8A STANDARD RECOVERY BRIDGE RECTIFIER

Product Summary

V_{RRM} (V)	I_F (A)	V_F Max (V) @ I_F = 4A	I_R Max (µA)
600	8	0.9	5

Features

- Glass Passivated Die Construction
- Ideal for Printed Circuit Board
- Reliable Low Cost Construction Utilizing Molded Plastic Technique
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**
- **For automotive applications requiring specific change control (i.e. parts qualified to AEC-Q100/101/200, PPAP capable, and manufactured in IATF 16949 certified facilities), please contact us or your local Diodes representative.**
  https://www.diodes.com/quality/product-definitions/

Mechanical Data

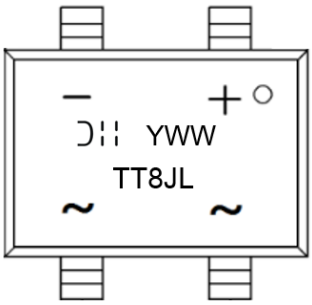
- Package: TTL
- Package Material: "Green" Molding Compound, UL Flammability Classification 94V-0, (No Br. Sb. Cl.).
- Moisture Sensitivity: Level 1 per J-STD-020
- Terminals: Finish – Matte Tin Plated Leads, Solderable per MIL-STD-202, Method 208 e3
- Polarity Indicator: As Marked on The Body
- Weight: 0.41 grams (Approximate)

Ordering Information (Note 4)

Part Number	Qualification	Package	Packing	
			Qty.	Carrier
TT8JL-13	Commercial	TTL	1500	Reel

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. For packaging details, go to our website at https://www.diodes.com/design/support/packaging/diodes-packaging/.

Marking Information



TT8JL = Product Type Marking Code
YWW = Date Code Marking
Y = Last Digit of Year (ex: 1 = 2021)
WW = Week Code (01 to 53)

Maximum Ratings (@T_A = +25°C, unless otherwise specified.)

Characteristic		Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	600	V
Maximum DC Blocking Voltage		V_{DC}	600	V
Average Rectified Output Current	@T_A = +25°C (Note 5)	$I_{F(AV)}$	8.0	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave	@T_A = +25°C @T_A = +125°C	I_{FSM}	165 130	A
Peak Forward Surge Current 1.0ms Single Half Sine-Wave	@T_A = +25°C @T_A = +125°C	I_{FSM}	330 260	A
I^2t Rating for Fusing (t = 8.3ms)		I^2t	115	A^2s
Operating and Storage Temperature Range		T_J ,T_{STG}	-55 to +150	°C

Electrical Characteristics (@T_A = +25°C, unless otherwise specified.)

Characteristic	Test Condition		Symbol	Typ.	Max	Unit
Forward Voltage (Note 5)	I_F = 4A	T_A = +25°C	V_F	0.84	0.9	V
Leakage Current	V_R = 600V	T_A = +25°C	I_R	0.03	5	µA
Typical Junction Capacitance (Note 6)			C_J	85		pF

Thermal Characteristics

Characteristic	Symbol	Typ.	Unit
Typical Thermal Resistance (Without Heatsink)	$R_{\theta JC}$ $R_{\theta JL}$ $R_{\theta JA}$	22 10 35	°C/W
Typical Thermal Resistance (Note 7)	$R_{\theta JC}$ $R_{\theta JL}$ $R_{\theta JA}$	5 7 9	°C/W

Notes:
5. Perform static test after the temperature of oven is steady 20 minutes.
6. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
7. Thermal resistance junction to case, lead and ambient in accordance with JESD-51.
Unit mounted on 15mmx12mmx1.6mm AL pad attached on 160mmx160mmx5mm copper plate.

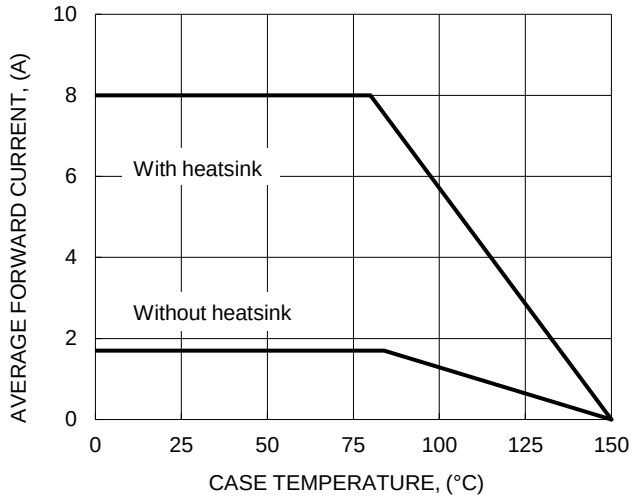


Figure 1. Forward Current Derating Curve

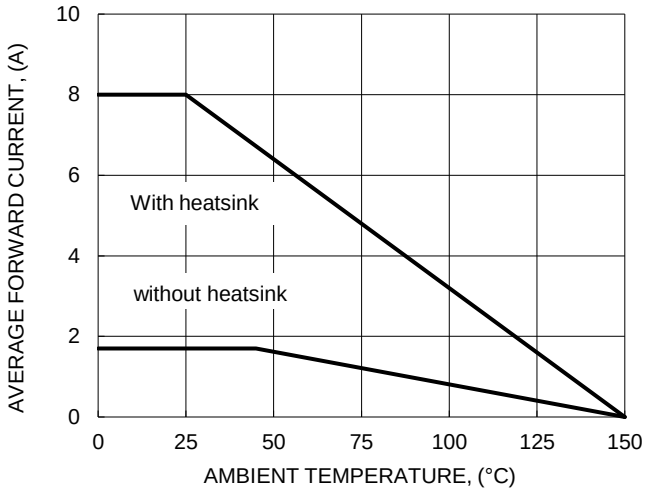


Figure 2. Forward Current Derating Curve

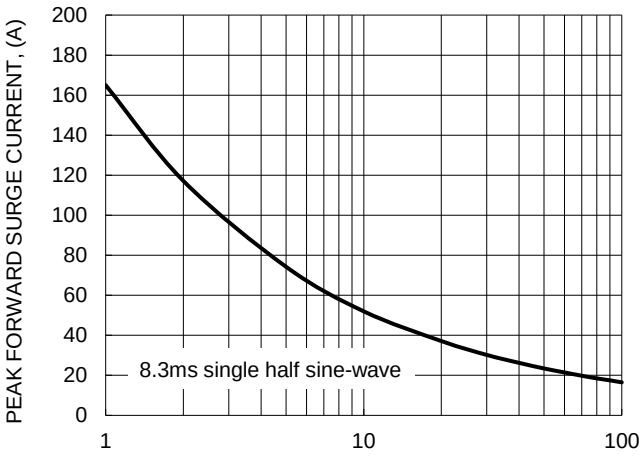


Figure 3. Maximum Non-repetitive Surge Current

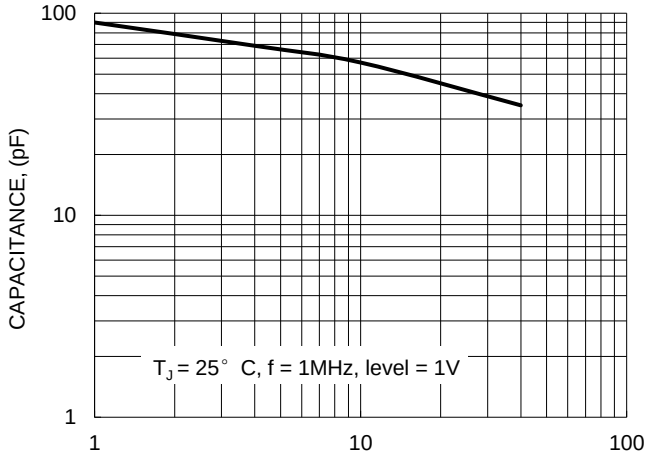


Figure 4. Typical Junction Capacitance

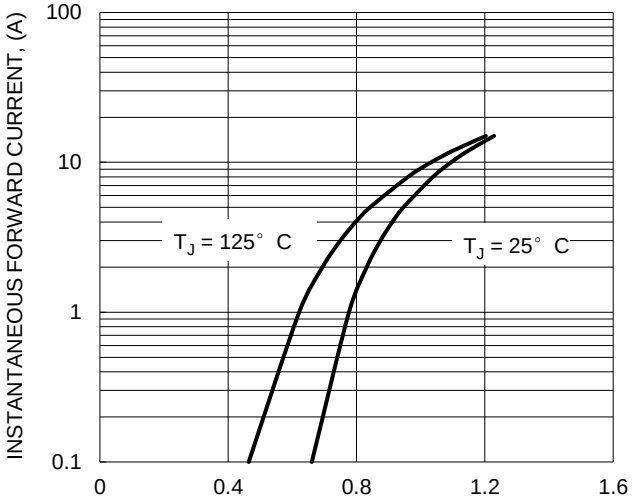


Figure 5. Typical Forward Characteristics

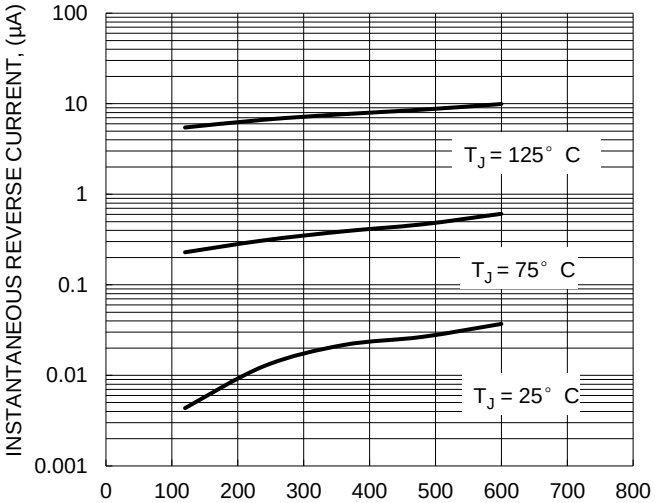


Figure 6.Typical Reverse Characteristics

Package Outline Dimensions

Please see http://www.diodes.com/package-outlines.html for the latest version.

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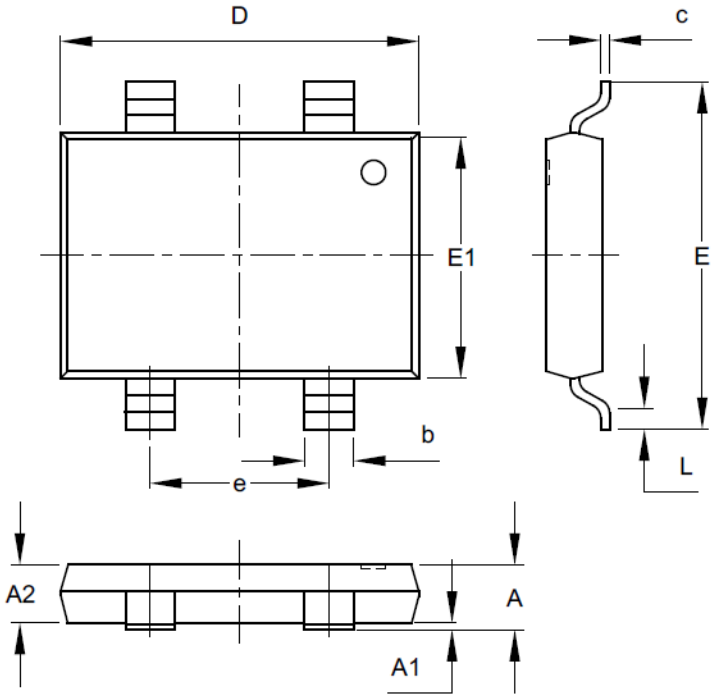

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Dim	**Min**	**Max**	**TYP**
A	1.45	1.80	1.65
A1	0.00	0.15	0.10
A2	1.45	1.65	1.55
b	1.30	1.50	1.40
c	0.15	0.35	0.25
D	10.05	10.35	10.20
E	9.75	10.05	9.90
E1	6.85	7.15	7.00
E	4.90	5.10	5.00
L	0.45	0.95	0.70
All Dimensions in mm			

Suggested Pad Layout

Please see http://www.diodes.com/package-outlines.html for the latest version.

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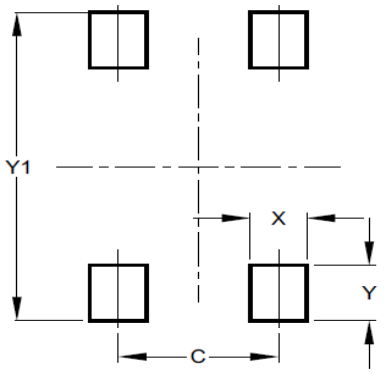

Dimensions	Value (in mm)
C	5.00
X	1.80
Y	2.10
Y1	11.70

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