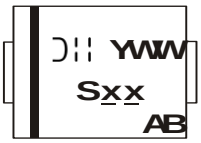
Marking Information



S D B, S V B = Product Type Marking Code
= Manufacturers' Code Marking
YWW = Date Code Marking
Y = Last Digit of Year (ex: 7 for 2007)
WW = Week Code (01 to 53)
AB = Foundry and Assembly Code

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}	150	V
RMS Reverse Voltage	$V_{R(RMS)}$	106	V
Average Rectified Output Current (See Figure 1)	I_O	1.0	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	42	A
Repetitive Peak Avalanche Power (1µS, +25°C)	P_{ARM}	6,000	W

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Thermal Resistance Junction to Soldering (Note 5)	$R_{\theta JS}$	3	°C/W
Thermal Resistance Junction to Ambient (Note 6)	$R_{\theta JA}$	119	
Thermal Resistance Junction to Ambient (Note 7)	$R_{\theta JA}$	88	
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 8)	$V_{(BR)R}$	150	-	-	V	I_R = 100µA
Forward Voltage Drop	V_F	-	-	0.70	V	I_F = 1.0A, T_J = +25°C
		-	-	0.56		I_F = 1.0A, T_J = +125°C
Leakage Current (Note 8)	I_R	-	-	0.1	mA	V_R = 150V, T_J = +25°C
		-	-	10	mA	V_R = 150V, T_J = +125°C

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

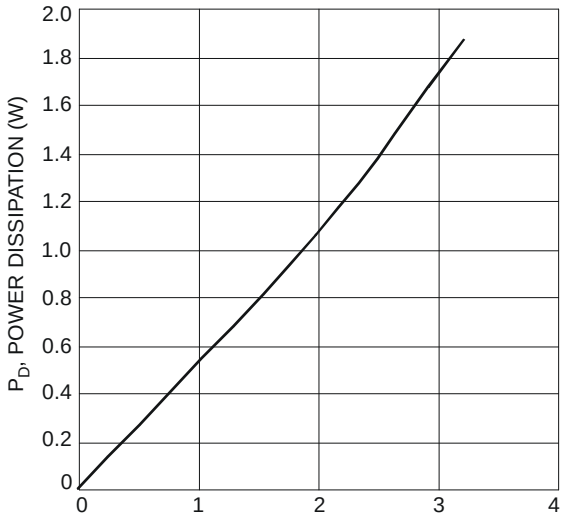


Fig. 1 Forward Power Dissipation

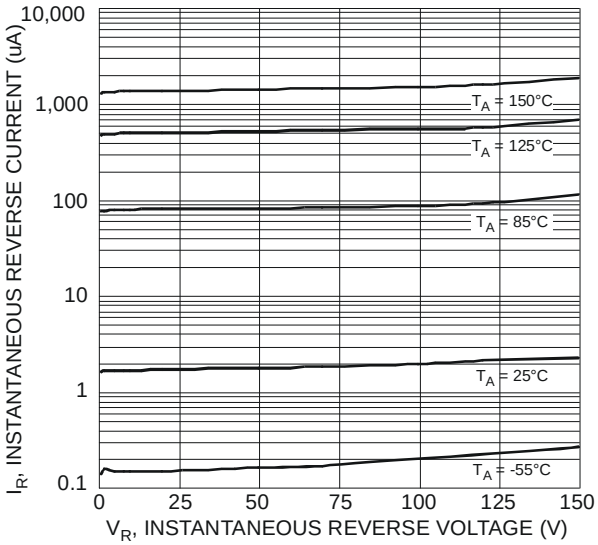


Fig. 2 Typical Reverse Characteristics

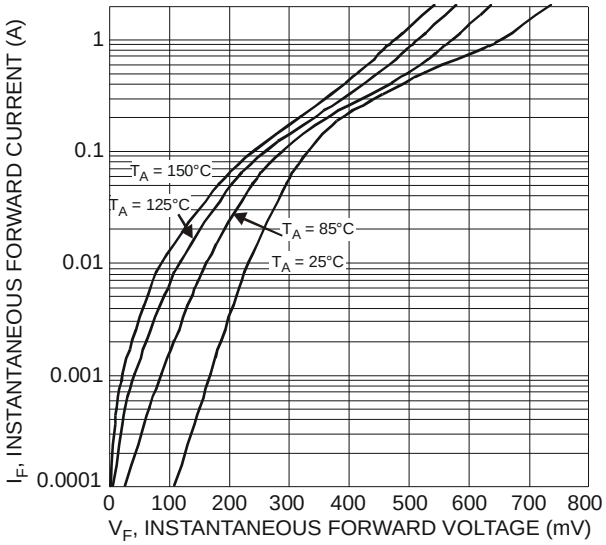


Fig. 3 Typical Forward Characteristics

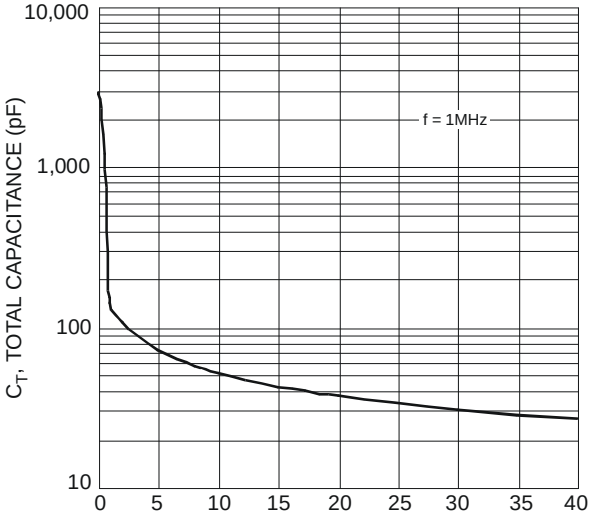


Fig. 4 Total Capacitance vs. Reverse Voltage

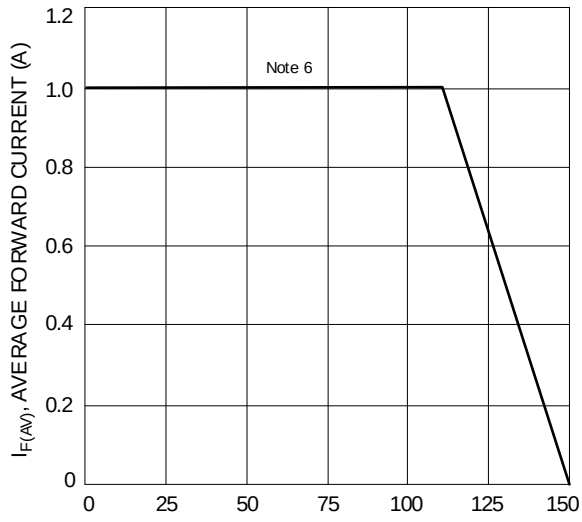


Fig. 5 DC Forward Current Derating Curve

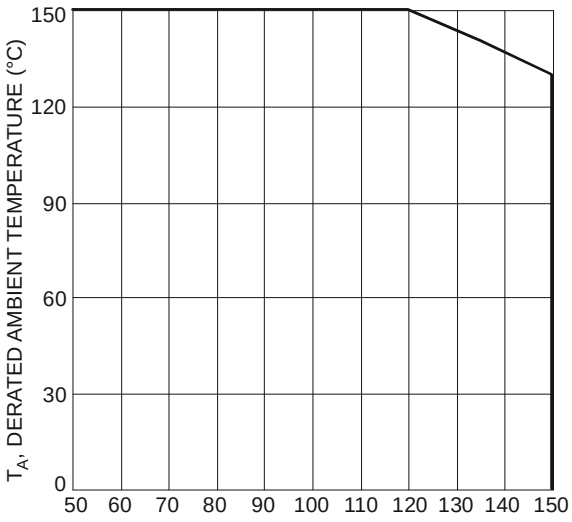


Fig. 6 Operating Temperature Derating

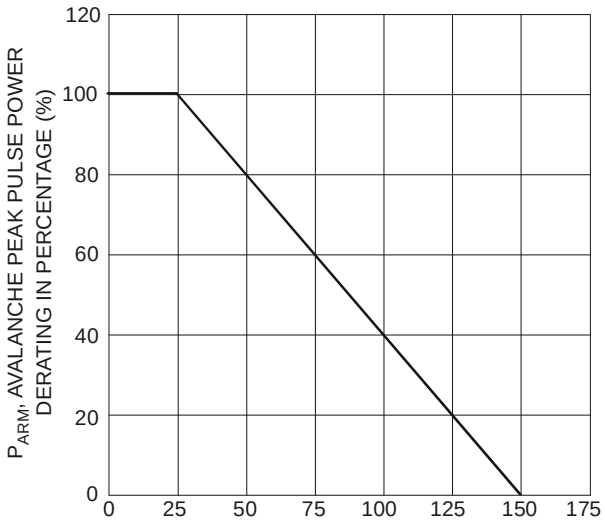


Fig. 7 Pulse Derating Curve

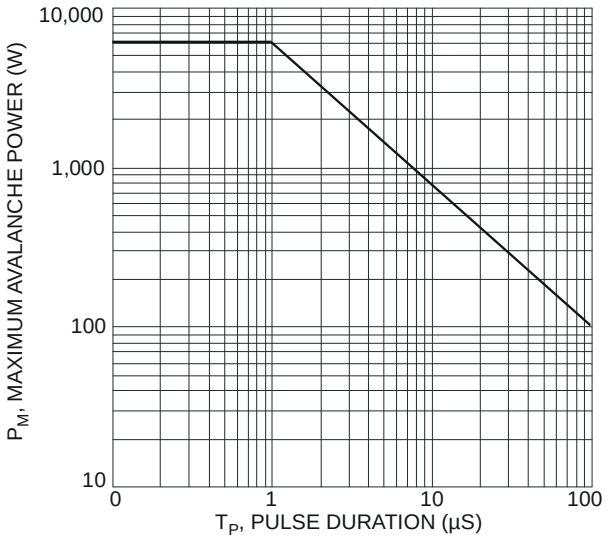
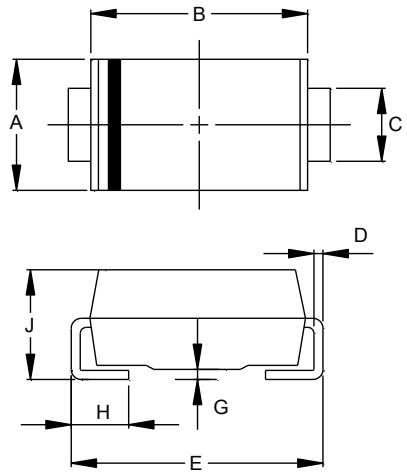


Fig. 8 Maximum Avalanche Power vs. Pulse Duration

Package Outline Dimensions

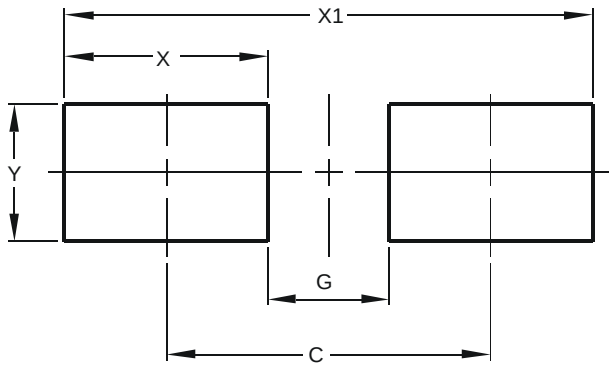
Please see http://www.diodes.com/package-outlines.html for the latest version.



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	1.96	2.40
All Dimensions in mm		

Suggested Pad Layout

Please see http://www.diodes.com/package-outlines.html for the latest version.



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

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