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

Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage (Note 6)	V_{RRM} V_{RWM} V_R	600	V
RMS Reverse Voltage	$V_{R(RMS)}$	420	V
Average Rectified Output Current @ T_T = +75°C	I_O	2.0	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	50	A

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Typical Thermal Resistance, Junction to Terminal	$R_{\Theta JT}$	22	°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150	°C

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

Characteristic	Symbol	Value	Unit
Minimum Reverse Breakdown Voltage (Note 6) @ I_R = 5μA	$V_{(BR)R}$	600	V
Maximum Forward Voltage Drop @ I_F = 2.0A	V_F	1.7	V
Peak Reverse Current @ T_A = +25°C at Rated DC Blocking Voltage (Note 6) @ T_A = +100°C	I_R	5.0 100	μA
Maximum Reverse Recovery Time (Note 7)	t_{RR}	75	ns
Typical Total Capacitance (Note 10)	C_T	10	pF

Notes:
6. Short duration pulse test used to minimize self-heating effect.
7. Measured with I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A. See Figure 7.
8. Device mounted on FR-4 substrate, 1inch × 1inch, 2oz, single-sided, PC boards with 0.1inch × 0.15inch copper pads.
9. Device mounted on FR-4 substrate, 0.4inch × 0.5inch, 2oz, single-sided, PC boards with 0.2inch × 0.25inch copper pads.
10. Measured at f=1.0MHz and applied reverse voltage of 4.0V DC.

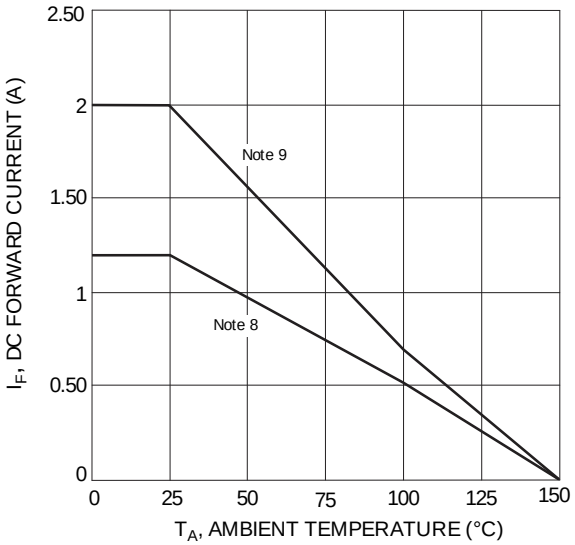


Figure 1 DC Forward Current Derating

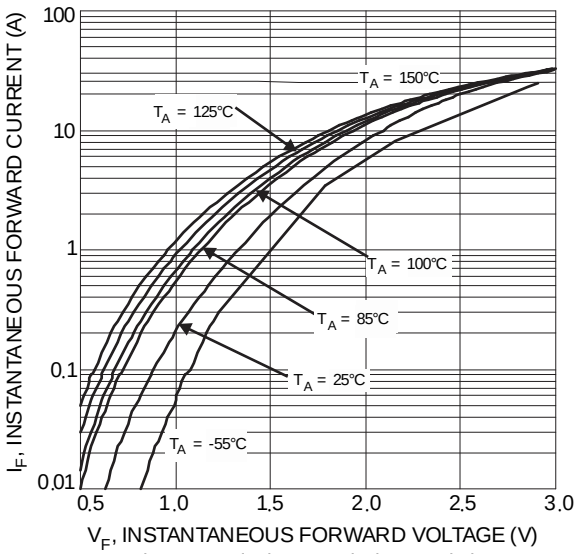


Figure 2 Typical Forward Characteristics

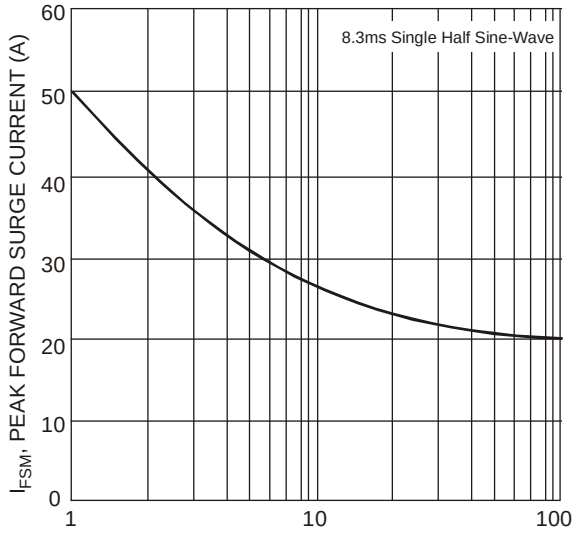


Fig. 3 Maximum Non-Repetitive Surge Current

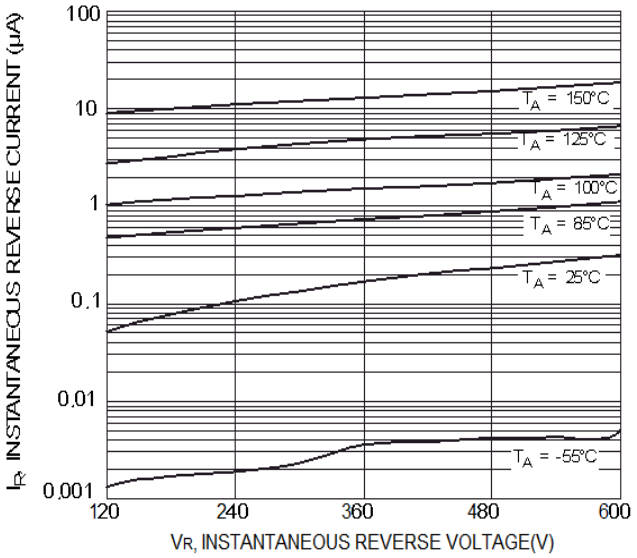


Figure 4 Typical Reverse Characteristics

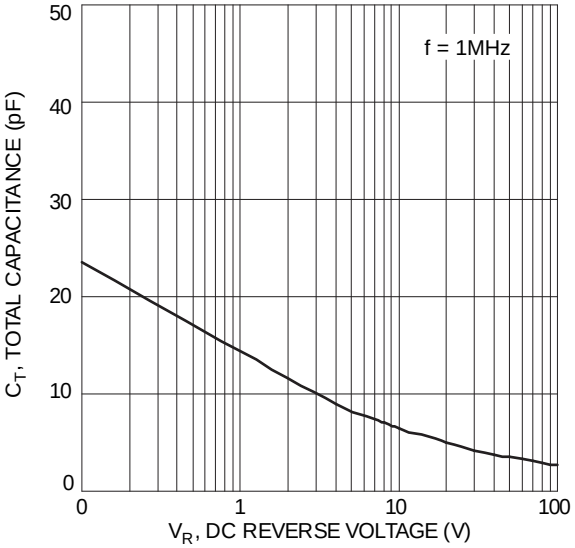


Figure 5 Total Capacitance vs. Reverse Voltage

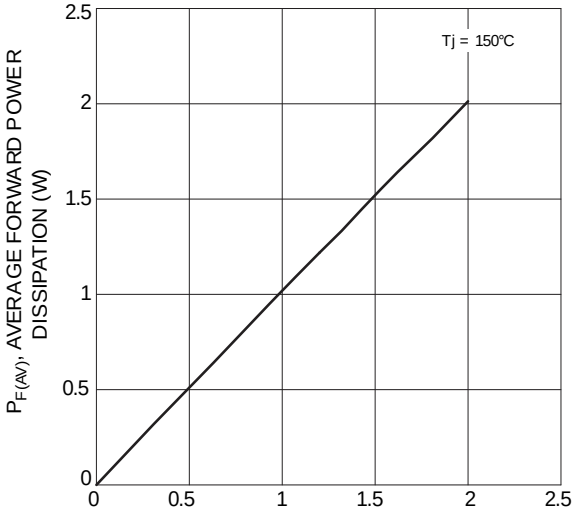
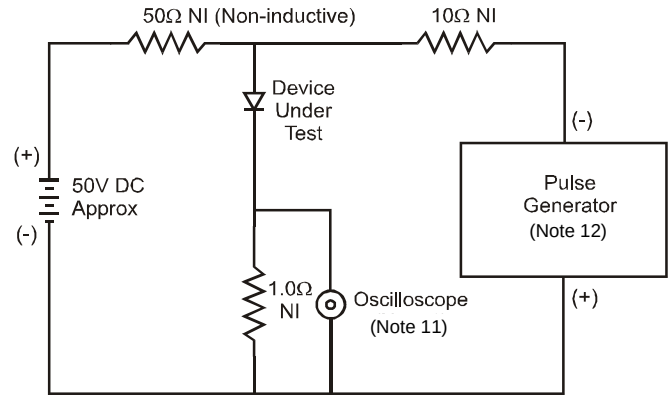


Figure 6 Forward Power Dissipation



Notes: 11. Rise Time = 7.0ns max. Input Impedance = 10MΩ, 22pF.
12. Rise Time = 10ns max. Input Impedance = 50Ω.

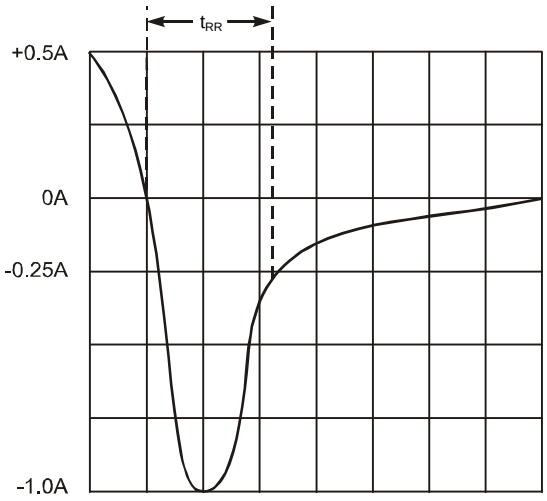
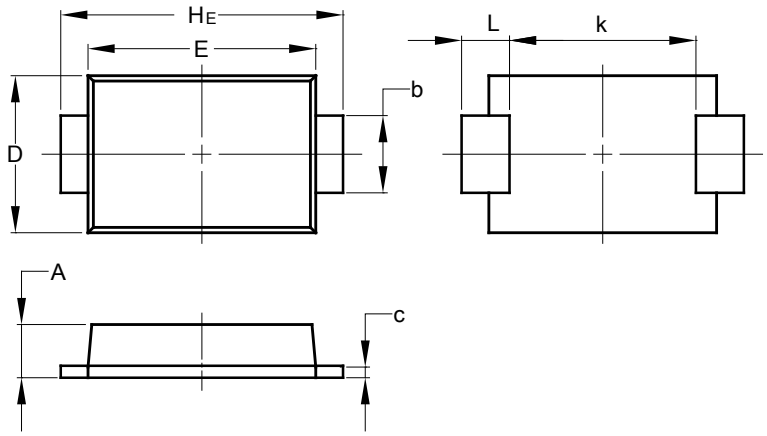


Figure 7 Reverse Recovery Time Characteristic and Test Circuit

Package Outline Dimensions

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

D-FLAT

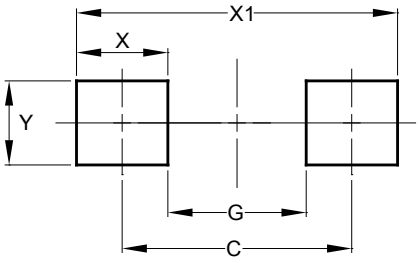


D-FLAT		
Dim	**Min**	**Max**
A	0.90	1.10
b	1.25	1.65
c	0.10	0.40
D	2.25	2.95
E	3.95	4.60
k	2.80	—
H_E	5.00	5.60
L	0.50	1.30
All Dimensions in mm		

Suggested Pad Layout

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

D-FLAT



Dimensions	Value (in mm)
C	4.65
G	2.80
X	1.85
X1	6.50
Y	1.70

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