power fixed inductors for line noise filtering
- Shielded construction
- Compact size due to high permeability and high flux density ferrite cores
- Applications include TV, VCR, PCs, Audio, Fax machines etc.

Height above PCB=13.9, Dia.=11.5
Lead length=4.0, Lead dia.=0.6, Fixing pitch=5.0

Inductance (µH)	Tolerance %	Max. DC Current @ 20°C (A)	DC resistance @ 20°C(Ω)	Mftrs. List No.	Order Code
2.2	± 20%	5.3	0.013	ELC11D2R2F	NEW 174-9087
2.7	± 20%	5.1	0.014	ELC11D2R7F	NEW 174-9088
3.3	± 20%	4.9	0.015	ELC11D3R3F	NEW 174-9089
3.9	± 20%	4.8	0.016	ELC11D3R9F	NEW 174-9090
4.7	± 20%	4.7	0.018	ELC11D4R7F	NEW 174-9091
5.6	± 20%	4.6	0.02	ELC11D5R6F	NEW 174-9093
6.8	± 20%	4.4	0.022	ELC11D6R8F	NEW 174-9094
8.2	± 20%	3.9	0.024	ELC11D8R2F	NEW 174-9095
10	± 20%	3.5	0.029	ELC11D100F	NEW 174-9096
12	± 20%	3.4	0.03	ELC11D120F	NEW 174-9097
15	± 20%	3.3	0.033	ELC11D150F	NEW 174-9098
18	± 20%	3.1	0.037	ELC11D180F	NEW 174-9099
22	± 10%	2.8	0.04	ELC11D220F	NEW 174-9100
27	± 10%	2.7	0.048	ELC11D270F	NEW 174-9101
33	± 10%	2.6	0.051	ELC11D330F	NEW 174-9102
39	± 10%	2.5	0.057	ELC11D390F	NEW 174-9103
47	± 10%	2.3	0.063	ELC11D470F	NEW 174-9104
56	± 10%	2.1	0.071	ELC11D560F	NEW 174-9105
68	± 10%	2	0.082	ELC11D680F	NEW 174-9106
82	± 10%	1.9	0.09	ELC11D820F	NEW 174-9107
100	± 10%	1.8	0.12	ELC11D101F	NEW 174-9108
120	± 10%	1.6	0.16	ELC11D121F	NEW 174-9111
150	± 10%	1.4	0.18	ELC11D151F	NEW 174-9112
180	± 10%	1.3	0.2	ELC11D181F	NEW 174-9113
220	± 10%	1.2	0.23	ELC11D221F	NEW 174-9114
270	± 10%	1.1	0.32	ELC11D271F	NEW 174-9115
330	± 10%	1	0.35	ELC11D331F	130-8463
390	± 10%	0.95	0.4	ELC11D391F	130-8465
470	± 10%	0.82	0.49	ELC11D471F	NEW 174-9116
560	± 10%	0.73	0.62	ELC11D561F	NEW 174-9117
680	± 10%	0.64	0.78	ELC11D681F	130-8466
820	± 10%	0.62	0.87	ELC11D821F	130-8467
1000	± 10%	0.57	1.1	ELC11D102F	130-8468
1200	± 10%	0.52	1.2	ELC11D122F	NEW 174-9118
1500	± 10%	0.43	1.7	ELC11D152F	130-8469
1800	± 10%	0.4	2	ELC11D182F	NEW 174-9119
2200	± 10%	0.38	2.3	ELC11D222F	NEW 174-9121
2700	± 10%	0.34	2.8	ELC11D272F	NEW 174-9123
3300	± 10%	0.31	3.6	ELC11D332F	NEW 174-9124
3900	± 10%	0.29	4.5	ELC11D392F	NEW 174-9125
4700	± 10%	0.26	5.2	ELC11D472F	NEW 174-9126
5600	± 10%	0.23	6.9	ELC11D562F	NEW 174-9127
6800	± 10%	0.21	7.8	ELC11D682F	NEW 174-9128
8200	± 10%	0.18	10.6	ELC11D822F	NEW 174-9129
10000	± 10%	0.16	11.8	ELC11D103F	NEW 174-9130

451838

Price Each

Order Code	
All Values ●	

ELC12 Series

Panasonic

- High - µ and High Bm cores
- Wide inductor range
- Applications include CTV, VCR, PCs, Audio, Fax machines, Home appliance.

New

Height above PCB=16.5, Dia.=12
Lead length=3.5, Lead dia.=0.8, Fixing pitch=7.5

Inductance (µH)	Tolerance %	Max. DC Current @ 20°C (A)	DC resistance @ 20°C(Ω)	Mftrs. List No.	Order Code
100	± 10%	1.9	0.15	ELC12D101E	174-9131
120	± 10%	1.78	0.17	ELC12D121E	174-9132
150	± 10%	1.67	0.19	ELC12D151E	174-9133
180	± 10%	1.58	0.21	ELC12D181E	174-9135
220	± 10%	1.55	0.23	ELC12D221E	174-9136
270	± 10%	1.44	0.27	ELC12D271E	174-9137
330	± 10%	1.34	0.3	ELC12D331E	174-9138
390	± 10%	1.32	0.33	ELC12D391E	174-9139
470	± 10%	1.25	0.38	ELC12D471E	174-9140
560	± 10%	1.15	0.42	ELC12D561E	174-9141
680	± 10%	0.98	0.46	ELC12D681E	174-9142
820	± 10%	0.94	0.65	ELC12D821E	174-9143
1000	± 10%	0.87	0.72	ELC12D102E	174-9144
1200	± 10%	0.86	0.83	ELC12D122E	174-9145
1500	± 10%	0.64	1.27	ELC12D152E	174-9147
1800	± 10%	0.63	1.33	ELC12D182E	174-9148
2200	± 10%	0.6	1.5	ELC12D222E	174-9149
2700	± 10%	0.54	1.89	ELC12D272E	174-9150
3300	± 10%	0.48	2.37	ELC12D332E	174-9151
3900	± 10%	0.45	2.83	ELC12D392E	174-9152

Inductance	Tolerance	Max. DC Current	DC resistance		
4700	± 10%	0.41	3.19	ELC12D472E	174-9153
5600	± 10%	0.34	4.08	ELC12D562E	174-9154
6800	± 10%	0.29	5.74	ELC12D682E	174-9155
8200	± 10%	0.28	6.34	ELC12D822E	174-9156
10000	± 10%	0.27	7.2	ELC12D103E	174-9157

546677

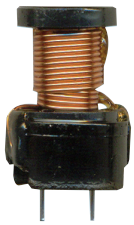
Price Each

Order Code

All Values ●

ELC16 Series

Panasonic



- High - μ and High Bm cores
- Wide inductor range
- Applications include CTV, VCR, PCs, Audio, Fax machines, Home appliance.

New

Height above PCB=23, Dia.=13
Lead length=4.5, Lead dia.=1, Fixing pitch=7.5

Inductance (μH)	Tolerance %	Max. DC Current @ 20°C (A)	DC resistance @ 20°C(Ω)	Mftrs. List No.	Order Code
3.3	± 25%	8.5	0.012	ELC16B3R3L	174-9159
3.9	± 25%	8	0.013	ELC16B3R9L	174-9161
4.7	± 20%	7.8	0.015	ELC16B4R7L	174-9162
5.6	± 20%	7.4	0.016	ELC16B5R6L	174-9163
6.8	± 20%	6.7	0.018	ELC16B6R8L	174-9164
8.2	± 20%	6.1	0.019	ELC16B8R2L	174-9165
10	± 20%	5.6	0.022	ELC16B100L	174-9166
12	± 20%	5.5	0.023	ELC16B120L	174-9167
15	± 20%	5.4	0.026	ELC16B150L	174-9168
18	± 20%	5.1	0.028	ELC16B180L	174-9169
22	± 10%	4.6	0.031	ELC16B220L	174-9170
27	± 10%	4.3	0.034	ELC16B270L	174-9172
33	± 10%	4	0.039	ELC16B330L	174-9173
39	± 10%	3.9	0.042	ELC16B390L	174-9174
47	± 10%	3.8	0.045	ELC16B470L	174-9175
56	± 10%	3.4	0.051	ELC16B560L	174-9176
68	± 10%	3.2	0.057	ELC16B680L	174-9177
82	± 10%	3	0.064	ELC16B820L	174-9178
100	± 10%	2.6	0.072	ELC16B101L	174-9179
120	± 10%	2.5	0.08	ELC16B121L	174-9180
150	± 10%	2.2	0.103	ELC16B151L	174-9181
180	± 10%	2.1	0.115	ELC16B181L	174-9182
220	± 10%	1.9	0.13	ELC16B221L	174-9184
270	± 10%	1.6	0.17	ELC16B271L	174-9185
330	± 10%	1.5	0.2	ELC16B331L	174-9186
390	± 10%	1.3	0.25	ELC16B391L	174-9187
470	± 10%	1.2	0.28	ELC16B471L	174-9188
560	± 10%	1.1	0.38	ELC16B561L	174-9189
680	± 10%	1	0.43	ELC16B681L	174-9190
820	± 10%	0.88	0.58	ELC16B821L	174-9191
1000	± 10%	0.85	0.66	ELC16B102L	174-9192
1200	± 10%	0.82	0.74	ELC16B122L	174-9193
1500	± 10%	0.74	0.87	ELC16B152L	174-9194
1800	± 10%	0.6	1.22	ELC16B182L	174-9196
2200	± 10%	0.57	1.38	ELC16B222L	174-9197
2700	± 10%	0.54	1.57	ELC16B272L	174-9198
3300	± 10%	0.47	2	ELC16B332L	174-9199
3900	± 10%	0.42	2.4	ELC16B392L	174-9200
4700	± 10%	0.36	3.3	ELC16B472L	174-9202
5600	± 10%	0.34	3.7	ELC16B562L	174-9203
6800	± 10%	0.32	4.2	ELC16B682L	174-9204
8200	± 10%	0.28	5.6	ELC16B822L	174-9205
10000	± 10%	0.26	6.4	ELC16B103L	174-9206

546678

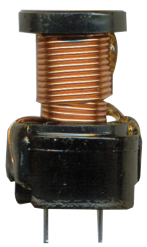
Price Each

Order Code

All Values ●

ELC18 Series

Panasonic



- High power fixed inductors for line noise filtering
- Applications include TV, VCR, PCs, Audio, Fax machines etc.

Height above PCB=27, Dia.=18
Lead length=5.0, Lead dia.=1.0, Fixing pitch=7.5

Inductance (μH)	Tolerance %	Max. DC Current @ 20°C (A)	DC resistance @ 20°C(Ω)	Mftrs. List No.	Order Code
3.3	± 20%	8.5	0.01	ELC18B3R3L	NEW 174-9207
3.9	± 20%	8	0.011	ELC18B3R9L	NEW 174-9208
4.7	± 20%	7.8	0.012	ELC18B4R7L	NEW 174-9209
5.6	± 20%	7.4	0.013	ELC18B5R6L	NEW 174-9210
6.8	± 20%	6.8	0.015	ELC18B6R8L	NEW 174-9211
8.2	± 20%	6.6	0.016	ELC18B8R2L	NEW 174-9212
10	± 20%	6.5	0.017	ELC18B100L	NEW 174-9214
12	± 20%	6	0.018	ELC18B120L	NEW 174-9215
15	± 20%	5.9	0.021	ELC18B150L	NEW 174-9216
18	± 20%	5.6	0.022	ELC18B180L	NEW 174-9217
22	± 10%	5.4	0.025	ELC18B220L	NEW 174-9218
27	± 10%	4.8	0.028	ELC18B270L	NEW 174-9219
33	± 10%	4.6	0.03	ELC18B330L	NEW 174-9220
39	± 10%	4.4	0.033	ELC18B390L	NEW 174-9221
47	± 10%	4.3	0.037	ELC18B470L	130-8470
56	± 10%	4.2	0.04	ELC18B560L	NEW 174-9222
68	± 10%	4	0.046	ELC18B680L	NEW 174-9223
82	± 10%	3.7	0.051	ELC18B820L	NEW 174-9224
100	± 10%	3.2	0.05	ELC18B101L	130-8471
120	± 10%	3	0.065	ELC18B121L	NEW 174-9226
150	± 10%	2.7	0.072	ELC18B151L	130-8472
180	± 10%	2.6	0.082	ELC18B181L	NEW 174-9227
220	± 10%	2.4	0.09	ELC18B221L	NEW 174-9228
270	± 10%	2.2	0.11	ELC18B271L	NEW 174-9229
330	± 10%	1.9	0.13	ELC18B331L	NEW 174-9230
390	± 10%	1.8	0.15	ELC18B391L	NEW 174-9231
470	± 10%	1.6	0.21	ELC18B471L	NEW 174-9232
560	± 10%	1.5	0.23	ELC18B561L	NEW 174-9233
680	± 10%	1.4	0.26	ELC18B681L	NEW 174-9234
820	± 10%	1.3	0.34	ELC18B821L	130-8473
1000	± 10%	1.1	0.39	ELC18B102L	NEW 174-9235
1200	± 10%	1	0.44	ELC18B122L	NEW 174-9236
1500	± 10%	0.85	0.58	ELC18B152L	130-8474
1800	± 10%	0.84	0.65	ELC18B182L	NEW 174-9238
2200	± 10%	0.75	0.88	ELC18B222L	NEW 174-9239
2700	± 10%	0.68	1.2	ELC18B272L	NEW 174-9240
3300	± 10%	0.6	1.4	ELC18B332L	NEW 174-9241
3900	± 10%	0.57	1.5	ELC18B392L	NEW 174-9242
4700	± 10%	0.55	1.7	ELC18B472L	NEW 174-9243
5600	± 10%	0.46	2.2	ELC18B562L	NEW 174-9244
6800	± 10%	0.45	2.8	ELC18B682L	NEW 174-9245
8200	± 10%	0.41	3.1	ELC18B822L	NEW 174-9246
10000	± 10%	0.36	3.9	ELC18B103L	130-8475

451843

Price Each

Order Code

All Values ●

N Series - ELF

Panasonic

- Fixed inductors for line noise filtering
- Covered core for use with automatic insertion equipment
- Applications include TV, VCR, PCs, Audio, Fax machines, AC adaptors etc.

Operating temperture -20°C to +115°C

Height above PCB=21.5, W=22.7, D=15
Drilling=13 x 10, Dia.=1.2

Current Rating	Min. Inductance (mH)	Mftrs. List No.	Order Code
0.4A	26	ELF15N004A	969-4218
0.5A	19	ELF15N005A	969-4226
0.7A	10	ELF15N007A	969-4234
1.1A	4	ELF15N011A	969-4242

204186

Price Each

Order Code

All Values ●

Inductors - Radial - Toko

Low Current – 8RBS/8RB Series

TOKO

- A range of fixed inductors suitable for power decoupling in logic circuits and a wide variety of LF tuned circuit applications
- Construction employs an open wound ferrite bobbin insulated by a heatshrunk sleeve
- Tolerance is ±10%.

Dia=8, H=6.2 (0.1mH to 12mH), 11.2 (22mH to 36mH),
Lead L=2.4, Dia.=0.7, Fixing pitch=5

Q>60(@ 796kHz)			Q>80(@ 252kHz)			Q>60(10-12mH) Q>100(22-36mH) @ 79.6kHz		
Inductance (mH)	Resistance (Ω)	Imax (mA)	Inductance (mH)	Resistance (Ω)	Imax (mA)	Inductance (mH)	Resistance (Ω)	Imax (mA)
0.1	2	200	1	9	50	10	55	20
0.22	3	150	2.2	14	50	22	80	30
			4.7	32	40	27	80	30

204071

Price Each

Inductance mH	Order Code
0.1	**119-3611** ●
0.22	**119-3613** ●
1	**119-3615** ●
2.2	**119-3616** ●
4.7	**119-3617** ●
10	**119-3619** ●
22	**119-3621** ●
27	**119-3622** ●

Inductors - Radial - Toko - continued

Low Current – 10RB Series

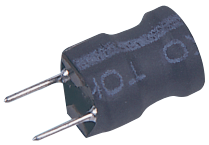
Inductance (mH)	Resistance (Ω)	Imax (mA)
47	52	13
56	58	12
100	82	9
120	97	8

Dia=10.5, H=14, Lead=4
Lead Dia.=0.7, Fixing pitch=5
Q >100 @ 50kHz

204073

Inductance mH	Order Code	Price Each
47	**119-3626**	
56	**119-3627**	
100	**119-3630**	
120	**119-3631**	

8RHB Series



- Fixed inductor for noise filtering applications in power supplies used in computers, TV etc
- Low profile and high saturation flux density ferrite core insulated with a heatshrunk sleeve.

Tolerance ±10%

Dia=8.5, H=11
Lead L=5, Dia=0.62, Fixing pitch=5

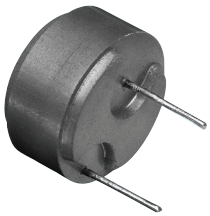
Inductance µH	Resistance Ω	Imax (A)	Q min	Q Test freq (MHz)	Order Code
47	0.16	1.4	30	2.52	119-3632
100	0.28	0.91	20	0.796	119-3633
220	0.68	0.64	20	0.796	119-3634
470	1.1	0.46	20	0.796	119-3635
1000	2.9	0.29	50	0.796	119-3637

204072

Inductance µH	Order Code	Price Each
47	**119-3632**	
100	**119-3633**	
220	**119-3634**	
470	**119-3635**	
1000	**119-3637**	

Inductors - Radial - Vishay

IHTH-0750JZ Series



- Shielded construction
- Frequency range up to 1.0 MHz
- Handles high transient current spikes without saturation
- Ultra low buzz noise, due to composite construction
- Tolerance ± 20%

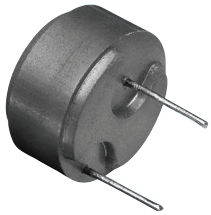
Body Dia.= 20.47mm, Height (Without Legs) = 9.52mm

Inductance (µH)	Heat Current A	Resistance Typ. Ω	Lead Spacing (mm)	Lead Dia. (mm)	Lead Length (mm)
0.47	60	0.47	8.91	2.1	4.19
4.7	22	2.52	11.78	1.67	4.19
10	13	7.68	10.84	1.32	4.19
22	11.5	14.1	11.43	1.19	4.19
33	8.5	23.7	12.11	0.94	4.19
47	7	34.8	13.33	0.83	4.19
68	5.8	50	12.64	0.83	4.19
100	5	68.3	12.16	0.76	4.19

547818

Value (µH)	Current (A)	Order Code	Price Each
0.47	60	**176-4412**	
4.7	22	**176-4413**	
10	13	**176-4414**	
22	11.5	**176-4415**	
33	8.5	**176-4416**	
47	7	**176-4417**	
68	5.8	**176-4418**	
100	5	**176-4419**	

IHTH-1125MZ Series



- Shielded construction
- Frequency range up to 1.0 MHz
- Handles high transient current spikes without saturation
- Ultra low buzz noise, due to composite construction
- Tolerance ± 20%

Body Dia.= 29.95mm, Height (Without Legs) = 12.7mm

Inductance (µH)	Heat Current A	Resistance Typ. Ω	Lead Spacing (mm)	Lead Dia. (mm)	Lead Length (mm)
0.47		0.27	14.45	2.71	4.19
4.7		2.09	21.1	2.28	4.19
10		3.46	17.79	2.05	4.19
22		6.5	19.25	1.67	4.19
33		10.4	19.25	1.67	4.19
47		14.5	19.25	1.67	4.19
100		29.4	16.58	1.37	4.19

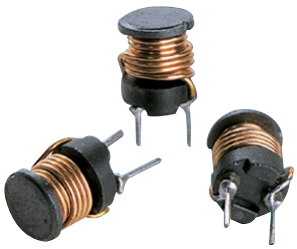
547820

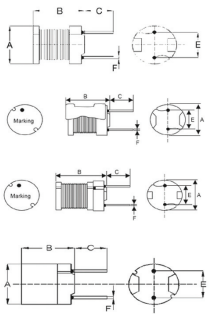
Value (µH)	Current (A)	Order Code	Price Each
0.47		**176-4420**	
4.7		**176-4422**	
10		**176-4423**	
22		**176-4424**	
33		**176-4425**	
47		**176-4426**	
100		**176-4427**	

Inductors - Radial - Würth Elektronik

Wirewound Inductor

WE-TI Series, Radial Leaded





- Low-cost storage/filtering possibility in comparison to SMD versions
- Radial through-hole inductor
- High saturation core material
- Small size
- Standardized lead spacing is 5mm
- Maximum current up to 7.5A
- Operating temperature: -40°C to +125°C
- For signal filtering, NF-switches, switches, switching power supply for small and medium voltage, power supply filter

Dimensions (mm)					
A	B	C	D	E	∅ F
7.8	9.5	5	3	5	0.7 typ.

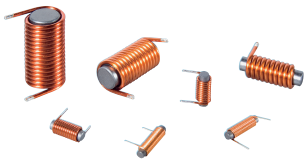
Inductance (µH)	Tolerance	R_{DC} (Ω)	I_{DC} (A)	Mftrs. List No.	Order Code
1	± 20%	0.006	7.5	744772010	163-5794
4.7	± 20%	0.018	4	744772047	163-5795
10	± 20%	0.04	2.6	744772100	163-5796
22	± 10%	0.055	2.3	744772220	163-5798
47	± 10%	0.1	1.3	744772470	163-5799
100	± 10%	0.19	0.9	744772101	163-5800
470	± 10%	0.89	0.43	744772471	163-5801
1000	± 10%	1.84	0.3	744772102	163-5802
10000	± 10%	24	0.14	744772103	163-5804

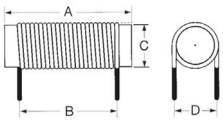
521169

Inductance (µH)	Order Code	Price Each
1	**163-5794**	
4.7	**163-5795**	
10	**163-5796**	
22	**163-5798**	
47	**163-5799**	
100	**163-5800**	
470	**163-5801**	
1000	**163-5802**	
10000	**163-5804**	

Rodcore Inductors

WE-SD Series





- Broadband screening of symmetric interferences
- High mechanical stability
- High current
- Operating temperature: -40°C to +150°C
- For noise reduction of power electronics e.g. motors and switch mode power supplies

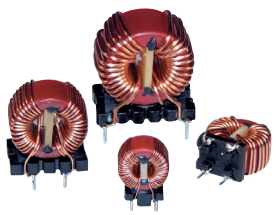
Inductance (µH)	Dimensions (mm) A	B	C	D	I_N (A)	R_{DC} (mΩ)	Mftrs. List No.	Order Code
2	12.3	7.8	2	2.6	2.5	11	744710203	163-5805
6	15.4	11.5	3	3.6	2.5	22	744710603	163-5806
10	18.5	13.5	4	4.6	2.5	33	744711003	163-5807
2	14	9.7	4	4.9	5	6.5	744710205	163-5808
6	20.5	14.8	5	5.9	5	11.7	744710605	163-5809
10	22.5	19	5	5.9	5	15.1	744711005	163-5810
2	15.4	12.2	5	6.3	10	3.8	744710210	163-5811
6	25.7	18	6	7.3	10	6.5	744710610	163-5812
10	30.9	24.9	6	7.3	10	8.8	744711010	163-5813
2	25.7	17.5	6	8	15	1.7	744710215	163-5814
6	30	24.9	10	12	15	3.5	744710615	163-5816
10	30.8	29.2	12	14	15	5.7	744711015	163-5817

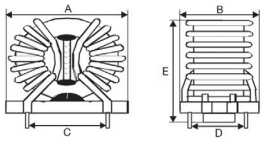
521492

Inductance (µH)	Order Code	Price Each
2	**163-5805**	
6	**163-5806**	
10	**163-5807**	
2	**163-5808**	
6	**163-5809**	
10	**163-5810**	
2	**163-5811**	
6	**163-5812**	
10	**163-5813**	
2	**163-5814**	
6	**163-5816**	
10	**163-5817**	

Chokes - Current Compensated

WE-CMB Series





- High suppression of asymmetric interferences even at low frequencies
- Broadband screening because of anticapacitance coiling technique
- Very compact design
- Highest possible current with small sizes
- For Power electronics, Power line in- and output filter, filtering of devices without a stable ground connection
- Radio interference suppression in motors

	Dimensions (mm) A	B	C	D	E	F	G
Type XS	15	7.5	10	4.5	18	2.5	0.7
Type S	17.5	13	7.7	5	7.6	22	3
Type M	23	17	7.5	10.7	28	3	0.7
Type L	27.5	18.5	10	12	33	5	1
Type XL	30	21	25	15	35	5	1
Type XXL	43	23.5	10.5	18.5	43	3	1.5
NiZn Type XS	16	7.5	10	4.5	17.5	-	-

Inductance (mH)	R_{DC} typ. (mΩ)	Current rating (A)	Mftrs. List No.	Order Code
Type XS				
1	45	2	744821201	163-6278
4	140	1.5	744821240	163-6279
10	350	0.7	744821110	163-6280
20	1000	0.5	744821120	163-6281
39	3000	0.3	744821039	163-6282
Type S				
1	35	3	744822301	163-6283
3.3	120	1.5	744822233	163-6284
10	360	1	744822110	163-6286
16	3	10	7448421016	NEW 174-8619
20	540	0.5	744822120	163-6287
32	5	8.5	744842932	NEW 174-8620
42	8	6.5	744842742	NEW 174-8621
65	13	5	744842565	NEW 174-8623
110	31	3	744842311	NEW 174-8624
Type M				
1	13	6	744823601	163-6288
3.3	60	2.5	744823333	163-6289
10	125	2	744823210	163-6290
20	270	1.5	744823220	163-6291
Type L				
1	7	10	744824101	163-6292
2.2	20	6	744824622	163-6293
3.3	35	4	744824433	163-6294
10	105	3	744824310	163-6295
20	220	2	744824220	163-6296
Type XL				
1	9	12	7448251201	163-6298
3.3	25	6	7448256033	163-6299
10	55	5	744825510	163-6300
20	160	3	744825320	163-6301
Type XXL				
1.8	7.9	14	7448261418	163-6302
1.3	4.7	20	7448262013	163-6304
1	3.6	25	7448262510	163-6305
0.5	1.7	35	7448263505	163-6306
Type NiZn XS				
14	15	4	744841414	163-6307
30	26	3	744841330	163-6308
47	40	2	744841247	163-6309
100	80	1.5	744841210	163-6310

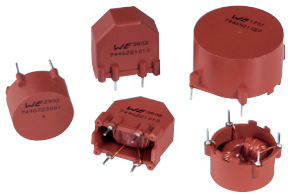
522496

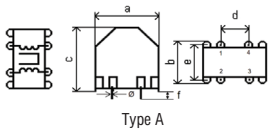
	Order Code	Price Each
Type XS	**All Values**	
Type S	**All Values**	
Type M	**All Values**	
Type L	**All Values**	
Type XL	**All Values**	
Type XXL	**All Values**	
Type NiZn-XS	**All Values**	

Chokes - Common Mode

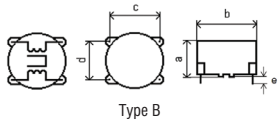
WE-LF Series

New





Type A



Type B

	Dimensions (mm) A	B	C	D	E	F	ø
Type A							
Type SV	18.5	13.5	20.5	15	10	3	0.6 x 0.6
Type MV	23.5	16	25.5	10	12.5	3	0.6 x 0.6
Type LV	26.5	18.5	30.5	12.5	15	3	0.6 x 0.6
Type XV	32.5	21.5	35.5	12.5	17.5	5	0.8 x 0.8
Type B							
Type SH	13	18	15	10	3	—	0.6 x 0.6
Type MH	14.5	23	20	12.5	3	—	0.6 x 0.6
Type LH	17	28.5	25.2	15.1	3	—	0.6 x 0.6
Type XH	20	33.5	30.2	20.1	3.5	—	0.8 x 0.8

Inductance (mH)	R_{DC} typ.	Current rating	Mftrs. List No.	Order Code
Type SV				
0.4	20 mohm	3.6 A	74461240004	174-8625
1	60 mohm	2 A	7446122001	174-8626
3.3	150 mohm	1.5 A	7446122003	174-8627
6.8	300 mohm	1 A	7446121007	174-8628
10	550 mohm	700 mA	7446121010	174-8629
18	750 mohm	500 mA	7446121018	174-8630
27	1.2 ohm	400 mA	7446120027	174-8631
39	1.7 ohm	400 mA	7446120039	174-8632
47	2.6 ohm	300 mA	7446120047	174-8633
Type MV				
0.7	20 mohm	4.7 A	74462250007	174-8635
1	40 mohm	3 A	7446223001	174-8636
2.2	60 mohm	2 A	7446222002	174-8637
3.3	75 mohm	2 A	7446222003	174-8638
4.2	120 mohm	2 A	7446222004	174-8639
6.8	200 mohm	1.5 A	7446222007	174-8640
10	250 mohm	1.3 A	7446221010	174-8641
12	280 mohm	1.2 A	7446221012	174-8642
27	700 mohm	600 mA	7446221027	174-8643
47	1.6 ohm	400 mA	7446220047	174-8644
Type LV				
2.7	60 mohm	3 A	7446323003	174-8645
6.8	160 mohm	1.9 A	7446322007	174-8647
10	180 mohm	1.9 A	7446322010	174-8648
33	850 mohm	800 mA	7446321033	174-8649

Inductors - Radial - Würth Elektronik - continued

Chokes - Common Mode - continued

WE-LF Series - continued

Inductance (mH)	R_{DC} typ.	Current rating	Mftrs. List No.	Order Code
Type XV				
2.2	38 mohm	4.3 A	7446424002	174-8650
3.3	65 mohm	4 A	7446424003	174-8651
6.8	120 mohm	2.5 A	7446422007	174-8652
Type SH				
0.7	27 mohm	4 A	74466240007	174-8653
1	60 mohm	2 A	7446622001	174-8654
2.2	95 mohm	2 A	7446622002	174-8655
3.3	150 mohm	1.5 A	7446622003	174-8656
6.8	300 mohm	1 A	7446621007	174-8657
10	550 mohm	700 mA	7446621010	174-8659
15	830 mohm	500 mA	7446620015	174-8661
27	1.2 ohm	400 mA	7446620027	174-8662
39	1.7 ohm	400 mA	7446620039	174-8663
Type MH				
1.2	40 mohm	3 A	7446723001	174-8664
2.2	60 mohm	2 A	7446722002	174-8665
4.2	120 mohm	1.9 A	7446722004	174-8666
6.8	200 mohm	1.5 A	7446722007	174-8667
10	250 mohm	1.3 A	7446721010	174-8668
27	700 mohm	600 mA	7446721027	174-8669
47	1.6 ohm	400 mA	7446720047	174-8670
Type LH				
2.7	60 mohm	3 A	7446823003	174-8672
5.6	100 mohm	2.4 A	7446823006	174-8673
27	640 mohm	1 A	7446821027	174-8674
Type XH				
1.8	30 mohm	6 A	7446926002	174-8675
3.3	65 mohm	4 A	7446924003	174-8676
10	110 mohm	3 A	7446923010	174-8677
27	400 mohm	1.2 A	7446921027	174-8678

544557

	Order Code	Price Each
Type SV	**All Values**	
Type MV	**All Values**	
Type LV	**All Values**	
Type XV	**All Values**	
Type SH	**All Values**	
Type MH	**All Values**	
Type LH	**All Values**	
Type XH	**All Values**	

Common mode choke assortment

WE-CMB series

- Assortment of general purpose WE-CMB common mode chokes

Kit contains:

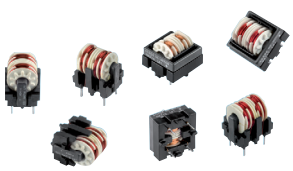
- 10 values, 4 pieces
- 5 values, 3 pieces
- 10 values, 2 pieces
- 5 values, 1 piece

523258

Mftrs. List No.	Order Code	Price Each
744820	**163-6342**	

Chokes - Current Compensated

WE-FC Series, Power Line



- Closed rectangular ferrite core
- 2-section winding for excellent high frequency performance
- 1% stray inductance for symmetrical interference suppression
- Recyclable due to no encapsulation
- Rated Voltage 250VAC
- Operating temperature -25°C up to +125°C
- Isolation voltage 2000 VAC
- For Switch Mode Power Supplies and electronic ballasts for lamps

Inductance min. (mH)	R_{DC} typ. (Ω)	Current rating (A)	Mftrs. List No.	Order Code
0.82	0.065	2	7448640395	163-6311
1.8	0.15	1.5	7448640396	163-6312
3.3	0.25	1.1	7448640398	163-6313
6.8	0.48	0.8	7448640401	163-6314
10	0.72	0.6	7448640402	163-6316
22	1.61	0.4	7448640404	163-6317
33	2	0.3	7448640405	163-6318
0.82	0.065	2	7448640406	163-6319
3.3	0.21	1.2	7448640411	163-6320
6.8	0.47	0.7	7448640414	163-6321
10	0.71	0.6	7448640415	163-6322
22	1.64	0.4	7448640417	163-6324
33	2.5	0.3	7448640418	163-6325

522905

Inductance min. (mH)	Order Code	Price Each
0.82	**163-6311**	
1.8	**163-6312**	
3.3	**163-6313**	
6.8	**163-6314**	
10	**163-6316**	
22	**163-6317**	
33	**163-6318**	
0.82	**163-6319**	
3.3	**163-6320**	
6.8	**163-6321**	
10	**163-6322**	
22	**163-6324**	
33	**163-6325**	

Cable Ferrites - Multicomp

EMI Sleeves

- Ferrite sleeves which will provide attenuation of EMI on power and data cables, without affecting data transmitted through the cable
- Suitable for use on computers, peripherals, digital audio systems etc.

Note: To enable the cable to pass smoothly through the sleeve an allowance should be made for tolerances in the OD of the cable and the ID of the sleeve.

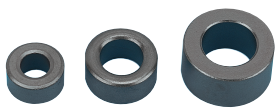
Dimensions OD	ID	H	Min. Impedance (Ω) 25MHz	100MHz	Order Code
14.2	6.35	28.5	130	185	964-0495
14.2	7.0	28.5	130	210	964-0509
16	9.0	17	60	140	964-0517
14.2	8.0	28.5	110	210	964-0525
17.5	9.5	28.5	90	150	964-0533
17.5	10.7	28.5	90	160	964-0541
26	13	28.5	130	200	964-0550

204153

Order Multiple=5

ID x H	Order Code	Price Each
6.35 x 28.5	**964-0495**	
7.0 x 28.5	**964-0509**	
9.0 x 17	**964-0517**	
8.0 x 28.5	**964-0525**	
9.5 x 28.5	**964-0533**	
10.7 x 28.5	**964-0541**	
13 x 28.5	**964-0550**	

EMI Cores



- Toroidal ferrite cores which attenuate electrical noise in signal and data cables
- Applications include digital audio systems, computers and peripherals and any sensitive electronic equipment

Dimensions OD	ID	H	Typical Impedance (Ω) 25MHz	100MHz	Order Code
16	10	14	40	125	964-0380
20	10	10	45	120	964-0398
25	15	12	40	120	964-0401
28	16	13	50	120	964-0410
28	16	20	70	130	964-0428
31.5	19	16	55	115	964-0436

204208

Order Multiple=5

Order Code	Price Each
964-0380	
964-0398	
964-0401	
964-0410	
964-0428	
964-0436	

Rods

FERROXCUBE

New

Dimensions (mm) External Dia	Length	Mftrs. List No.	Ferrite Grade	Order Code
1.5	10	ROD1.5/10-3C90	3C90	178-4202
3	14	ROD3/14-4B1	4B1	178-4203
4	15	ROD4/15-4B1	4B1	178-4204
5	16	ROD5/16-4B1	4B1	178-4205
4	20	ROD4/20-3C90	3C90	178-4206
5	20	ROD5/20-3C90	3C90	178-4207
5	20	ROD5/20-4B1	4B1	178-4208
6	20	ROD6/20-3C90	3C90	178-4209
6	20	ROD6/20-4B1	4B1	178-4210
10	20	ROD10/20-4B1	4B1	178-4211
4	21	ROD4/21-4B1	4B1	178-4212
5	25	ROD5/25-4B1	4B1	178-4214
6	25	ROD6/25-3C90	3C90	178-4215
8	25	ROD8/25-3C90	3C90	178-4216
10	25	ROD10/25-4B1	4B1	178-4217

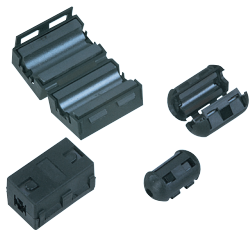
600672

Price Each

Order Code
178-4202
178-4203
178-4204
178-4205
178-4206
178-4207
178-4208
178-4209
178-4210
178-4211
178-4212
178-4214
178-4215
178-4216
178-4217

Hinged Clamp Cores

multicomp



- A range of easy to fit data line filters providing a simple solution to the problems of radiated noise emissions generated by electronic equipment
- The filter simply clips around the cable to be shielded and locks closed with no need to disconnect the cable or remove connectors
- No grounding is required unlike cable shields.

Frequency range	10MHz to 300MHz
Insulation resistance	10MΩ (min) between case and cores
Case material	Black Nylon 66

Cable Diameter	Typical Impedance (Ω) 25MHz	100MHz	Dimensions L	W	H	Order Code
6.5	135	220	32	19.5	19	964-0444
10	90	190	32	24.5	23	964-0452
13	105	190	32	31.5	30	964-0460
			L	Dia		
Oval						
3.5	4.5	115	25.2	14.5		964-0479
5.0	45	115	29.6	16		964-0487

204024

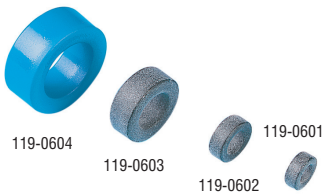
	Cable Diameter	Order Code	Price Each
Rectangular			
LF-65B	6.5	**964-0444**	
LF-100B	10	**964-0452**	
LF-130B	13	**964-0460**	
Oval			
LF35B	3.5	**964-0479**	
LF50B	5.0	**964-0487**	

Cable Ferrites - Epcos

Toroids

Epoxy Coated

EPCOS



- Epoxy coating provides higher mechanical strength
- Applications include pulse, small signal, power transformers and EMI suppression chokes

Dimensions da	di	h	Material Grade	le (mm)	Ae (mm^2)	AL ± 25% (nH)	Mftrs. List No.	Order Code
6.30	3.80	2.5	N30	15.21	3.06	1090	B64290P37X830	142-2733
10.0	6.0	4	N30	24.07	7.83	1760	B64290L38X830	142-2735
12.5	7.5	5	N30	30.09	12.23	2200	B64290L44X830	119-0601
16	9.6	6.3	N30	38.52	19.73	2770	B64290L45X830	119-0602
25.3	14.8	10	N27	60.07	76.89	2150	B64290L618X27	119-0603
25.3	14.8	10	N30	60.07	51.26	4620	B64290L618X830	142-2734
25.3	14.8	10	T37	60.07	51.26	6970	B64290L618X37	142-2736
25.3	14.8	10	T38	60.07	21.26	10700	B64290L618X38	142-2737
36	23	15	N30	89.65	95.89	5750	B64290L674X830	119-0604

228157

Price Each

Order Code
119-0601
119-0602
119-0603
119-0604
142-2733
142-2734
142-2735
142-2736
142-2737

Cable Ferrites - Ferroxcube

Ferroxcube Magnetic Materials

FERROXCUBE

- Ferroxcube have developed a new ferrite material for their new range of cable shielding products. 3S4 is a new high resistivity manganese zinc ferrite which offers excellent interference suppression into the high MHz regions. 3S4 is **Nickel Free** to protect the environment.
- Available in 2 materials, 3S4 and 4S2

213823

Tubular Cable Shields

FERROXCUBE

- Tubular ferrite cable shields
- Available in 2 material grades, 3S2 and 4S2
- Provide attenuation of RFI over a wide frequency range
- Cost effective as they reduce the need for more complex shielding measures or costly PCB re-designs

Dimensions O/D	I/D	H	Type Impedance (Ω) 25MHz	100MHz	Mftrs. List No.	Order Code
3S4 Material						
8	5.3	10	32	50	CST7.8/5.3/9.8-3S4	898-340
8.3	3.5	10	70	96	CST8.3/3.5/10-3S4	898-351
9.5	5.1	14	66	110	CST9.5/5.1/15-3S4	898-363
17.2	11	60	200	320	CST17/11/60-3S4	898-375
17.45	9.53	12.7	55	88	CST17/9.5/13-3S4	898-387
17.45	9.53	28.55	125	200	CST17/9.5/29-3S4	898-399
19	10.6	11.5	50	75	CST19/11/12-3S4	898-405
4S2 Material						
9.5	4.75	10.4	53	80	CST9.5/4.8/10-4S2	898-429
9.5	4.75	19.05	100	145	CST9.5/4.8/19-4S2	898-430
9.65	5.0	5.05	26	43	CST9.7/5/5.1-4S2	898-442
14.3	6.35	28.6	170	250	CST14/6.4/29-4S2	898-454
14.3	7.25	28.6	143	215	CST14/7.3/29-4S2	898-466
16.25	7.9	14.3	70	113	CST16/7.9/14-4S2	898-478
16.25	7.9	28.6	130	213	CST16/7.9/29-4S2	898-480
17.45	9.5	12.7	55	88	CST17/9.5/13-4S2	898-491
19	10.15	28.6	128	196	CST19/10/29-4S2	898-510
25.9	12.8	28.6	145	225	CST26/13/29-4S2	898-521

204115

Order Multiple=5 **Price Each**

ID x H	Order Code
3S4 Material	
5.3 x 10	**898-340**
3.5 x 10	**898-351**
5.1 x 14	**898-363**
11 x 60	**898-375**

Cable Ferrites - Ferroxcube - continued

Tubular Cable Shields - continued

Order Multiple=5		Price Each
ID x H	Order Code	
3S4 Material		
9.53 x 12.7	**898-387**	
9.53 x 28.55	**898-399**	
10.6 x 11.5	**898-405**	
4S2 Material		
4.75 x 10.4	**898-429**	
4.75 x 19.05	**898-430**	
5.0 x 5.05	**898-442**	
6.35 x 28.6	**898-454**	
7.25 x 28.6	**898-466**	
7.9 x 14.3	**898-478**	
7.9 x 28.6	**898-480**	
9.5 x 12.7	**898-491**	
10.15 x 28.6	**898-510**	
12.8 x 28.6	**898-521**	

Ferrite Toroids

FERROXCUBE

New

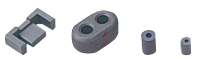
Dimensions (mm) External Dia	Internal Dia	H	le (mm)	Ae (mm^2)	Mftrs. List No.	Ferrite Grade	Order Code
9.5	5.4	3.4	22.9	4.4	TN9/6/3-3R1	3R1	179-441
9.4	5.5	3.4	22.9	4.44	TN9/6/3-4C65	4C65	200-694
10.25	5.75	4.25	24.1	7.8	TX10/6/4-3E5	3E5	305-6960
12.95	6.9	5.03	29.5	12.3	TX13/7.1/4.8-3E27	3E27	178-4168
13.25	7.35	5.7	30.1	12.2	TN13/7.5/5-3C90	3C85	178-504
12.75	7.25	5.25	30.1	12.2	TX13/7.5/5-3C90	3C90	178-4169
14.6	8.2	5.5	35	12.3	TN14/9/5-3R1	3R1	179-442
14.5	8.4	5.5	35	12.3	TN14/9/5-4C65	4C65	180-008
16.13	8.82	4.95	37.2	14.7	TX16/9.1/4.7-3C90	3C90	178-4170
16.13	8.82	4.95	37.2	14.7	TX16/9.1/4.7-3E27	3E27	178-4172
22.35	13.47	6.75	54.2	24.8	TX22/14/6.4-3C90	3C90	178-4173
22.35	13.47	6.75	54.2	24.8	TX22/14/6.4-3E27	3E27	178-4174
23.7	13.1	7.5	55.8	30.9	TN23/14/7-3E25	3E25	305-6971
23.7	13.1	7.5	55.8	30.9	TN23/14/7-3R1	3R1	179-443
23.6	13.4	7.6	55	30.9	TN23/14/7-4C65	4C65	180-009
25.8	14	10.6	60.2	48.9	TN25/15/10-3E25	3E25	305-6995
25.25	14.75	10.25	60.2	48.9	TX25/15/10-3E5	3E5	305-6983
25.25	14.75	10.4	60.2	48.9	TX25/15/10-3C90	3C90	178-4175
					TX26/15/20-3C90	3C90	178-4176
29.25	18.75	7.85	73.2	35.5	TX29/19/7.6-3E27	3E27	178-4177
32.2	18.1	13	76	76.5	TN32/19/13-3E25	3E25	305-7008
					TX32/19/15-3C90	3C90	178-4178
					TX34/21/13-3E27	3E27	178-4179
36.25	22.75	10.42	89.7	64.9	TX36/23/10-3C90	3C90	178-4180
36.25	22.75	10.42	89.7	64.9	TX36/23/10-3E27	3E27	178-4181
36.9	21.9	15.7	89.6	95.9	TX36/23/15-3E25	3E25	305-7021
36.25	22.75	15.25	89.6	95.9	TX36/23/15-3E5	3E5	305-7010
36.9	21.9	15.7	89.6	95.9	TN36/23/15-3R1	3R1	179-444
39.1	19.3	13.2	84.9	112	TX39/20/13-3C90	3C90	178-4182
39.1	19.3	13.2	84.9	112	TX39/20/13-3E27	3E27	178-4184
40.25	23.75	16.4	96.3	125	TX40/24/16-3C90	3C90	178-4185
40.25	23.75	16.4	96.3	125	TX40/24/16-3E27	3E27	178-4186
42.05	25.95	13	103	95.8	TX42/26/13-3C90	3C90	178-4187
42.05	25.95	13	103	95.8	TX42/26/13-3E27	3E27	178-4188
					TX51/32/11-3E27	3E27	178-4189
55.8	32.1	18.3	132	202	TX55/32/18-3E27	3E27	178-4190
58.7	40.5	17.9	152	152	TX58/41/18-3C90	3C90	178-4191
63.4	37.7	25.3	152	306	TX63/38/25-3C90	3C90	178-4192
63.4	37.7	25.3	152	306	TX63/38/25-3E27	3E27	178-4193
73.91	38.61	12.95	165	208	TX74/39/13-3C90	3C90	178-4194
80.4	39.7	15.3	174	288	TX80/40/15-3C90	3C90	178-4196
80.4	39.7	15.3	174	288	TX80/40/15-3E27	3E27	178-4197
87.4	54	13.8	214	217	TX87/54/14-3C90	3C90	178-4198
					TX100/66/24-3C90	3C90	178-4199
140.4	105.7	25.3	382	422	TX140/106/25-3C90	3C90	178-4200

600587

Order Code	Price Each
179-441	
200-694	
305-6960	
178-4168	
178-504	
178-4169	
179-442	
180-008	
178-4170	
178-4172	
178-4173	
178-4174	
305-6971	
179-443	
180-009	
305-6995	
305-6983	
178-4175	
178-4176	
178-4177	
305-7008	
178-4178	
178-4179	
178-4180	
178-4181	
305-7021	
305-7010	
179-444	
178-4182	
178-4184	
178-4185	
178-4186	
178-4187	
178-4188	
178-4189	
178-4190	
178-4191	
178-4192	
178-4193	
178-4194	
178-4196	
178-4197	
178-4198	
178-4199	
178-4200	

Cores, Tubes and Beads

FERROXCUBE



- Small ferrite tubes and beads for placing on insulated cables or formed wire leads to obtain a desired value of inductance.

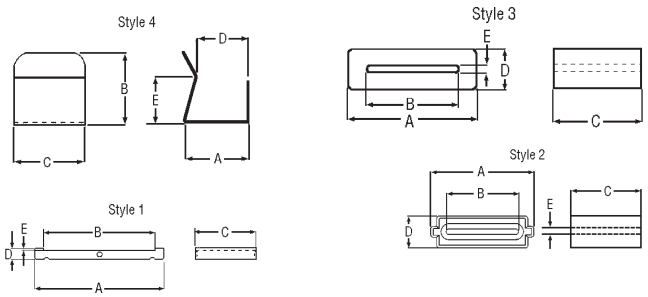
Order Multiple=10			Price Each
Cores			
Material	Dimensions	Order Code	
Double Aperture Cores (2 x 1.8mm)			
	10.8 x 10.9 x 5.4	**120-6471**	
Double Aperture Cores (3mm Round)			
	13 x 6 x 8	**242-512**	
	13 x 6 x 8	**242-494**	

204240

Order Multiple=10					Price Each
Tubes		Dimensions			
Single Hole	Material	Ext Dia.	L	Order Code	
2.0mm dia.		4.15	5	**273-156**	
1.5mm dia.		4.05	5.5	**242-482**	
Beads					
Single Hole					
2.0mm dia.		5	4	**242-524**	
1.0mm dia.		3	4	**242-500**	
Six Hole					
0.6mm dia.		6.3	10.5	**219-850**	

Ribbon Cable Cores

FERROXCUBE



- Cable Shields for ribbon cable applications
- 1 piece shields suitable for fitting in production runs
- 2 piece shields for retro fitting in test houses and laboratories
- Excellent attenuation over a wide frequency range
- Manufactured from **nickel free** 3S4 material

Style	Dimensions A	B	C	D	E	Impedance (Ω) 25MHz	100MHz	Mftrs. List No.	Code
1	76.2	65.3	12.7	6.35	0.85	36	110	CSU76/6.4/13-3S4	898-545
1	76.2	65.3	15	6.35	0.85	50	159	CSU76/6.4/15-3S4	898-557
1	76.2	65.3	28.6	6.35	0.85	70	235	CSU76/6.4/29-3S4	898-569
4	38.5	11	12.7	11.4	8	-	-	CLI-CSU6.4	898-570
2	38.5	26.7	25.4	12.1	1.9	110	215	CSF38/12/25-3S4-S	898-582
3	38.1	26.7	25.4	12.1	1.9	98	196	CSF38/12/25-3S4	898-594

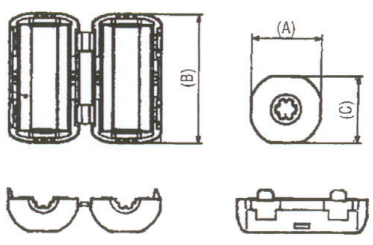
227238

Style	C' Dimension	Order Code	Price Each
1	12.7	898-545	
1	15	898-557	
1	28.6	898-569	
Clip			Price Per Clip
4	-	898-570	
			Price Each
2	25.4	898-582	
3	25.4	898-594	

Cable Ferrites - Kitagawa

Hinged Clamp Cores

MEC KITAGAWA



- Employs high-performance Nickel-Zinc ferrites
- Nylon 6/6 cases are UL94V-0 (except TRCN series UL94V-2)
- SFC/RFC and USB series employ patented designs to ensure tight grip of the cable and secure closure
- USB series has a been designed to provide high impedance over a wide frequency range
- Available in both natural and black colours

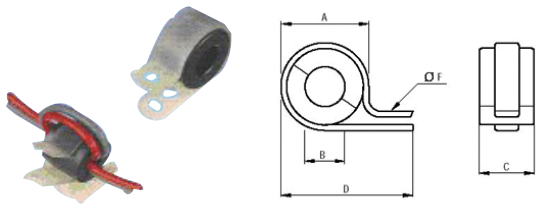
Dimensions (mm) Width	Depth	H	Min. Impedance (Ω) 25MHz	100MHz	Mftrs List No.	Order Code
13.4	13.2	18.9	45	80	SFC-3	941-5688
13.9	13.6	27	122	168	USB-4	941-5700
16.3	15	29.5	96	138	SFC-4	941-5718
21	17.5	32	177	242	SFC-5	941-5726
23.5	20	32	139	207	SFC-6	941-5734
23.5	20	32	137	204	SFC-8	941-5742
32.6	29	32	149	266	SFC-10	941-5750
31.7	29.4	41	200	270	RFC-H13	941-5769

411299

Mftrs List No.	Order Code	Price Each
SFC-3	941-5688	
USB-4	941-5700	
SFC-4	941-5718	
SFC-5	941-5726	
SFC-6	941-5734	
SFC-8	941-5742	
SFC-10	941-5750	
RFC-H13	941-5769	

Split Ferrite Cores

MEC KITAGAWA



- A high performance range of split ferrite cores which can be panel mounted
- Ideal for fitting on pre-assembled cables
- Suitable for single and multiple cables
- Cables can be multi-turned to increase performance

Dimensions (mm) Dia. External	Dia. Internal	H	Mftrs List No.	Order Code
19.4	8.2	30.2	TRCN-16-8-13	941-5777
19.4	8.2	30.2	TRCN-16-8-16	941-5785
25.7	10.4	38.2	TRCN-20-10-10	941-5793
26.8	11.4	39.4	TRCN-23-11-14	941-5807
32.8	16.4	45	TRCN-28-16-13	941-5815
32.8	16.4	45	TRCN-28-16-20	941-5823
44.6	27.4	57.3	TRCN-40-27-15	941-5831

411301

Mftrs List No.	Order Code	Price Each
TRCN-16-8-13	941-5777	
TRCN-16-8-16	941-5785	
TRCN-20-10-10	941-5793	
TRCN-23-11-14	941-5807	
TRCN-28-16-13	941-5815	
TRCN-28-16-20	941-5823	
TRCN-40-27-15	941-5831	

Hinged P'Cores

MEC KITAGAWA

A high quality range of easy fit hinged ferrite clamps with the unique feature of beingable to panel mount the units using a 3mm screw and/or adhesive tape. The unitsemploy high performance Nickel-Zinc ferrites giving them high performance againsthigh frequency noise. Suitable for single or multiple cables.

Fig. 3

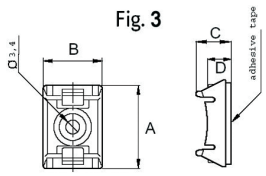


Fig. 1

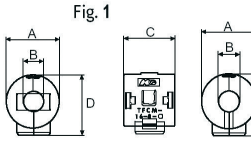
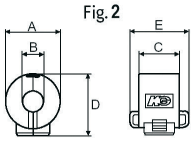


Fig. 2



Dimensions (mm) Dia. External	Dia. Internal	H	Min. Impedance (Ω) 25MHz	100MHz	Mftrs List No.	Order Code
Hinged Ferrite Clamps						
19.8	7.6	26.1	73	139	TFCM-16-8-16	941-5840
24.2	8.8	30.7	47	92	TFC-20-10-10	941-5858
27.4	10.8	33.9	72	132	TFC-23-11-14	941-5866
28.6	13.6	35.2	41	88	TFC-25-15-12	941-5874
Mounting Parts						
20	13.5	4.8	With adhesive tape		TFP2014-T-	941-5882
20	13.5	4.8	For 3mm screw		TFP2014-V	941-5890

Cable Ferrites - Kitagawa - continued

Hinged P'Cores - continued

411300

Mftrs List No.	Order Code	Price Each
Hinged Ferrite Clamps		
TFCM-16-8-16	**941-5840**	
TFC-20-10-10	**941-5858**	
TFC-23-11-14	**941-5866**	
TFC-25-15-12	**941-5874**	
Mounting Parts		
TFP2014-T-	**941-5882**	
TFP2014-V	**941-5890**	

Note: The plastic case has UL94V-0 approval.

One Piece Flat Cable Cores

MEC KITAGAWA

- High performance nickel zinc ferrite material
- Suitable for flat printed circuit cables and ribbon cables
- Offer good attenuation over wide frequency range
- PVC mounting brackets parts with adhesive backing for stabilising on flat cable

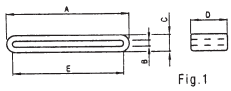
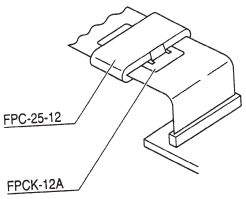


Fig.1

Style 1



PVC Mounted

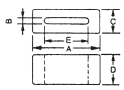


Fig.2

Style 2

Style	Dimensions A	B	C	D	E	Impedance (Ω) 25MHz	100MHz	Mftrs. List No.	Order Code
1	16	0.5	5	12	11.5	42	79	FPC-16-12K	353-8345
1	24.5	0.5	5	12	20	30	65	FPC-25-12K	353-8357
1	31	0.5	5	12	27	26	66	FPC-31-12K	353-8369
2	21	1.3	6.8	15	15	60	75	SSC-21-6.8-8B	353-8382
1	33.5	1.3	6.5	20	27	50	90	SSC-33.5-20M	353-8394
1	40	1.3	6.5	10	35	23	54	SSC-40-10M	353-8400
1	40	1.3	6.5	12	35	27	60	SSC-40-12M	353-8412
1	45.2	1.3	6.5	12	40	26	61	SSC-45-12M	353-8424
1	45.2	1.3	6.5	8	40	19	46	SSC-45-8M	353-8436
1	49.6	1.3	6.5	12	44	25	64	SSC-50-12	353-8448
1	57.6	1.3	6.5	12	52	25	63	SSC-58-12M	353-8450

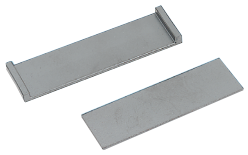
Adhesive PVC Mounts No. of stops	Application Cores	Mftrs. List No.	Order Code
2	FPC-16-12, FPC-25-12	FPCK-12A	353-8722
4	FPC-31-12, FPC-56-12	FPCK-12B	353-8734

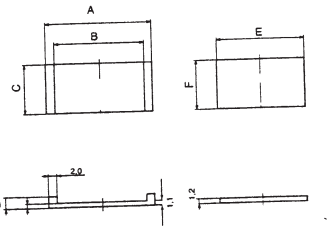
227234

Style	'D' Dimension	Order Code	Price Each
1	12	**353-8345**	
1	12	**353-8357**	
1	12	**353-8369**	
2	15	**353-8382**	
1	20	**353-8394**	
1	10	**353-8400**	
1	12	**353-8412**	
1	12	**353-8424**	
1	8	**353-8436**	
1	12	**353-8448**	
1	12	**353-8450**	
2 stop PVC Mount		**353-8722**	
4 stop PVC mount		**353-8734**	

Two Piece Flat Cable Cores

MEC KITAGAWA





- Unique construction permits close mounting to FPC cable providing high attenuation over a wide frequency range
- Maintains uniform performance across the full width of cable
- Can be installed before of after product assembly

Max Cable Width	Dimensions A	B	C	D	E	F	Impedance (Ω) 25MHz	100MHz	Mftrs. List No.	Order Code
20.5	25.0	21.0	12.0	2.8	20.5	12.0	25	56	FPO-25-12-3	353-8321

227236

Cable Width	Order Code	Price Each
20.5	**353-8321**	

'D' Connector Ferrite Plate

MEC KITAGAWA

- Ferrite plate for use with 'D' subminiature connectors
- EMI suppression is achieved by inserting onto the pins of the connector
- Suitable for Serial PC Mouse, RS232C interface, etc

thickness=2.8, hole pitch=2.77

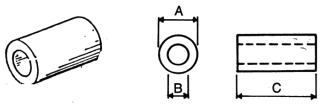
227233

No. of Ways	Mftrs. List No.	Order Code	Price Each
9	FH9-14.5X7.6X2.8	**353-8291**	
15	FH15-22.65X7.6X2.8	**353-8308**	
25	FH25-36.4X7.6X2.8	**353-8310**	

Cable Ferrites - Würth Elektronik

Axial Ferrite Beads

WE WÜRTH ELEKTRONIK



- Ferrite core made of NiZn, a material which works in a broadband frequency range
- Many different types and grades of materials (NiZn) for the best possible interference suppression
- Suitable for interference suppression within the RF and microwave range
- For wires, coaxial cables, wire-wrapping cables, multiconductor wires, power supplies, data signal lines

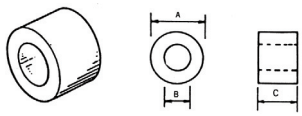
Impedance (Ω) 2 win. @ 25MHz	@ 100MHz	Dimensions (mm) A	B	C	Mftrs. List No.	Order Code
243	501	9.5	4.75	9.5	74270033	163-5643
320	418	11.5	5	18.5	74270030	163-5646
6.8	625	11.5	5	20.5	74270031	163-5647
703	1001	11.5	5	25	74270032	163-5648
602	958	10.5	5.5	28.5	74270036	163-5649
204	382	12	5.6	20	74270037	163-5650
1049	614	12	6.1	45	74270062	163-5651
518	714	14.1	6.3	18	74270060	163-5652
767	709	14.1	6.3	28.6	7427004	163-5653
331	430	9.9	6.35	19.5	74270061	163-5654
535	845	14.2	7.2	25	74270045	163-5655
70	130	12.7	7.92	12.7	74270063	163-5656
354	568	16	8	28.5	74270053	163-5658
339	577	16	9	17	74270054	163-5659
649	632	17.5	9.5	28.5	7427009	163-5660
270	450	17.5	10.7	18	74270094	163-5661
843	808	19	11.5	50.8	74270057	163-5662
459	577	28	18	28.5	74270095	163-5663
35	50	3.5	1.2	4	74270073	163-5664
39	58	3.5	1.3	5	742700713	163-5665
39	47	4.1	1.6	4	74270012	163-5666
50	95	4	2	10	74270015	163-5667
72	119	7.6	3.18	10	74270024	163-5668
35	59	6	4	10	74270022	163-5671

520841

Cable ∅ max. (mm)	Order Code	Price Each
4.75	163-5643	
5	163-5646	
5	163-5647	
5	163-5648	
5.5	163-5649	
5.6	163-5650	
6.1	163-5651	
6.3	163-5652	
6.3	163-5653	
6.35	163-5654	
7.2	163-5655	
7.92	163-5656	
8	163-5658	
9	163-5659	
9.5	163-5660	
10.7	163-5661	
11.5	163-5662	
18	163-5663	
1.2	163-5664	
1.3	163-5665	
1.6	163-5666	
2	163-5667	
3.18	163-5668	
4	163-5671	

Toroidal Ferrites

EMI Suppression



- Ferrite core made of NiZn, a material which works in a broadband frequency range
- Many different types and grades of material (NiZn) for the best possible interference suppression
- For wires, coaxial cables, wire-wrapping cables, multiconductor wires or power supplies, data and gage signal lines

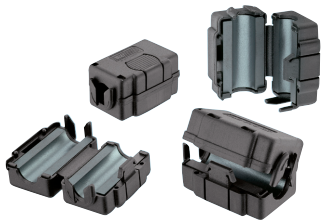
Cable ∅ max. (mm)	Impedance (Ω) 2 win. @ 25MHz	@ 100MHz	Dimensions (mm) A	B	C	Mftrs. List No.	Order Code
4.6	195	370	9.5	5	14.5	742701121	163-5631
4.7	105	170	10	5	5	74270176	163-5632
7.6	330	513	16.5	8	13	7427010	163-5634
9.6	215	343	14	10	8	74270117	163-5635
10.3	237	307	17.5	10.7	12.7	74270181	163-5636
11.8	342	471	23.5	12.6	14	7427012	163-5637
13.3	187	398	22.5	13.8	6.4	74270119	163-5638
15.5	411	550	28	16	20	7427014	163-5639
18.5	133	251	31.7	19	8	74270104	163-5640
24.8	165	350	35.6	25.4	7.5	742701112	163-5641
N/A	390	650	61	35.5	20	74270191	163-5642
4.5	134	203	9	5	8	742701712	163-5644

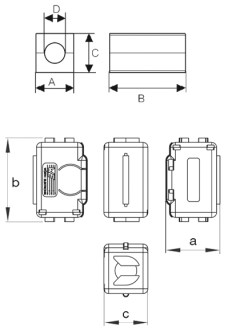
520734

Cable ∅ max. (mm)	Order Code	Price Each
4.6	163-5631	
4.7	163-5632	
7.6	163-5634	
9.6	163-5635	
10.3	163-5636	
11.8	163-5637	
13.3	163-5638	
15.5	163-5639	
18.5	163-5640	
24.8	163-5641	
N/A	163-5642	
4.5	163-5644	

Snap Ferrites

Star-Gap Series





- Worldwide first split case ferrite with defined air-gap (patent pending)
- Helpful for EMI problems from 100 MHz up to 2.5 GHz
- Data signals up to 100 MHz will not be effected
- Best performance (impedance) especially with 2 windings (2 cable through)
- Low magnetic saturation of the material because of high DC current apply and therefore only low reduction of impedance because of DC current
- Pre fixing and cable protection system makes it easier to assemble and save time
- Not possible to remove from the cable without the WE key
- Non visible locking in closed conditions
- With each packing unit 2 WE keys for free
- UL 94 V-0 plastic material for the case working temperature: -25°°C to 105°C
- For high speed data lines, especially LAN network CAT 5 and higher
- Less influence ffrom mobile phone radiations, bluetooth and wireless LAN
- Reduce disturbance by USB 2.0 and other fast digital signals
- Minimize the interference by fast circuits and switching power supply
- Suppression of the harmonic waves and no damping for the signal below 100 MHz
- Better performance for high DC current applications with interference problems like power supply, motor and drives

Cable width (mm)	Impedance (Ω) 2 win. @ 25MHz	@ 100MHz	Dimensions a	b	c	A	B	C	D	Mftrs. List No.	Order Code
4.5 - 8	90	400	22.5	35	19.3	16	28	16	9	74271633S	163-5622
8.5 - 12.5	135	640	31.5	35	28.3	25	28	25	13	74271622S	163-5623

520647

Cable ∅	Order Code	Price Each
4.5 - 8mm	163-5622	
8.5 - 12.5mm	163-5623	

Snap Ferrite STAR-FIX LFS

New

- Core material: MnZn
- NEW: With patented flexible cable fixing
- Prefixing of the clip facilitates the cable assembling process
- Cable clamping protection
- The security lock guarantees electromagnetic compatibility because only authorised persons can unlock the snap ferrite with the STAR-TEC key
- Material of the plastic case: PA 6 UL 94 V-0
- Operating temperature: -25 °C to +105 °C

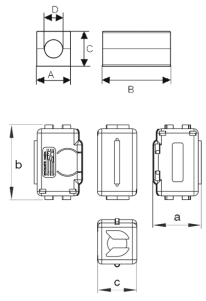
Cable dia (mm)	Impedance (Ω) @ 1MHz	@ 10MHz	Dimensions H	W	D	Mftrs. List No.	Order Code
4.5 - 8	30	45	18.2	35.1	21.7	74272733	180-0423

605782

Cable ∅	Order Code	Price Each
4.5 - 8mm	180-0423	

Snap Ferrites with Flexible Cable Fixing

Star Fix Series with Key Technology



- Prefixing cable system eases the cable assembling process
- Patented case design prevents air gaps for a perfect EMI suppression
- Security lock guarantees electromagnetic compatibility because only authorized persons can unlock the snap ferrite with the STAR-TEC key

Cable Ferrites - Würth Elektronik - continued

Snap Ferrites with Flexible Cable Fixing - continued

Star Fix Series with Key Technology - continued

- Ferrite core made of NiZn for broadband suppression from 30 MHz - 1.5 GHz
- Material: plastic case PA 6, UL 94 V-0, operating temperature: -25°C to 105°C
- For internal and external computer data and power cable
- Perfect for cables with difficult access
- Reusable because of the key technology therefore perfect for test and measuring purposes

Cable width (mm)	Impedance (Ω) 1Wdg. @ 25MHz	@ 100MHz	Dimensions a	b	c	A	B	C	D	Mftrs. List No.	Order Code
4.5 - 8	145	246	22.5	35	19	16	28	16	9	74271733	163-5391
8.5 - 12.5	145	246	31.5	35	28	25	28	25	13	74271722	163-5392

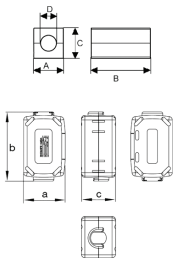
520335

Price Each

Cable ∅	Order Code
4.5 - 8mm	**163-5391**
8.5 - 12.5mm	**163-5392**

STAR-TEC Cable Snap Ferrites

With Safety Key Technology



- Prefixing cable system eases the cable assembling process
- Patented case design prevents air gaps for a perfect EMI suppression
- ferrite core is made of NiZn, a material which provides broadband suppression from 30 MHz - 1.5 GHz
- Material: plastic case PA 6, UL 94 V-0
- Operating temperature: -25°C to 105°C
- For Internal and external computer data and power cable
- Perfect for cables with difficult access because of easy installation and removal
- Reusable because of the key technology therefore perfect for test and measuring purposes

Cable ∅ (mm)	Impedance (Ω) 1 turn 25MHz	100MHz	Dimensions a	b	c	A	B	C	D	Mftrs. List No.	Order Code
3.5 - 5	175	320	23.7	36.9	18.2	15	28.5	15	6.6	74271111	163-5393
4.5 - 6	176	321	23.7	36.9	18.2	15	28.5	15	6.6	74271112	163-5394
6 - 7.5	145	246	24.2	36.4	20.1	16	28	16	9	74271131	163-5617
7 - 8.5	141	241	24.2	36.3	19.7	16	28	16	9	74271132	163-5618
8.5 - 10.5	151	270	33.6	37.7	29.5	25	28	25	13	74271221	163-5619
10.5 - 12.5	145	265	33.5	37.6	28.8	25	28	25	13	74271222	163-5620

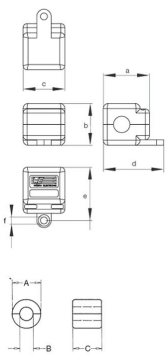
520433

Price Each

Cable ∅	Order Code
3.5 - 5mm	**163-5393**
4.5 - 6mm	**163-5394**
6 - 7.5mm	**163-5617**
7 - 8.5mm	**163-5618**
8.5 - 10.5mm	**163-5619**
10.5 - 12.5mm	**163-5620**
Fixation	**180-0424**
Fixation	**180-0426**

Snap Ferrites

STAR-RING Series with Key Technology



- Patented no spring design which eliminates air gaps
- Prefixing cable system eases the cable assembling process
- Patented case design prevents air gaps for a perfect EMI suppression
- Security lock guarantees electromagnetic compatibility because only authorized persons can unlock the snap ferrite
- Innovative sleek design without any sharp edges
- Ferrite core NiZn provides broadband suppression from 30 MHz - 1.5 GHz
- Material: plastic case PA 6, UL 94 V-0
- Operating temperature: -25°C to 105°C
- For computer data and power cable
- Perfect for cables with difficult access
- Reusable because of the key technology therefore perfect for T&M purposes

Cable ∅ max. (mm)	Impedance (Ω) 2 win. @ 25MHz	@ 100MHz	Dimensions a	b	c	d	e	f ∅	A ∅	B ∅	Mftrs. List No.	Order Code
8	304	572	23	20	20	30	25.5	3.5	8.15	17	7427153	163-5624
14.5	242	443	32	30	20	40	36.5	3.5	15	17	7427151	163-5625
16	271	495	35	32	20	43	39.5	3.5	16.3	17	7427154	163-5626
27	205	401	48	44	20	55	51.5	3.5	27.5	17	7427155	163-5627

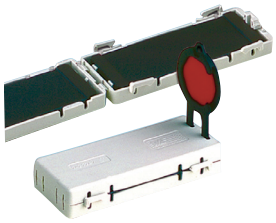
520653

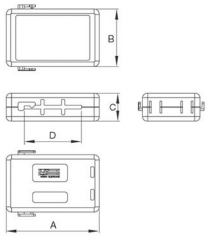
Price Each

Cable ∅ max.	Order Code
8mm	**163-5624**
14.5mm	**163-5625**
16mm	**163-5626**
27mm	**163-5627**

Ribbon Cable Snap Ferrites

STAR-Flat Series with Key Technology





- Patented no spring design
- STAR-FLATś ribbon cable holding feature prevents sliding and cable crimping
- Prefixing cable system eases the cable assembling process
- Patented case design prevents air gaps for a perfect EMI suppression
- Security lock guarantees electromagnetic compatibility
- Innovative sleek design without any sharp edges
- Ferrite core for broadband suppression from 30 MHz - 1.5 GHz
- Material: plastic case PA 6, UL 94 V-0
- Operating temperature: -25°C to 130°C
- For computer and power cable, cable with difficult access, medical technology
- Reusable

Cable size (mm)	Impedance (Ω) @ 25MHz	@ 100MHz	Dimensions (mm) A	B	C	E	Mftrs. List No.	Order Code
26	97	194	53.3	33.1	16	34	7427246	163-5628
40	78	180	71.3	33.1	16	52	7427248	163-5629
50	72	192	84.5	33.1	16	64.5	7427247	163-5630

520679

Price Each

Cable Size	Order Code
26	**163-5628**
40	**163-5629**
50	**163-5630**

Shielding

Discrete EMI Absorber – 'Cho Drop'®

L=13.97, D=4.7,
Lead length=27.94,
Lead dia.=0.64
Supplied bandoliered on tape.

- Discrete EMI absorbers are designed to reduce radiation from digital signal lines without significantly adding to propagation delay
- They will normally suppress radiation from a given lead by 10dB to 15dB and have a propagation delay of less than 10ns, while their flat absorption characteristics eliminate the 'ringing' found with ferrite beads. Leads are tinned copper wire.

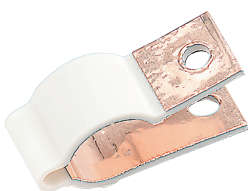
Current capacity 500mA Mftrs List No. 80-10-9714-1000

204245

Price Each

	Order Code
80-10-9714-1000	**121-8464**

Cable Earthing Clamp



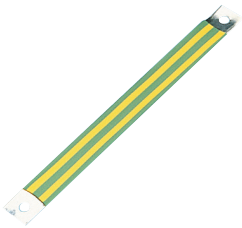
- Flexible moulded earthing clamps
- Simultaneously fastens and earths
- Resin clamp provides excellent elasticity resulting in no damage to the cable
- For use with outer or inner* earth shielding braid
- M3 screw mounting

*cut away cable insulation material to expose inner shielding braid

227239

Nominal cable dia.	Mftrs. List No.	Order Code	Price Each
3 to 3.5	FGC-3 M3	**353-8266**	
5 to 5.5	FGC-5 M3	**353-8278**	
8 to 8.5	FGC-8 M3	**353-8280**	

Earthing Straps



Hole Dia=4.75

- Earthing straps designed to provide low impedance paths for EMI generated currents
- The strap overcomes the problems associated with conventional round earth wires, of an increased inductive resistance at high frequencies, due to the "Skin effect"
- Manufactured from tin plated copper with Green/Yellow insulation.

Copper thickness	2µm
Insulation material	Polyolefin
Insulation colour	
Tin plate thickness	2µm
Dielectric strength	10KV DC
Operating temperature	-55°C to +135°C

386536

Dimensions Length (mm)	Width (mm)	Order code	Price Each
75	13	**121-9162**	
152.4	13	**121-9163**	
228.6	13	**121-9161**	
300	13	**121-9164**	

Insulated Earth Straps - 'Cho-strap'®

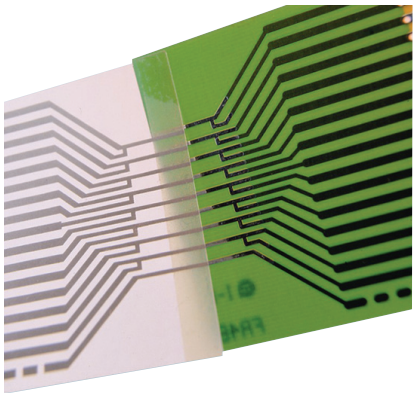
- Flexible earthing straps manufactured from double-insulated laminates with tinned copper interior and Mylar* exterior for high dielectric strength
- Provide low RF impedance and reduce radiated EMI emissions. Recommended whenever board-to-chassis or chassis-to-cabinet earthing is required
- Punched and tinned ends facilitate termination, while tinned contacts provide corrosion resistance
- Meet **UL94V-0** requirements
- Standard width 12.7mm

* Registered trademark of E.I. DuPont de Nemours

204247

Mftrs List No.	Order Code	Price Each
L-1011-6	**121-8468**	
L-1011-9	**121-8462**	
L-1011-12	**121-8469**	

Electrically Conductive Tape 9703



A permanently tacky system consisting of a pressure sensitive adhesive (PSA) matrix with aligned conductive particles, the PSA properties make it easy to handle and apply without the need for thermal bonding. Many applications require mechanical back-up to achieve long-term electrical reliability.

- Pressure sensitive adhesive (PSA) transfer tape with anisotropic electrical conductivity
- PSA tack properties provide an instant bond with minimal pressure and make for ease of use in assembly operations
- Good adhesion to common PCB substrates such as copper, gold, polyimide, polyester, Kapton™, FR-4 epoxy

Typically used for:

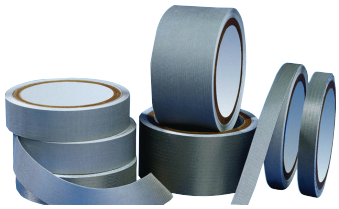
- Interconnection of silver ink/polyester flexible circuits
- A membrane touch switch to flex citcuit attachment
- EMI/RFI shield attach

Adhesive:	Acrylic
Contact resistance/resistivity:	1.25 µΩ-inch² / 1.6Ω-cm
Minimum suggested gap between contacts:	0.4mm
Minimum suggested contact area (per pad):	0.005 inch²
Tape only thickness	0.05mm
Liner thickness	0.127mm
Conductive material	Particle
Operating temperature	15 to 70°C
Reel dimensions (LxW)	33m x 25mm

451721

Mftrs. List No.	Order Code	Price Each
9703 25MM X 33MTR	**130-7064**	

Shielding Foil Tape



Note: Reel length tolerance ±10%

- Sheilding tapes are available in tinned copper, Aluminum, Adhesive copper and nickel fabric version
- Sheilding tapes offers strong conductivity, strong adhesive and durability in a thin lightweight and flexible sheilding design and application
- Aslo offers superior abrasion and corrosion resistance
- Tinned copper version allows direct soldering to the tape
- Copper tape meets the requirements of **MIL-T-47012** and the tinned copper foil tape meets **MIL-T-10727** for corrosion resistance

386546

Dimension (W x L)	Order Code	Price Each
Tin-plated Copper		
12.7mm x 15m	**886-8506**	
25.4mm x 15m	**886-8514**	
Aluminium		
12.7mm x 15m	**886-8549**	
25.4mm x 15m	**886-8557**	
50.8mm x 15m	**886-8565**	
Copper		
12.7mm x 15m	**886-8581**	
25.4mm x 15m	**886-8590**	
50.8mm x 15m	**886-8603**	
Copper, Conductive Adhesive 2 Sides		
25.4mm x 15m	**886-8646**	
Nickel-plated Fabric		
25.4mm x 15m	**886-8662**	
50.8mm x 15m	**886-8670**	

Shielding Foil Tape – 'CHO-FOIL'®

- Economical EMI shielding solution for variety of commercial uses
- Pressure-sensitive adhesive (PSA). Adhesive contains a uniform dispersion of unique oxidation resistant conductive particles that produce a very low resistance through the tape
- Copper tape meets the requirements of **MIL-T-47012** and the tinned copper foil tape meets **MIL-T-10727** for corrosion resistance
- Tinned copper version allows direct soldering to the tape

Note: Reel length tolerance ±10%

204250

Dimension (W x L)	Order Code	Price Each
Tin-plated Copper		
12.7mm x 16.4m	**121-8470**	
25.4mm x 16.4m	**121-8466**	
50.8mm x 16.4m	**121-8471**	
101.6mm x 16.4m	**121-8472**	
Aluminium		
12.7mm x 16.4m	**121-8473**	
25.4mm x 16.4m	**121-8474**	
50.8mm x 16.4m	**121-8476**	
101.6mm x 16.4m	**121-8477**	
Copper		
12.7mm x 16.4m	**121-8478**	
25.4mm x 16.4m	**121-8465**	
50.8mm x 16.4m	**121-8479**	

Shielding - continued

Shielding Foil Tape – 'CHO-FOIL'® - continued

Dimension (W x L)	Order Code	Price Each
Copper, Non-conductive Adhesive		
12.7mm x 16.4m	**121-8480**	
25.4mm x 16.4m	**121-8481**	
50.8mm x 16.4m	**121-8482**	
Copper, Conductive Adhesive 2 Sides		
25.4mm x 16.4m	**121-8483**	
50.8mm x 16.4m	**121-8484**	
Aluminium, Conductive Adhesive 2 Sides		
25.4mm x 32.8m	**121-8485**	

Shielding Foils

- 3M Scotch™ Foil Shielding Tapes are designed for applications requiring reliable point-to-point electrical contact, particularly EMI shielding, grounding and static charge draining
- The tapes have multitude of uses in electronic design and test laboratories forprototyping, design and troubleshooting.
- Also available as an engineering kit, which offers easy access to all 9 foil tapes in the 3M range
- Dispenser box serves as a source of reference for tapes, as basic technical information about each tape appears on the box

All rolls are 19mm wide and 3.66m long

Mftrs. List No.	Order Code	Description
1170	120-8990	Plain aluminium foil, conductive adhesive solderable. Total thickness 0.08mmPlain aluminium foil, conductive adhesive solderable. Total thickness 0.08mm
1181	120-8991	Plain Copper foil, conductive adhesive, solderable. Total thickness 0.07mm
1182	120-8993	Plain Copper foil, conductive adhesive on both sides of foil, solderable. Total thickness 0.09mm.
1183	120-8994	Tin Plated Copper foil, oxidation resistant for long term EMI Shielding. Conductive adhesive. Total thickness 0.07mm.
1194	120-8995	Plain Copper foil, electrically non-conductive adhesive. Total thickness 0.08mm.
1245	120-8996	Embossed Copper foil, conductive adhesive. Solderable. Total thickness 0.1mm.
1345	120-8999	Embossed Tin Plated Copper foil. Conductive adhesive. Oxidation resistant for long term EMI shielding. Total thickness 0.1mm.

204090

Mftrs. List No.	Order Code	Price Each
1170	**120-8990**	
1181	**120-8991**	
1182	**120-8993**	
1183	**120-8994**	
1194	**120-8995**	
1245	**120-8996**	
1345	**120-8999**	

Knitted Wire Mesh Tape

- Monel mesh tape providing excellent RFI/EMI shielding for electronic cables and harness assemblies.
- When wrapped firmly around cables with a 50% overlap and earthed at both ends, provides an effective shield in compliance with **BS6527**, **VDE** and **FCC** radiation limits.

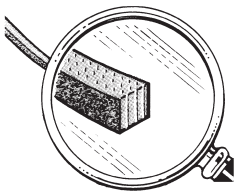
204249

10m Reel

Reel Width	Order Code	Price Per Reel
25mm	**121-9141**	
50mm	**121-9142**	

Over 500 000 products available online QGO

'WS' Monel/Silicone Shielding Material



Sheet size
H=900, W=100, Th=1.5

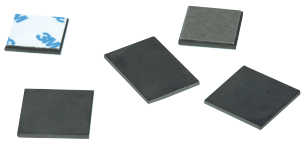
- This shielding material is a composite of monel wires embedded in a solid silicone, and orientated to a matrix of 100 per square centimetre
- Provides excellent RF attenuation through wire point contact on both sides of the gasket and will also provide environmental sealing to **IP65** or **IP66** depending on seal compression.
- Small gaskets can be made simply by cutting the sheet using a blade
- Larger gaskets can be formed by cutting the material into strips, and gluing using a good cyanoacrylate (super glue), into a q'picture frame style'.
- Holes can be cut or punched as required.

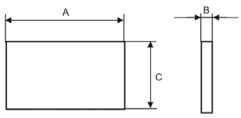
Monel wires 0.11mm dia. Operating temperature -55°C to +125°C

204251

Order Code	Price Each
121-9144	

CPU Ferrite Plates





- Made of NiZn suppresses interferences in a broadband range
- Perfect for applications with CPUs
- Impedances up to 800Ω
- For CPUs and controller screening

Impedance (Ω) @ 25MHz	Impedance (Ω) @ 100MHz	Dimensions (mm) A	B	C	Mftrs. List No.	Order Code
26	88	20	1.5	30	7427414	163-5789
24	79	23	0.8	23	7427415	163-5790
36	114	30	1.5	30	7427417	163-5791
25	84	40	1.5	18	7427418	163-5792
27	85	50	1.5	18	7427419	163-5793

521166

	Order Code	Price Each
20 x 30	**163-5789**	
23 x 23	**163-5790**	
30 x 30	**163-5791**	
40 x 18	**163-5792**	
50 x 18	**163-5793**	

Noise Suppression Sheets

IRJ04 and IRJ08 Series

Features
- Highly flexibly, shock resistant, soft magnetic sheet material and resin
- Suited for thin and compact devices

Applications
- Noise reduction for flexible cables used in mobile devices (including notebook PC's, digital cameras, games machines, mobile phones)
- Reduction of noise radiated from a wide range of electronic devices (including noise from CPU)
- Reduction of specific absorbed radiation (SAR) from mobile phones
- Reduction of internal EMI (resonance, crosstalk) inside a shielded casing

Operating temperature -40°C to +85°C

IRJ08 Series - For Low Frequency

Dimensions (mm) L	W	H	Recommended frequency range	Mftrs List No.	Order Code
300mm	200mm	0.13mm	10MHz to 3GHz	IRJ08AB 300X200X0.13	150-3731

IRJ04 Series - For High Frequency

Dimensions (mm) L	W	H	Recommended frequency range	Mftrs List No.	Order Code
300mm	200mm	0.1mm	50MHz to 10GHz	IRJ04AB 300X200X0.1	150-3733
300mm	200mm	0.25mm	50MHz to 10GHz	IRJ04AB 300X200X0.25	150-3734
300mm	200mm	0.5mm	50MHz to 10GHz	IRJ04AB 300X200X0.5	150-3735
300mm	200mm	0.1mm	50MHz to 10GHz	IFL04AR 300X200X0P1	150-3737

490766

Mftrs List No.	Order Code	Price Each
IRJ08 Series		
IRJ08AB 300X200X0.13	**150-3731**	
IRJ04 Series		
IRJ04AB 300X200X0.1	**150-3733**	
IRJ04AB 300X200X0.25	**150-3734**	
IRJ04AB 300X200X0.5	**150-3735**	
IFL04AR 300X200X0P1	**150-3737**	

Gasket Strip-Extra Soft

Laird

- Extra Soft Shielding Strip for commercial enclosures, cabinets and panels requiring minimum closure force or where wide tolerance gaps exist.
- Constructed from a single layer of fine monel wire, knitted over a closed cell neoprene sponge
- Excellent shielding performance when compressed by 25%, compression up to 50% can be applied to improve enviromental sealing
- Pressure-sensitive adhesive backing ensures easy application

Monel wire thickness 80µm Operating temperature -40°C to +80°C

213822

Size A x B	Order Code	Price Per Reel
5m Reels		
6 x 4	**121-9154**	
9 x 6	**121-9155**	
10m Reels		
6 x 4	**121-9156**	
9 x 6	**121-9158**	

Knitted Yarn Gasket – 'Soft-Shield 2000'

CHOMERICS

Mftrs. List No. 01-1392+Gasket Profile

- Designed to provide an economic EMI seal for commercial electronic enclosures.
- **Shielding Performance:** >70dB attenuation from 20MHz to 10GHz
- **Closure Force:** Requires <0.175 N/mm (1lb./inch) closure force
- Self terminating - simply cut to length
- Pressure-sensitive adhesive (PSA) for ease-of-use and quick mounting

204272

Dimensions W	x	H	Reel Length	Gasket Profile	Order Code	Price Each
Square Shape						
6.4mm	x	6.4mm	3m	6791	**121-8492**	
6.4mm	x	6.4mm	5m	6791	**121-8491**	
D Shape						
3.6mm	x	2.5mm	5m	6903	**121-8486**	
9.5mm	x	6.4mm	5m	6792	**121-8488**	
12.7mm	x	9.5mm	5m	6902	**121-8489**	
Rectangular Shape						
6.4mm	x	3.3mm	5m	6794	**121-8490**	

EMC Foam Gasket

Laird

- UL 94VO and HB flame retardant
- Ideal for applications requiring low pressure force
- High conductivity and shielding attenuation
- High abrasion and shear resistance
- Self-terminating cut-to-lengths of 1m

386520

1m Lengths

Dimensions (mm) W	x	H	Order Code	Price Each
Square Shape				
5	x	5	**883-3508**	
6	x	6	**883-3516**	
9.5	x	9.5	**883-3524**	
Rectangular Shape				
3.3	x	4.8	**883-3532**	
6.4	x	9.5	**883-3540**	
9.5	x	12.7	**883-3559**	
D Shape				
6.4	x	3.6	**883-3575**	
9.5	x	6.4	**883-3583**	

Packaged, protected, perfect

Thousands of ICs now available in our innovative peel packaging*

We've extended our peel packaging to cover IC case sizes from 5x5mm to 14x14mm:

- Complete protection for a wide range of ICs
- Clear product identification with batch number and element14 part number
- All round protection in transit and storage
- Reduced moisture ingress and anti-static protection
- No minimum order requirement

** Peel packaging is being introduced gradually to all ICs. Not all the products are covered at the time of this publication.*