LITE-ON SEMICONDUCTORS

LTTH806SDF

HYPER-FAST GLASS PASSIVATED RECTIFIER

REVERSE VOLTAGE – 600Volts FORWARD CURRENT – 8.0 Ampere

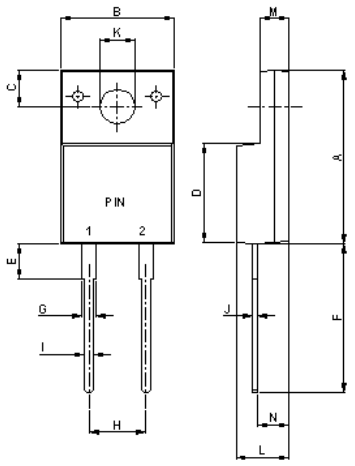
FEATURES

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

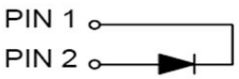
MECHANICAL DATA

- 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



ITO-220AB		
DIM.	MIN.	MAX.
A	15.50	16.20
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 ⌀	3.30 ⌀
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	LTTH806SDF	Unit
Maximum Repetitive Peak Reverse Voltage			V_{RRM}	600	V
Average Rectified Output Current		See FIG.1	I_F	8.0	A
Forward Voltage (1)	IF=8.0A	Tj=25°C	V_F	3.4	V
Reverse Leakage Current	VR=600V	Tj=25°C Tj=125°C	I_R	15 200	uA
Reverse recovery time	IF= 0.5A Irr= 0.25A IR =1.0A	Tj=25°C	t_{rr}	21	ns
Thermal characteristics (GBD)			**Symbol**	**Value**	**Unit**
Non Repetitive Forward Surge Current		Tp=10ms	I_{FSM}	60	A
Operation and Storage temperature range			T_J, T_{STG}	-55 to +175	°C
Typical thermal resistance_Junction to Case (2)			$R_{\Theta JC}$	2.7	°C/W
Typical thermal resistance_Junction to Lead (2)			$R_{\Theta JL}$	4.5	°C/W
Dynamic electrical characteristics (GBD)			**Symbol**	**Typical** / **Max.**	**Unit**
Reverse recovery time	IF=1A, dIF/dt=-200A/μs, VR=30V	Tj=25°C	t_{rr}	12 / 18	ns
Reverse recovery current	IF=8 A, dIF/dt=-200A/μs, V =200V	Tj=25°C Tj=125°C	I_{RM}	1.8 5 / 2.2 6.0	A
Reverse recovery charges		Tj=25°C Tj=125°C	Q_{rr}	60 220 / --- ---	nC

REV. 9, Sep-2012, KTGC47

Note :

(1) 300us Pulse Width, 2% Duty Cycle.

(2) Thermal Resistance test performed in accordance with JESD-51. Rthj-L is measured at the PIN 2, Rthj-C is measured at the top centre of body.

(3) GBD means Guaranteed By Design, the spec is basically follow designer simulation.

RATING AND CHARACTERISTIC CURVES
LTTH806SDF

LITEON

FIG.1- FORWARD CURRENT DERATING CURVE

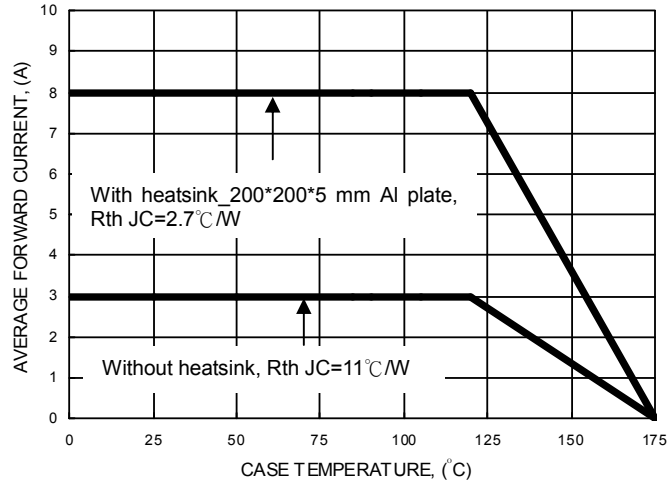


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

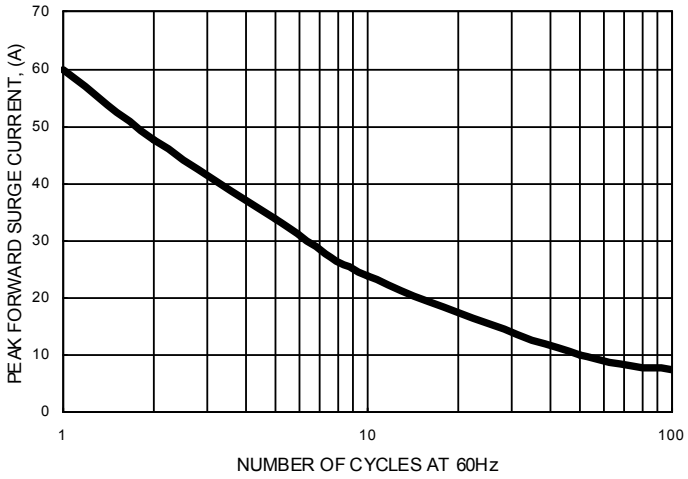


FIG.3- TYPICAL FORWORD CHARACTERISTICS

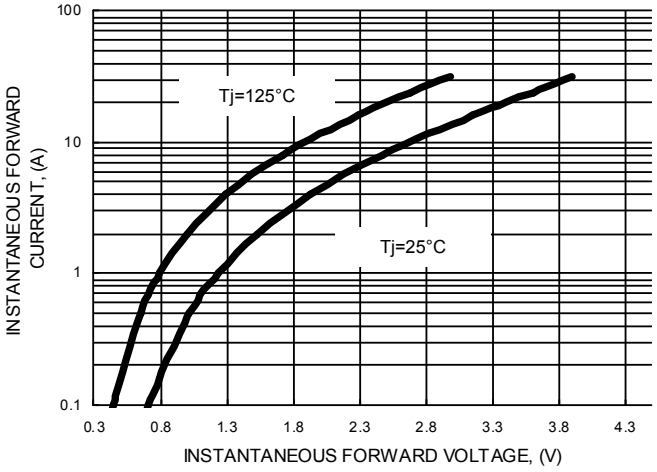


FIG.4- TYPICAL JUNCTION CAPACITANCE

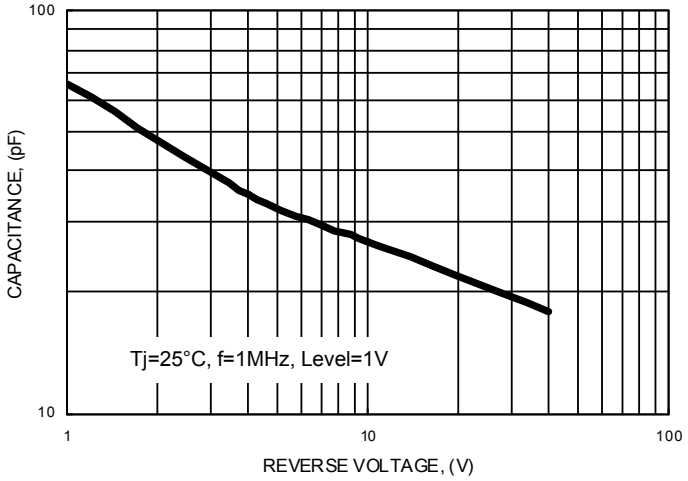


FIG.5- TYPICAL REVERSE CHARACTERISTICS

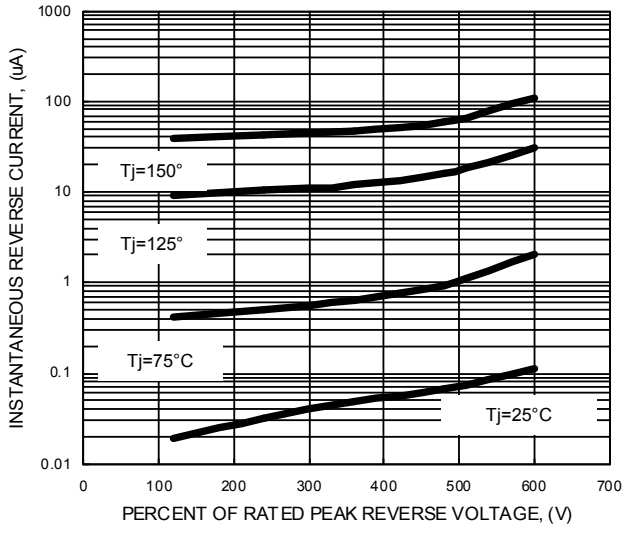
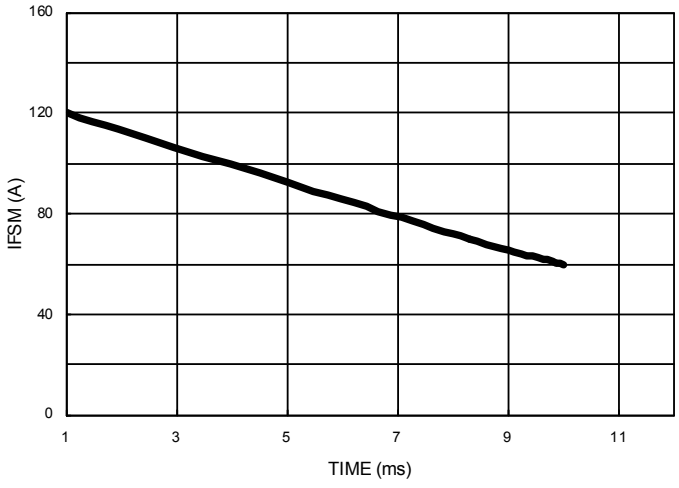


FIG.6- IFSM CAPABILITY CURVE



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