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	V_{RRM} V_{RWM} V_R	400	V
RMS Reverse Voltage	$V_{R(RMS)}$	283	V
Average Rectified Output Current (See Figure 4)	I_O	3	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	55	A

Thermal Characteristics

Characteristic		Symbol	Typ	Max	Unit
Thermal Resistance Junction to Soldering Point		$R_{\theta JS}$	—	5	°C/W
Thermal Resistance Junction to Ambient Air (Note 5)	T_A = +25°C	$R_{\theta JA}$	100	—	°C/W
Thermal Resistance Junction to Ambient Air (Note 6)	T_A = +25°C	$R_{\theta JA}$	60	—	°C/W
Thermal Resistance Junction to Ambient Air (Note 7)	T_A = +25°C	$R_{\theta JA}$	40	—	°C/W
Operating Temperature Range		T_J	-65 to +150		°C
Storage Temperature Range		T_{STG}	-65 to +150		°C

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

Characteristic	Symbol	Value	Unit	Test Condition
Minimum Reverse Breakdown Voltage (Note 8)	$V_{(BR)R}$	400	V	I_R = 10μA
Maximum Forward Voltage	V_{FM}	1.25 1.05 1.28 1.08	V	I_F = 3A, T_S = +25°C I_F = 3A, T_S = +150°C I_F = 4A, T_S = +25°C I_F = 4A, T_S = +150°C
Maximum Reverse Leakage Current (Note 8)	I_{RM}	10 250	μA	T_S = +25°C, V_R = 400V T_S = +150°C, V_R = 400V
Maximum Reverse Recovery Time	t_{RR}	50	ns	I_F = 0.5A, I_R = 1.0A I_{RR} = 0.25A (See Figure 7)

Notes:
5. FR-4 PCB, 2 oz. Copper, minimum recommended pad layout per http://www.diodes.com/package-outlines.html.
6. Polymide PCB, 2oz. Copper, minimum recommended pad layout per http://www.diodes.com/package-outlines.html.
7. Polymide PCB, 2oz. Copper. Cathode pad dimensions 9.4mm x 7.2mm. Anode pad dimensions 2.7mm x 1.6mm.
8. Short duration pulse test used to minimize self-heating effect.

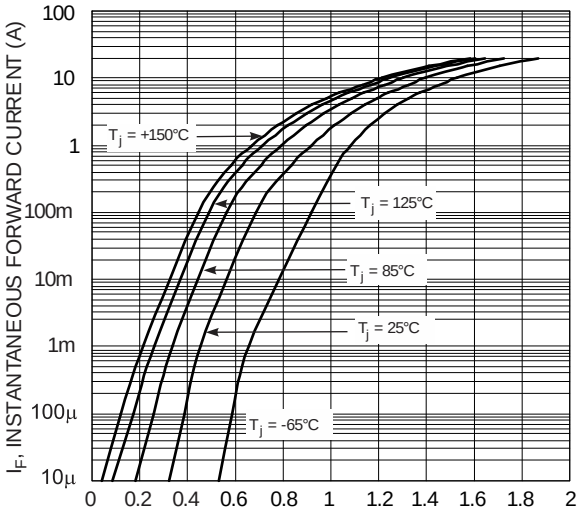


Fig. 1 Typical Forward Characteristics

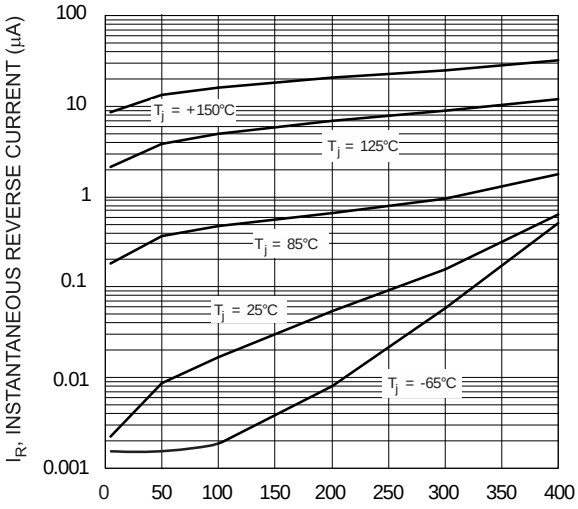


Fig. 2 Typical Reverse Characteristics

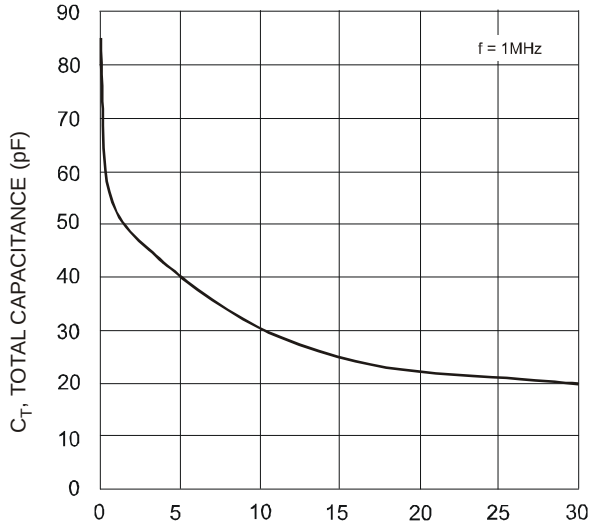


Fig. 3 Typical Total Capacitance vs. Reverse Voltage

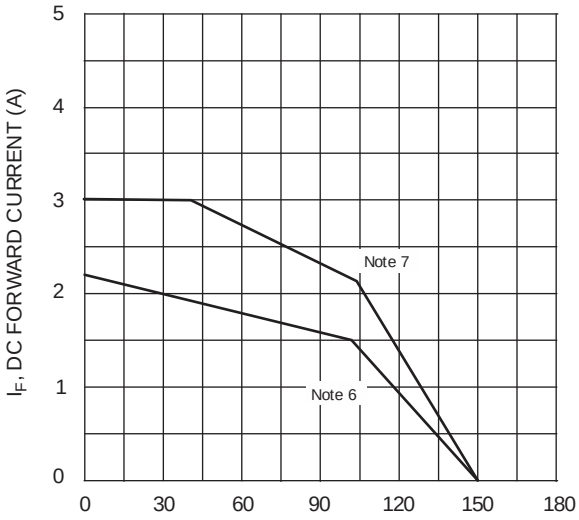


Fig. 4 DC Forward Current Derating

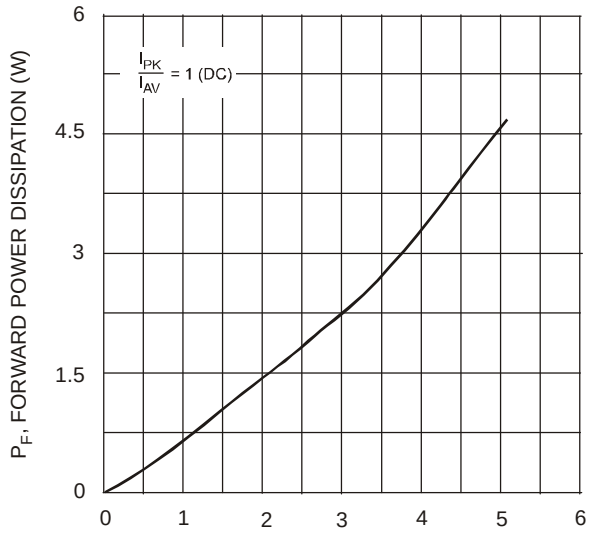


Fig. 5 Forward Power Dissipation

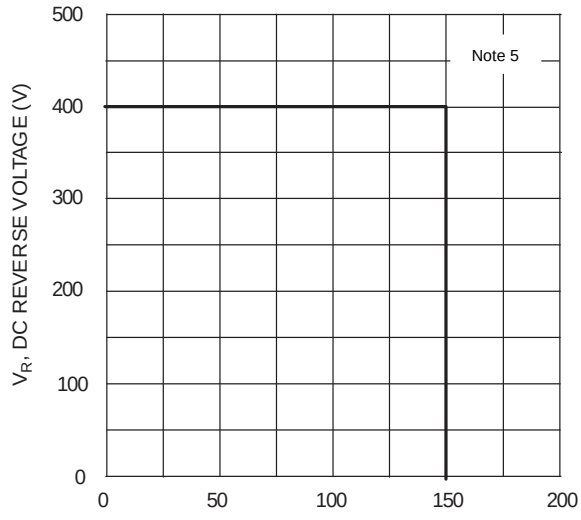
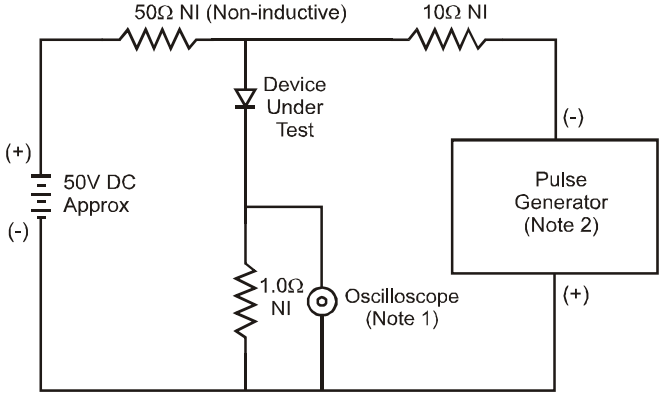
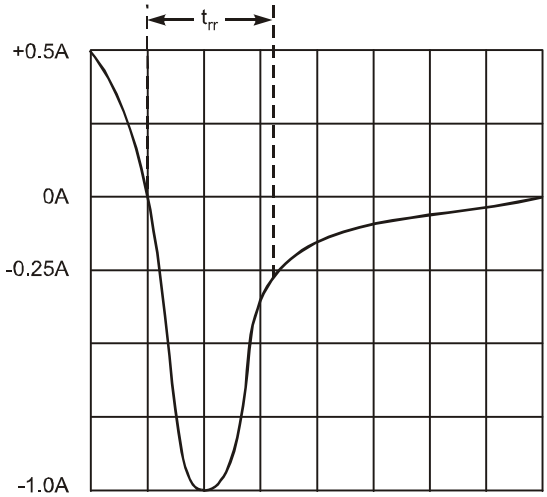


Fig. 6 Operating Temperature Derating



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



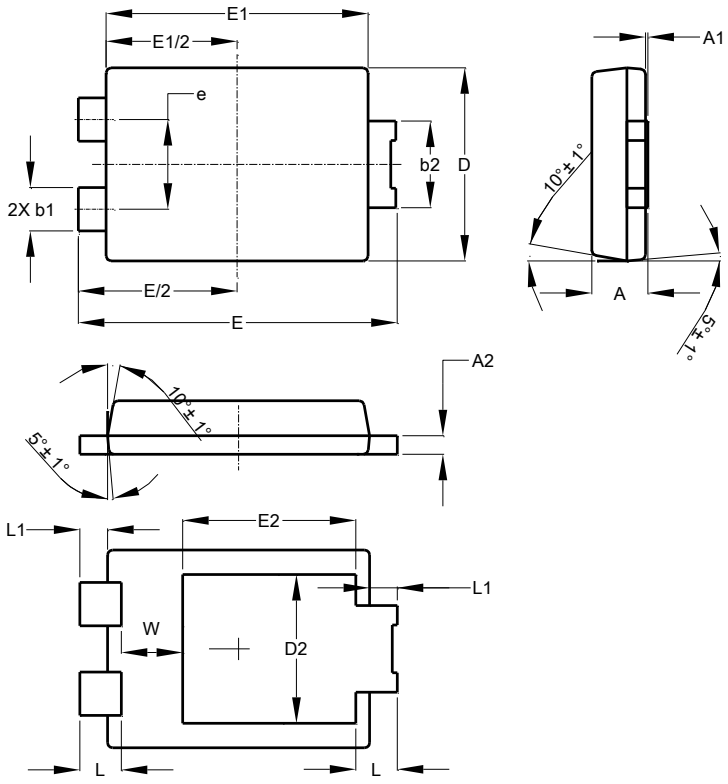
Set time base for 50/100 ns/cm

Fig. 7 Reverse Recovery Time Characteristic and Test Circuit

Package Outline Dimensions

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

PowerDI5

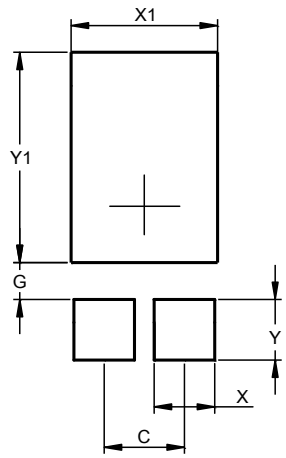


PowerDI5			
Dim	**Min**	**Max**	**Typ**
A	1.05	1.15	1.10
A1	0.00	0.05	--
A2	0.33	0.43	0.381
b1	0.80	0.99	0.89
b2	1.70	1.88	1.78
D	3.90	4.05	3.966
D2	--	--	3.054
E	6.40	6.60	6.504
e	--	--	1.84
E1	5.30	5.45	5.37
E2	--	--	3.549
L	0.75	0.95	0.85
L1	0.50	0.65	0.57
W	1.10	1.41	1.255
All Dimensions in mm			

Suggested Pad Layout

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

PowerDI5



Dimensions	Value (in mm)
C	1.840
G	0.852
X	1.390
X1	3.360
Y	1.400
Y1	4.860

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