

**HYPER-FAST
GLASS PASSIVATED RECTIFIER**

**REVERSE VOLTAGE – 600Volts
FORWARD CURRENT – 8.0 Ampere**

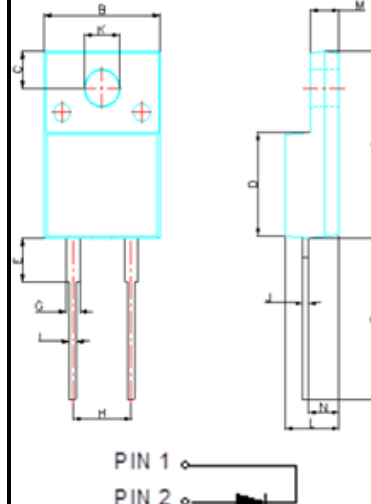
FEATURES

- Soft, Hyper fast switching capability
- Specially suited for Continuous mode Power Factor Corrections.
- High reliability and efficiency
- Qualified according to AEC-Q101 Rev_C
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**

MECHANICAL DATA

- Package: JEDEC ITO-220AC
- Package Material: "Green" Molding compound , UL flammability classification 94V-0," Halogen-free"
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Lead Free Plating
- Lead free Finish, RoHS compliant
- Polarity indicator: As marked on the body
- Weight: 0.05 ounces, 1.497 grams
- Component in accordance to RoHs 2002/95/EC
- Maximum mounting torque = 0.5 N.m (5.1 Kgf.cm)

ITO-220AC



ITO-220AC		
DIM	MIN	MAX
A	14.95	15.95
B	10.00	10.40
C	2.76	3.36
D	8.50	8.80
E	3.30	3.90
F	13.00	13.70
G	1.15	1.70
H	4.95	5.25
I	0.50	0.80
J	0.45	0.70
K	3.00 Ø	3.30 Ø
L	4.46	4.87
M	2.48	2.80
N	2.50	2.80

All dimension in millimeter

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

ABSOLUTE RATINGS

PARAMETER	SYMBOL	VALUE	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	600	V
Average Rectified Output Current	I_F	8.0	A
Non-repetitive avalanche energy	E_{AS}	21.7	mJ
Non Repetitive Forward Surge Current	I_{FSM}	160	A
Operation and Storage temperature range	T_J, T_{STG}	-55 to +175	°C

STATIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITION	SYMBOL	MIN	TYP	MAX	UNIT
Forward Voltage (4)	$I_F=8.0A$ $T_j=25^\circ C$ $T_j=125^\circ C$	V_F	-	-	2.9 1.8	V
Reverse Leakage Current	$V_R=600V$ $T_j=25^\circ C$ $T_j=125^\circ C$	I_R	-	-	30 400	µA

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	VALUE	UNIT
Typical thermal resistance, Junction to Case (5)	$R_{\theta JC}$ $R_{\theta JL}$ $R_{\theta JA}$	5 7 16	°C/W

DYNAMIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITION	SYMBOL	MIN	TYP	MAX	UNIT
Reverse recovery time	$I_F=0.5A, I_{rr}=0.25A, I_R=1.0A$ $T_j=25^\circ C$	t_{rr}	-	-	25	ns
	$I_F=1A, dI_F/dt=-50A/\mu s, V_R=30V$ $T_j=25^\circ C$	t_{rr}	-	-	45	
Reverse recovery current	$I_F=8A, dI_F/dt=-200A/\mu s, V_R=400V$ $T_j=125^\circ C$	I_{RM}	-	5.5	7.2	A
Reverse recovery charges	$T_j=125^\circ C$	Q_{rr}	-	150	-	nC

Note:

REV.-5, Nov-2021, KTGC50

1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
2. See <https://www.diodes.com/quality/lead-free/> for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
4. 300us pulse width, 2% duty cycle.
5. Thermal resistance test performed in accordance with JESD-51. R_{th-L} is measured at the PIN 2, R_{th-C} is measured at the top centre of body.

RATING AND CHARACTERISTIC CURVES
LTTH806RFW

FIG.1- FORWARD CURRENT DERATING CURVE

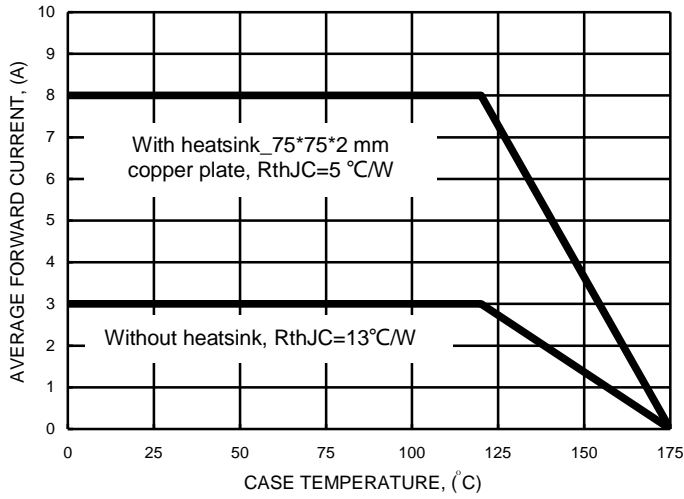


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

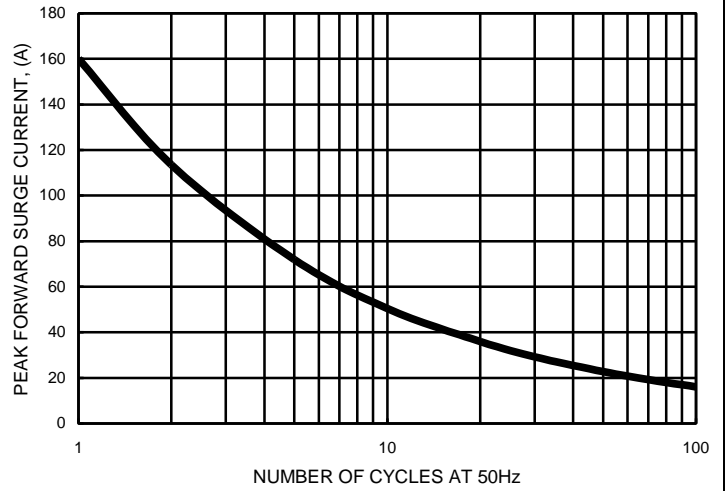


FIG.3- TYPICAL FORWARD CHARACTERISTICS

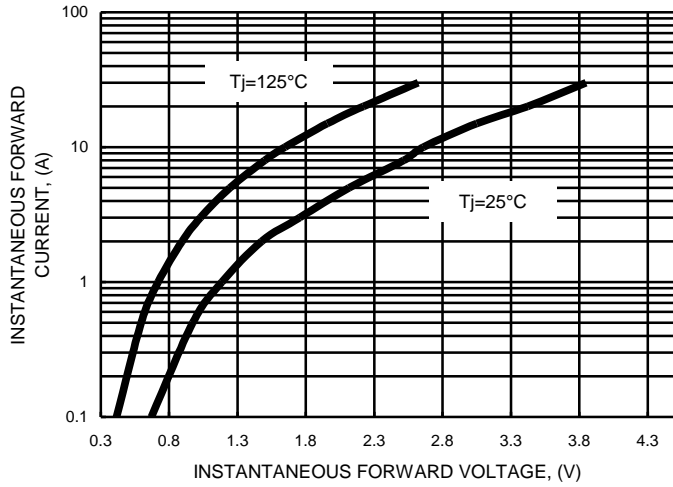


FIG.4- TYPICAL JUNCTION CAPACITANCE

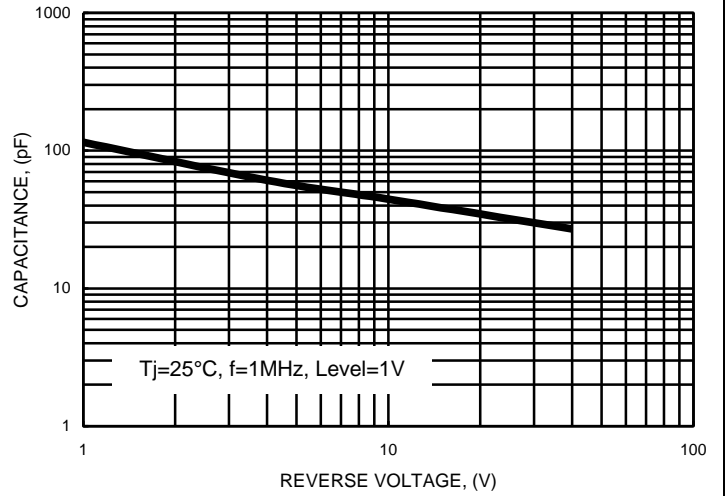
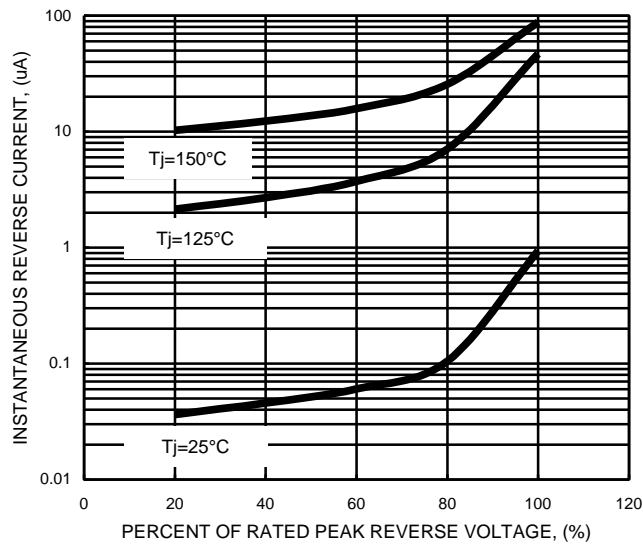


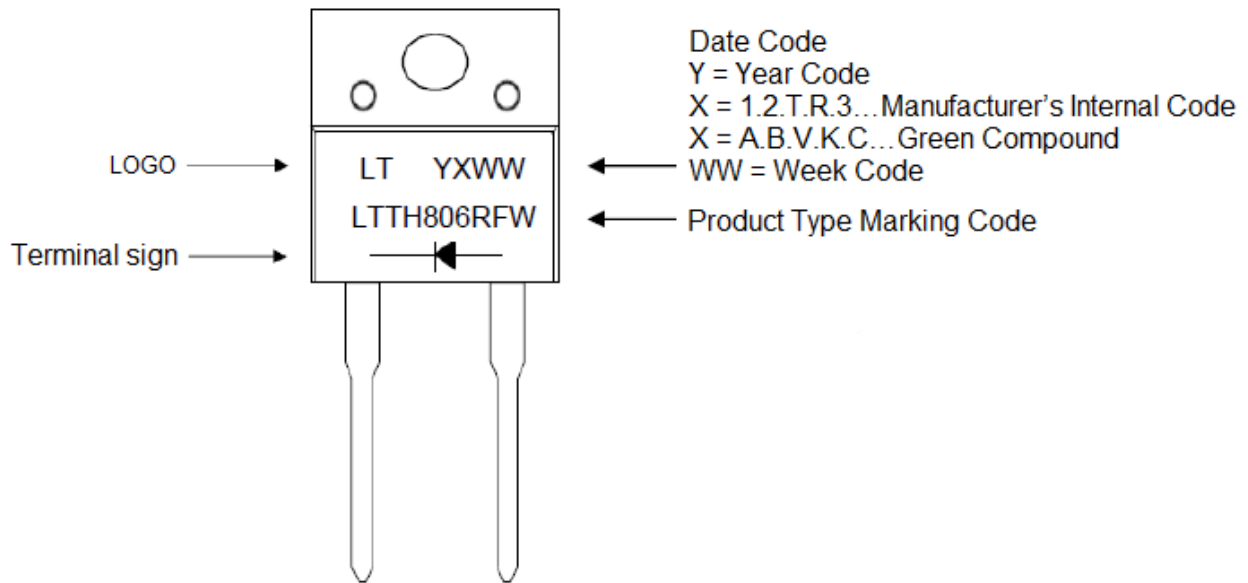
FIG.5- TYPICAL REVERSE CHARACTERISTICS



Ordering Information :

Part Number	Package	Packing	
		Qty.	Carrier
LTTH806RFW	ITO-220AC	50pcs	Tube
LTTH806RFW_NC	ITO-220AC	50pcs	Tube

Marking Information :



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