

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}	20	V
Working Peak Reverse Voltage	V _{RWM}		
DC Blocking Voltage	V _{RM}		
RMS Reverse Voltage	V _{R(RMS)}	14	V
Average Rectified Output Current (See Figure 1)	I _O	500	mA
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I _{FSM}	5	A

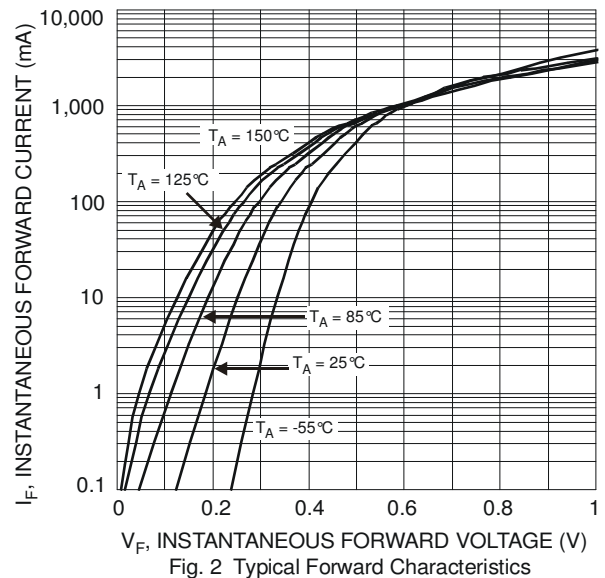
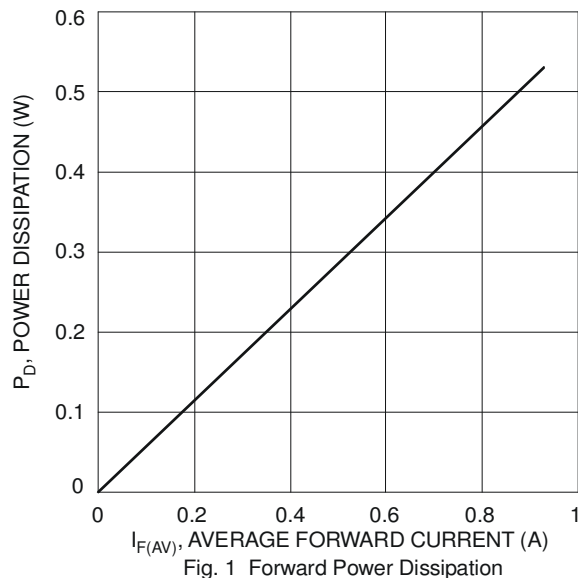
Thermal Characteristics

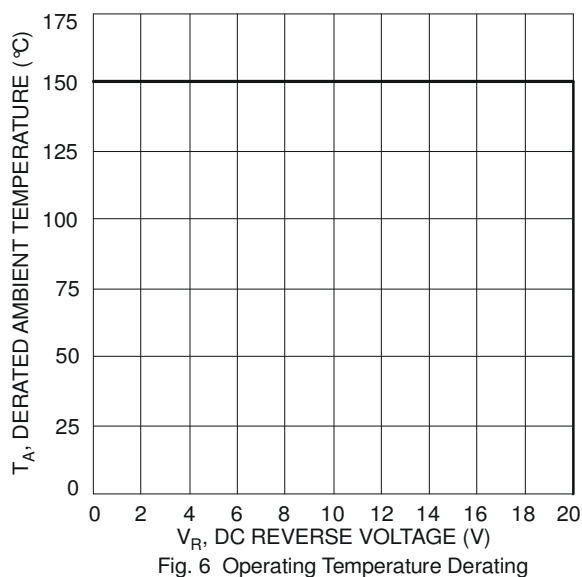
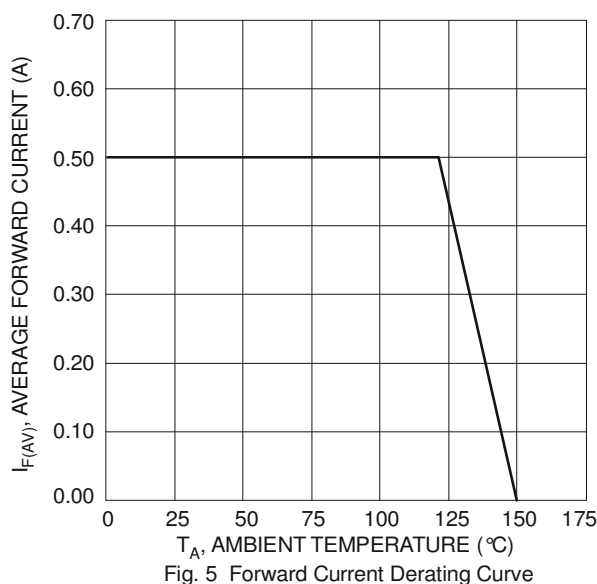
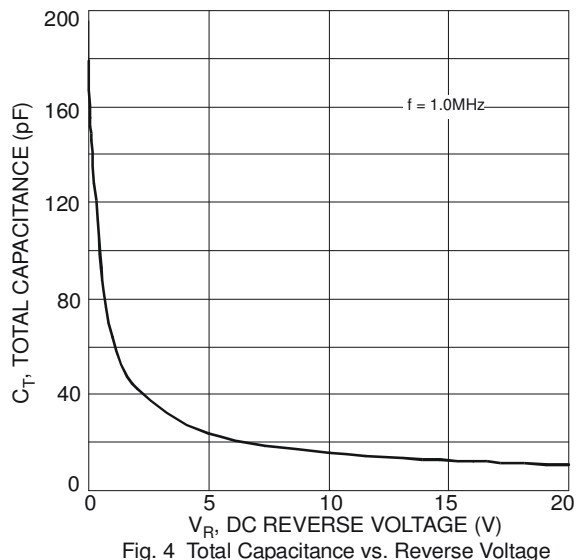
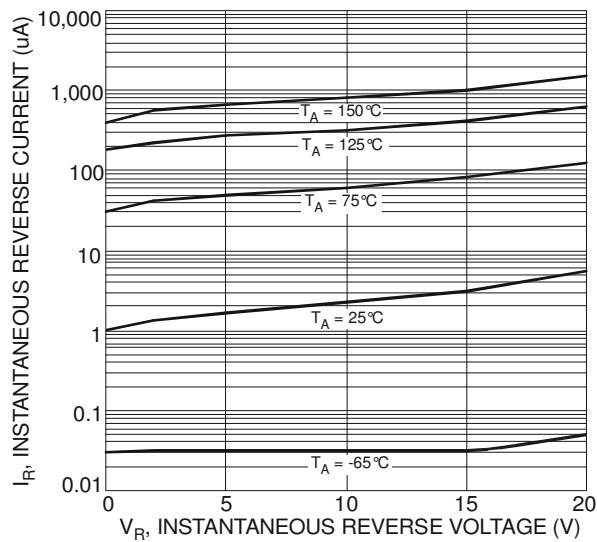
Characteristic	Symbol	Value	Unit
Maximum Thermal Resistance Junction to Ambient (Note 5)	R _{θJA}	134	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +150	°C

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

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 6)	V _{(BR)R}	20	-	-	V	I _R = 50μA
Forward Voltage Drop	V _F	-	0.34	0.38	V	I _F = 0.1A, T _J = +25°C
		-	0.25	0.28		I _F = 0.1A, T _J = +150°C
		-	0.39	0.43		I _F = 0.2A, T _J = +25°C
		-	0.31	0.34		I _F = 0.2A, T _J = +150°C
		-	0.47	0.50		I _F = 0.5A, T _J = +25°C
		-	0.43	0.46		I _F = 0.5A, T _J = +150°C
Leakage Current (Note 6)	I _R	-	6	50	μA	V _R = 20V, T _J = +25°C
			1.5	5	mA	V _R = 20V, T _J = +150°C

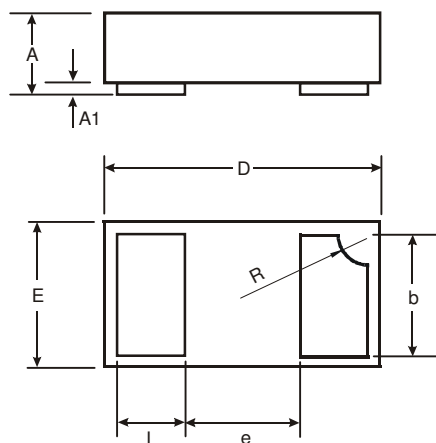
Notes: 5. Device mounted on FR-4 substrate, 2" x 2" 2oz. Copper, single sided PCB board.
 6. Short duration pulse test used to minimize self-heating effect.





Package Outline Dimensions

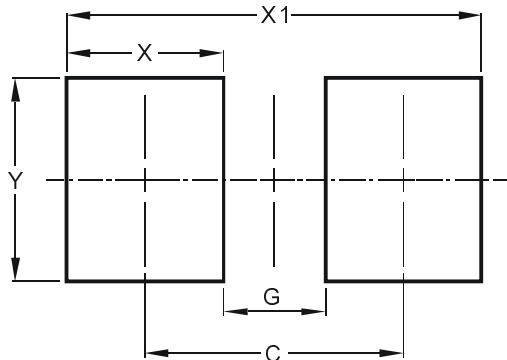
Please see AP02002 at <http://www.diodes.com/datasheets/ap02002.pdf> for the latest version.



X1-DFN1006-2			
Dim	Min	Max	Typ
A	0.47	0.53	0.50
A1	0	0.05	0.03
b	0.45	0.55	0.50
D	0.95	1.075	1.00
E	0.55	0.675	0.60
e	-	-	0.40
L	0.20	0.30	0.25
R	0.05	0.15	0.10
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	0.70
G	0.30
X	0.40
X1	1.10
Y	0.70

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