LITE-ON SEMICONDUCTORS

LTTH806SDW

HYPER-FAST
GLASS PASSIVATED RECTIFIER

REVERSE VOLTAGE – 600Volts
FORWARD CURRENT – 8.0 Ampere

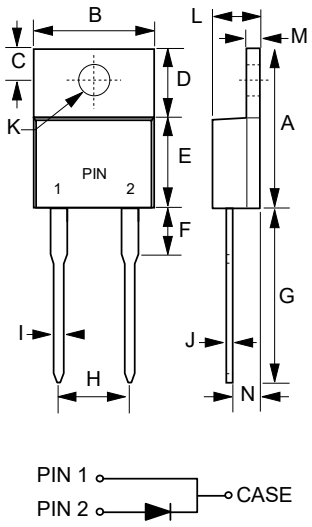
FEATURES

- Soft, Hyper fast switching capability
- Specially suited for Continuous mode Power Factor Corrections.
- High reliability and efficiency
- Qualified according to AEC-Q101 Rev_C

MECHANICAL DATA

- Case: JEDEC TO-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, 2.24 grams
- Component in accordance to RoHs 2002/95/EC
- Maximum mounting torque = 0.5 N.m (5.1 Kgf.cm)

TO-220AC



TO-220AC		
DIM.	MIN.	MAX.
A	14.40	15.20
B	9.65	10.67
C	2.54	3.43
D	5.84	6.86
E	8.26	9.28
F	-	4.20
G	12.70	14.73
H	4.83	5.33
I	0.51	1.14
J	0.30	0.64
K	3.53 ⌀	4.09 ⌀
L	3.56	4.83
M	1.14	1.40
N	2.03	2.92
All Dimensions in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter			Symbol	LTTH806SDW	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=1 ms tp=10ms	I_{FSM}	150 70	A
Operation and Storage temperature range			T_J, T_{STG}	-55 to +175	°C
Typical thermal resistance, Junction to Ambient (2)			$R_{\Theta JA}$	7.0	°C/W
Typical thermal resistance, Junction to Case (2)			$R_{\Theta JC}$	2.8	°C/W
Typical thermal resistance, Junction to Lead (2)			$R_{\Theta JL}$	3.5	°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, VR=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

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.

REV.-2,Oct-2019, KTGA27

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RATING AND CHARACTERISTIC CURVES
LTTH806SDW

FIG.1- FORWARD CURRENT DERATING CURVE

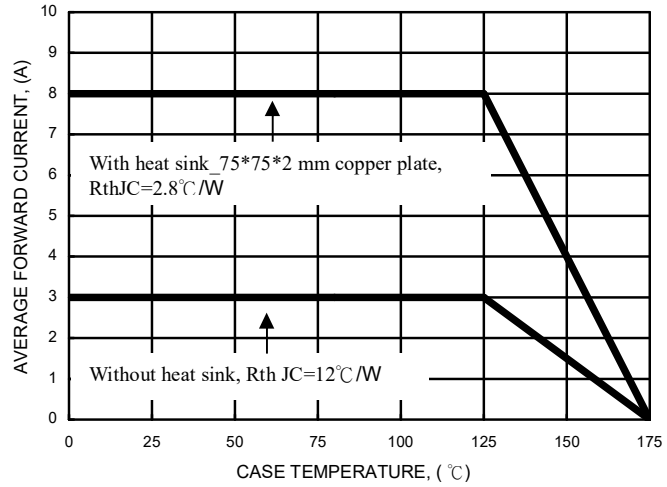


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

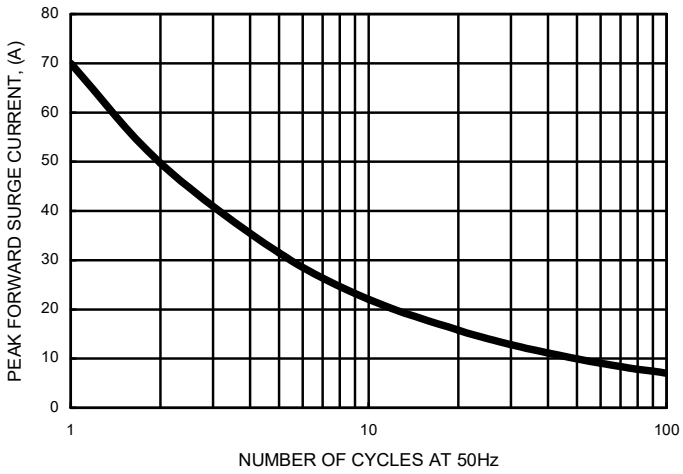


FIG.3- TYPICAL FORWORD CHARACTERISTICS

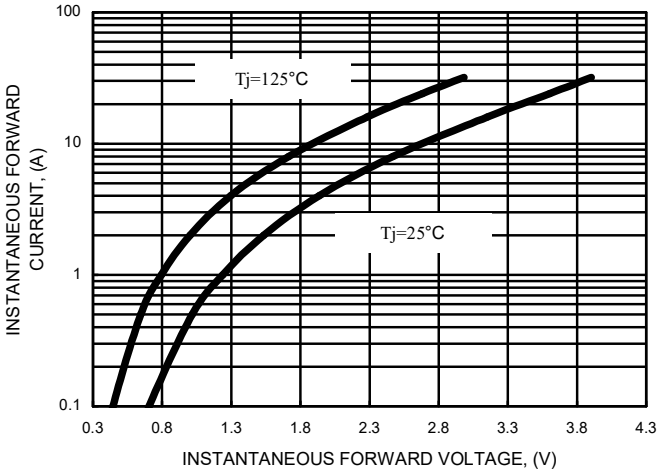


FIG.4- TYPICAL JUNCTION CAPACITANCE

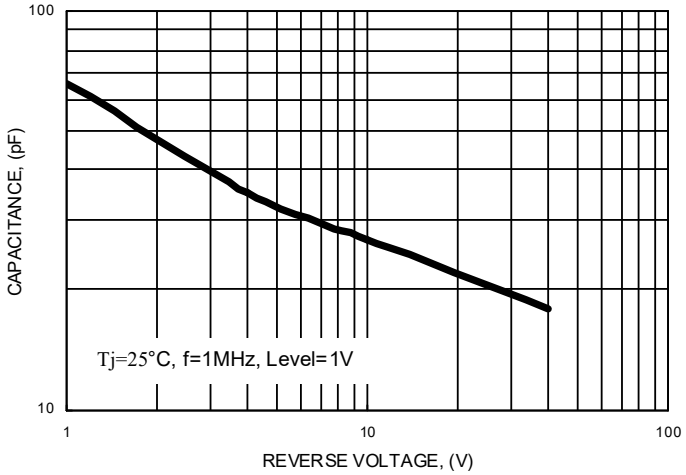
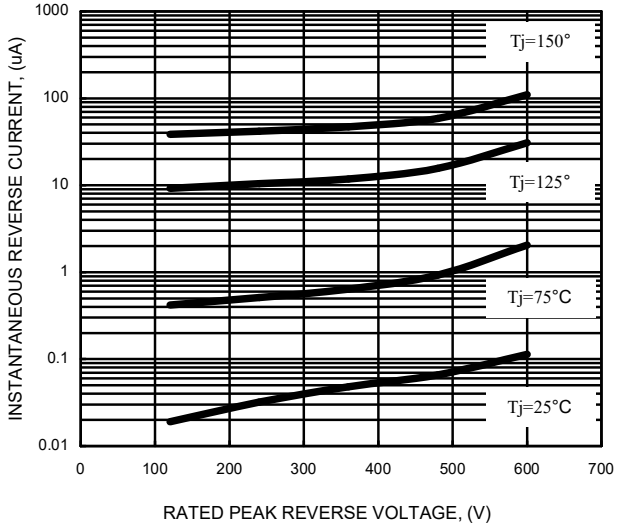


FIG.5- TYPICAL REVERSE CHARACTERISTICS



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