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 Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_{RM}	30	V
RMS Reverse Voltage	$V_{R(RMS)}$	21	V
Average Rectified Output Current (See Figure 1)	I_O	2.0	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	30	A

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Maximum Thermal Resistance Thermal Resistance Junction to Soldering (Note 4) Thermal Resistance Junction to Ambient (Note 5)	 $R_{\theta JS}$ $R_{\theta JA}$	 5 128	ºC/W
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +150	ºC

Electrical Characteristics @T_A = 25°C unless otherwise specified

Characteristic	Symbol	Min	TYP	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 6)	$V_{(BR)R}$	30	-	-	V	I_R = 400 µA
Forward Voltage Drop	V_F		0.21	0.26	V	I_F = 0.1A, T_J = 25ºC
			0.11	0.15		I_F = 0.1A, T_J = 125ºC
			0.31	0.35		I_F = 1.0A, T_J = 25ºC
			0.23	0.30		I_F = 1.0A, T_J = 125ºC
			0.36	0.40		I_F = 2.0A, T_J = 25ºC
			0.30	0.33		I_F = 2.0A, T_J = 125ºC
Leakage Current (Note 6)	I_R		210	500	µA	V_R = 30V, T_J = 25 ºC
			23	100	mA	V_R = 30V, T_J = 125 ºC

Notes:
4. Theoretical $R_{\theta JS}$ calculated from the top center of the die straight down to the PCB cathode tab solder junction.
5. FR-4 PCB, 2 oz. Copper, minimum recommended pad layout per http://www.diodes.com. T_A = 25ºC
6. Short duration pulse test used to minimize self-heating effect.

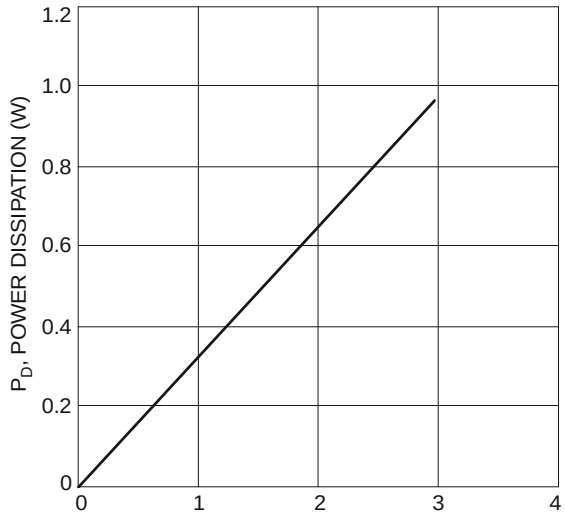


Fig. 1 Forward Power Dissipation

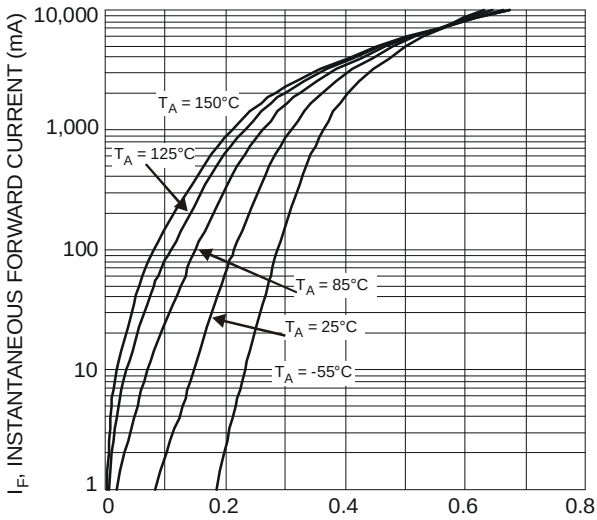


Fig. 2 Typical Forward Characteristics

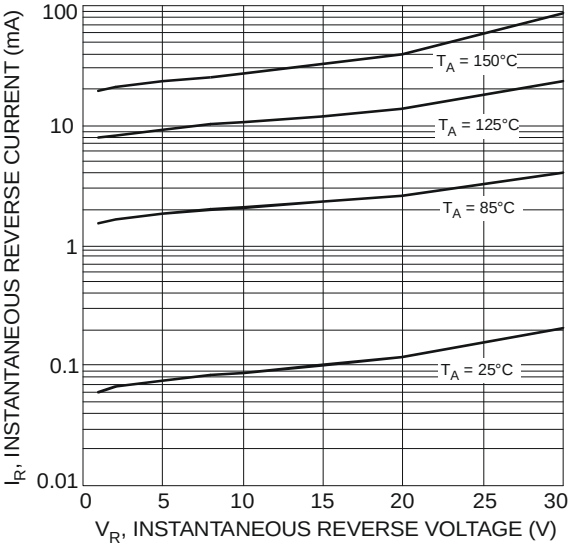


Fig. 3 Typical Reverse Characteristics

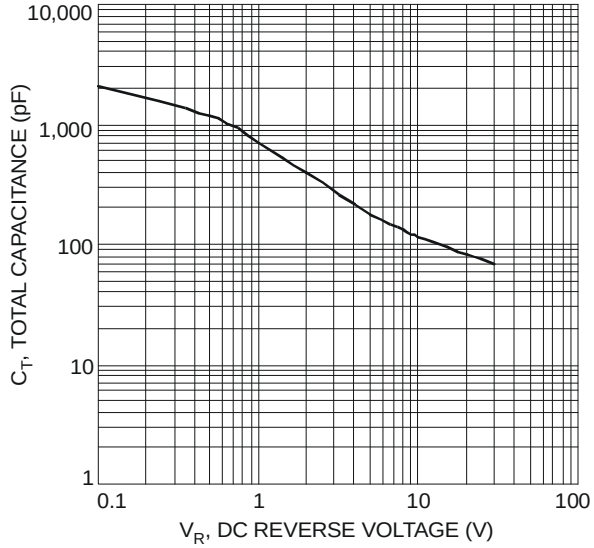


Fig. 4 Total Capacitance vs. Reverse Voltage

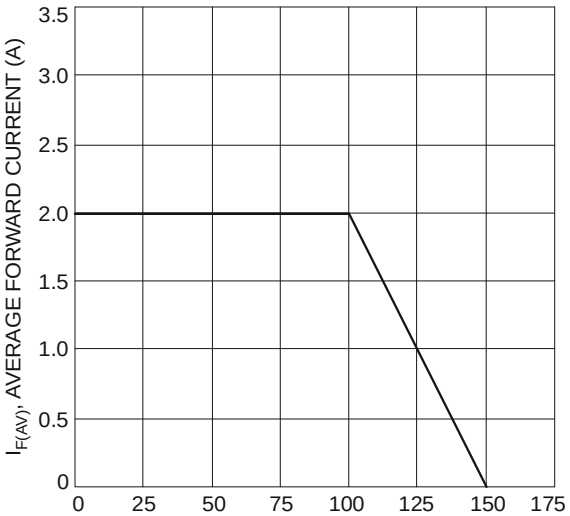


Fig. 5 Forward Current Derating Curve

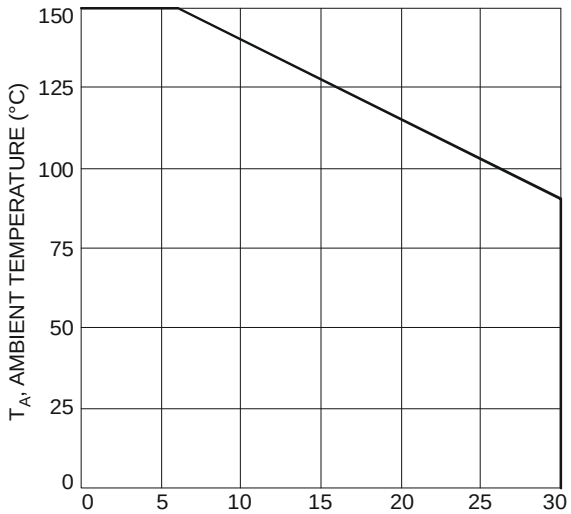
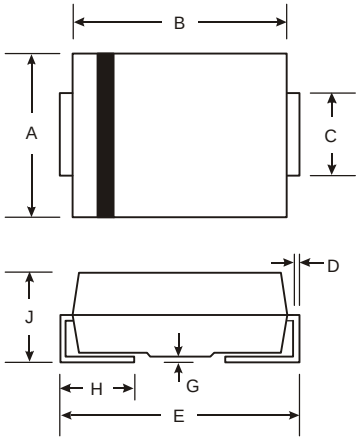


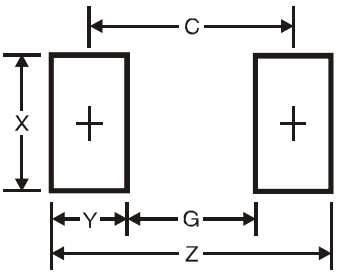
Fig. 6 Operating Temperature Derating

Package Outline Dimensions



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



Dimensions	Value (in mm)
Z	6.5
G	1.5
X	1.7
Y	2.5
C	4.0

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