

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

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

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	200	V
Working Peak Reverse Voltage	V _{RWM}		
DC Blocking Voltage	V _R		
RMS Reverse Voltage	V _{R(RMS)}	141	V
Average Rectified Output Current (See also figure 5)	I _O	4	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave Superimposed on Rated Load	I _{FSM}	100	A

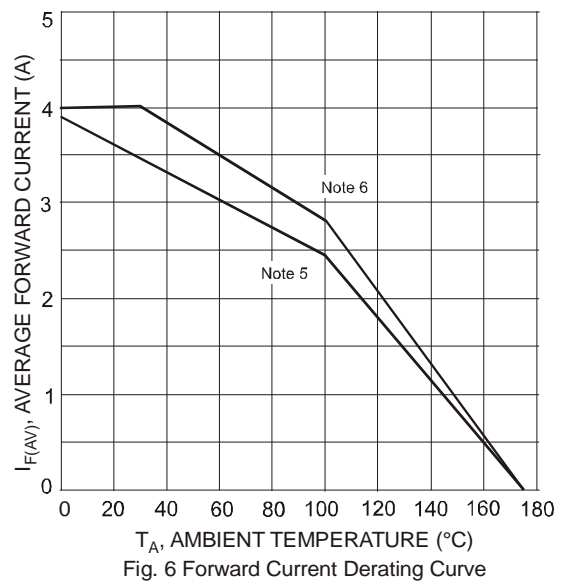
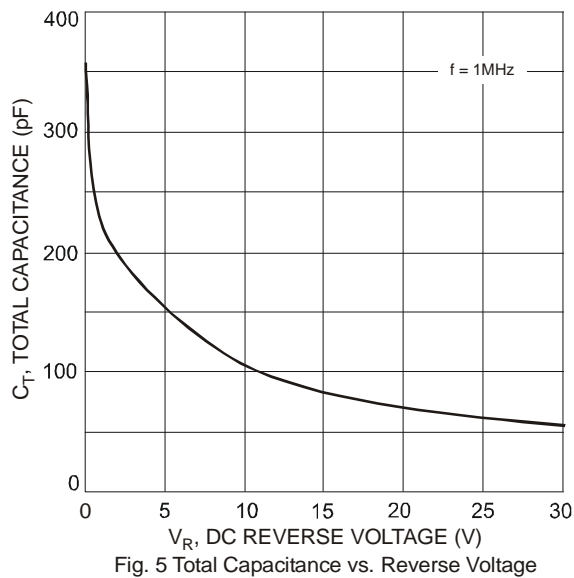
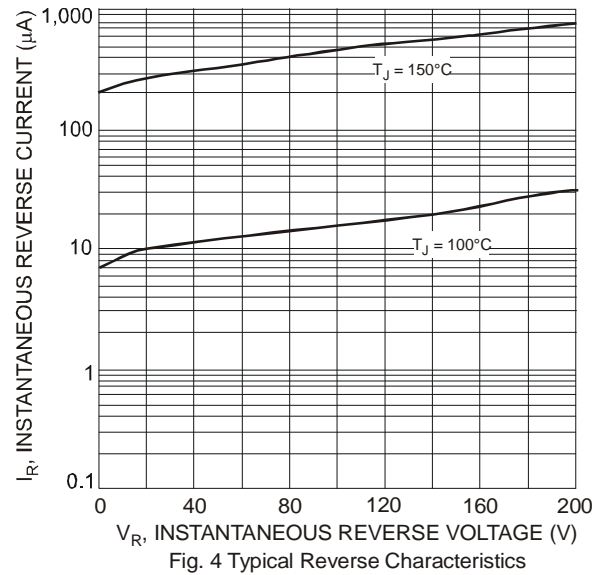
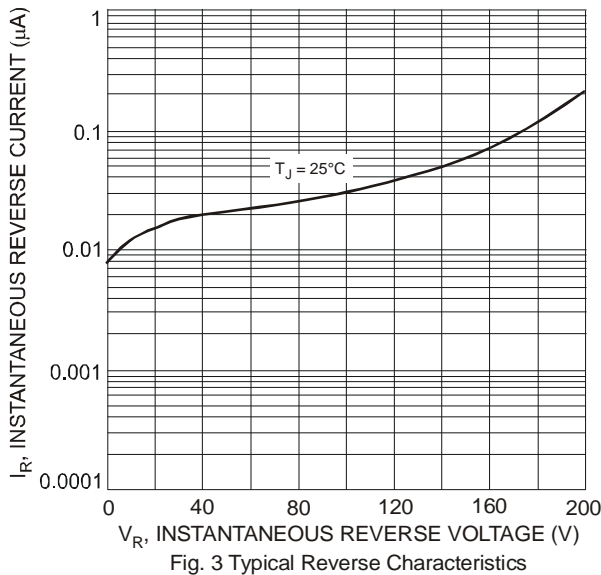
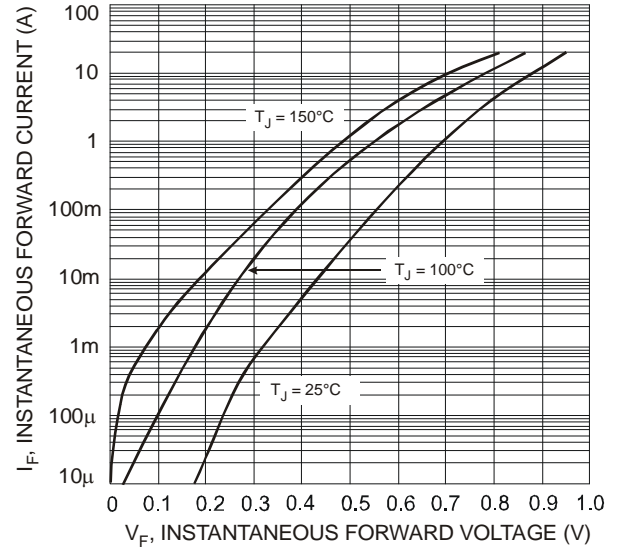
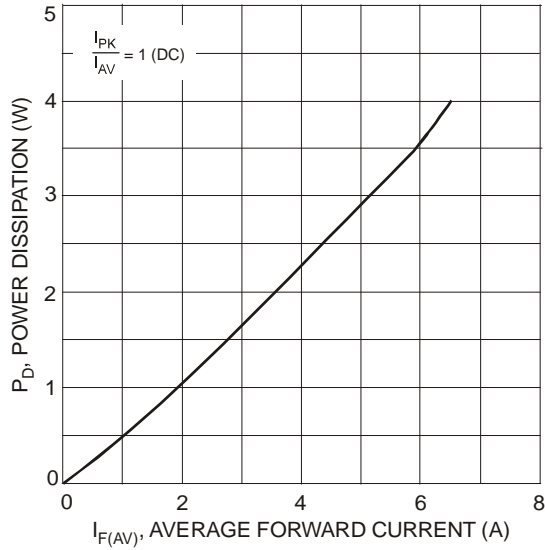
Thermal Characteristics

Characteristic	Symbol	Typ	Max	Unit
Thermal Resistance Junction to Soldering Point	R _{θJS}	—	3.0	°C/W
Thermal Resistance Junction to Ambient Air (Note 5)	R _{θJA}	80	—	°C/W
Thermal Resistance Junction to Ambient Air (Note 6)	R _{θJA}	65	—	°C/W
Thermal Resistance Junction to Ambient Air (Note 7)	R _{θJA}	45	—	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +175		°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}	200	—	—	V	I _R = 5μA
Forward Voltage	V _F	—	0.76	0.82	V	I _F = 3A, T _S = +25°C
		—	—	0.59		I _F = 3A, T _S = +150°C
		—	0.785	0.84		I _F = 4A, T _S = +25°C
		—	0.61	0.64		I _F = 4A, T _S = +150°C
		—	0.84	0.89		I _F = 8A, T _S = +25°C
		—	0.68	0.75		I _F = 8A, T _S = +150°C
Reverse Leakage Current (Note 8)	I _R	—	0.2	1	μA	T _S = +25°C, V _R = 200V
		—	0.8	4	mA	T _S = +150°C, V _R = 200V
Reverse Recovery Time	t _{rr}	—	—	25	ns	I _F = 0.5A, I _R = 1.0A I _{RR} = 0.25A (see Figure 8)

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



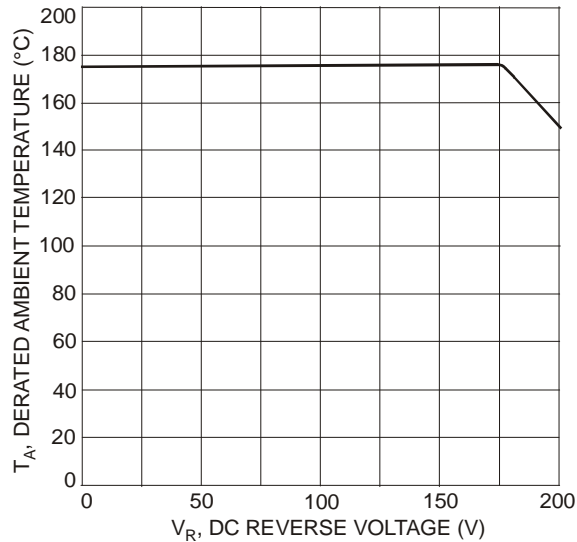
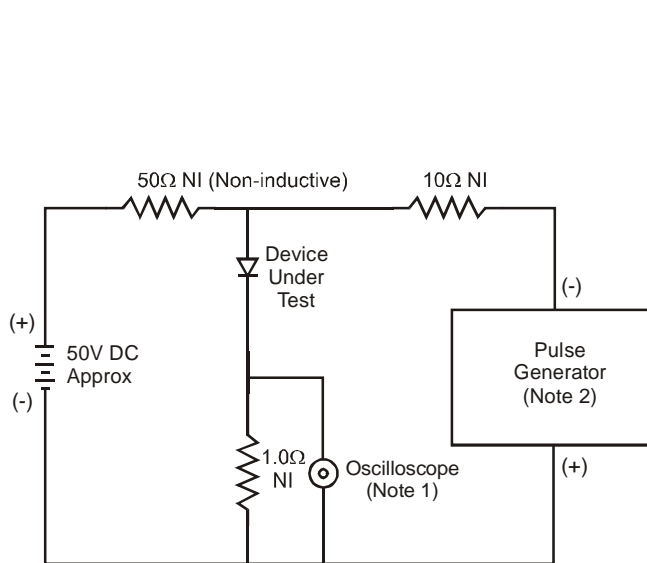
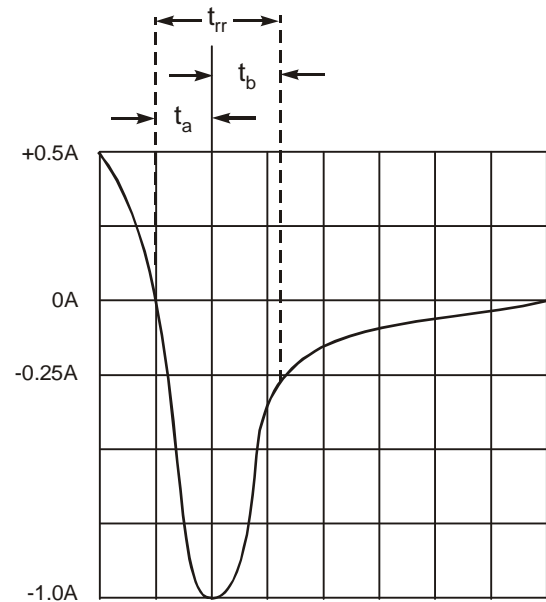


Fig. 7 Operating Temperature Derating



Notes:

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

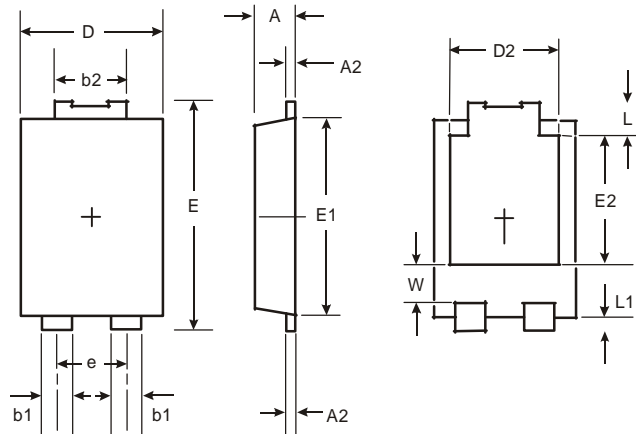


Set time base for 50/100 ns/cm

Fig. 8 Reverse Recovery Time Characteristic and Test Circuit

Package Outline Dimensions

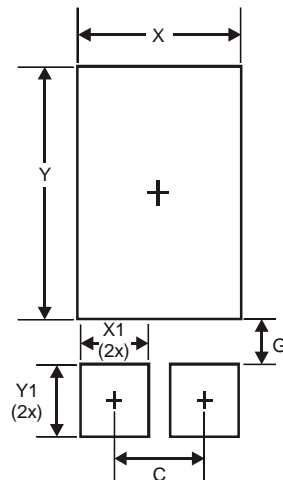
Please see AP02002 at <http://www.diodes.com/datasheets/ap02002.pdf> for latest version.



POWERDI5		
Dim	Min	Max
A	1.05	1.15
A2	0.33	0.43
b1	0.80	0.99
b2	1.70	1.88
D	3.90	4.05
D2	3.054 Typ	
E	6.40	6.60
e	1.84 Typ	
E1	5.30	5.45
E2	3.549 Typ	
L	0.75	0.95
L1	0.50	0.65
W	1.10	1.41
All Dimensions in mm		

Suggested Pad Layout

Please see AP02001 at <http://www.diodes.com/datasheets/ap02001.pdf> for the latest version.



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

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