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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	1,000	V
RMS Reverse Voltage	$V_{R(RMS)}$	700	V
Average Rectified Output Current @ T_A = +100°C	I_O	1.0	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	30	A

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Typical Thermal Resistance, Junction to Terminal (Note 7)	$R_{\theta JT}$	31	°C/W
Typical Thermal Resistance, Junction to Air (Note 7)	$R_{\theta JA}$	83	°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	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 8)	$V_{(BR)R}$	1,000	—	—	V	I_R = 10μA
Forward Voltage Drop	V_F	—	0.95 0.83	1.3 —	V	I_F = 1A, T_J = +25°C I_F = 1A, T_J = +125°C
Leakage Current (Note 8)	I_R	—	0.2 5	5 —	μA	V_R = 1,000V, T_J = +25°C V_R = 1,000V, T_J = +125°C
Reverse Recovery Time	t_{RR}	—	140	500	ns	I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A
Total Capacitance	C_T	—	5	—	pF	V_R = 4.0V_{DC}, f = 1MHz

Notes:
6. Device mounted on FR-4 substrate, 1" x 1", 2oz, single-sided, PC boards with 0.1" x 0.15" copper pads.
7. Device mounted on FR-4 substrate, 0.4" x 0.5", 2oz, single-sided, PC boards with 0.2" x 0.25" copper pads.
8. Short duration pulse test used to minimize self-heating effect.

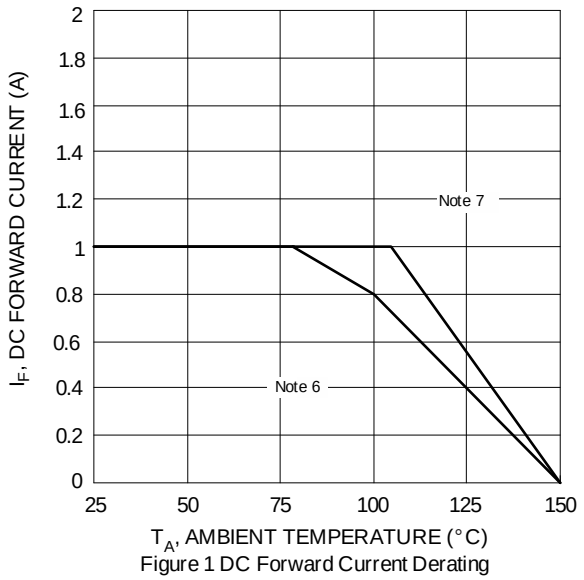

Figure 1 DC Forward Current Derating

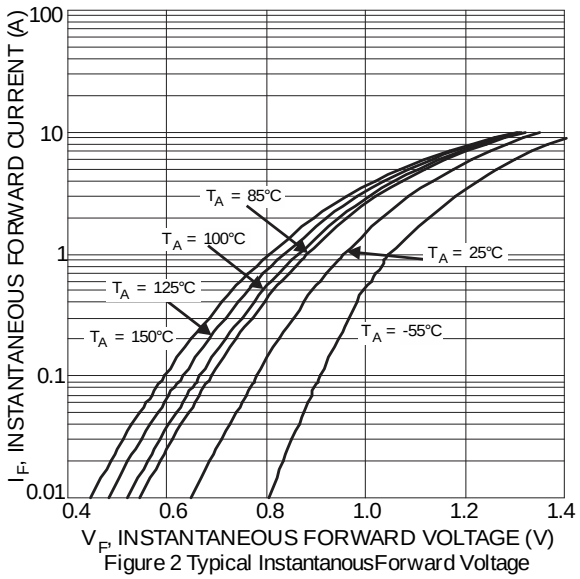

Figure 2 Typical InstantanousForward Voltage

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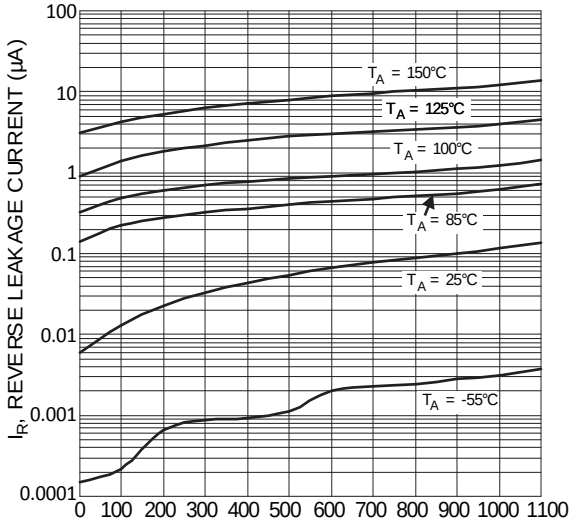


Figure 3 Typical Instantaneous Reverse Characteristics

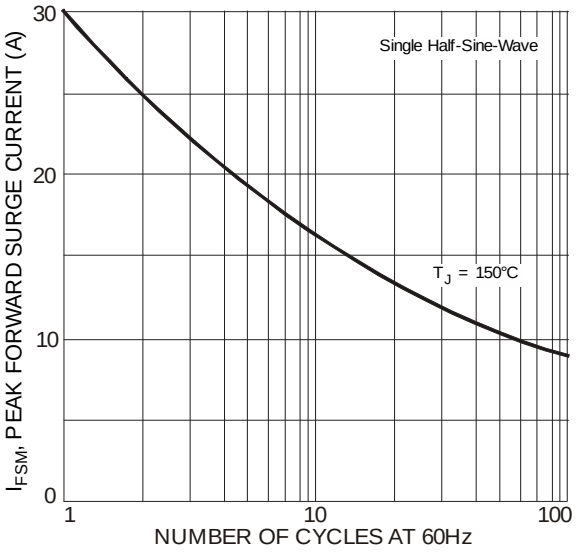


Figure 4 Forward Surge Current Derating Curve

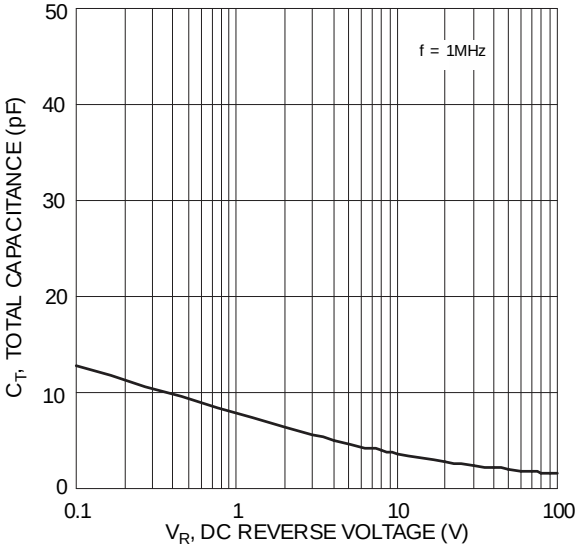


Figure 5 Total Capacitance vs. Reverse Voltage

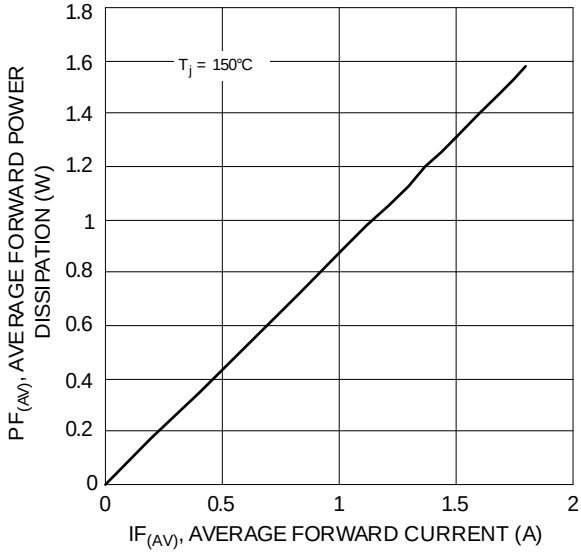
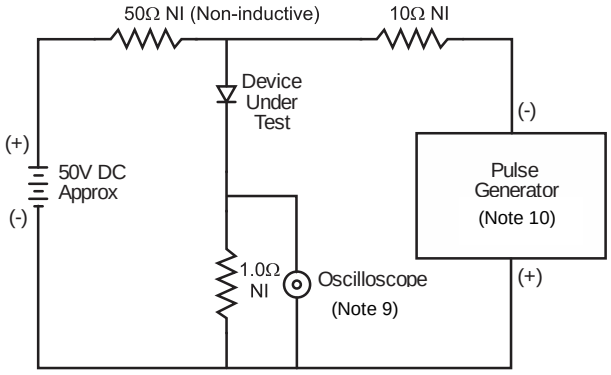


Figure 6 Forward Power Dissipation



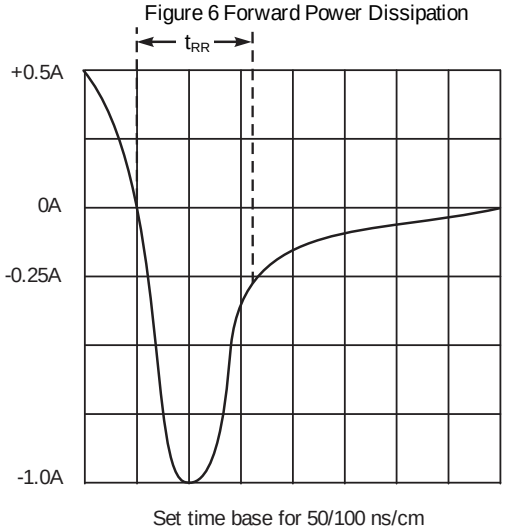


Figure 7 Reverse Recovery Time Characteristic and Test Circuit

Notes: 9. Rise Time = 7.0ns max. Input Impedance = 1.0MΩ, 22pF.
10. Rise Time = 10ns max. Input Impedance = 50Ω.

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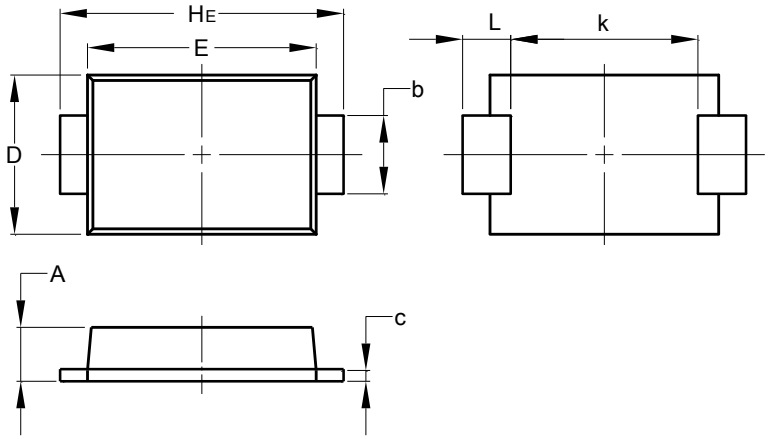
Package Outline Dimensions

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

D-FLAT

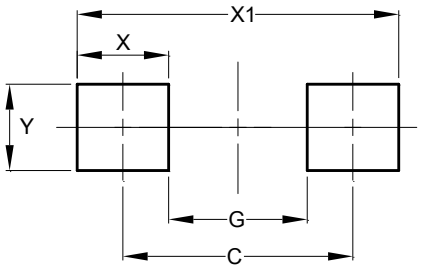


D-FLAT		
Dim	**Min**	**Max**
A	0.90	1.10
b	1.25	1.65
c	0.10	0.40
D	2.25	2.95
E	3.95	4.60
k	2.80	-
H_E	5.00	5.60
L	0.50	1.30
All Dimensions in mm		

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

NEW PRODUCT

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