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

Characteristic	Symbol	Value	Unit	Conditions
Peak Pulse Power Dissipation	P_{PP}	90	W	8/20µs, Per Figure 2
Peak Pulse Current	I_{PP}	3	A	8/20µs, Per Figure 2
ESD Protection – Contact Discharge	$V_{ESD\_Contact}$	±30	kV	Standard IEC 61000-4-2
ESD Protection – Air Discharge	V_{ESD_Air}	±30	kV	Standard IEC 61000-4-2

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Package Power Dissipation (Note 5)	P_D	200	mW
Thermal Resistance, Junction to Ambient (Note 5)	$R_{\theta JA}$	625	°C/W
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 Conditions
Reverse Standoff Voltage	V_{RWM}	—	—	20	V	—
Channel Leakage Current (Note 6)	I_{RM}	—	—	100	nA	V_{RWM} = 20V
Clamping Voltage, Positive Transients	V_{CL}	—	—	27	V	I_{PP} = 1A, t_p = 8/20µS
		—	—	30	V	I_{PP} = 3A, t_p = 8/20µS
Breakdown Voltage	V_{BR}	21	—	25	V	I_R = 1mA
Differential Resistance	R_{DIF}	—	1.8	—	Ω	I_R = 1A, t_p = 8/20µS
Channel Input Capacitance	C_T	—	10	15	pF	V_R = 0V, f = 1MHz

Notes: 5. Device mounted on FR-4 PCB pad layout (2oz copper) as shown on Diodes, Inc. suggested pad layout AP02001, which can be found on our website at http://www.diodes.com.
6. Short duration pulse test used to minimize self-heating effect.

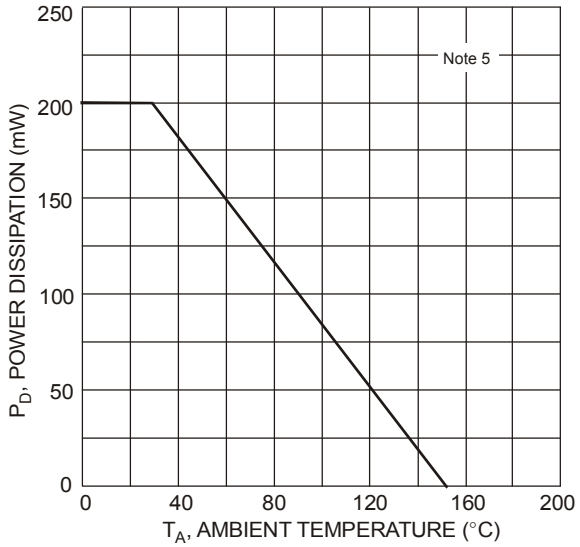


Figure 1 Power Derating Curve

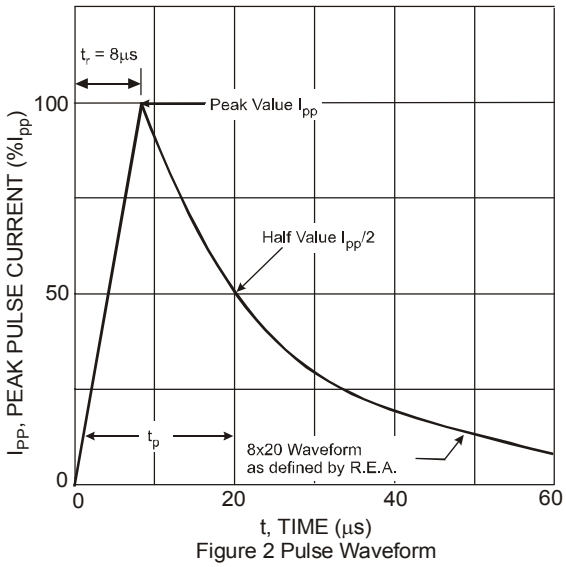


Figure 2 Pulse Waveform

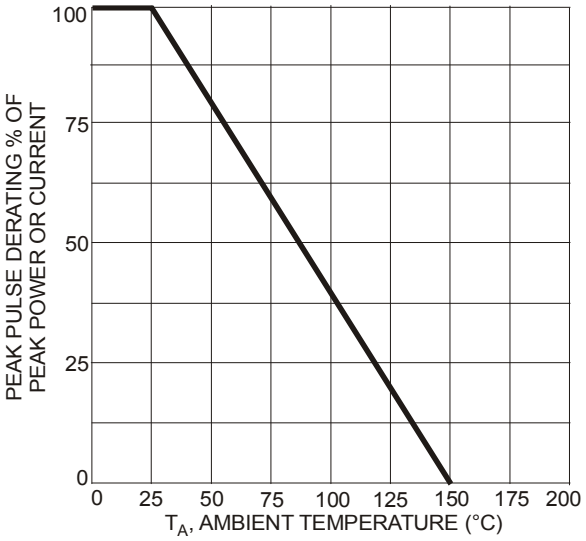


Figure 3 Power Dissipation vs. Ambient Temperature

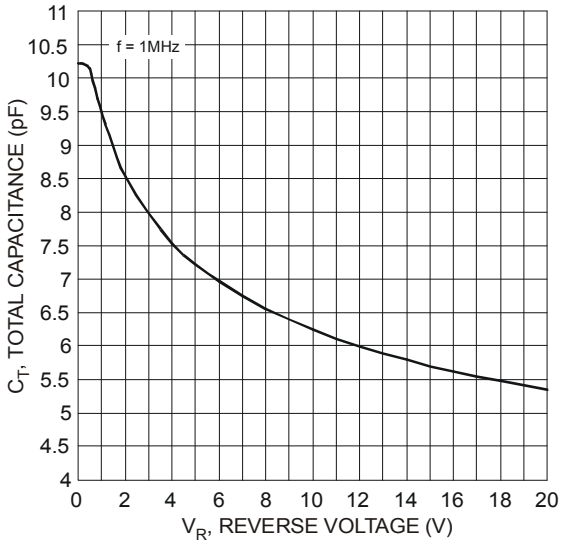


Figure 4 Typical Total Capacitance vs. Reverse Voltage

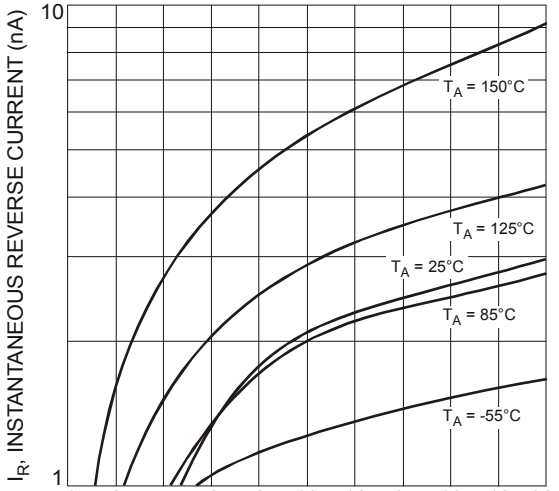
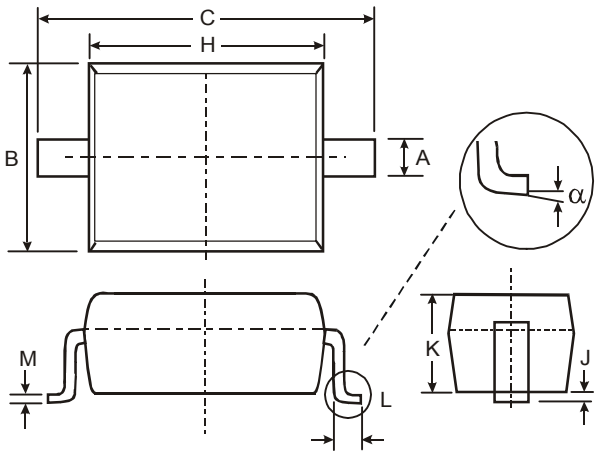


Figure 5 Typical Reverse Characteristics

Package Outline Dimensions

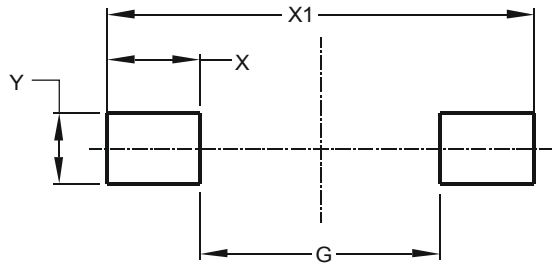
Please see AP02002 at http://www.diodes.com/datasheets/ap02002.pdf for latest version.



SOD323		
Dim	**Min**	**Max**
A	0.25	0.35
B	1.20	1.40
C	2.30	2.70
H	1.60	1.80
J	0.00	0.10
K	1.0	1.1
L	0.20	0.40
M	0.10	0.15
α	0°	8°
All Dimensions in mm		

Suggested Pad Layout

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



Dimensions	Value (in mm)
G	1.520
X	0.590
X1	2.700
Y	0.450