

**HYPER-FAST
GLASS PASSIVATED RECTIFIER**

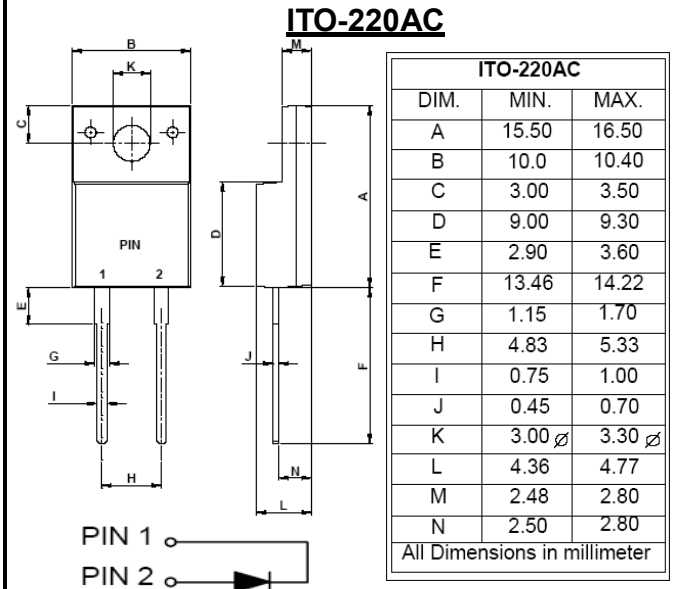
**REVERSE VOLTAGE – 600Volts
FORWARD CURRENT – 8.0 Ampere**

FEATURES

- Soft, Hyper fast switching capability
- Specially suited for critical mode Power Factor Corrections.
- High reliability and efficiency

MECHANICAL DATA

- Case: ITO-220AC
- Case 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)



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^2S	
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	$I_R = 8.0\mu A$ $T_J = 25^\circ C$	V_B	600	---	---	V
Forward Voltage (1)	$I_F = 8.0A$ $T_J = 25^\circ C$ $T_J = 150^\circ C$	V_F	---	1.10 0.92	1.30 1.05	V
Leakage Current	$V_R = 600V$ $T_J = 25^\circ C$ $T_J = 150^\circ C$	I_R	---	0.05 40	8.0 200	μA
Reverse recovery time	$I_F = 0.5A$ $I_{rr} = 0.25A$ $I_R = 1.0A$ $T_J = 25^\circ C$	t_{rr}	---	50	70	ns
THERMAL CHARACTERISTIC	SYMBOL	Typical			UNIT	
Typical thermal resistance_Junction to Case	$R_{\theta JC}$	3.5			°C/W	
Typical thermal resistance_Junction to Lead	$R_{\theta JL}$	4.5			°C/W	

Note :

- (1) 300us Pulse Width, 2% Duty Cycle.
- (2) 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 centre of body.

REV. 6, Dec-2012, KTGC30

FIG.1- FORWARD CURRENT DERATING CURVE

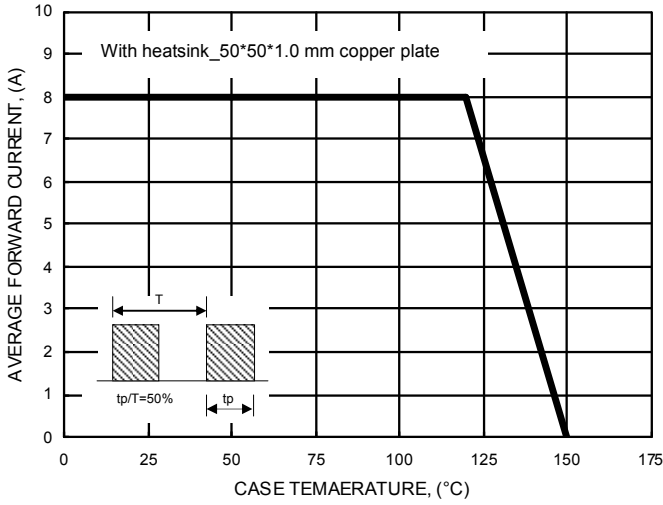


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

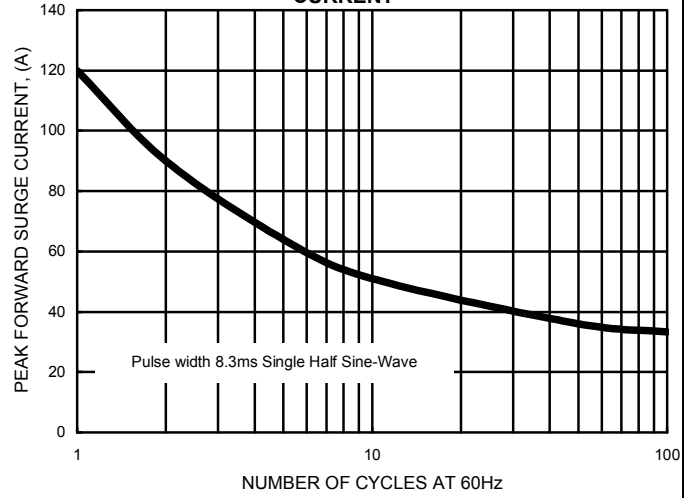


FIG.3- TYPICAL FORWARD CHARACTERISTICS

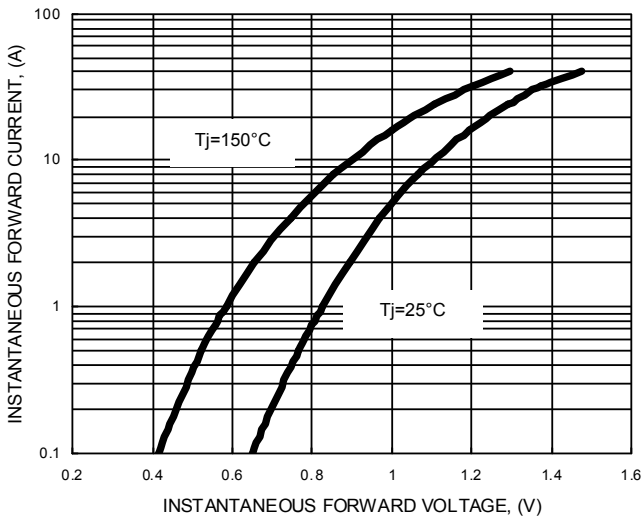


FIG.4- TYPICAL JUNCTION CAPACITANCE

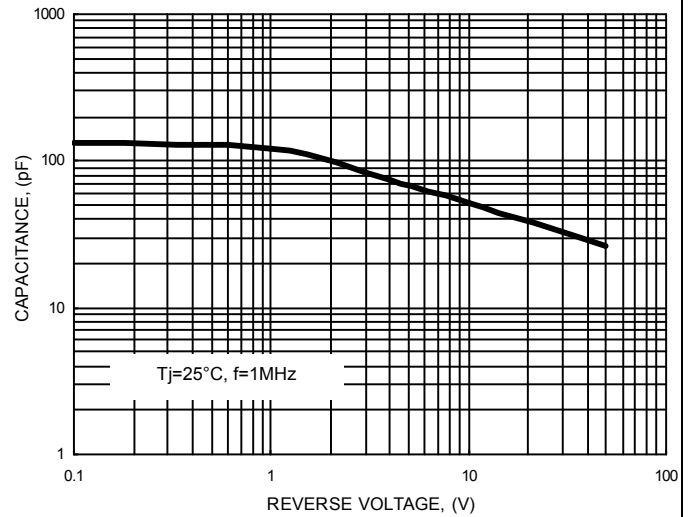


FIG.5- TYPICAL REVERSE CHARACTERISTICS

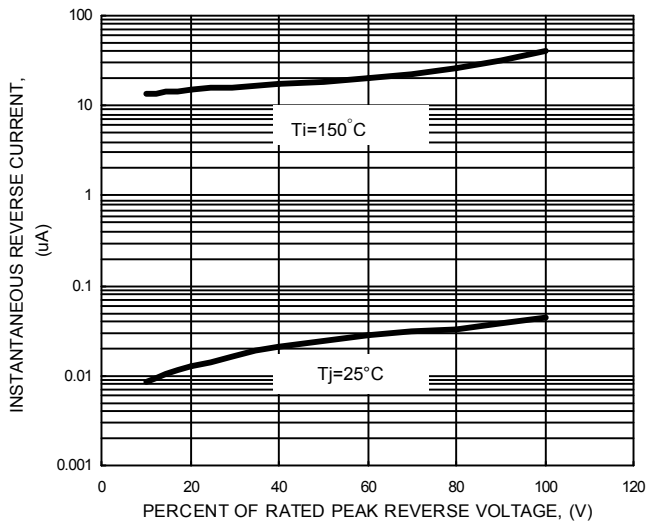
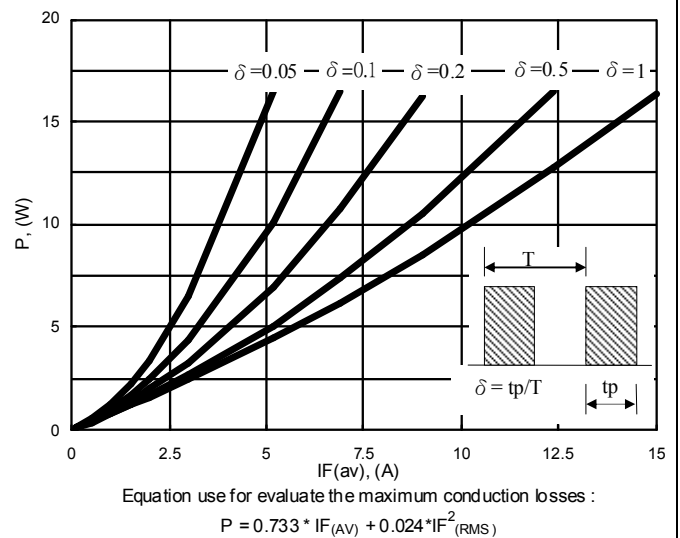


FIG.6- Conduction losses vs. average current



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