

Product Summary

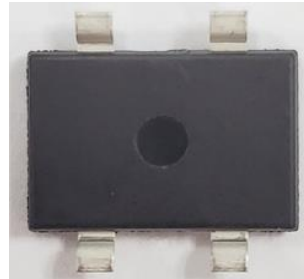
V_{RRM} (V)	I_F (A)	V_F Max (V) @ $I_F = 2A$	I_R Max (μA)
1000	4	1.0	5

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

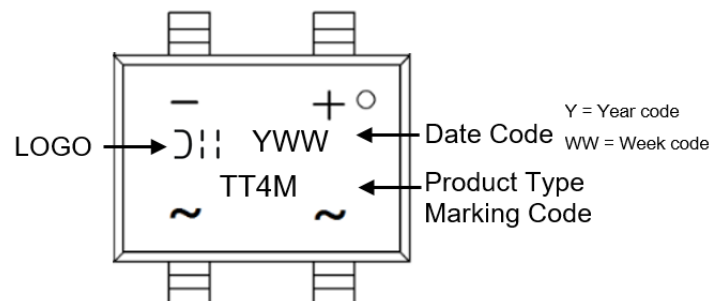


Ordering Information (Note 4)

Part Number	Qualification	Case	Packaging
TT4M	Commercial	TTL	1500/Reel

- Notes:
- EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
 - 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.
 - Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
 - For packaging details, go to our website at <https://www.diodes.com/design/support/packaging/diodes-packaging/>.

Marking Information



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	I _{F(AV)}	4.0	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave @T _A = +25°C	I _{FSM}	120	A
@T _A = +125°C		96	
Peak Forward Surge Current 1.0ms Single Half Sine-Wave @T _A = +25°C	I _{FSM}	240	A
@T _A = +125°C		192	
I ² t Rating for Fusing (t = 8.3ms)	I ² t	59.7	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	I _F = 2A T _A = +25°C T _A = +125°C	V _F	0.91 0.80	1.0 —	V
Leakage Current	V _R = 1000V T _A = +25°C T _A = +125°C	I _R	0.06 19	5 500	μA
Typical Junction Capacitance (Note 5)		C _J	35		pF

Thermal Characteristics

Characteristic	Symbol	Typ.	Unit
Typical Thermal Resistance (Without Heatsink)	R _{θJC}	8	°C/W
	R _{θJL}	10	
	R _{θJA}	60	
Typical Thermal Resistance (Note 6)	R _{θJC}	3	°C/W
	R _{θJL}	6	
	R _{θJA}	15	

Notes: 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 15mmx12mmx1.6mm AL pad attached on 40mmx30mmx24mm fin heatsink.

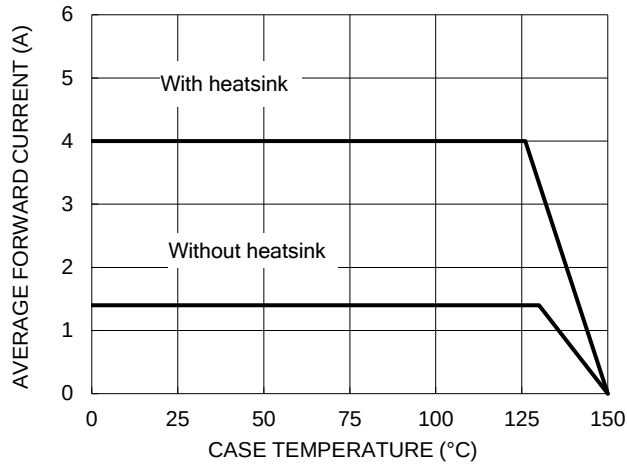


Figure 1. Forward Current Derating Curve

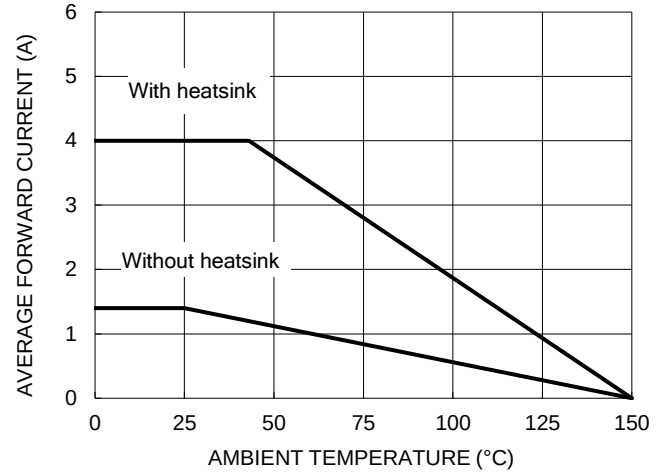


Figure 2. Forward Current Derating Curve

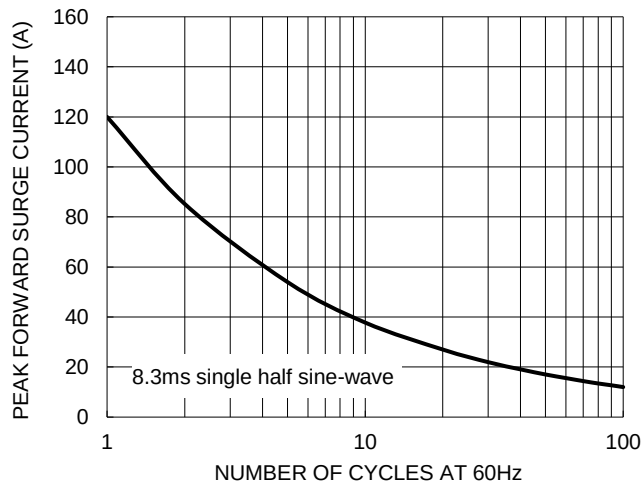


Figure 3. Maximum Non-repetitive Surge Current

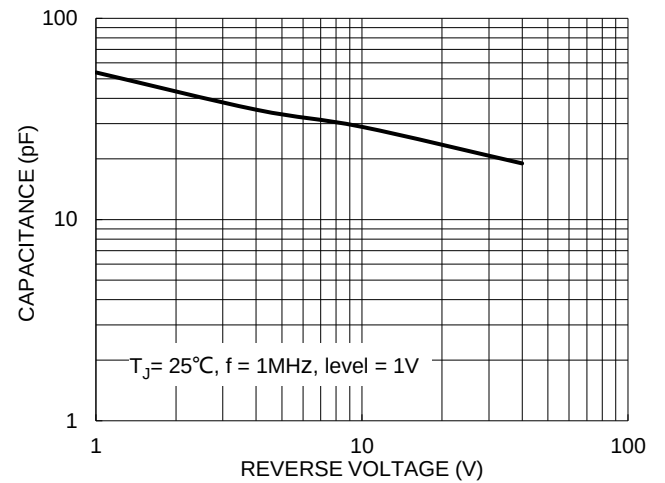


Figure 4. Typical Junction Capacitance

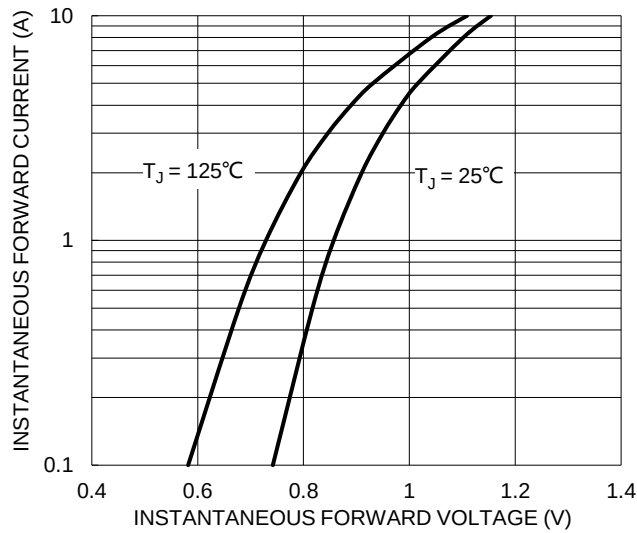


Figure 5. Typical Forward Characteristics

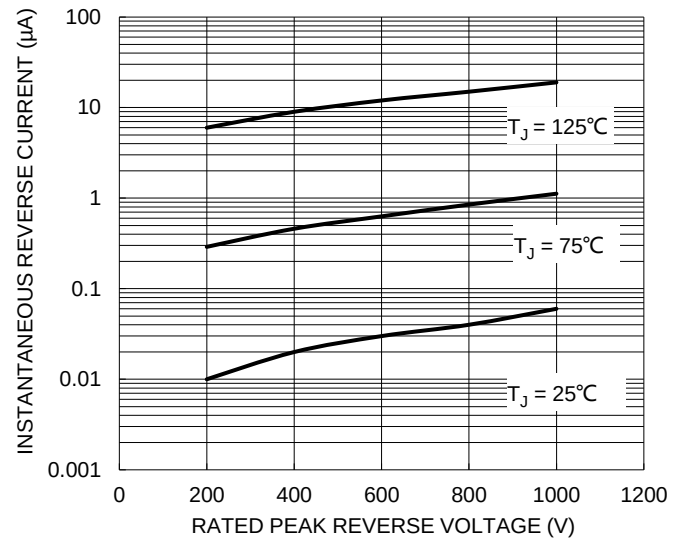
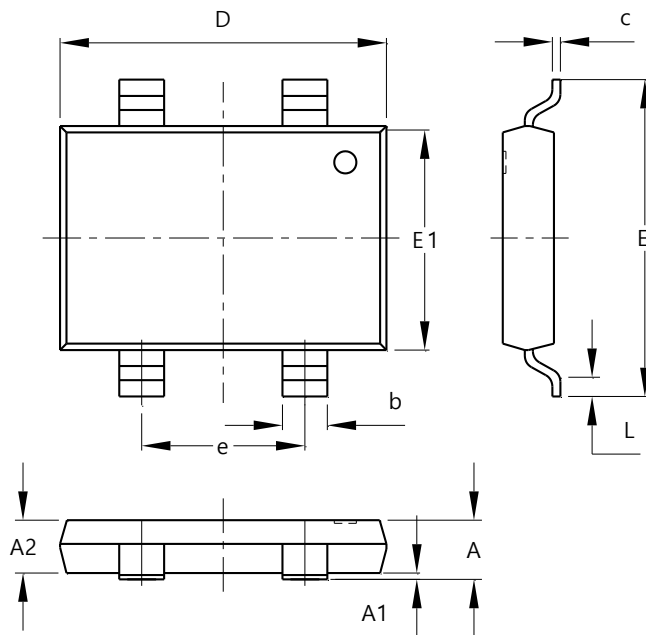


Figure 6. Typical Reverse Characteristics

Package Outline Dimensions

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

TTL

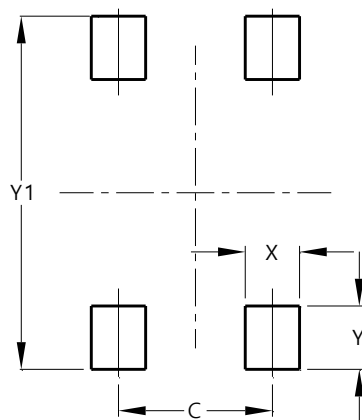


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Dim	Min	Max	TYP
A	1.45	1.80	1.65
A1	0.00	0.15	0.10
A2	1.45	1.65	1.55
b	1.30	1.50	1.40
c	0.15	0.35	0.25
D	10.05	10.35	10.20
E	9.75	10.05	9.90
E1	6.85	7.15	7.00
e	4.90	5.10	5.00
L	0.45	0.95	0.70
All Dimensions in mm			

Suggested Pad Layout

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

TTL



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

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