

Product Summary

V _{RRM} (V)	I _F (A)	V _F Max (V) @ I _F = 4A	I _R Max (μA)
600 800	8	1.1	5

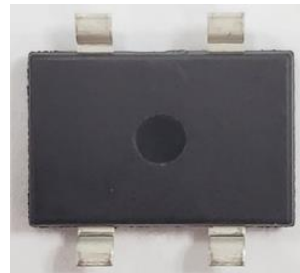
Mechanical Data

- 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 (3)
- Polarity Indicator: As Marked on the Body
- Weight: 0.41 grams (Approximate)

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-Q100/101/104/200, PPAP capable, and manufactured in IATF 16949 certified facilities), please [contact us](mailto:contact@diodes.com) or your local Diodes representative. <https://www.diodes.com/quality/product-definitions/>**

TTL

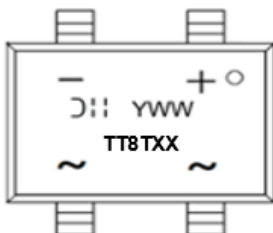


Ordering Information (Note 4)

Part Number	Package	Packing	
		Qty.	Carrier
TT8T06-13	TTL	1500	Reel
TT8T08-13	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



TT8TXX = Product Type Marking Code
 XX = 06 or 08
 JII = Manufacturer's Code Marking
 YWW = Date Code Marking
 Y = Last Digit of Year (ex: 3 = 2023)
 WW = Week Code (01 to 53)

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

Characteristic	Symbol	TT8T06	TT8T08	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	600	800	V
Maximum DC Blocking Voltage	V _{DC}	600	800	V
Average Rectified Output Current @T _A = +25°C (Note 5)	I _{F(AV)}	8		A
Peak Forward Surge Current 8.3ms Single Half Sine Wave	I _{FSM}	@T _A = +25°C	170	A
		@T _A = +125°C	135	
Peak Forward Surge Current 1.0ms Single Half Sine Wave	I _{FSM}	@T _A = +25°C	340	A
		@T _A = +125°C	270	
I ² t Rating for Fusing (t = 8.3ms)	I ² t	120		A ² s
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	0.98	1.1	V
Leakage Current	V _R at Rated T _A = +25°C	I _R	—	5	μA
	V _R at Rated T _A = +125°C		—	500	μA
Reverse Recovery Time	I _F = 0.5A, I _{RR} = 0.25A, I _R = 1A	t _{rr}	300	500	ns
Typical Junction Capacitance (Note 6)		C _T	80		pF

Thermal Characteristics

Characteristic	Symbol	Typ	Unit
Typical Thermal Resistance (Without Heatsink)	R _{θJC}	11	°C/W
	R _{θJL}	12	
	R _{θJA}	69	
Typical Thermal Resistance (Note 7)	R _{θJC}	3	°C/W
	R _{θJL}	4	
	R _{θJA}	10	

- Notes:
5. Perform static test after the temperature of oven is steady for 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.

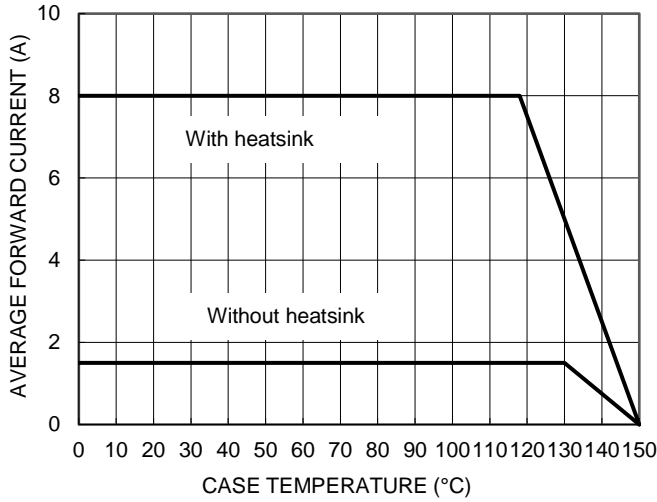


Figure 1. Forward Current Derating Curve

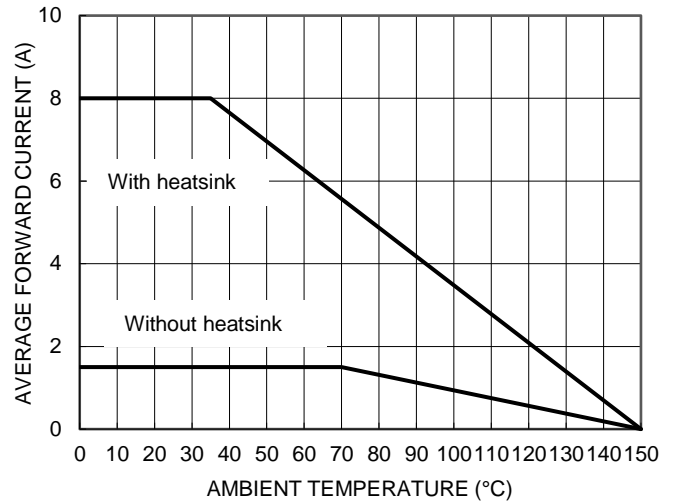


Figure 2. Forward Current Derating Curve

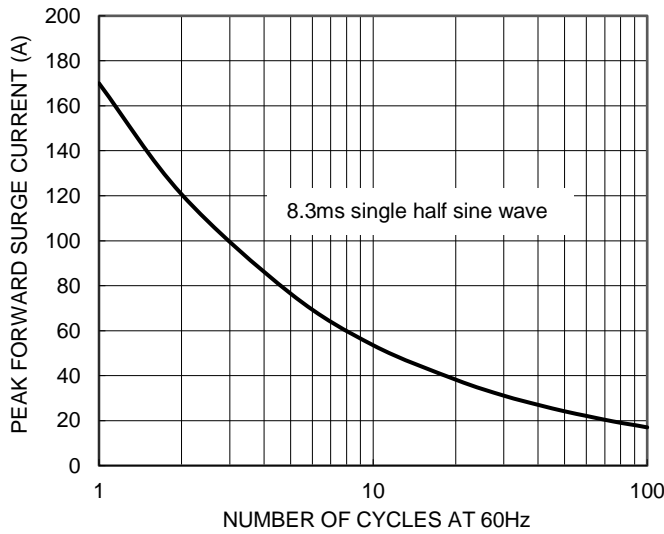


Figure 3. Maximum Non-Repetitive Surge Current

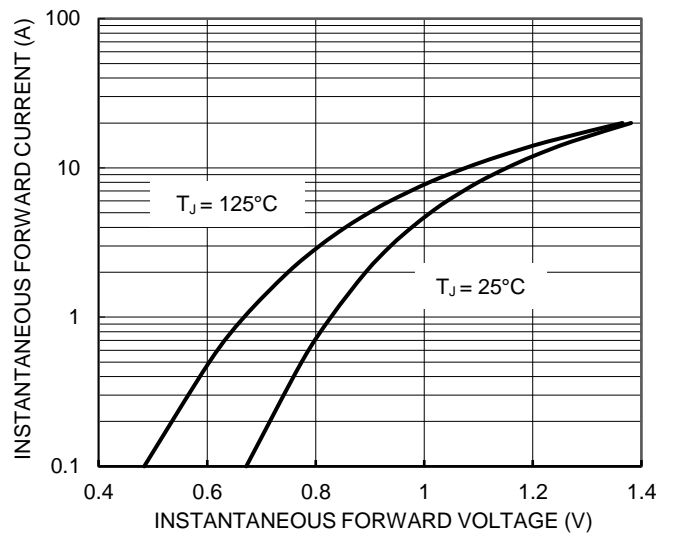


Figure 4. Typical Forward Characteristics

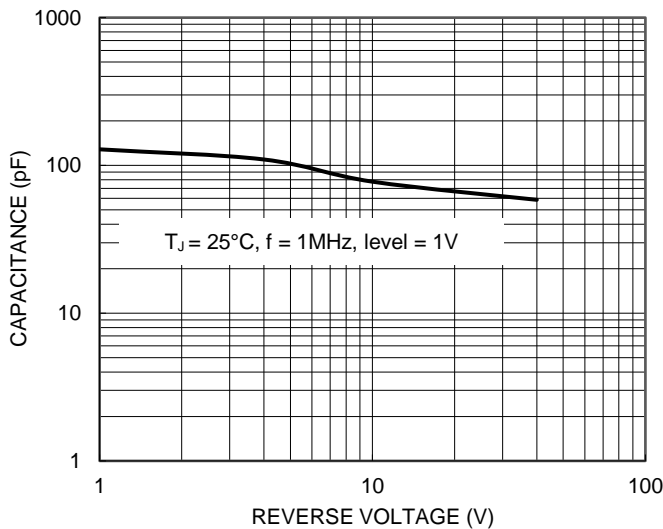


Figure 5. Typical Junction Capacitance

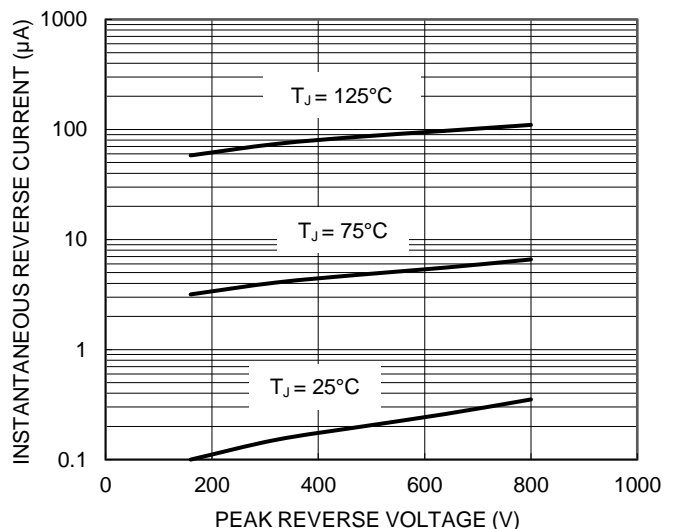
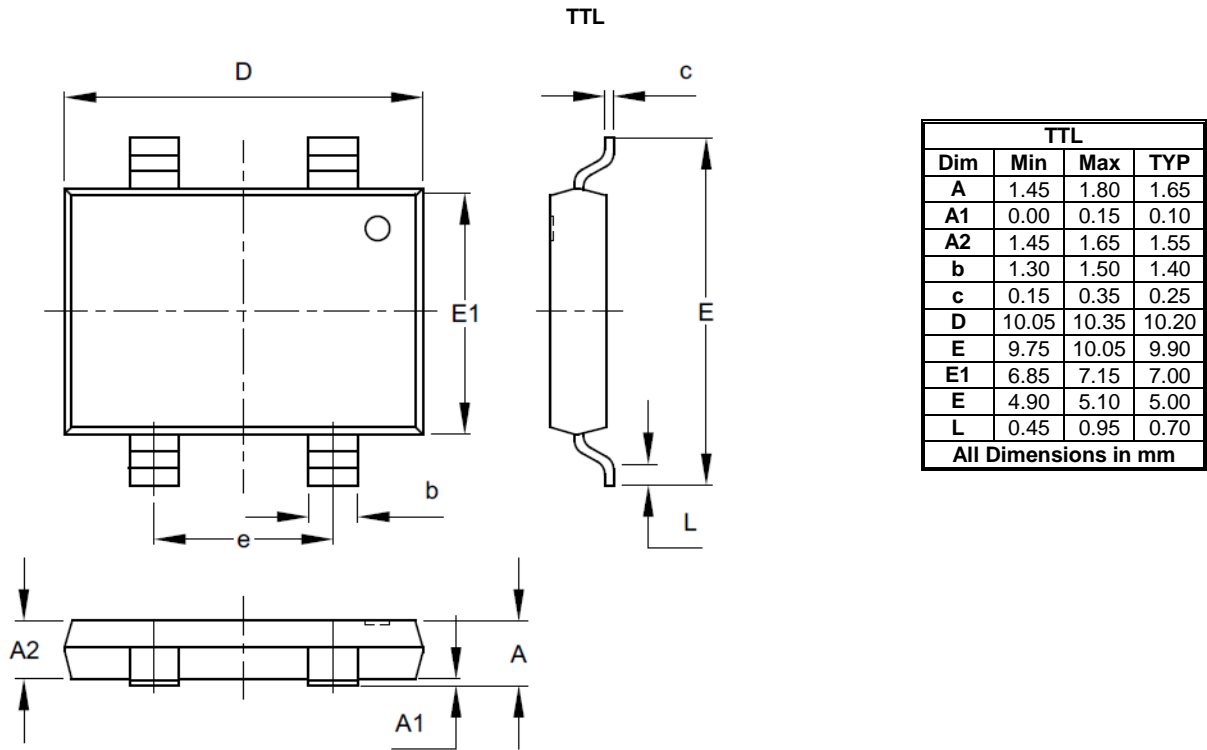


Figure 6. Typical Reverse Characteristics

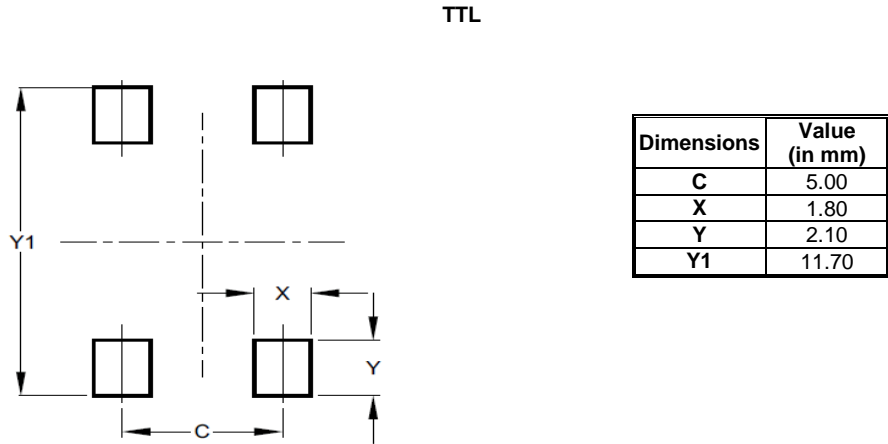
Package Outline Dimensions

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



Suggested Pad Layout

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