

**HYPER-FAST  
GLASS PASSIVATED RECTIFIER**

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

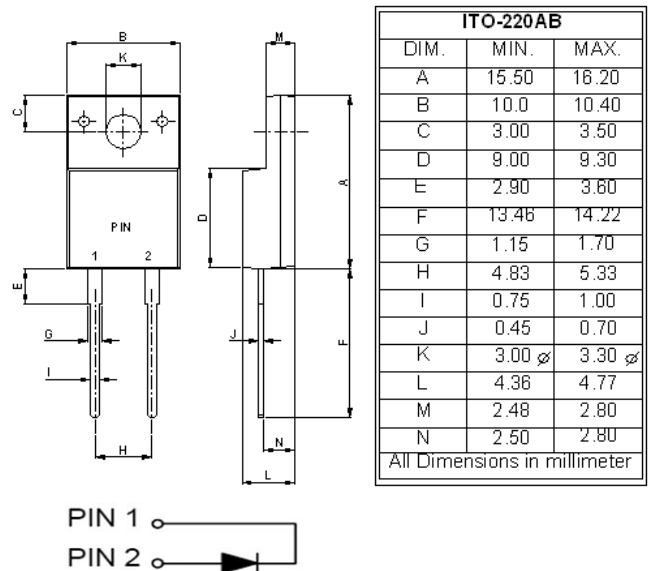
**FEATURES**

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

**MECHANICAL DATA**

- Case: JEDEC 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, 1.7 grams
- Component in accordance to RoHs 2002/95/EC
- Maximum mounting torque = 0.5 N.m (5.1 Kgf.cm)

**ITO-220AC**



**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.

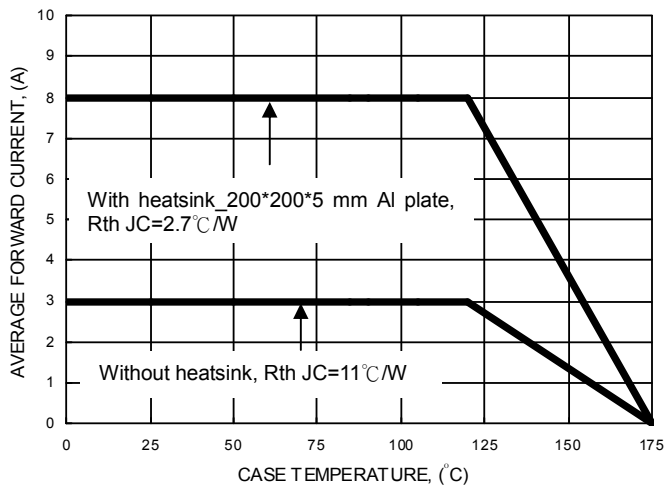
Parameter			Symbol	LTTH806SDF		Unit
Maximum Repetitive Peak Reverse Voltage			$V_{RRM}$	600		V
Average Rectified Output Current			$I_F$	8.0		A
Forward Voltage (1)	$I_F=8.0A$	$T_j=25^\circ C$	$V_F$	3.4		V
Reverse Leakage Current	$V_R=600V$	$T_j=25^\circ C$ $T_j=125^\circ C$	$I_R$	15 200		$\mu A$
Reverse recovery time	$I_F=0.5A$ $I_{rr}=0.25A$ $I_R=1.0A$	$T_j=25^\circ C$	$t_{rr}$	21		ns
Thermal characteristics (GBD)			Symbol	Value		Unit
Non Repetitive Forward Surge Current		$T_p=10ms$	$I_{FSM}$	60		A
Operation and Storage temperature range			$T_J, T_{STG}$	-55 to +175		$^\circ C$
Typical thermal resistance_Junction to Case (2)			$R_{\theta JC}$	2.7		$^\circ C/W$
Typical thermal resistance_Junction to Lead (2)			$R_{\theta JL}$	4.5		$^\circ C/W$
Dynamic electrical characteristics (GBD)			Symbol	Typical	Max.	Unit
Reverse recovery time	$I_F=1A,$ $dI_F/dt=-200A/\mu s,$ $V_R=30V$	$T_j=25^\circ C$	$t_{rr}$	12	18	ns
Reverse recovery current	$I_F=8 A,$ $dI_F/dt=-200A/\mu s,$ $V =200V$	$T_j=25^\circ C$	$I_{RM}$	1.8	2.2	A
Reverse recovery charges		$T_j=125^\circ C$		5	6.0	
		$T_j=25^\circ C$	$Q_{rr}$	60	---	nC
		$T_j=125^\circ C$		220	---	

Note :

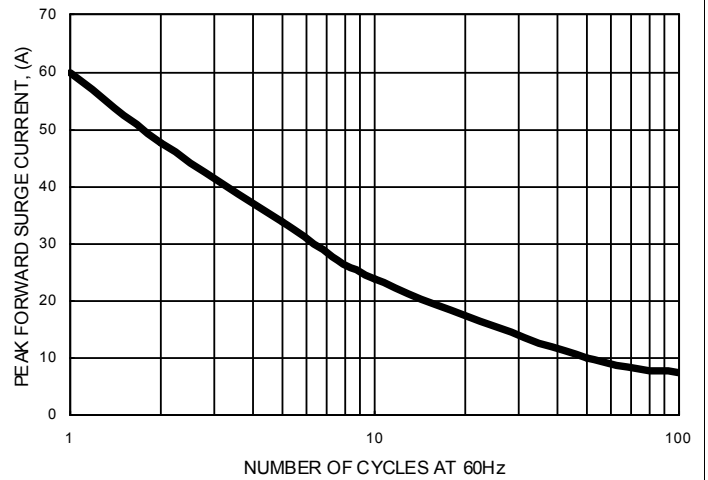
- (1) 300us Pulse Width, 2% Duty Cycle.
- (2) Thermal Resistance test performed in accordance with JESD-51.  $R_{thj-L}$  is measured at the PIN 2,  $R_{thj-C}$  is measured at the top centre of body.
- (3) GBD means Guaranteed By Design, the spec is basically follow designer simulation.

**REV. 9, Sep-2012, KTGC47**

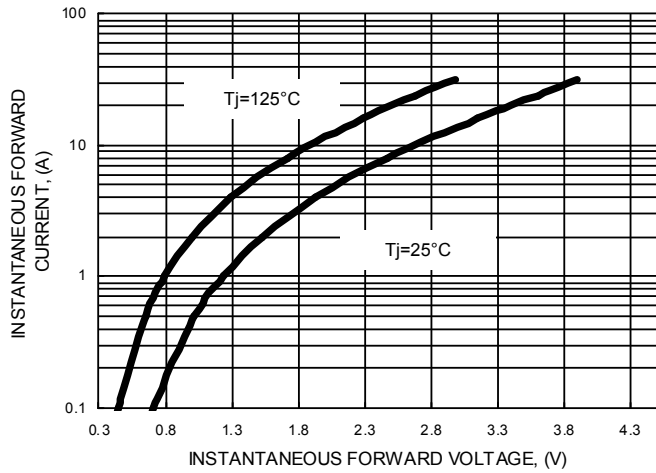
**FIG.1- FORWARD CURRENT DERATING CURVE**



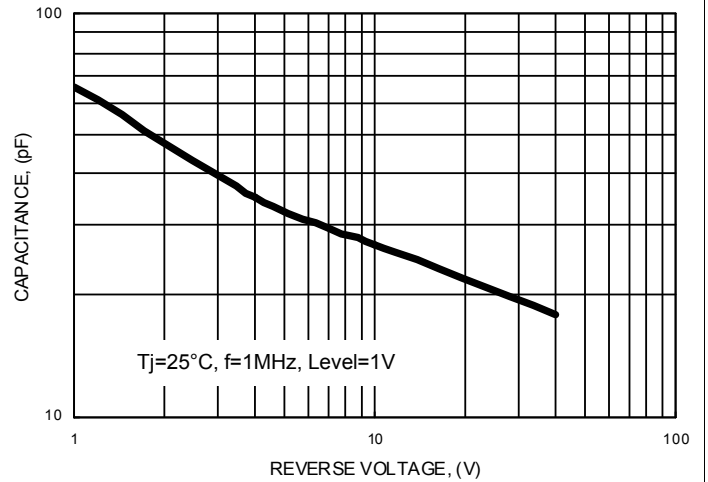
**FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT**



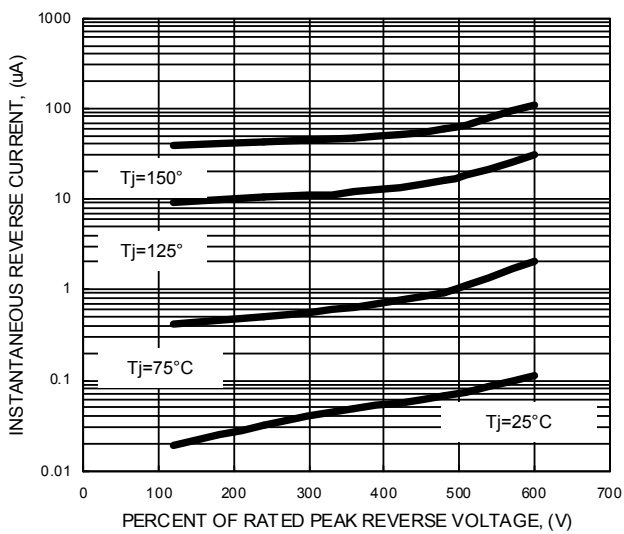
**FIG.3- TYPICAL FORWARD CHARACTERISTICS**



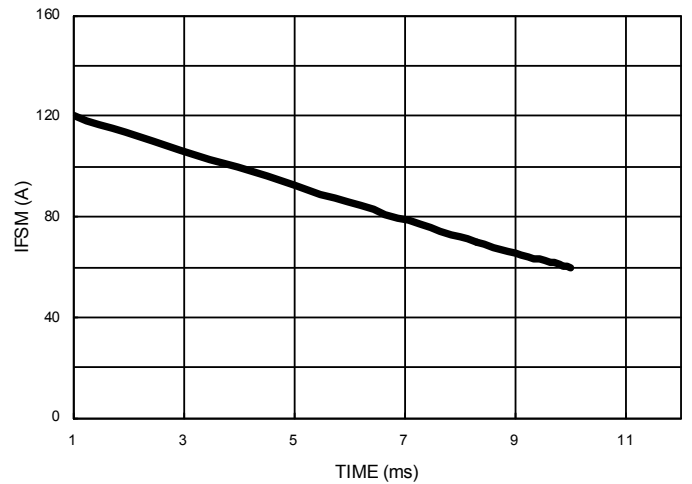
**FIG.4- TYPICAL JUNCTION CAPACITANCE**



**FIG.5- TYPICAL REVERSE CHARACTERISTICS**



**FIG.6- IFSM CAPABILITY CURVE**



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