



FINAL PRODUCT/PROCESS CHANGE NOTIFICATION
Generic Copy

25-JAN-2002

SUBJECT: ON Semiconductor Final Product/Process Change Notification #12250

TITLE: Final Notification - Motorola BMC to Tesla: SG3525, MC33163, and MC33174

EFFECTIVE DATE: 26-Mar-2002

AFFECTED CHANGE CATEGORY: On Semiconductor Fab Site

AFFECTED PRODUCT DIVISION: Analog Products

ADDITIONAL RELIABILITY DATA: Available

Contact your local ON Semiconductor Sales Office or Joe Duffalo <FFBH9W@onsemi.com>

SAMPLES: Contact your local ON Semiconductor Sales Office
or Alan Garlington <RPR180@onsemi.com>

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:

Contact Sales Office or Alan Garlington <RPR120@onsemi.com>

DISCLAIMER:

Final Product/Process Change Notification (FPCN) -Final Notification completing the notification process. Distributed at least 60 days from the effective date of the change. ON Semiconductor will consider this change approved unless specific conditions of acceptance are provided in writing within 30 days of receipt of this notice. To do so, contact your local ON Semiconductor Sales Office.

DESCRIPTION AND PURPOSE:

This is a Final PCN (Product Change Notice) to notify customers of the qualification of certain Analog devices being transferred to the Tesla Wafer Fab in the Czech Republic. An initial PCN (# 11528) was published on 19 July 2001 providing information on all the devices being transferred and the overall scope of the program.

The devices listed below have been fully qualified and are now ready to transfer to Tesla from the Motorola BMC wafer fab. The existing design database in use at BMC was transferred to Tesla with no change to the functional circuit design. No change in the device functionality nor electrical distributions have been found but it is recommended that customers evaluate the devices in their applications to insure proper operation.

Samples are available upon request. At the expiration of this PCN (60 Days), fabrication of these devices will occur at either the Tesla Wafer Fab or the BMC Fab depending on capacity and demand requirements.



Final Product/Process Change Notification #12250

RELIABILITY DATA SUMMARY:

Technology	Flow	Device Types	Fab	Test	Conditions		Rej	SS
Std Linear	EPI 85/92	MC33033P	Tesla	HTOL	150C; Biased,	1008 Hrs	0	240
Std Linear	EPI 85/92	MC33033P	Tesla	TC	-65C to +150C,	1000 Cyc	0	240
Std Linear	EPI 85/92	MC33033P	Tesla	HTS	150C; No Bias,	1008 Hrs	0	80
Std Linear	EPI 85/92	MC33033P	Tesla	AC	121C; 100% RH,	144 Hrs	0	240
Std Linear	EPI 85/92	MC33064D	Tesla	HTOL	150C; Biased,	1008 Hrs	0	240
Std Linear	EPI 85/92	MC33064D	Tesla	TC	-65C to +150C,	1000 Cyc	0	240
Std Linear	EPI 85/92	MC33064D	Tesla	HTS	150C; No Bias,	1008 Hrs	0	80
Std Linear	EPI 85/92	MC33064D	Tesla	AC	121C; 100% RH,	144 Hrs	0	240
Std Linear	Epi 85 DL	MC44603A	Tesla	HTOL	125C; Biased,	1000 Hrs	0	231
Std Linear	Epi 85 DL	MC44603A	Tesla	TC	-65C to +150C,	500 Cyc	0	231
Std Linear	Epi 85 DL	MC44603A	Tesla	AC	121C;100% RH;15 psi,	96 Hrs	0	231
Std Linear	Epi 85 DL	MC44603A	Tesla	HAST	130C; 85%RH biased,	96 Hrs	0	231
Std Linear	Epi 78/79	MC1413D	Tesla	HTOL	150C; Biased,	1008 Hrs	0	154
Std Linear	Epi 78/79	MC1413	Tesla	TC	-65C to +150C,	500 Cyc	0	154
Std Linear	Epi 78/79	MC1413	Tesla	AC	121C; 100% RH,	96 Hrs	0	154
Std Linear	Epi 78/79	MC1413	Tesla	HAST	130C; 85%RH; Biased,	96 Hrs	0	154
Std Linear	Epi 78/79	MC1413	Tesla	THB	85C; 85%RH; Biased,	1008 Hrs	0	154
Std Linear	Epi 78/79	MC1413	Tesla	HTS	150C; No Bias,	1008 Hrs	0	154
Std Linear	Epi 78/79	MC33079P	Tesla	HTOL	150C; Biased,	1008 Hrs	0	240
Std Linear	Epi 78/79	MC33079P	Tesla	TC	-65C to +150C,	1000 Cyc	0	240
Std Linear	Epi 78/79	MC33079P	Tesla	HTS	150C; No Bias,	1008 Hrs	0	240
Std Linear	Epi 78/79	MC33079P	Tesla	AC	121C; 100% RH,	96 Hrs	0	240
Std Linear	Epi 78/79	MC33079P	Tesla	HAST	130C; 85% RH; Biased,	96 Hrs	0	240
Std Linear	Epi 78/79	MC33079P	Tesla	THB	85C; 85% RH; Biased,	1008 Hrs	0	240
Std Linear	Epi 78/79	UC3843AN	Tesla	HTOL	150C; Biased,	1008 Hrs	0	240
Std Linear	Epi 78/79	UC3843AN	Tesla	TC	-65C to +150C,	1000 Cyc	0	240
Std Linear	Epi 78/79	UC3843AN	Tesla	HTS	150C; No Bias,	1008 Hrs	0	240
Std Linear	Epi 78/79	UC3843AN	Tesla	AC	121C; 100% RH,	96 Hrs	0	240
Std Linear	Epi 78/79	UC3843AN	Tesla	HAST	130C; 85% RH; Biased,	96 Hrs	0	240
Std Linear	Epi 78/79	UC3843AN	Tesla	THB	85C; 85% RH; Biased,	1008 Hrs	0	240

ELECTRICAL CHARACTERISTIC SUMMARY:

MC34163 - 1 lot Characterization data, Major parameters

Parameter	Unit	Mean	S.D.	Min.	Max.	Specification	
						Min.	Max.
Supply Current	mA	5.87	0.041	5.74	5.92	1	10
Frequency	kHz	48.62	0.04	47.96	49.28	45	55
Current Limit Comparator Threshold	mV	247.32	2.57	243.3	254.8	230	270
Feedback Comparator 1 Threshold	V	5.07	0.019	5.03	5.1	4.85	5.25



Final Product/Process Change Notification #12250

Feedback Comparator 1 Line Regulation	mV	-5.54	1.78	-10.2	-3.9	-56	56
Feedback Comparator 2 Threshold	V	1.25	0.003	1.25	1.26	1.213	1.287
Feedback Comparator 2	mV	-1.85	0.701	-3.4	-0.9	-14	14
Line Regulation Output	V	1.1	0.007	1.09	1.12	0	1.4
Switch Saturation Voltage Bootstrap Input Current	mA	2.34	0.02	2.28	2.37	0.5	4
Bootstrap Input Zener Clamp	V	7.14	0.005	7.13	7.15	6	9
Low Voltage Indicator Threshold	V	1.13	0.003	1.12	1.14	1.07	1.18
Low Voltage Indicator Saturation	V	0.16	0.001	0.16	0.17		0.4

MC33174 - 1 lot Characterization data, Major parameters

Parameter	Unit	Mean	S.D.	Min.	Max.	Specification	
						Min.	Max.
ID+	uA	909.145	7.205	893.831	924.826	10	1000
ID-	uA	-909.01	7.167	-924.349	-893.831	-1000	-10
VIO	mV	-0.073	0.601	-1.311	1.476	-4.5	4.5
SR+	V/uS	2.229	0.034	3.16	2.311.6	7	
SR-	V/uS	6.013	0.112	5.81	6.251.6	10	
GBW	kHz	2222.20	46.146	2185.37	2469.14	1400	7000

SC3525AN -- 1 lot Characterization data, 1 Channel. Major parameters

Parameter	Unit	Mean	S.D.	Min.	Max.	Specification	
						Min.	Max.
Vref	V	5.10967	0.019	5.076	5.149	5	5.2
Error Amp Vio	mV	1.13165	0.317	0.224	2.245		10
Max Duty Cycle	%	48.559	0.057	48.3	48.6	45	
Vout High	V	18.55009	0.012	18.431	18.557	18	
Collector Lkg	uA	95.669	0.742	94.1	97.8		200
UVLO	V	7.53508	0.006	7.491	7.546	6	8
Max Freq	kHz	512.222	2.03	507.6	518	400	
Soft Start I	uA	56.984	0.737	58.7	54.8	25	80

CHANGED PART IDENTIFICATION:

Normal assembly lot traceability codes can be used to identify the wafer fab source.



Final Product/Process Change Notification #12250

AFFECTED DEVICE LIST (WITHOUT SPECIALS):

PART

MC33163DW
MC33163DWR2
MC33163P
MC33174D
MC33174DR2
MC33174DTB
MC33174DTBR2
MC33174P
MC33174VDR2
MC33174VP
MC34163DW
MC34163DWR2
MC34163P
SC33165ADWR2
SG3525AN
TCM33163EOE
TCM33163EPE