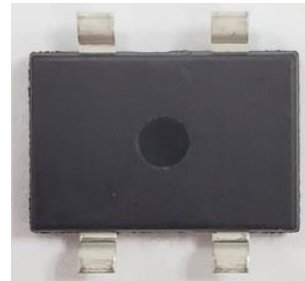


Product Summary

V _{RRM} (V)	I _F (A)	V _F Max (V) @ I _F = 2A	I _R Max (μA)
1000	4	0.95	5

Mechanical Data

- Case: TTL
- Case 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

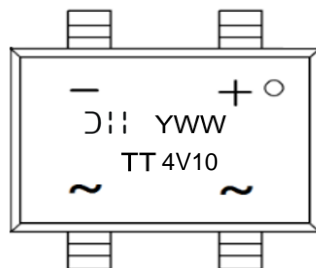
- Glass Passivated Die Construction
- Ideal for Printed Circuit Board
- Reliable Low Cost Construction Utilizing Molded Plastic Technique
- Low Forward Voltage Drop
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**
- **For automotive applications 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](mailto:contact@diodes.com) or your local Diodes representative.**
<https://www.diodes.com/quality/product-definitions/>

Ordering Information (Note 4)

Part Number	Qualification	Case	Packaging
TT4V10	Commercial	TTL	1500pcs/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



D ≡ ≡ ≡ = Manufacturer's Marking
 TT4V10 = Product Type Marking Code
 YWW = Date Code Marking
 Y = Year (ex: 1 = 2021)
 WW = Week (01 to 53)

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

Characteristic	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	1000	V
Maximum DC Blocking Voltage	V _{DC}	1000	V
Average Rectified Output Current @T _A = +25°C (Note 5)	I _{F(AV)}	4.0	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave	I _{FSM}	@T _A = +25°C	150
		@T _A = +125°C	120
Peak Forward Surge Current 1.0ms Single Half Sine-Wave	I _{FSM}	@T _A = +25°C	300
		@T _A = +125°C	240
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	I _F = 2A	T _A = +25°C T _A = +125°C	V _F	0.88 0.77	0.95 —	V
Leakage Current	V _R = 1000V	T _A = +25°C T _A = +125°C	I _R	0.12 25	5 500	µA
Typical Junction Capacitance (Note 6)			C _J	55		pF

Thermal Characteristics

Characteristic	Symbol	Typ	Unit
Typical Thermal Resistance (Without Heatsink)	R _{θJC}	40	°C/W
	R _{θJL}	15	
	R _{θJA}	30	
Typical Thermal Resistance (Note 7)	R _{θJC}	2	°C/W
	R _{θJL}	10	
	R _{θJA}	12	

- 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 35mmx22mmx15mm fin heatsink.

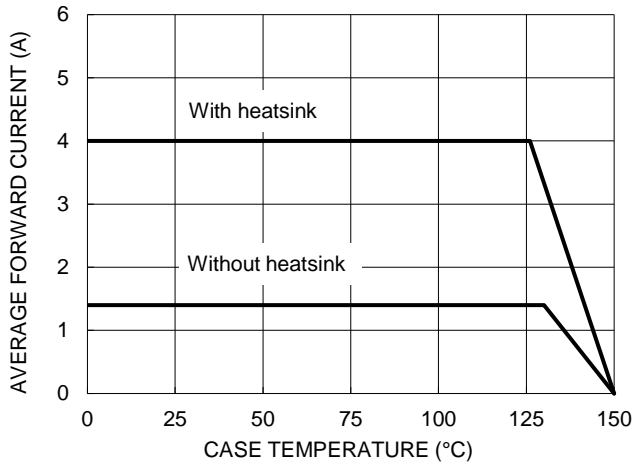


Figure 1. Forward Current Derating Curve

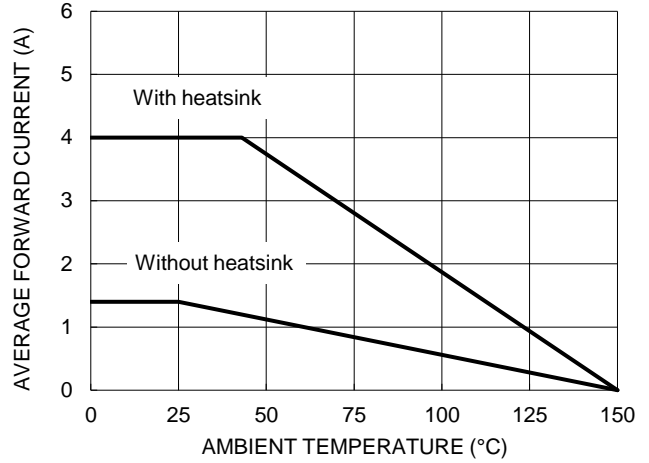


Figure 2. Forward Current Derating Curve

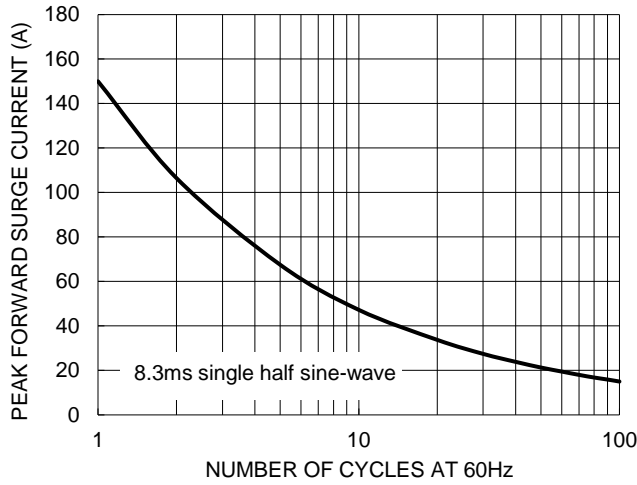


Figure 3. Maximum Non-Repetitive Surge Current

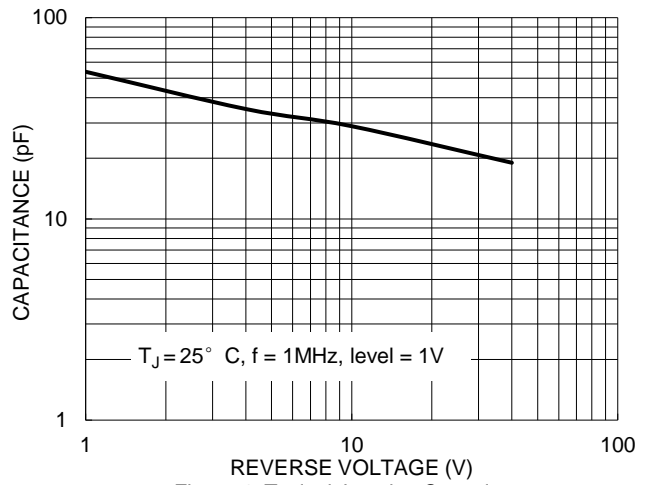


Figure 4. Typical Junction Capacitance

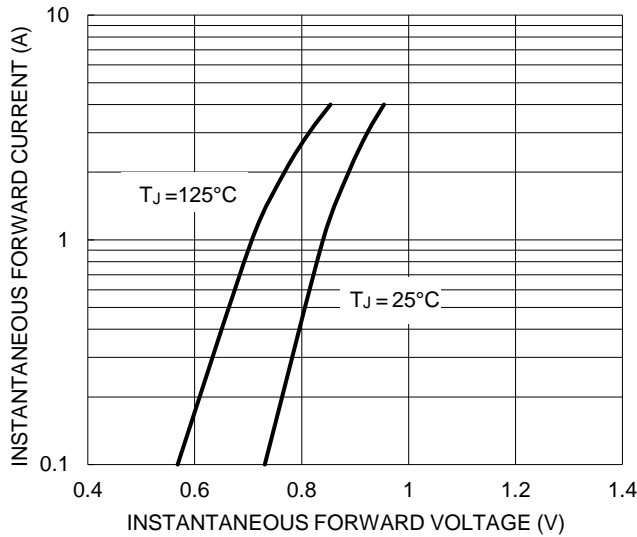


Figure 5. Typical Forward Characteristics

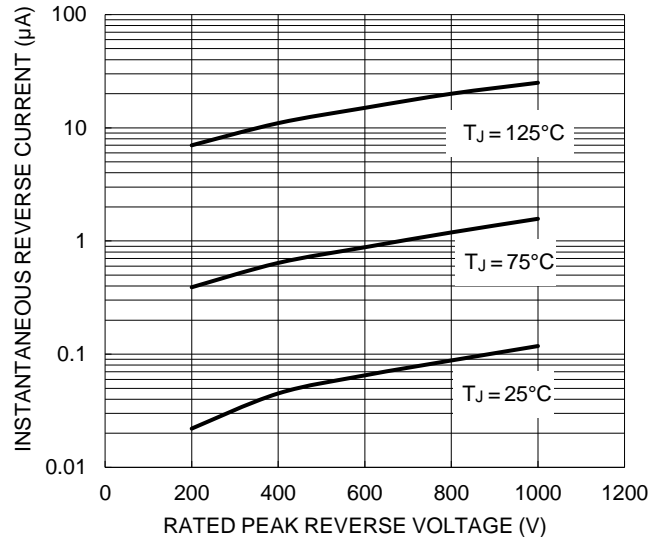
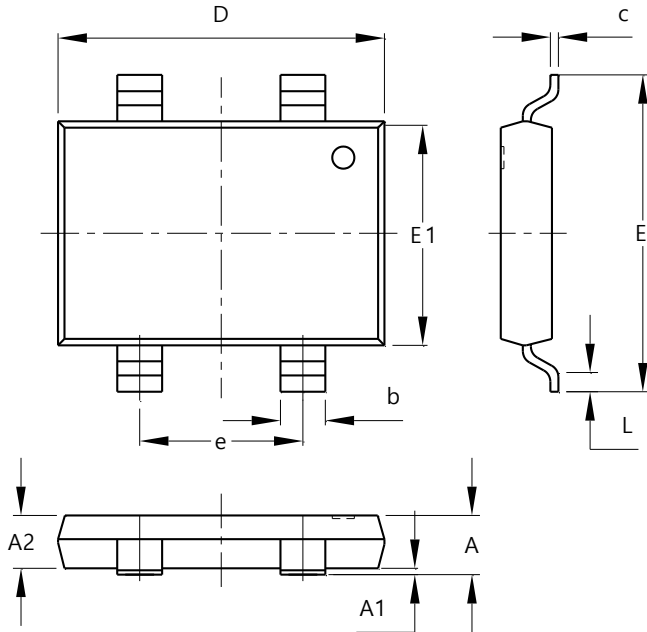


Figure 6. Typical Reverse Characteristics

Package Outline Dimensions

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

TTL

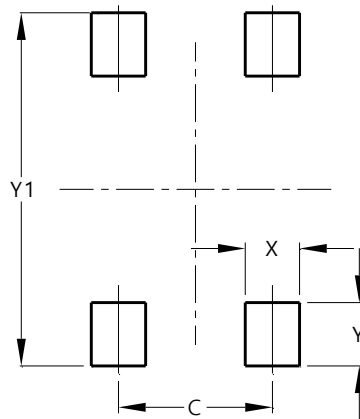


TTL			
Dim	Min	Max	TYP
A	1.45	1.80	1.65
A1	0.00	0.15	0.10
A2	1.45	1.65	1.55
b	1.30	1.50	1.40
c	0.15	0.35	0.25
D	10.05	10.35	10.20
E	9.75	10.05	9.90
E1	6.85	7.15	7.00
e	4.90	5.10	5.00
L	0.45	0.95	0.70
All Dimensions in mm			

Suggested Pad Layout

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

TTL



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

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