

**HYPER-FAST
GLASS PASSIVATED RECTIFIER**

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

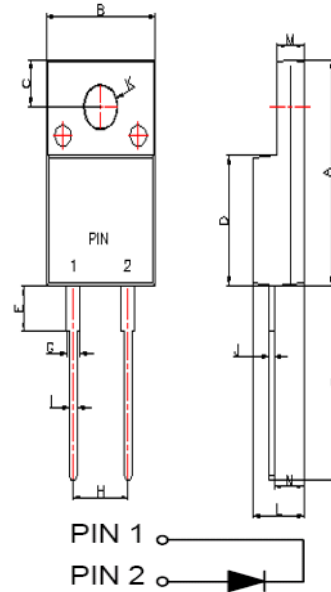
FEATURES

- Soft, Hyper fast switching capability
- Specially suited for critical mode Power Factor Corrections.
- High reliability and efficiency
- ITO-220AC
 - **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- Available in “Green” Package: ITO-220AC
 - **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
 - **Halogen and Antimony Free. “Green” Device (Note 3)**

MECHANICAL DATA

- Package: ITO-220AC
- Package Material: Plastic material, UL flammability classification 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Lead Free Plating
- Polarity indicator: As marked on the body
- Weight: 0.06 ounces, 1.70 grams
- Component in accordance to RoHs 2002/95/EC
- ESD capability: HBM_8KV (JESD22-A114)
- Maximum mounting torque = 0.5 N.m (5.1 Kgf.cm)

ITO-220AC



ITO-220AC		
DIM.	MIN.	MAX.
A	15.50	16.50
B	10.0	10.40
C	3.00	3.50
D	9.00	9.30
E	2.90	3.60
F	13.46	14.22
G	1.15	1.70
H	4.83	5.33
I	0.75	1.00
J	0.45	0.70
K	3.00 \varnothing	3.30 \varnothing
L	4.36	4.77
M	2.48	2.80
N	2.50	2.80

All Dimensions in millimeter

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

PARAMETER	SYMBOL	LTTH806LF			UNIT		
Device marking code	Note	LTTH806LF			---		
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	600			V		
Average Rectified Output Current @ $\delta=0.5$ See FIG.1	I _F	8.0			A		
Peak Forward Surge Current 8.3ms single half sine-wave	I _{FSM}	120			A		
I ² t Rating for fusing (3ms \leq t \leq 8.3ms)	I ² t	60			A ² S		
Storage temperature range	T _{STG}	-55 to +150			°C		
Operating junction temperature range	T _J	-55 to +150			°C		
PARAMETER	TEST CONDITIONS		SYMBOL	Min.	Typ.	Max.	UNIT
Breakdown voltage	IR=8.0uA	T _j =25°C	V _B	600	---	---	V
Forward Voltage (4)	IF=8.0A	T _j =25°C T _j =150°C	V _F	---	1.10 0.92	1.30 1.05	V
Leakage Current	VR=600V	T _j =25°C T _j =150°C	I _R	---	0.05 40	8.0 200	uA
Reverse recovery time	IF= 0.5A Irr= 0.25A IR=1.0A	T _j =25°C	t _{rr}	---	50	70	ns
THERMAL CHARACTERISTIC			SYMBOL	Typical			UNIT
Typical thermal resistance_Junction to Case			R θ JC	3.5			°C/W
Typical thermal resistance_Junction to Lead			R θ JL	4.5			°C/W

Note:

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_{thj-L} is measured at the PIN 2, R_{thj-C} is measured at the top center of body.

RATING AND CHARACTERISTIC CURVES
LTTH806LF

FIG.1- FORWARD CURRENT DERATING CURVE

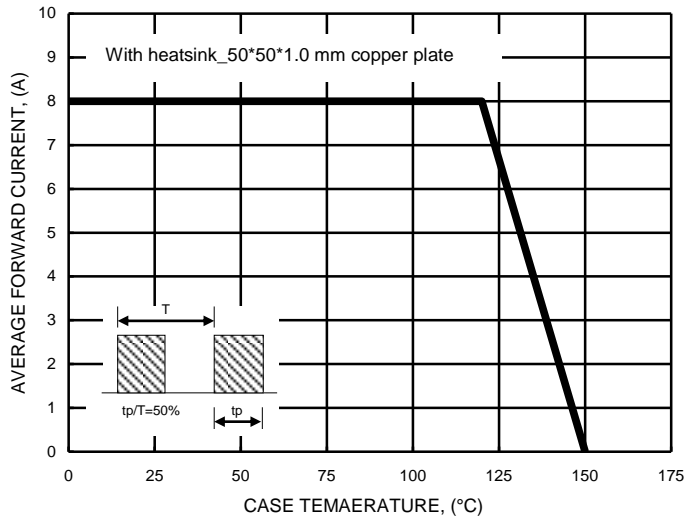


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

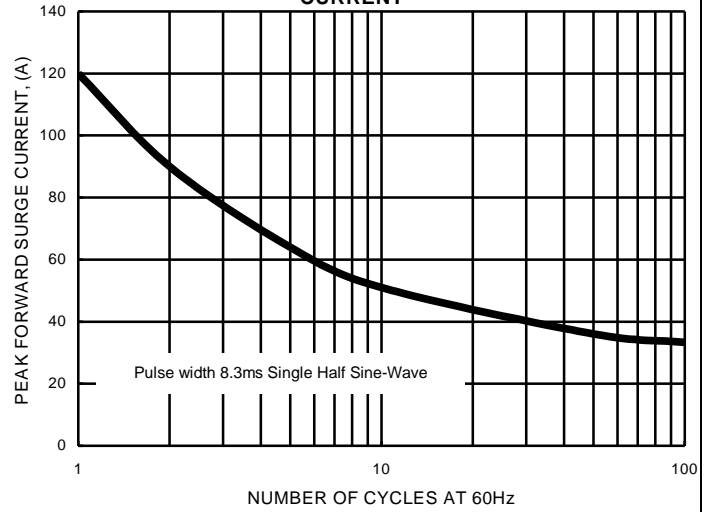


FIG.3- TYPICAL FORWARD CHARACTERISTICS

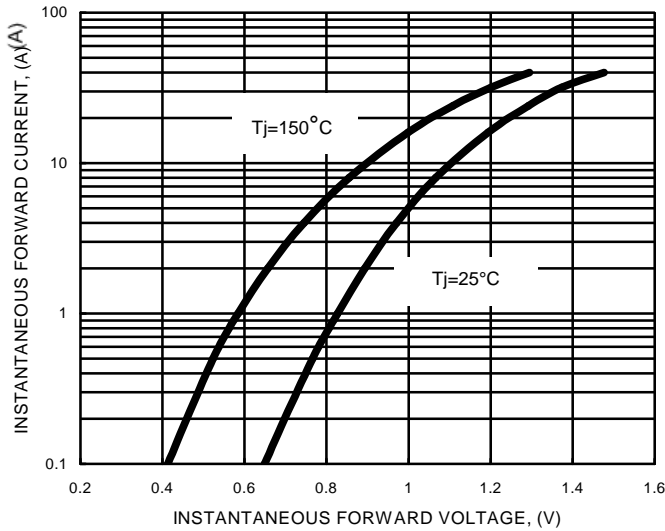


FIG.4- TYPICAL JUNCTION CAPACITANCE

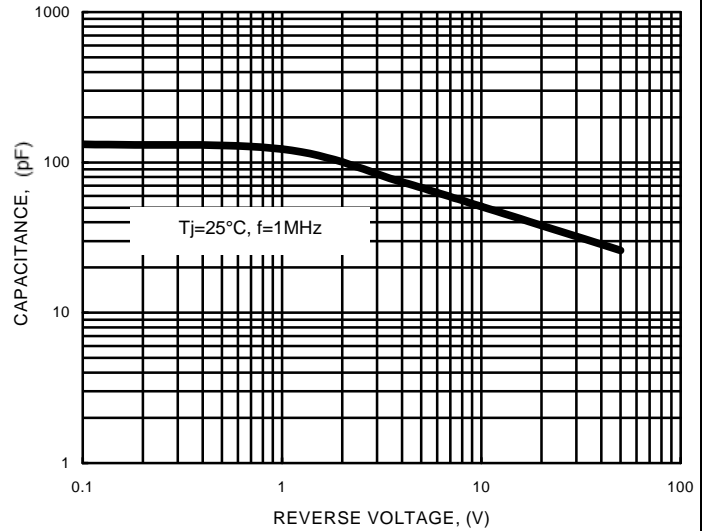


FIG.5- TYPICAL REVERSE CHARACTERISTICS

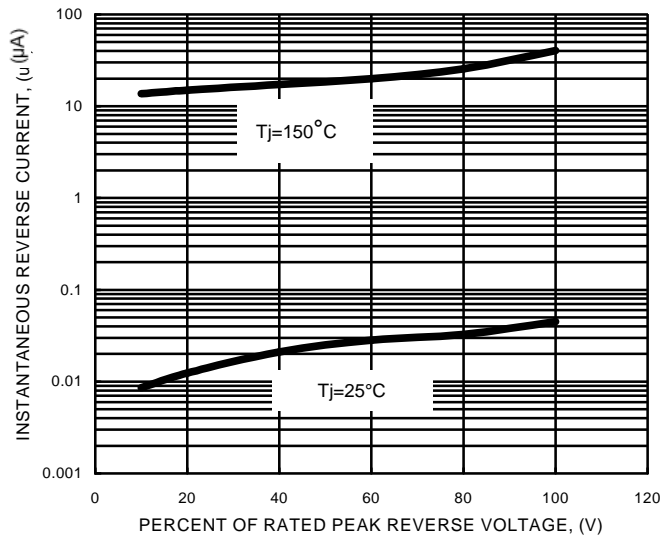
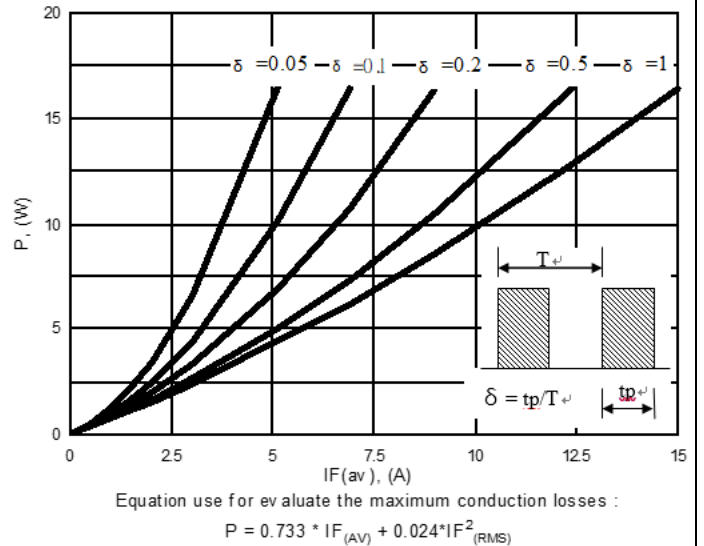


FIG.6- Conduction losses vs. average current

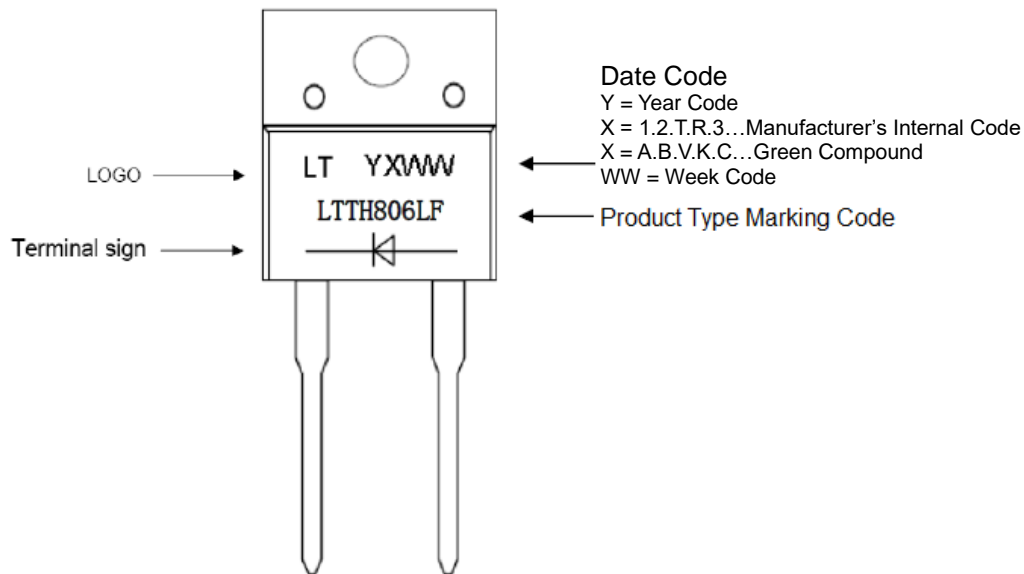


Ordering Information :



Part Number		Package	Packing	
Lead Free	Green		Qty.	Carrier
NA	LTTH806LF_HF	ITO-220AC	50pcs	Tube
LTTH806LF	NA	ITO-220AC	50pcs	Tube

Marking Information :



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