

HYPER-FAST GLASS PASSIVATED RECTIFIER

REVERSE VOLTAGE – 600 Volts
FORWARD CURRENT – 10 Amperes

FEATURES

- Soft, Hyper fast switching capability
- Specially suited for critical mode Power Factor Corrections.
- High reliability and efficiency
- Low forward voltage drop
- Qualification is according to AEC-Q101 Rev_C
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**

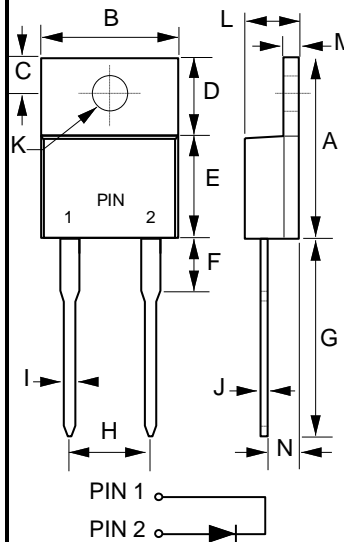
APPLICATION

- High output SMPS
- Servers and telecom equipment

MECHANICAL DATA

- Package: TO-220AC
- Package Material: "Green" Molding compound, UL flammability classification 94V-0, "Halogen-free".
- Terminals: Lead Free Plating
- Polarity indicator: As marked on the body
- Weight: 1.894 grams (Approximate)
- Lead Free Finish, RoHS Compliant
- Maximum mounting torque = 0.5 N.m (5.1 Kgf.cm)
- Marking code: LTTH1006LW

TO-220AC(WB)



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 Ø	4.09Ø
L	3.56	4.83
M	1.14	1.40
N	2.03	2.92

All dimension in millimeter

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

ABSOLUTE RATINGS

PARAMETER	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	600	V
Maximum Average rectified forward current	$I_{F(av)}$	10	A
Peak forward surge 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	120	A
I^2t Rating for fusing (3ms $\leq t \leq$ 8.3ms)	I^2t	60	A ² S
Storage and Operating temperature range	T_{STG}, T_J	-55 to +150	°C

STATIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITION	SYMBOL	TYP	MAX	UNIT
Forward voltage(Note 4)	$I_F=10A$ $T_J=25^\circ C$ $T_J=125^\circ C$	V_F	--	1.35 1.05	V
Reverse leakage current	$V_R=600V$ $T_J=25^\circ C$ $T_J=150^\circ C$	I_R	--	8.0 200	μA

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	TYP	UNIT
Typical thermal resistance(Note 5,6)	R_{thJc} R_{thJl}	3 5	°C/W

DYNAMIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITION	SYMBOL	MAX	UNIT
Reverse recovery time	$I_F=0.5A, I_{tr}=0.25A, I_R=1.0A$	T_{rr}	70	nS

Notes:

1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
2. See <https://www.diodes.com/quality/lead-free/> for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
4. 300us Pulse Width, 2% Duty Cycle.
5. Thermal Resistance test performed in accordance with JESD-51.
6. The unit mounted on Aluminum fin type heatsink (40 mm x 23 mm x 15.95 mm)

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RATING AND CHARACTERISTIC CURVES
LTTH1006LW

FIG.1- FORWARD CURRENT DERATING CURVE

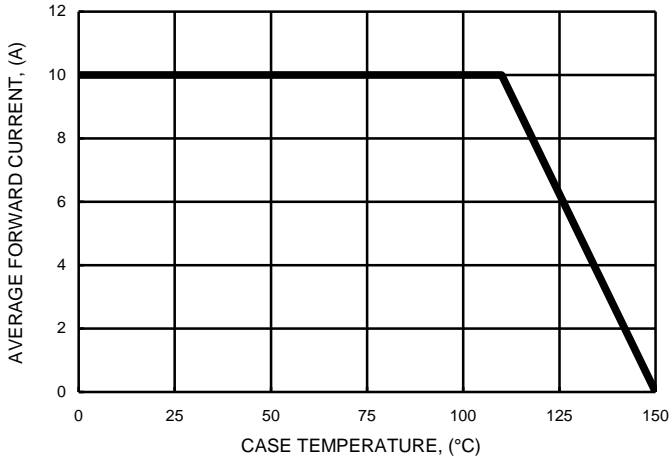


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

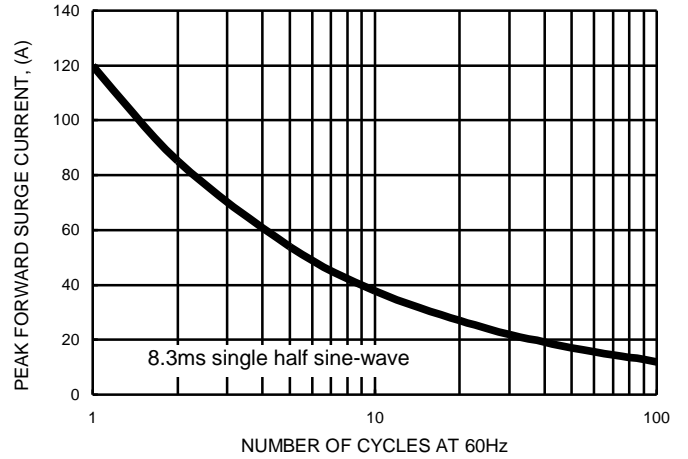


FIG.3- TYPICAL FORWARD CHARACTERISTICS

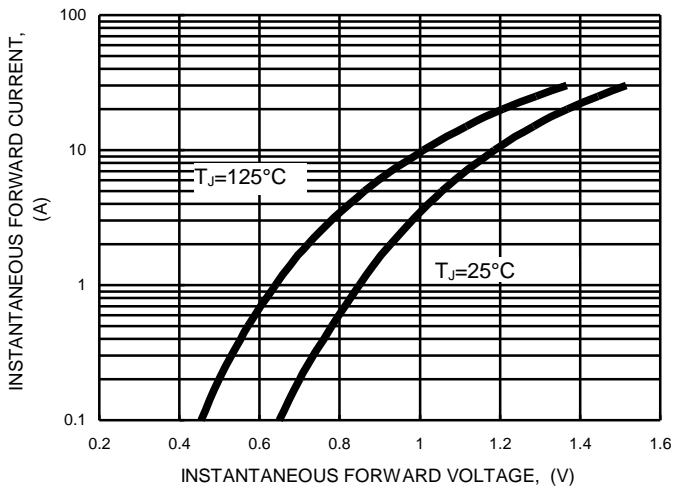


FIG.4- TYPICAL JUNCTION CAPACITANCE

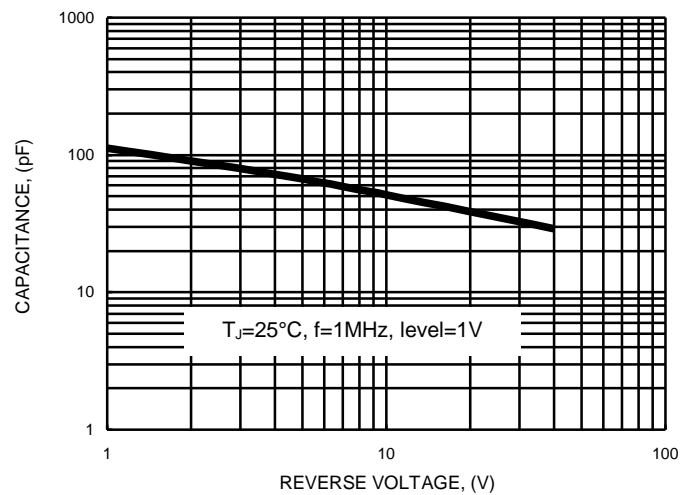
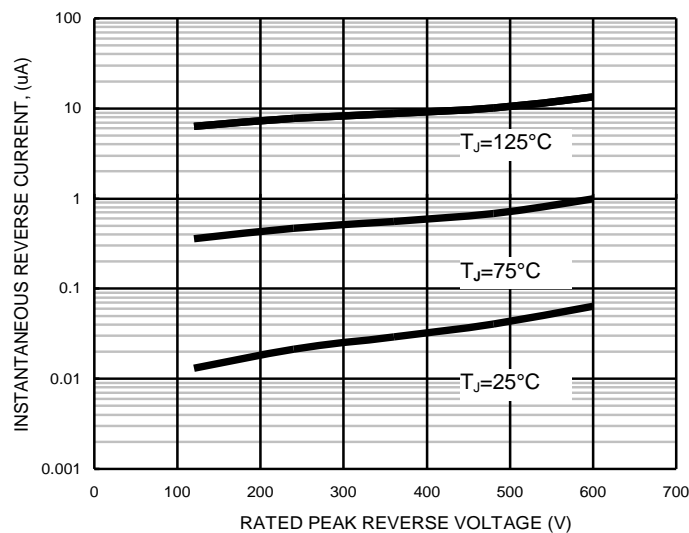


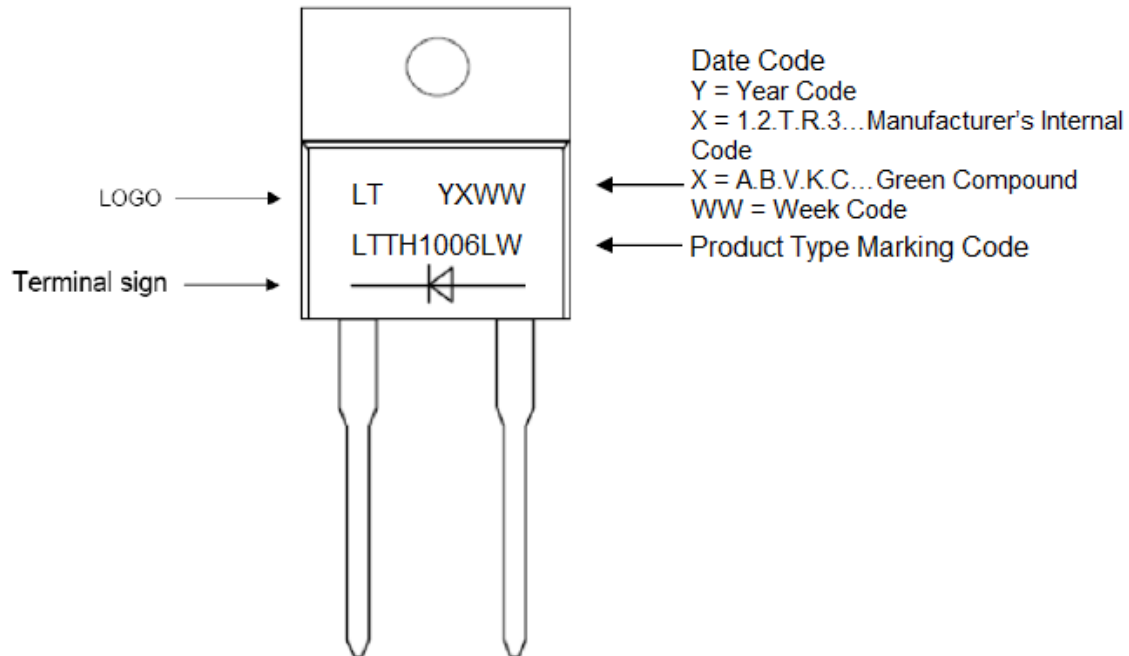
FIG.5- TYPICAL REVERSE CHARACTERISTICS



Ordering Information :

Part Number	Package	Packing	
		Qty.	Carrier
LTTH1006LW_NC	TO-220AC	50 pcs	Tube

Marking Information :



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