

Maximum Ratings (@T_A = +25°C, unless otherwise specified.)

Characteristic	Symbol	Value	Unit
Peak Pulse Power (t _p = 8x20μs)	P _{pk}	300	W

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Typical Thermal Resistance, Junction to Ambient (Note 5)	R _{θJA}	408	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +150	°C

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

Reverse Standoff Voltage	Breakdown Voltage V _{BR} @ I _T		Test Current	Max. Reverse Leakage @ V _{RWM}	Max. Clamping Voltage @ I _{pp} = 1A (Note 8)	Typical Peak Pulse Current (Note 7)	Typical Total Capacitance (Note 6)
V _{RWM} (V)	Min (V)	Max (V)	I _T (mA)	I _R (μA)	V _C (V)	(A)	(pF)
5	6.0	—	1.0	20	11.0	17	1.6

- Notes:
- Device mounted on FR-4 PCB pad layout with 2oz Cu traces and with pad dimensions 1" x 1".
 - V_R = 0V, f = 1MHz.
 - t_p = 8x20μs.
 - Clamping voltage value is based on an 8x20μs peak pulse current (I_{pp}) waveform.
 - Product manufactured with Data Code V9 (week 33, 2008) and newer are built with Green Molding Compound. Product manufactured prior to Date Code V9 are built with Non-Green Molding Compound and may contain Halogens or Sb₂O₃ Fire Retardants.

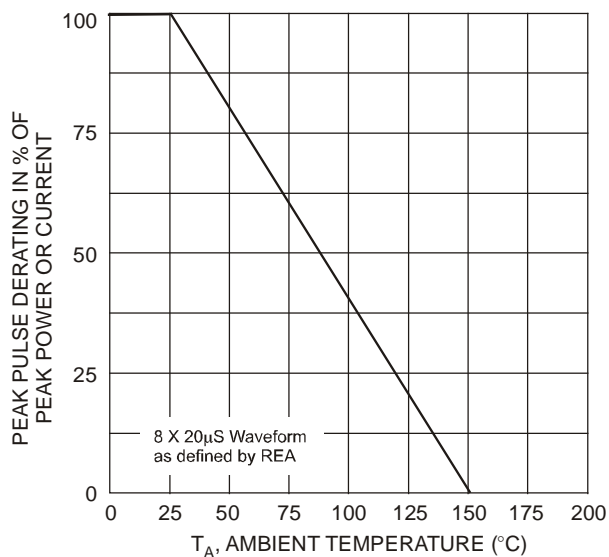


Fig. 1 Pulse Derating Curve

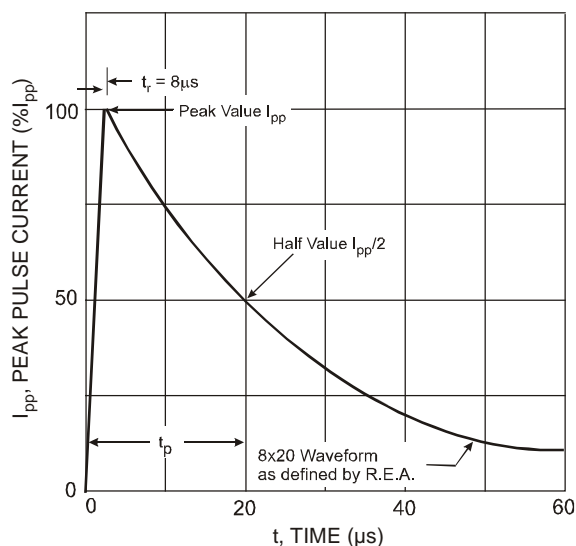
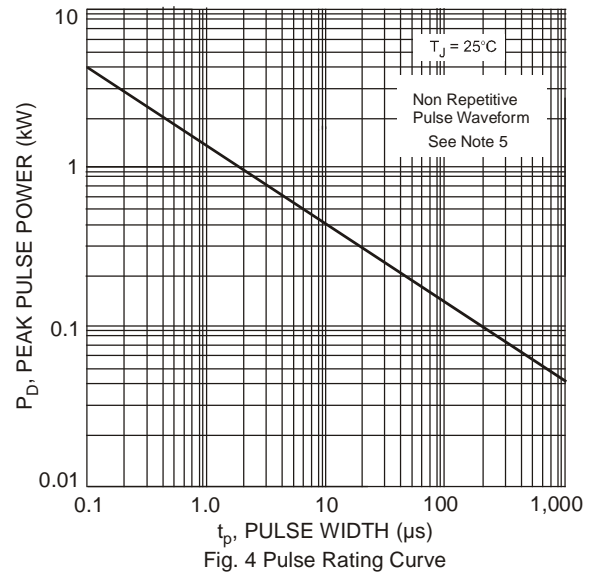
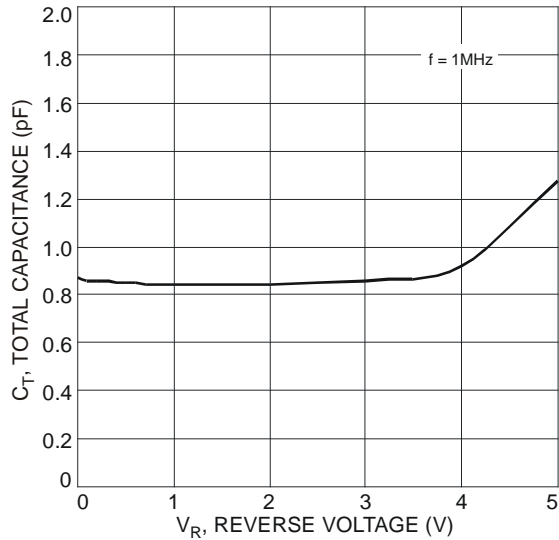
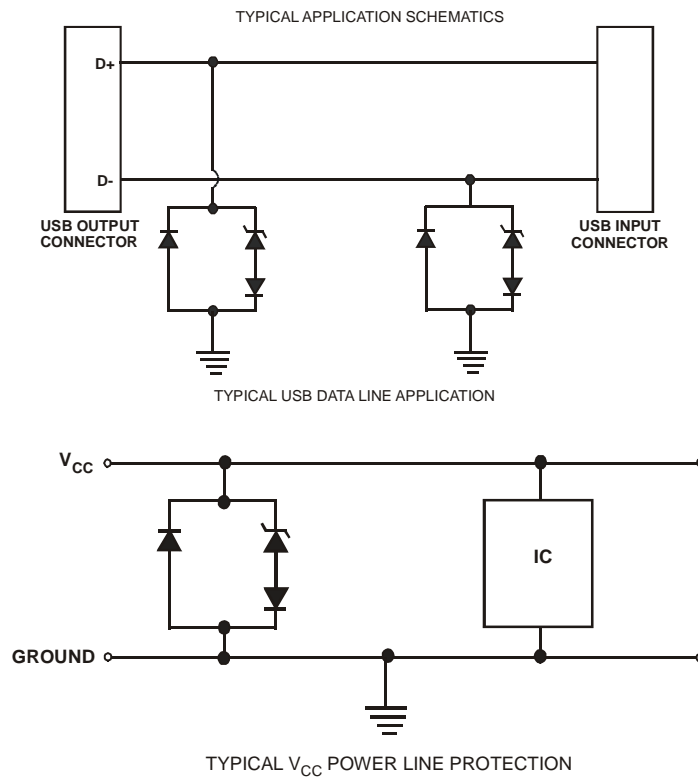


Fig. 2 Pulse Waveform

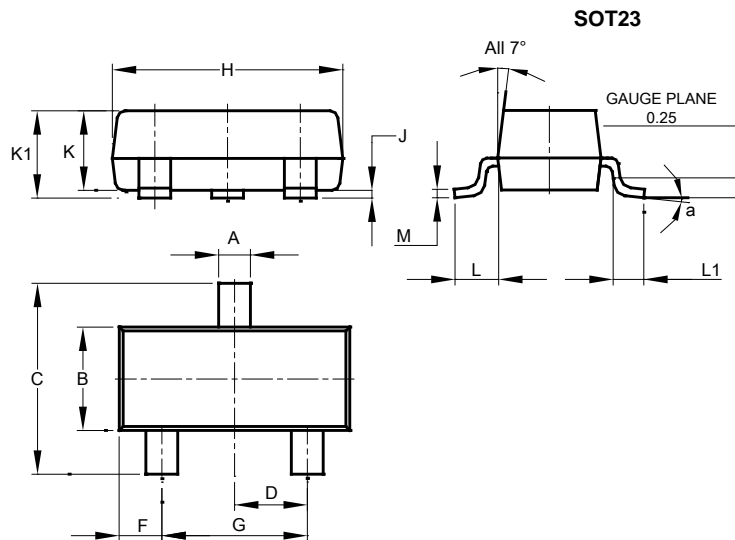


Typical Application Schemes



Package Outline Dimensions

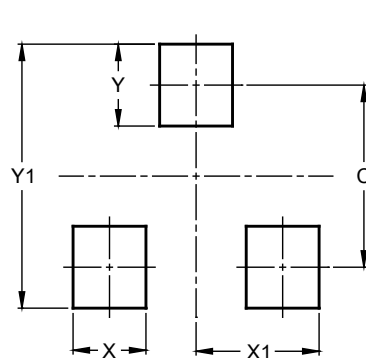
Please see <http://www.diodes.com/package-outlines.html> for the latest version.



SOT23			
Dim	Min	Max	Typ
A	0.37	0.51	0.40
B	1.20	1.40	1.30
C	2.30	2.50	2.40
D	0.89	1.03	0.915
F	0.45	0.60	0.535
G	1.78	2.05	1.83
H	2.80	3.00	2.90
J	0.013	0.10	0.05
K	0.890	1.00	0.975
K1	0.903	1.10	1.025
L	0.45	0.61	0.55
L1	0.25	0.55	0.40
M	0.085	0.150	0.110
a	0°	8°	--
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	2.0
X	0.8
X1	1.35
Y	0.9
Y1	2.9

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