LITE-ON SEMICONDUCTORS

LTTH806D

HYPER-FAST
GLASS PASSIVATED RECTIFIER

REVERSE VOLTAGE – 600Volts
FORWARD CURRENT – 8.0 Ampere

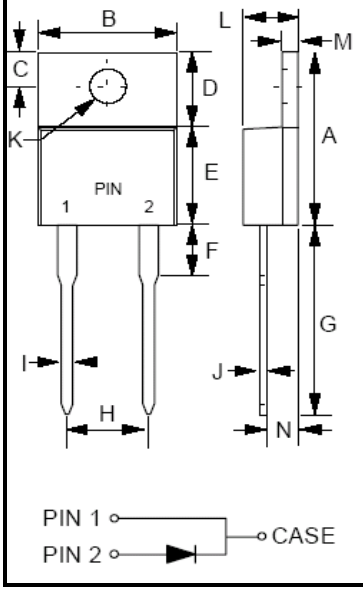
FEATURES

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

MECHANICAL DATA

- Case: JEDEC 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: 0.08 ounces, 2.24 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)

TO-220AC



TO-220AC		
DIM.	MIN.	MAX.
A	14.22	15.88
B	9.65	10.67
C	2.54	3.43
D	5.84	6.86
E	8.26	9.28
F	-	6.35
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	LTTH806D	UNIT
Device marking code	Note	LTTH806D	---
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	600	V
Average Rectified Output Current @ δ =0.5 See FIG.1	I_F	8.0	A
Peak Forward Surge Current 8.3ms single half sine-wave	I_{FSM}	100	A
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=30uA	Tj=25°C	V_B	600	---	---	V
Forward Voltage (1)	IF=8.0A	Tj=25°C Tj=125°C	V_F	--- ---	2.0 1.4	2.90 1.80	V
Leakage Current	VR=600V	Tj=25°C Tj=125°C	I_R	--- ---	0.3 20	30 400	uA
Reverse recovery time	IF= 0.5A Irr= 0.25A IR =1.0A	Tj=25°C	t_{rr}	---	23	25	ns

THERMAL CHARACTERISTIC	SYMBOL	Typical	UNIT
Typical thermal resistance_Junction to Case (2)	$R_{\Theta JC}$	2.5	°C/W
Typical thermal resistance_Junction to Lead (2)	$R_{\Theta JL}$	3.0	°C/W

REV. 2, Sep-2010, KTGA22

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.

RATING AND CHARACTERISTIC CURVES
LTTH806D

FIG.1- FORWARD CURRENT DERATING CURVE

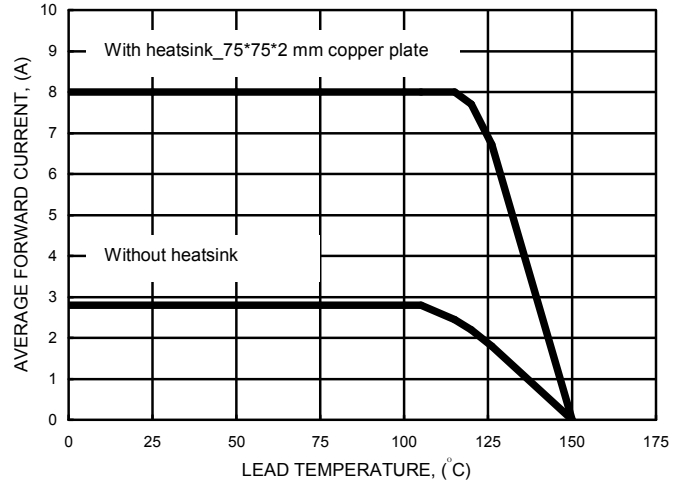


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

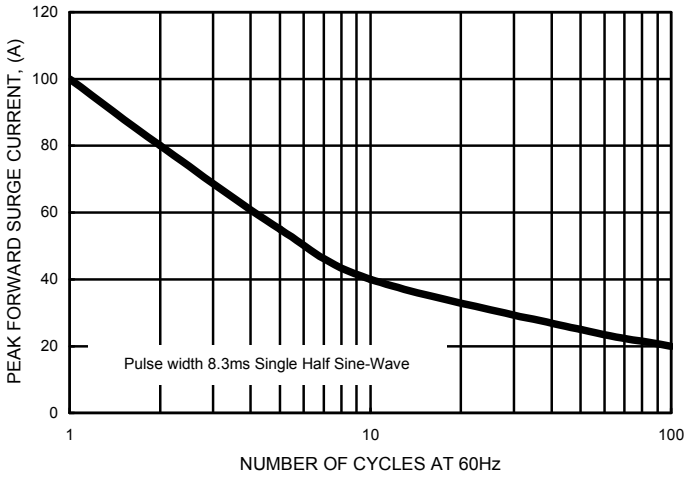


FIG.3- TYPICAL FORWORD CHARACTERISTICS

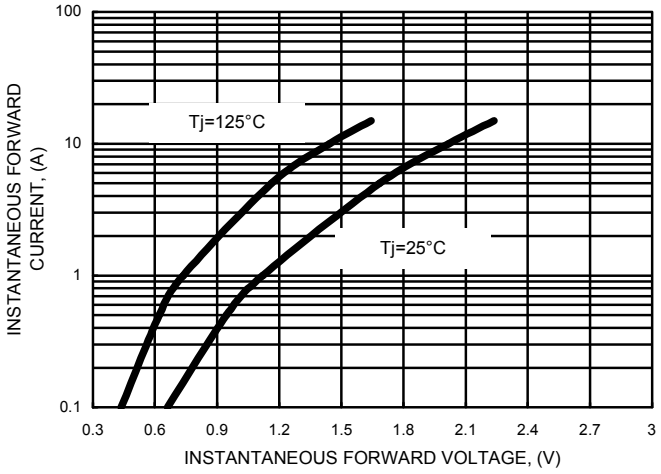


FIG.4- TYPICAL JUNCTION CAPACITANCE

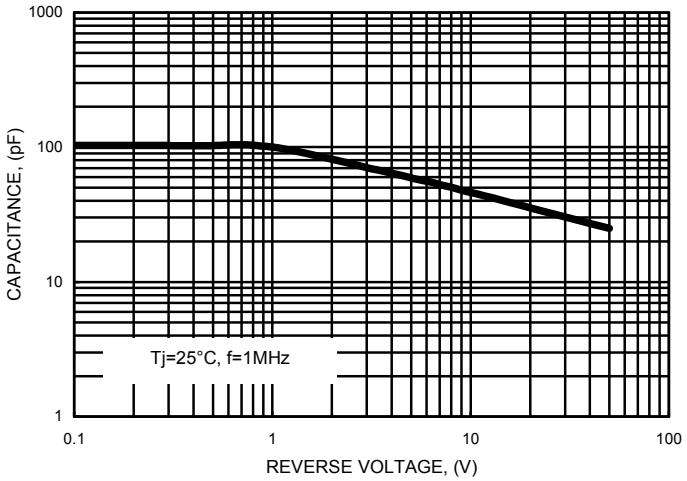
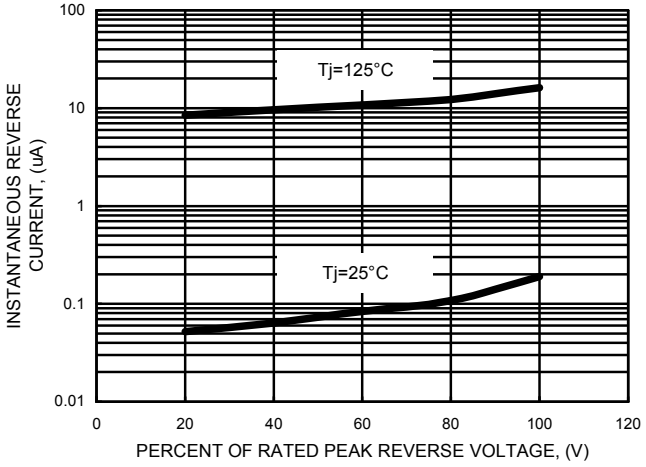


FIG.5- TYPICAL REVERSE CHARACTERISTICS



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