A Product Line of Diodes Incorporated | LITE-ON SEMICONDUCTOR

LTTH1506D

HYPER-FAST GLASS PASSIVATED RECTIFIER

REVERSE VOLTAGE – 600 Volts FORWARD CURRENT – 15 Ampere

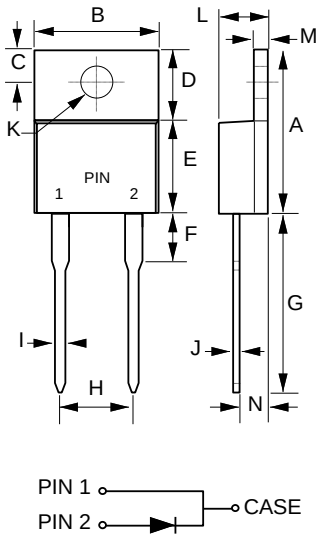
FEATURES

- 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 ⌀	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	LTTH1506D	UNIT
Device marking code	Note	LTTH1506D	---
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	600	V
Average Rectified Output Current @δ =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	IR=60uA	Tj=25°C	V_B	600	---	---	V
Forward Voltage (Note 4)	IF=15A	Tj=25°C Tj=125°C	V_F	--- ---	2.25 1.60	2.90 1.80	V
Leakage Current	VR=600V	Tj=25°C Tj=125°C Tj=150°C	I_R	--- ---	0.5 70 300	60 800 2400	uA
Reverse recovery time	IF= 0.5A Irr= 0.25A IR =1.0A	Tj=25°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

REV. 8, Nov-2021, KTGA26

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. $R_{\Theta JL}$ 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

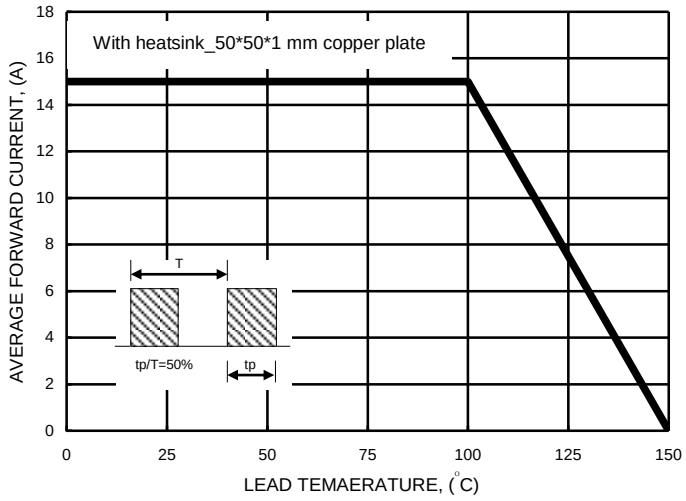


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

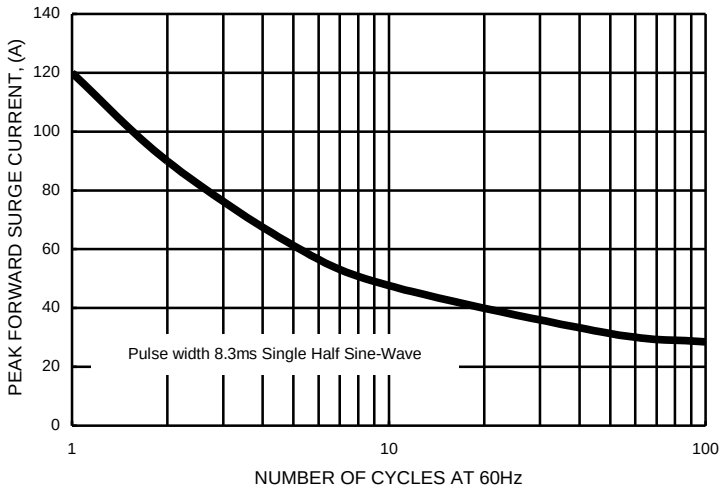


FIG.3- TYPICAL FORWORD CHARACTERISTICS

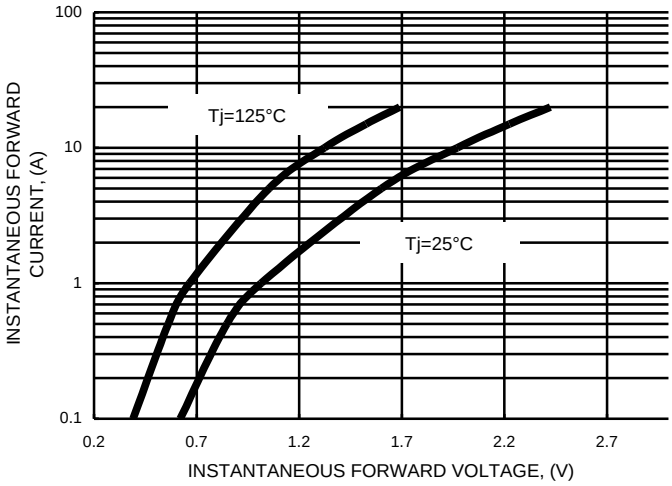


FIG.4- TYPICAL JUNCTION CAPACITANCE

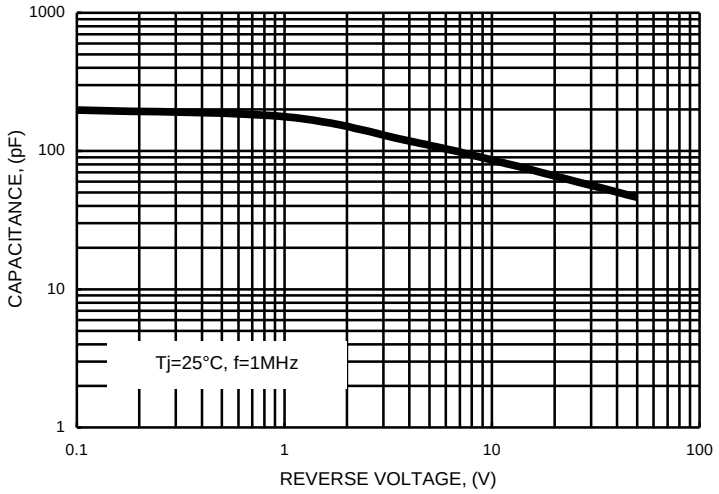
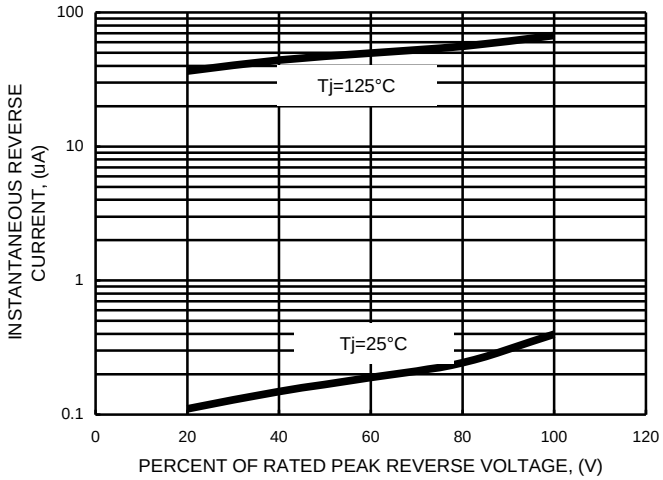


FIG.5- TYPICAL REVERSE CHARACTERISTICS

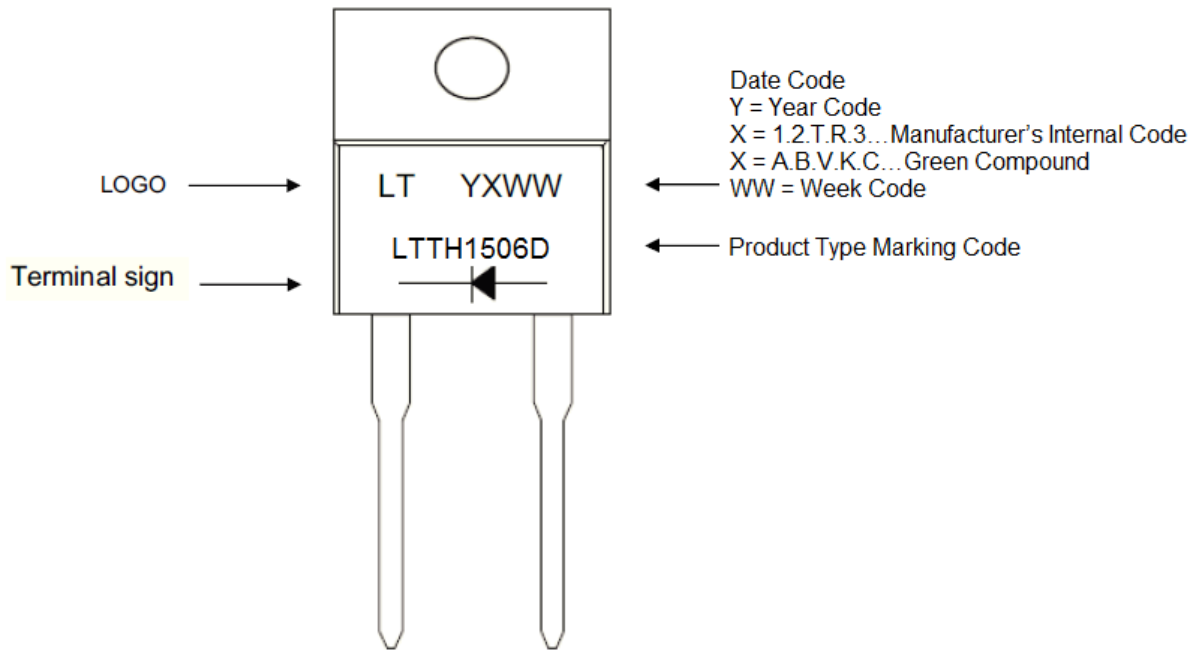


Ordering Information :

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

Green

Marking Information :



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