

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}	1,000	V
Working Peak Reverse Voltage	V _{RWM}		
DC Blocking Voltage	V _R		
RMS Reverse Voltage	V _{R(RMS)}	700	V
Average Rectified Output Current @ T _T = +75°C	I _O	3.0	A
Non-Repetitive Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I _{FSM}	120	A

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Typical Thermal Resistance, Junction to Terminal (Note 7)	R _{θJT}	26	°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 5)	V _{(BR)R}	1,000	—	—	V	I _R = 10μA
Forward Voltage	V _F	—	1.5	1.8	V	I _F = 3.0A
Leakage Current (Note 5)	I _R	—	2.2 14	10 500	μA	V _R = 1,000V, T _A = +25°C V _R = 1,000V, T _A = +125°C
Reverse Recovery Time	t _{rr}	—	70	85	ns	I _F = 0.5A, I _R = 1.0A, I _{rr} = 0.25A
Total Capacitance	C _T	—	25	—	pF	V _R = 4V, f = 1.0MHz

Notes: 5. Short duration pulse test used to minimize self-heating effect.
 6. Device mounted on FR-4 substrate, 1" x 1", 2oz, single-sided, PC boards with 0.15" x 0.26" copper pads.
 7. Device mounted on FR-4 substrate, 1" x 1", 2oz, single-sided, PC boards with 0.56" x 0.73" copper pads.

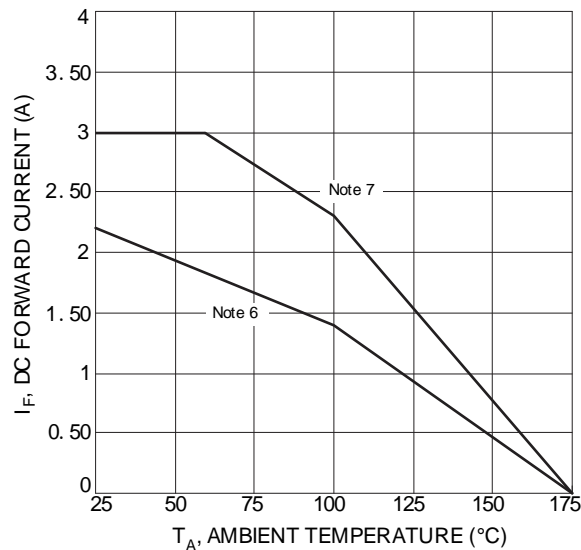


Figure 1 DC Forward Current Derating

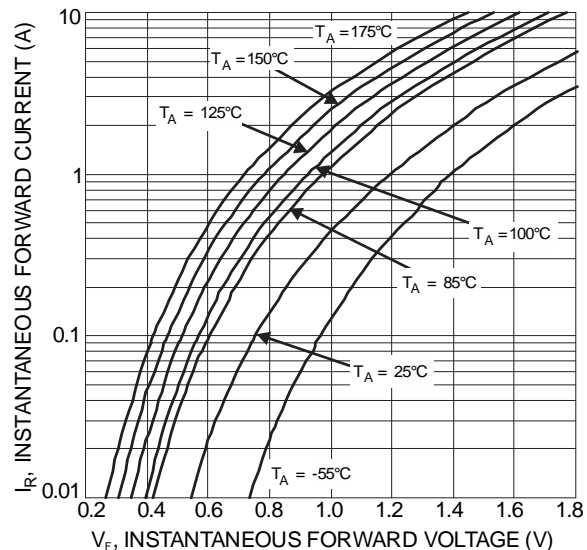


Figure 2 Typical Reverse Characteristics

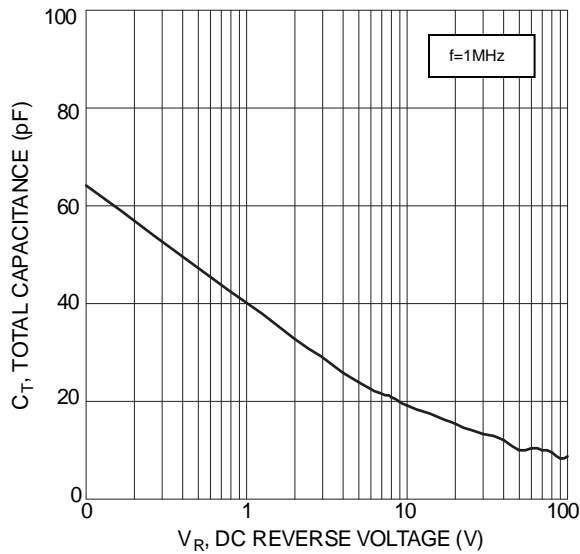


Figure 3 Total Capacitance vs. Reverse Voltage

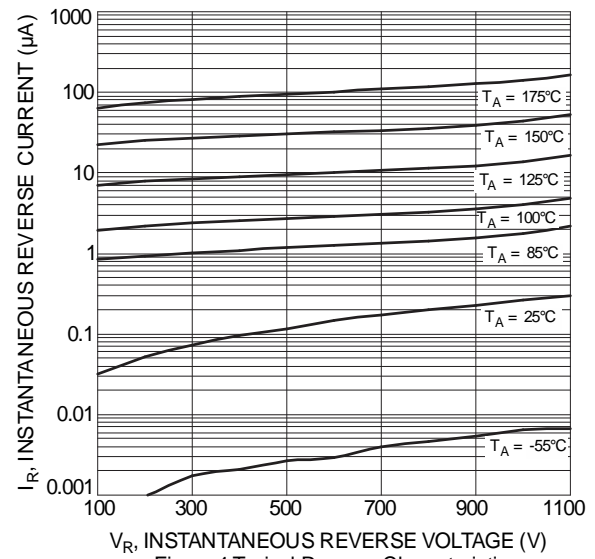
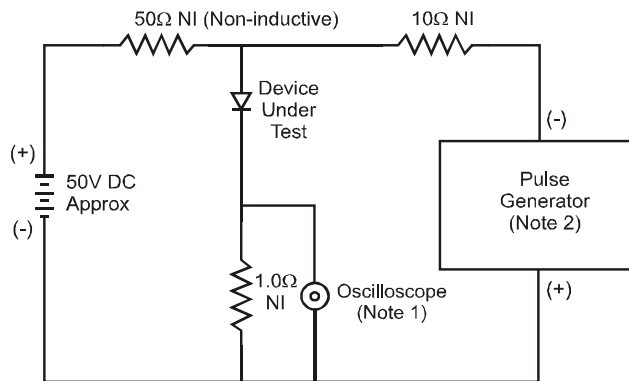
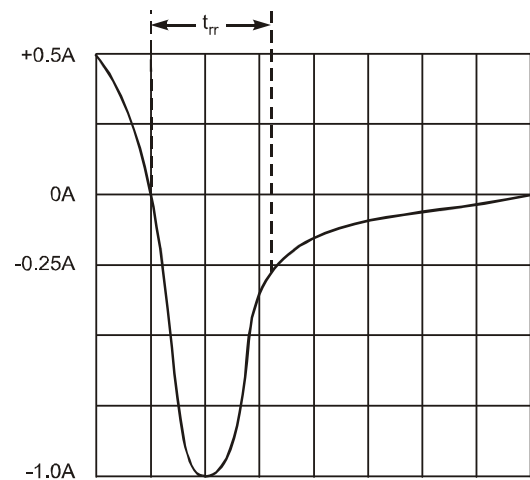


Figure 4 Typical Reverse Characteristics



- Notes:
1. Rise Time = 7.0ns max. Input Impedance = $1.0\text{M}\Omega$, 22pF.
 2. Rise Time = 10ns max. Input Impedance = 50Ω .

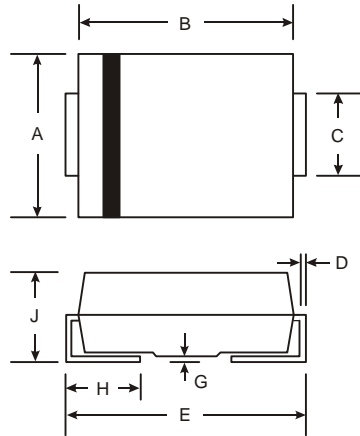


Set time base for 50/100 ns/cm

Figure 5 Reverse Recovery Time Characteristic and Test Circuit

Package Outline Dimensions

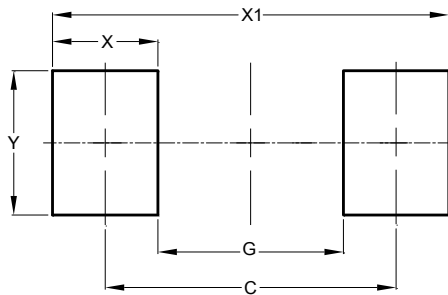
Please see AP02002 at <http://www.diodes.com/datasheets/ap02002.pdf> for the latest version.



SMC		
Dim	Min	Max
A	5.59	6.22
B	6.60	7.11
C	2.75	3.18
D	0.15	0.31
E	7.75	8.13
G	0.10	0.20
H	0.76	1.52
J	2.00	2.50
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	6.90
G	4.40
X	2.50
X1	9.40
Y	3.30

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