

## Maximum Ratings @ $T_A = +25^\circ\text{C}$ 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	$V_{RRM}$	40	V
Working Peak Reverse Voltage	$V_{RWM}$		
DC Blocking Voltage	$V_{RM}$		
Average Rectified Output Current (See Figure 1)	$I_O$	1	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	$I_{FSM}$	15	A

## Thermal Characteristics

Characteristic	Symbol	Value	Unit
Typical Thermal Resistance, Junction to Ambient (Note 5)	$R_{\theta JA}$	116	$^\circ\text{C/W}$
Operating and Storage Temperature Range	$T_J, T_{STG}$	-65 to +150	$^\circ\text{C}$

## Electrical Characteristics @ $T_A = +25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Forward Voltage Drop	$V_F$	-	-	0.5 0.45	V	$I_F = 1.0\text{A}, T_J = +25^\circ\text{C}$ $I_F = 1.0\text{A}, T_J = +125^\circ\text{C}$
Leakage Current (Note 6)	$I_R$	-	-	500 100	$\mu\text{A}$ mA	$V_R = 40\text{V}, T_J = +25^\circ\text{C}$ $V_R = 40\text{V}, T_J = +100^\circ\text{C}$

Notes: 5. Device mounted on Polyimide substrate, with 1" x 1", 2 oz. Copper, double-sided PCB board.  
6. Short duration pulse test used to minimize self-heating effect.

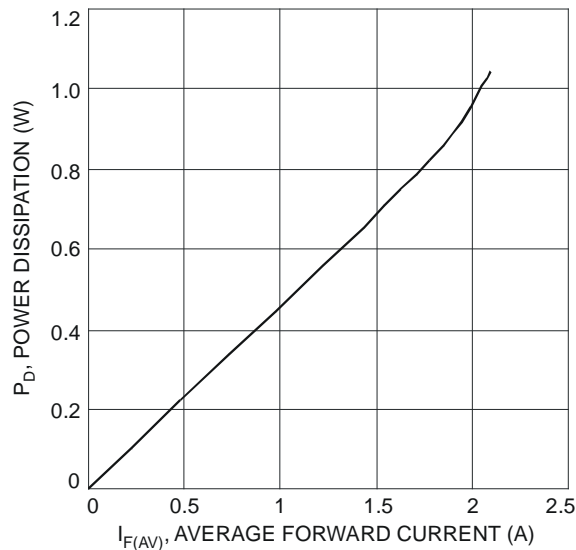


Fig. 1 Forward Power Dissipation

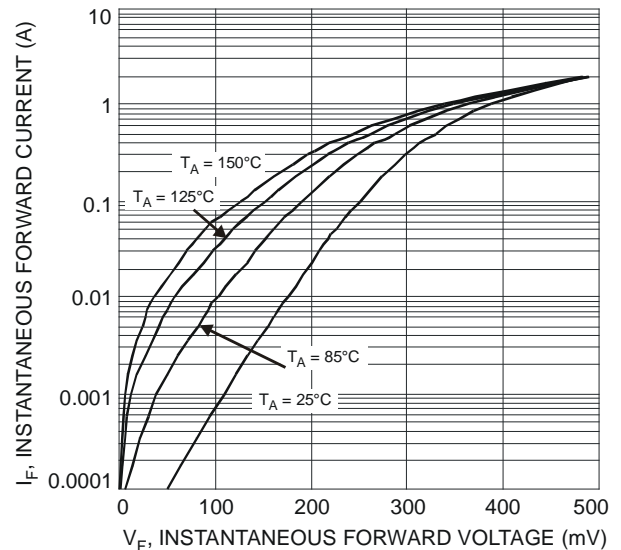


Fig. 2 Typical Forward Characteristics

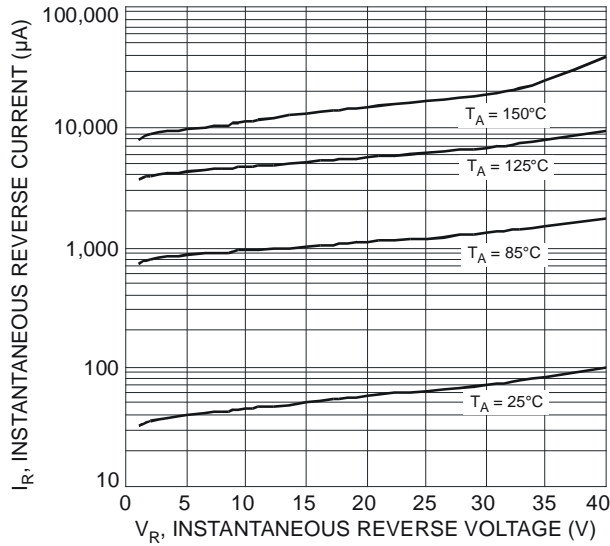


Fig. 3 Typical Reverse Characteristics

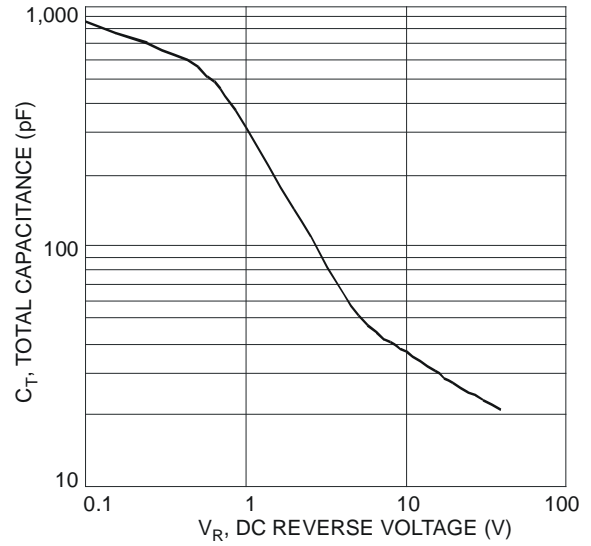


Fig. 4 Total Capacitance vs. Reverse Voltage

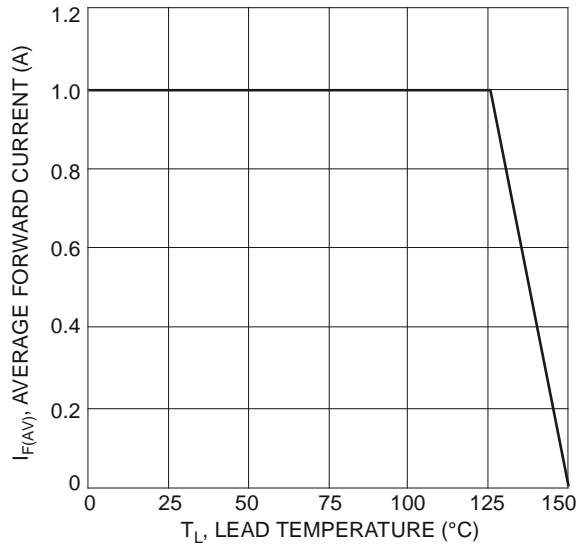


Fig. 5 Forward Current Derating Curve

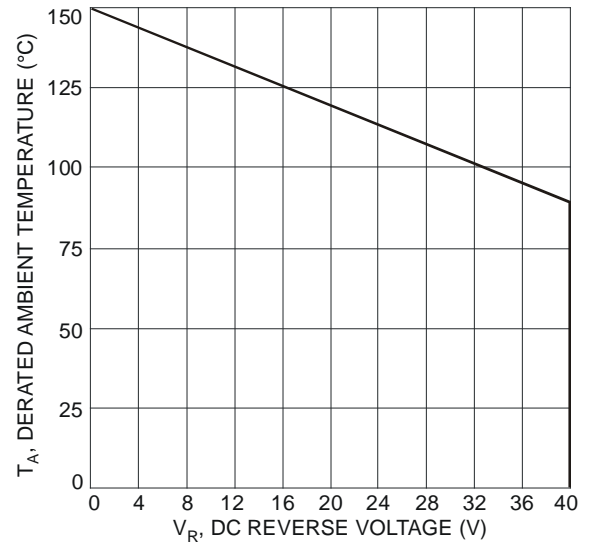
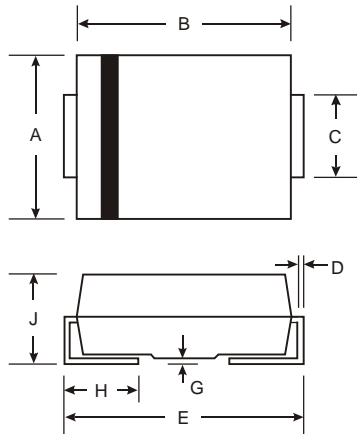


Fig. 6 Operating Temperature Derating

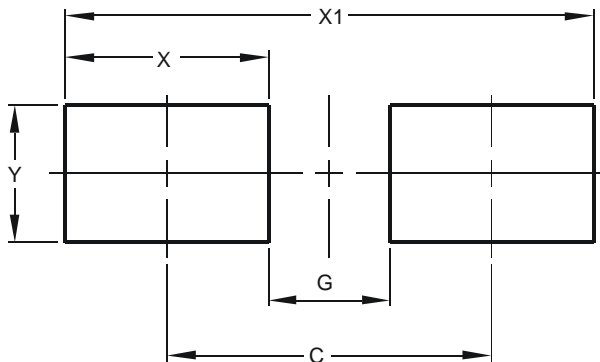
## Package Outline Dimensions

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


SMA		
Dim	Min	Max
A	2.29	2.92
B	4.00	4.60
C	1.27	1.63
D	0.15	0.31
E	4.80	5.59
G	0.05	0.20
H	0.76	1.52
J	2.01	2.30
All Dimensions in mm		

## Suggested Pad Layout

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



Dimensions	Value (in mm)
<b>C</b>	4.00
<b>G</b>	1.50
<b>X</b>	2.50
<b>X1</b>	6.50
<b>Y</b>	1.70

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