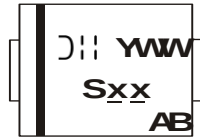


Marking Information



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	V _{RRM}	150	V
Working Peak Reverse Voltage	V _{RWM}		
DC Blocking Voltage	V _{RM}		
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

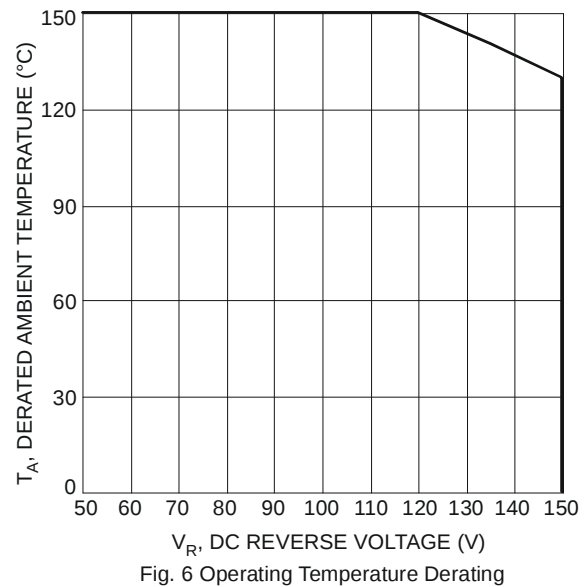
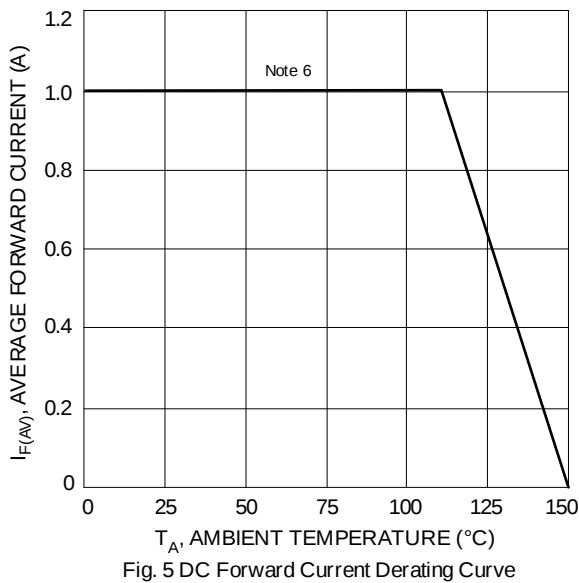
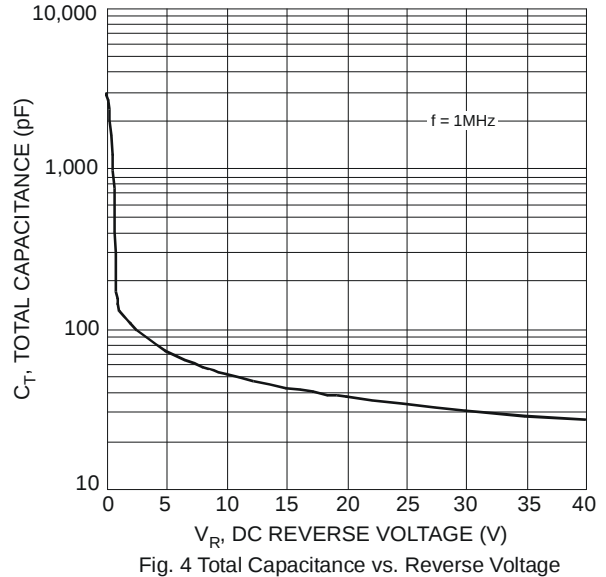
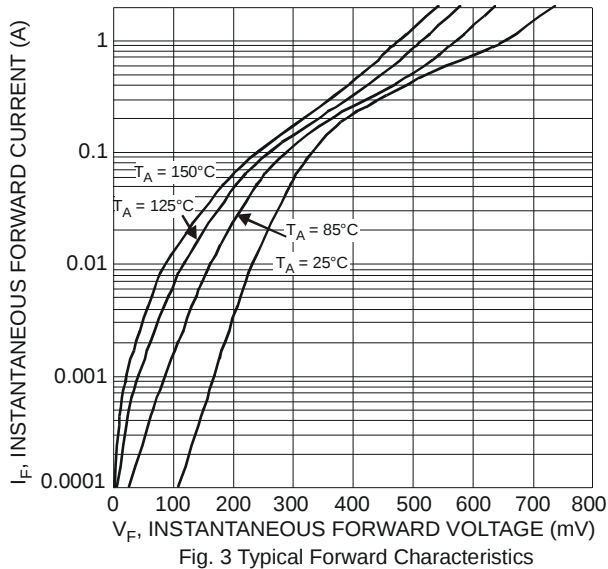
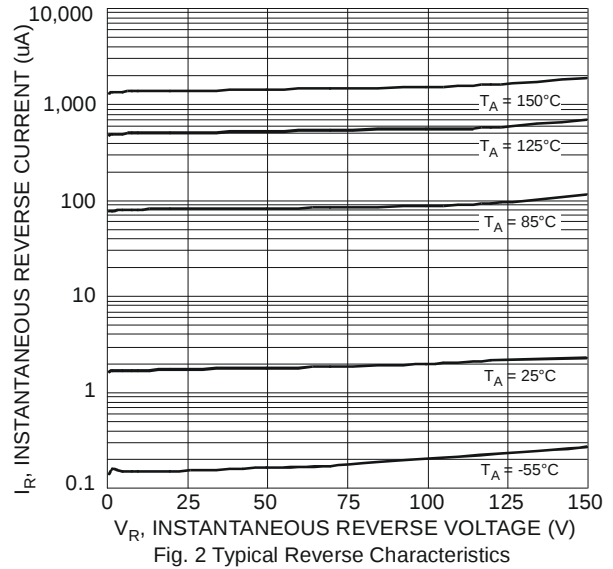
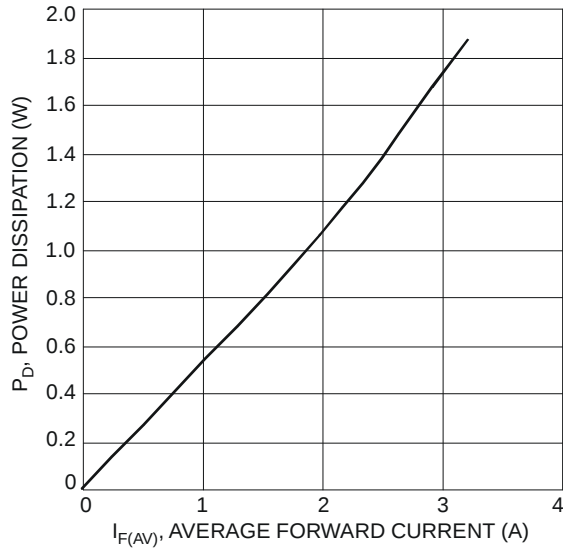
Thermal Characteristics

Characteristic	Symbol	Value	Unit
Thermal Resistance Junction to Soldering (Note 5)	R _{θJS}	3	°C/W
Thermal Resistance Junction to Ambient (Note 6)	R _{θJA}	119	
Thermal Resistance Junction to Ambient (Note 7)	R _{θJA}	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:
- Theoretical R_{θJS} calculated from the top center of the die straight down to the PCB cathode tab solder junction.
 - FR-4 PCB, 2 oz. Copper, minimum recommended pad layout per <http://www.diodes.com/package-outlines.html>. T_A = +25°C.
 - Polymide PCB, 2 oz. Copper, minimum recommended pad layout per <http://www.diodes.com>.
 - Short duration pulse test used to minimize self-heating effect.



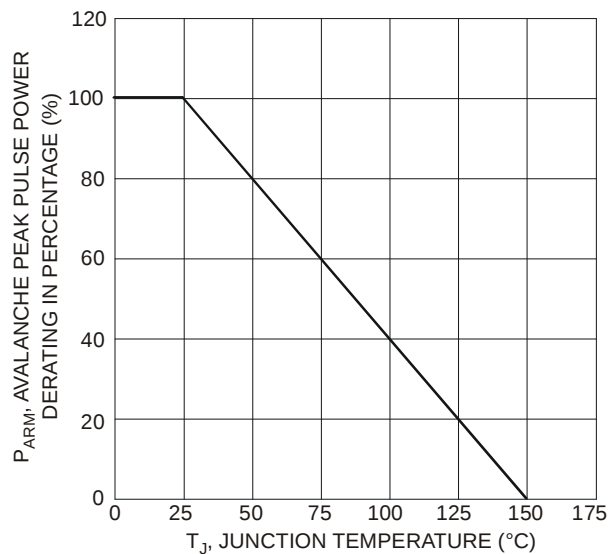


Fig. 7 Pulse Derating Curve

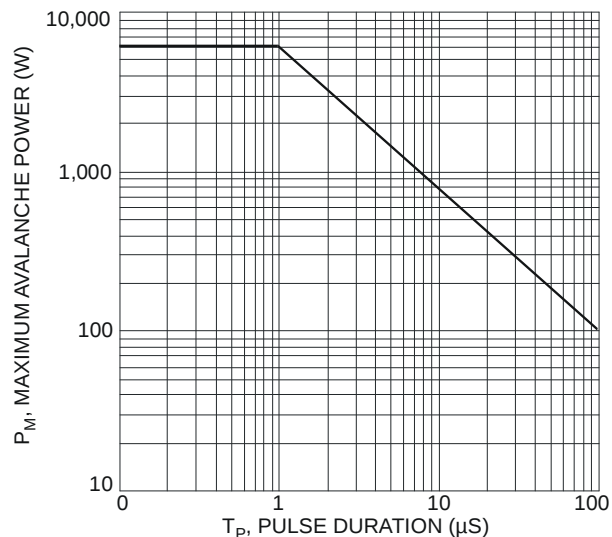
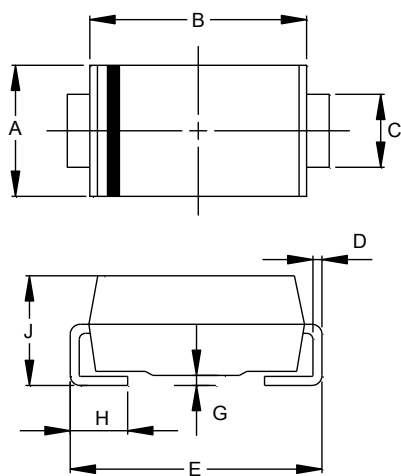


Fig. 8 Maximum Avalanche Power vs. Pulse Duration

Package Outline Dimensions

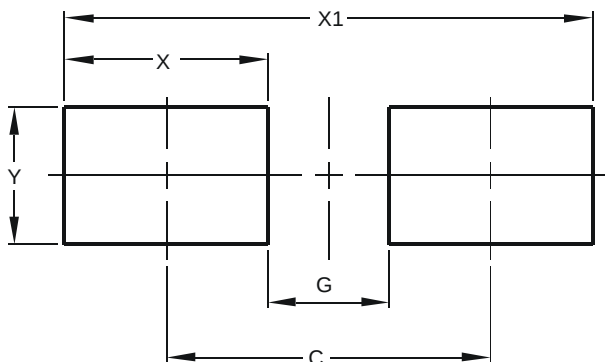
Please see <http://www.diodes.com/package-outlines.html> for the latest version.



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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