

**HYPER-FAST
GLASS PASSIVATED RECTIFIER**

**REVERSE VOLTAGE – 600 Volts
FORWARD CURRENT – 15 Ampere**

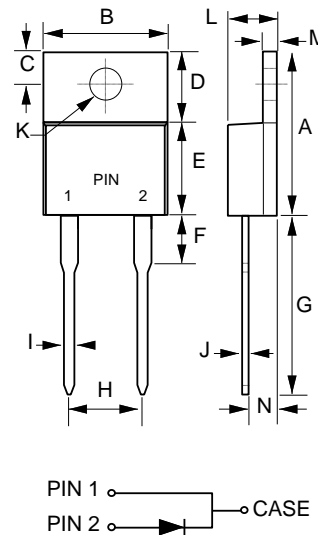
FEATURES

- Soft, Hyper fast switching capability
- Specially suited for critical mode Power Factor Corrections
- High reliability and efficiency
- TO-220AC
 - **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- Available in "Green" Package: TO-220AC
 - **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
 - **Halogen and Antimony Free. "Green" Device (Note 3)**

MECHANICAL DATA

- Package: JEDEC TO-220AC
- Package 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	14.40	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 \varnothing	4.09 \varnothing
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	LTTH1506D			UNIT	
Device marking code	Note	LTTH1506D			---	
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	600			V	
Average Rectified Output Current @ $\delta = 0.5$ See Fig.1	I_F	15			A	
Peak Forward Surge Current 8.3ms single half sine-wave	I_{FSM}	120			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	$I_R = 60\mu A$ $T_J = 25^\circ C$	V_B	600	---	---	V
Forward Voltage (Note 4)	$I_F = 15A$ $T_J = 25^\circ C$ $T_J = 125^\circ C$	V_F	---	2.25 1.60	2.90 1.80	V
Leakage Current	$V_R = 600V$ $T_J = 25^\circ C$ $T_J = 125^\circ C$ $T_J = 150^\circ C$	I_R	---	0.5 70 300	60 800 2400	μA
Reverse recovery time	$I_F = 0.5A$ $I_{rr} = 0.25A$ $I_R = 1.0A$ $T_J = 25^\circ C$	t_{rr}	---	26	30	ns
THERMAL CHARACTERISTIC	SYMBOL	Typical			UNIT	
Typical thermal resistance_Junction to Case (Note 5)	$R_{\theta JC}$	3.0			°C/W	
Typical thermal resistance_Junction to Lead (Note 5)	$R_{\theta JL}$	4.0			°C/W	

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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 <90ppm bromine, <90ppm 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. $R_{\theta JL}$ is measured at the PIN 2, $R_{\theta JC}$ is measured at the top centre of body.

RATING AND CHARACTERISTIC CURVES
LTTH1506D

FIG.1- FORWARD CURRENT DERATING CURVE

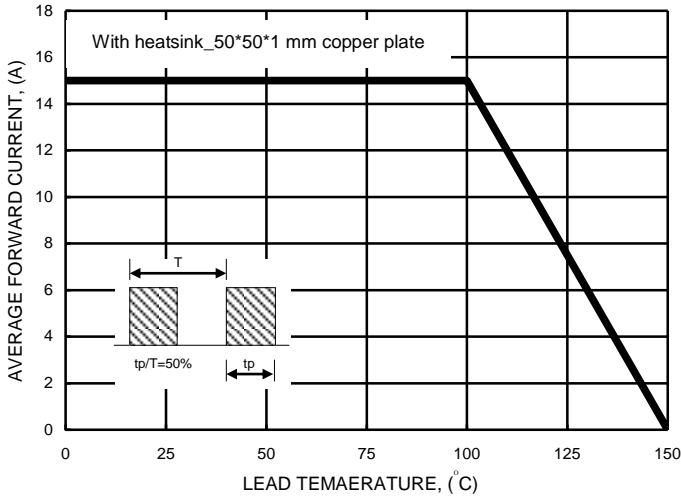


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

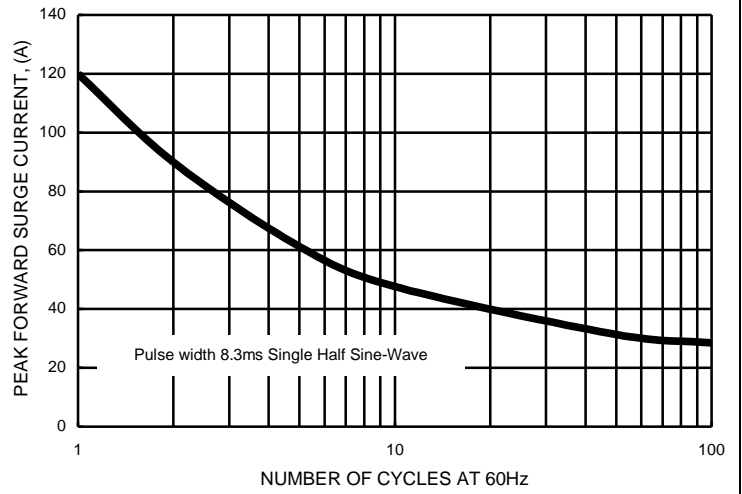


FIG.3- TYPICAL FORWARD CHARACTERISTICS

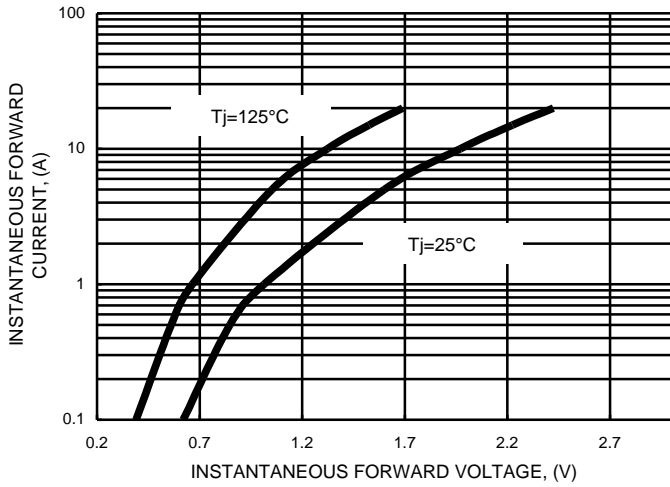


FIG.4- TYPICAL JUNCTION CAPACITANCE

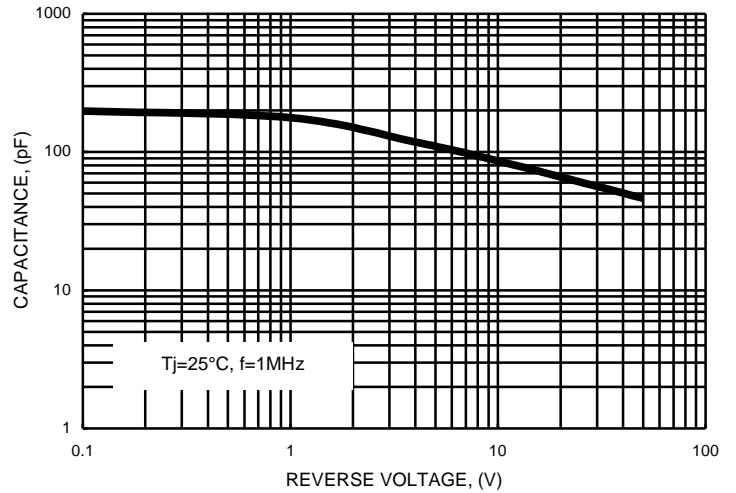
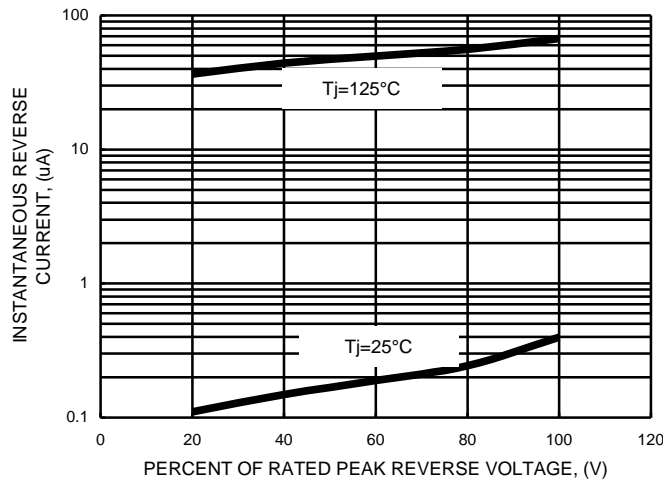


FIG.5- TYPICAL REVERSE CHARACTERISTICS

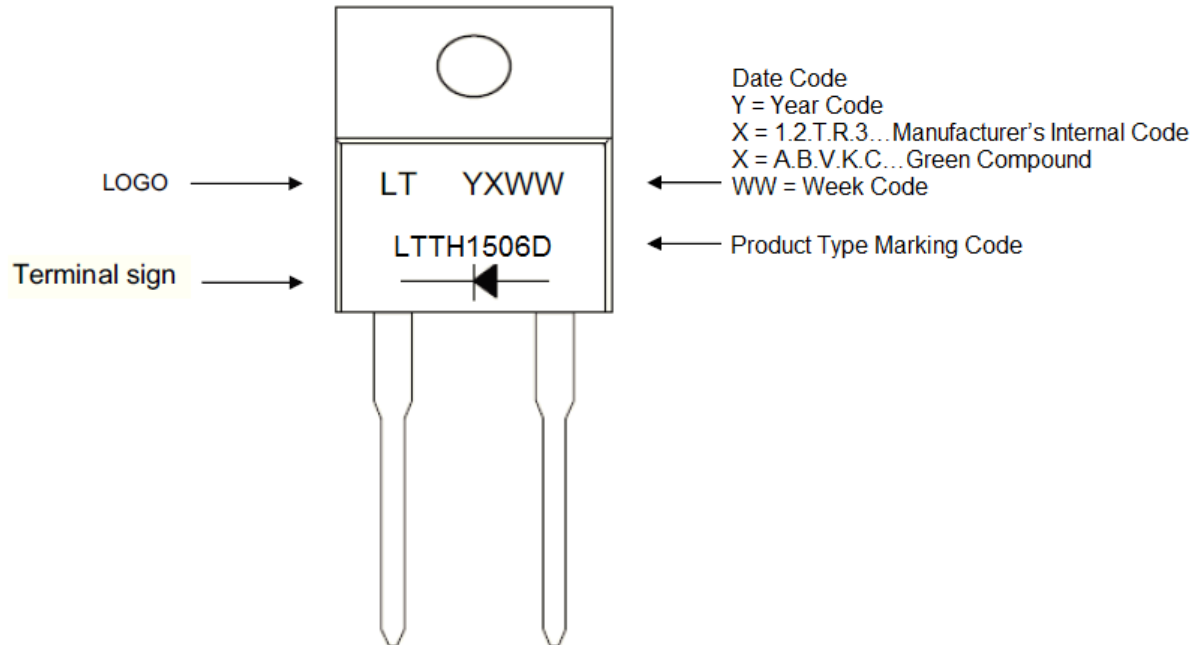


Ordering Information :

Part Number		Package	Packing	
Lead Free	Green		Qty.	Carrier
NA	LTTH1506D_HF	TO-220AC	50	Tube
LTTH1506D	NA	TO-220AC	50	Tube



Marking Information :



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