A Product Line of Diodes Incorporated

LITE-ON SEMICONDUCTOR

TT6JL(LS)

GLASS PASSIVATED BRIDGE RECTIFIER

REVERSE VOLTAGE – 600 Volts
FORWARD CURRENT – 6.0 Amperes

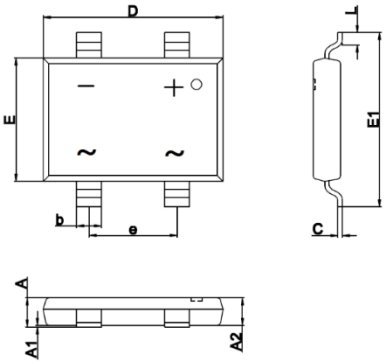
FEATURES

- Ideal for printed circuit board
- Reliable construction utilizing molded plastic technique
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**

MECHANICAL DATA

- Case Material: "Green" molding compound, UL flammability classification 94V-0, (No Br. Sb. Cl.) "Halogen-free".
- Polarity: As marked on the body
- Weight: 0.389 grams (Approximate)
- Marking: TT6JL

TT



TT			
DIM.	MIN.	TYP.	MAX.
A	1.45	1.65	1.80
A1	0.00	0.10	0.15
A2	1.45	1.55	1.65
C	0.15	0.25	0.35
D	10.05	10.20	10.35
E	6.85	7.00	7.15
E1	9.75	9.90	10.05
L	0.45	0.70	0.95
b	1.30	1.40	1.50
e	4.90	5.00	5.10
All dimension in millimetres.			

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 DC blocking voltage		V_{DC}	600	V
Average rectified output current per device	@T_A = 25°C (Note 4)	$I_{(AV)}$	6.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	@ T_A=25°C @ T_A=125°C (Note 4)	I_{FSM}	150 120	A
Peak forward surge current 1ms single half sine-wave superimposed on rated load	@ T_A=25°C @ T_A=125°C (Note 4)	I_{FSM}	300 240	A
I^2t rating for fusing (t = 8.3ms)		I^2t	95	A^2S
Operating and storage temperature range		T_J ,T_{STG}	-55 to +150	°C

STATIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITION		SYMBOL	TYP.	MAX.	UNIT
Forward voltage (Note 4)	I_F = 3A	T_A = 25°C T_A = 125°C (Note 4)	V_F	0.84 --	0.9 --	V
Leakage current	V_R = 600V	T_A = 25°C T_A = 125°C (Note 4)	I_R	0.35 --	5 --	uA
Typical junction capacitance (Note 5)			C_J	70		pF

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	TYP.	UNIT
Typical Thermal Resistance (without Heatsink)	R_{thJC} R_{thJL} R_{thJA}	14 10 45	°C/W
Typical thermal resistance (Note 6)	R_{thJC} R_{thJL} R_{thJA}	6 7 10	°C/W

Note :

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. Perform static test after the temperature of oven is steady 20 minutes.
5. Measured at 1.0MHz and applied reverse voltage of 4.0V DC
6. Thermal resistance junction to case, lead and ambient in accordance with JESD-51. Unit mounted on 90mmx50mmx1.6mm AL Pad attached on 100mmx75mmx27mm AL Fin heatsink.

REV.1, NOV-2021, KBDA52

RATING AND CHARACTERISTIC CURVES
TT6JL(LS)

FIG.1- FORWARD CURRENT DERATING CURVE

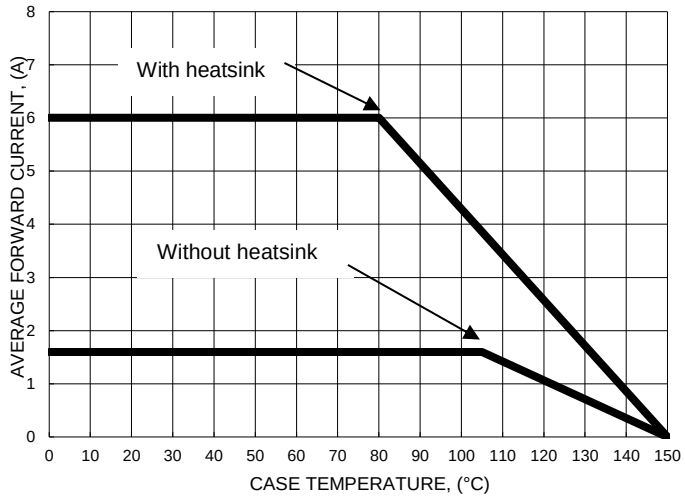


FIG.2- FORWARD CURRENT DERATING CURVE

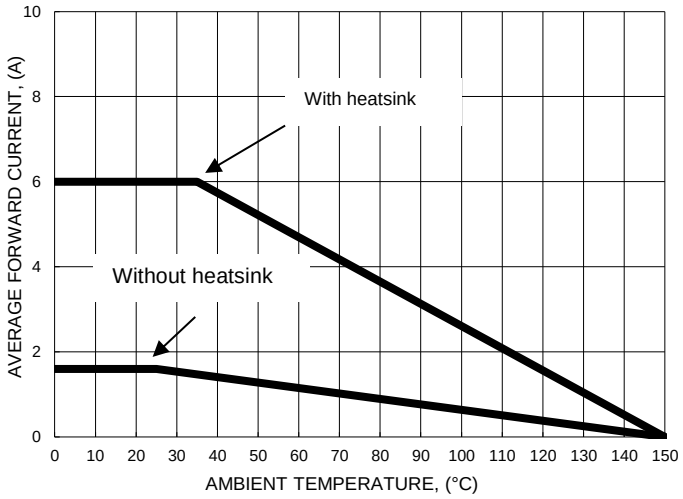


FIG.3- MAXIMUM NON-REPETITIVE SURGE CURRENT

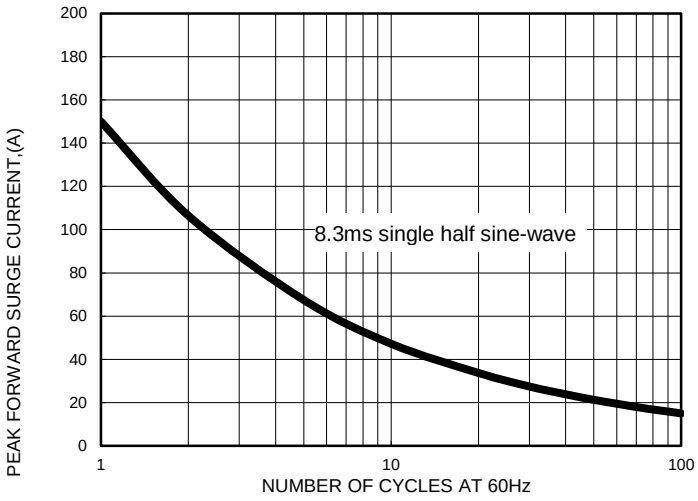


FIG.4- TYPICAL FORWARD CHARACTERISTICS

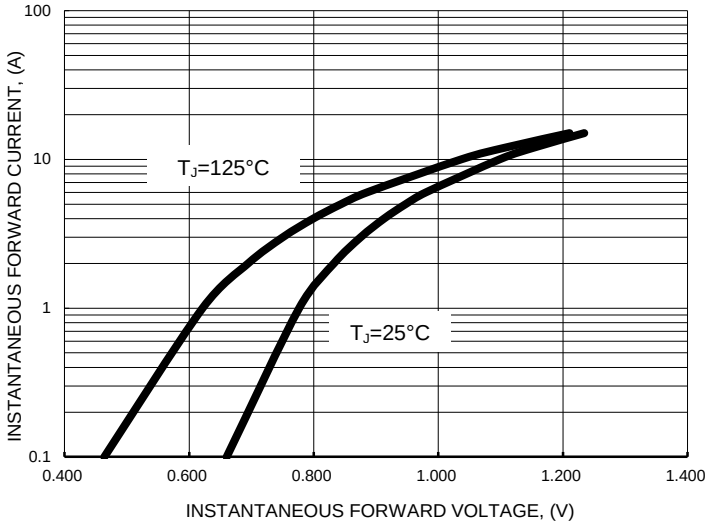


FIG.5- TYPICAL JUNCTION CAPACITANCE

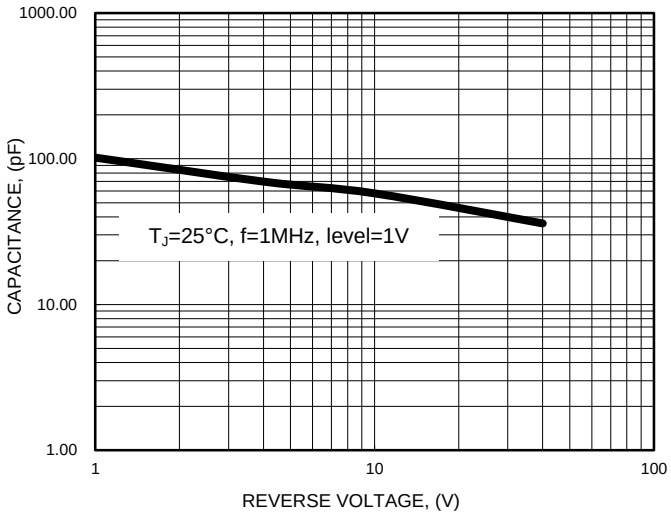
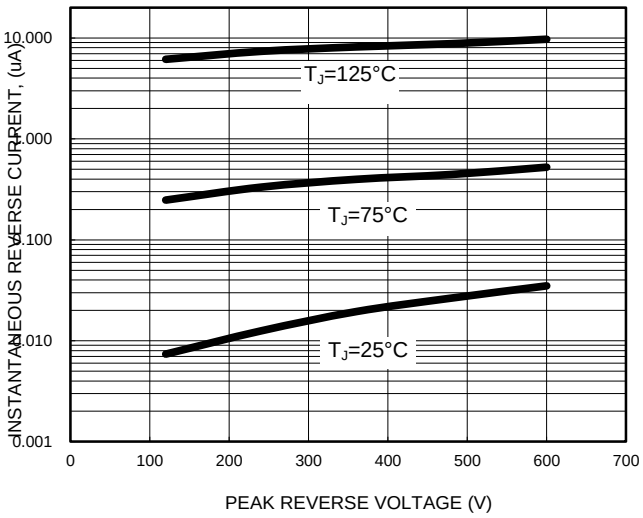


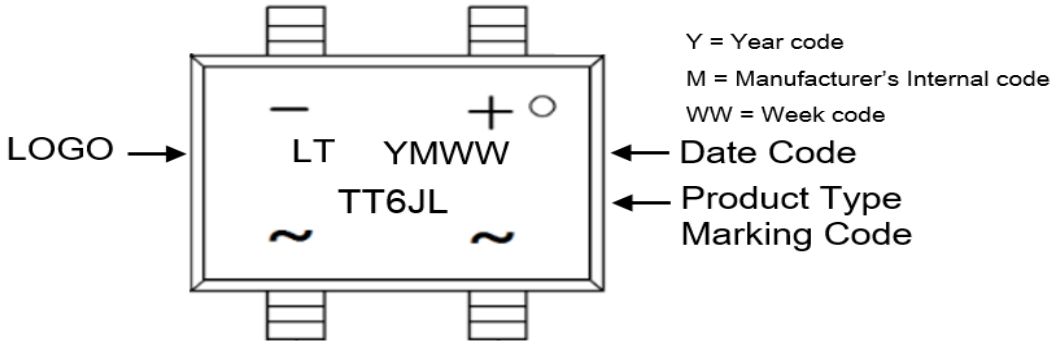
FIG.6- TYPICAL REVERSE CHARACTERISTICS



Ordering Information :

Part Number	Package	Packing	
		Qty.	Carrier
TT6JL_HF	TT	1500	Tape & Reel

Marking Information:



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