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

Characteristic	Symbol	Value	Unit	Conditions
Peak Pulse Current	I_{PP}	15	A	8/20μs, Per Figure 3
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
ESD Protection – Human Body Model	V_{ESD_HBM}	±16	kV	Standard IEC 61000-4-2
Electrical Fast Transients (EFT)	—	40	A	Standard IEC 61000-4-4

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Package Power Dissipation (Note 5)	P_D	350	mW
Thermal Resistance, Junction to Ambient (Note 5)	$R_{\theta JA}$	500	°C/W
Operating Temperature Range	T_J	-55 to +150	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C

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

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Reverse Working Voltage	V_{RWM}	—	—	12.0	V	—
Reverse Current (Note 6)	I_R	—	—	1	μA	$V_R = V_{RWM} = 12.0V$
Reverse Breakdown Voltage (Note 6)	V_{BR}	13.3	—	15.75	V	I_R = 1mA
Reverse Clamping Voltage	V_{CL}	—	—	19	V	I_{PP} = 5A, t_p = 8/20μs
		—	—	25		I_{PP} = 15A, t_p = 8/20μs
Capacitance	C_T	—	—	150	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.

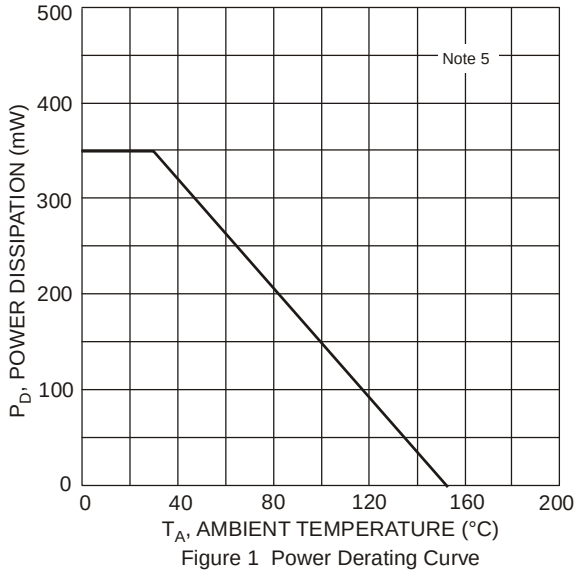


Figure 1 Power Derating Curve

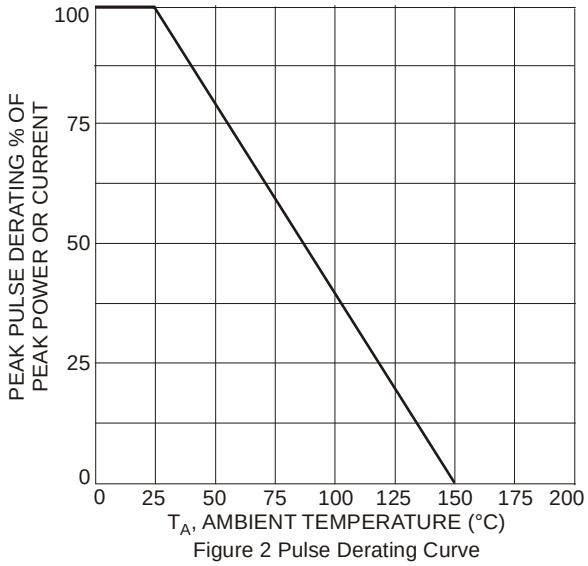


Figure 2 Pulse Derating Curve

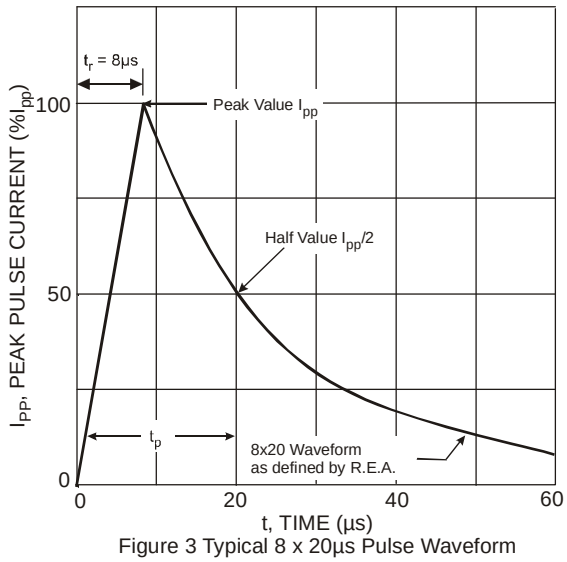


Figure 3 Typical 8 x 20µs Pulse Waveform

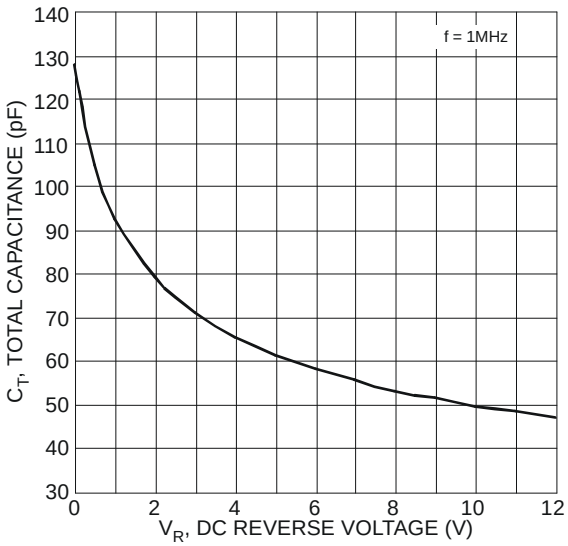


Figure 4 Typical Capacitance

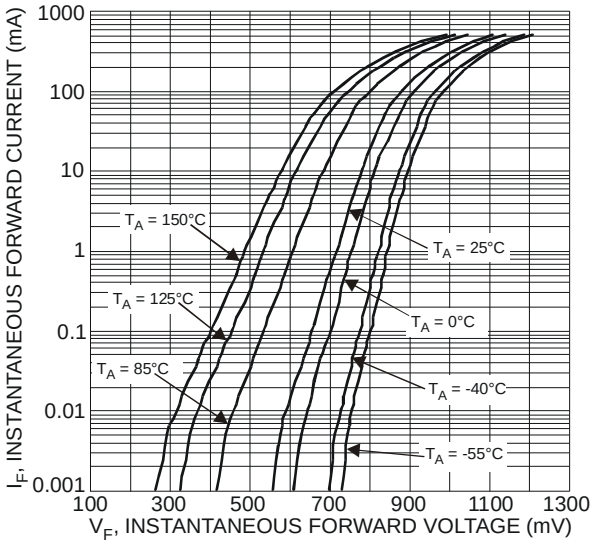


Figure 5 Typical Forward Characteristics

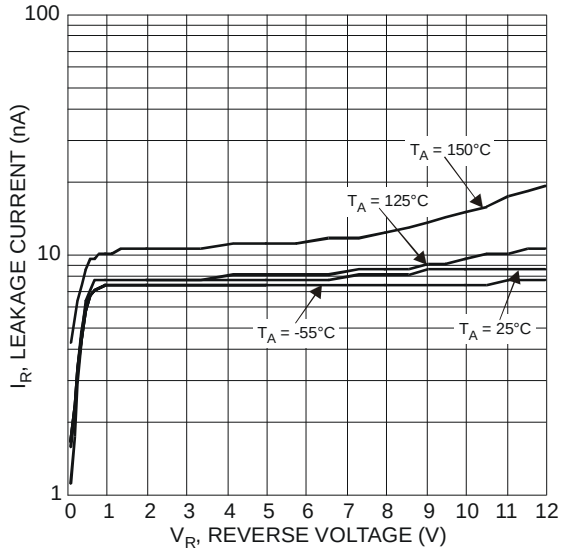


Figure 6 Typical Reverse Characteristics

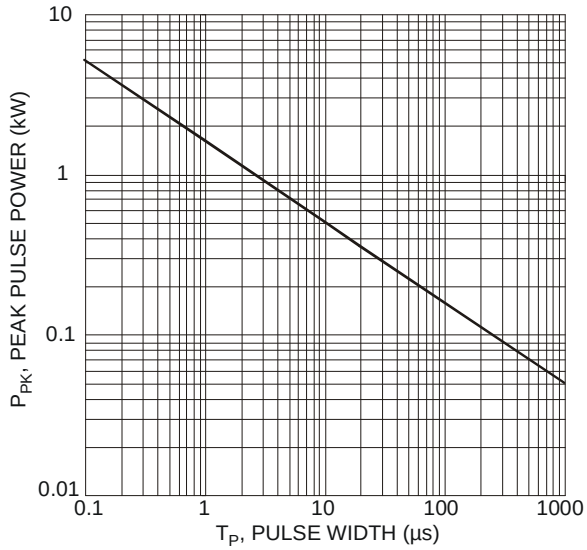
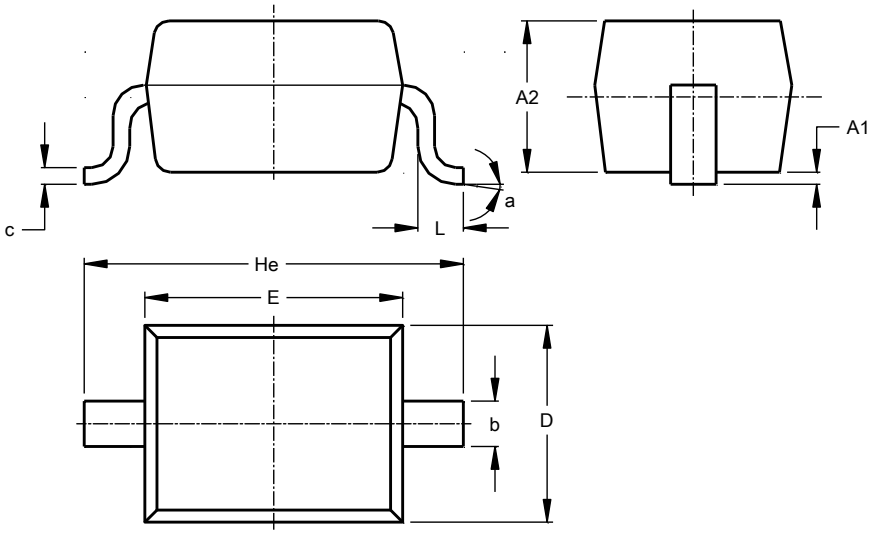


Figure 7 Pulse Rating Curve

Package Outline Dimensions

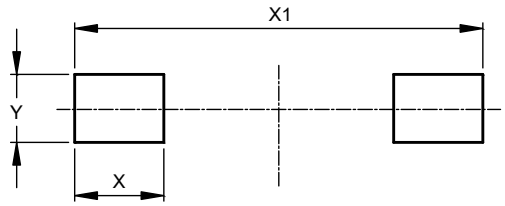
Please see AP02002 at http://www.diodes.com/datasheets/ap02002.pdf for the latest version.



SOD323			
Dim	**Min**	**Max**	**Typ**
A1	--	0.10	0.05
A2	1.00	1.10	1.05
b	0.25	0.35	0.30
c	0.10	0.15	0.11
D	1.20	1.40	1.30
E	1.60	1.80	1.70
He	2.30	2.70	2.50
L	0.20	0.40	0.30
a	0º	8º	--
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)
X	0.590
X1	2.700
Y	0.450

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