

**Maximum Ratings** @T<sub>A</sub> = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit	Conditions
Peak Pulse Power Dissipation	P <sub>PP</sub>	84	W	8/20μs, Per Fig. 1
Peak Pulse Current	I <sub>PP</sub>	6	A	8/20μs, Per Fig. 1
ESD Protection – Contact Discharge	V <sub>ESD_Contact</sub>	±30	kV	Standard IEC 61000-4-2
ESD Protection – Air Discharge	V <sub>ESD_Air</sub>	±30	kV	Standard IEC 61000-4-2

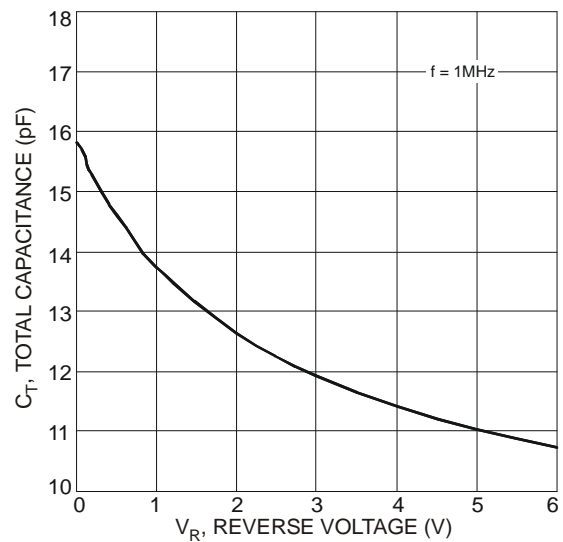
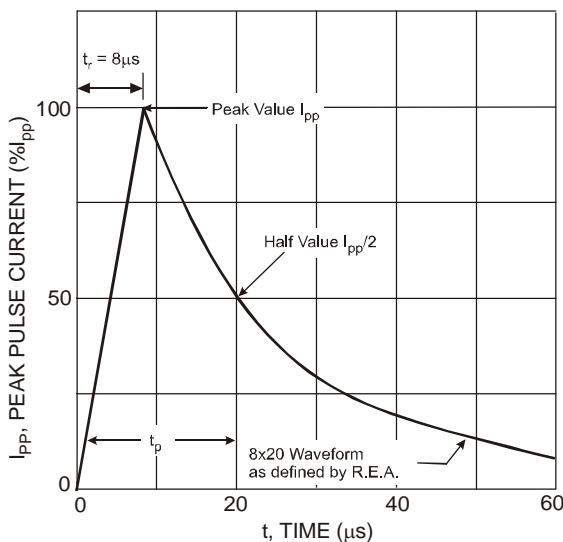
**Thermal Characteristics**

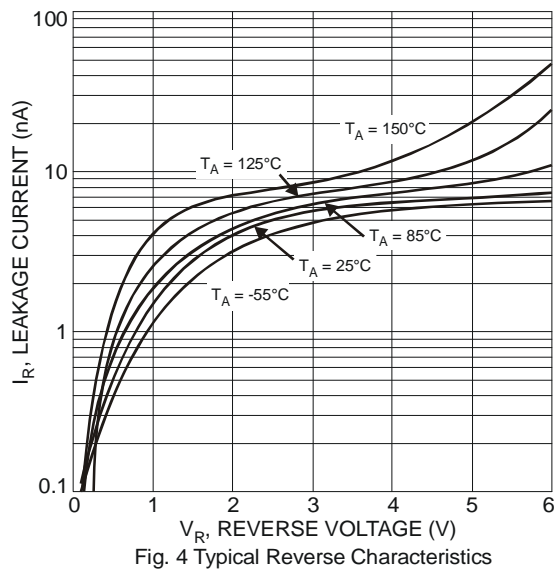
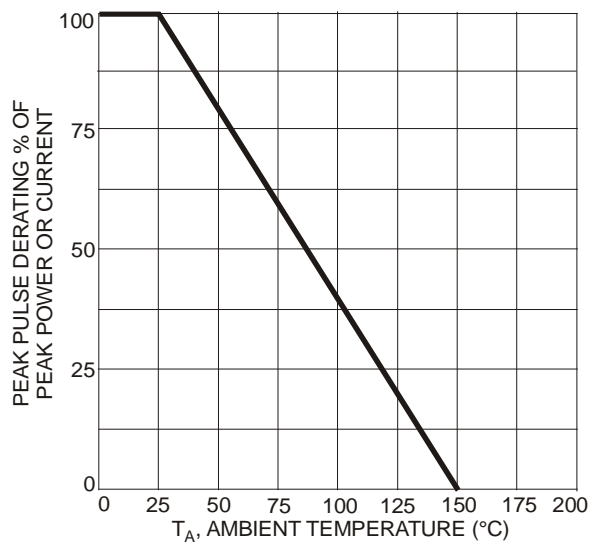
Characteristic	Symbol	Value	Unit
Package Power Dissipation (Note 4)	P <sub>D</sub>	200	mW
Thermal Resistance, Junction to Ambient (Note 4)	R <sub>θJA</sub>	625	°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +150	°C

**Electrical Characteristics** @T<sub>A</sub> = 25°C unless otherwise specified

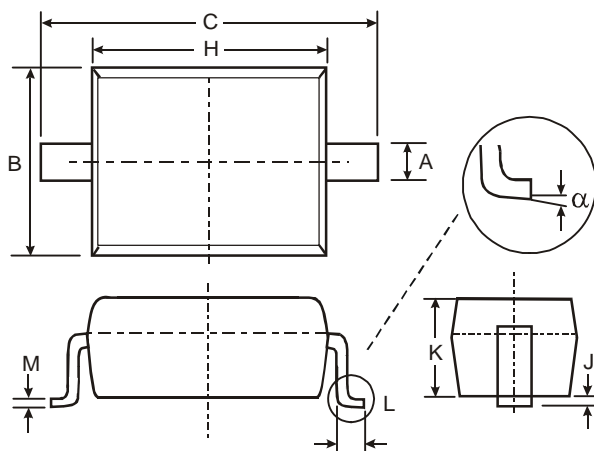
Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Reverse Standoff Voltage	V <sub>RWM</sub>	-	-	5	V	-
Channel Leakage Current (Note 5)	I <sub>RM</sub>	-	10	100	nA	V <sub>RWM</sub> = 5V
Clamping Voltage, Positive Transients	V <sub>CL</sub>	-	7.0 8.7 10.5 11.5	9.0 10.7 12.0 14.0	V	I <sub>PP</sub> = 1A, t <sub>p</sub> = 8/20μs I <sub>PP</sub> = 3A, t <sub>p</sub> = 8/20μs I <sub>PP</sub> = 5A, t <sub>p</sub> = 8/20μs I <sub>PP</sub> = 6A, t <sub>p</sub> = 8/20μs
Breakdown Voltage	V <sub>BR</sub>	6	7	8	V	I <sub>R</sub> = 1mA
Differential Resistance	R <sub>DIF</sub>	-	0.2	-	Ω	I <sub>R</sub> = 1A, t <sub>p</sub> = 8/20μs
Channel Input Capacitance	C <sub>T</sub>	-	15	20	pF	V <sub>R</sub> = 0V, f = 1MHz

- Notes:
- 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>.
  - Short duration pulse test used to minimize self-heating effect.



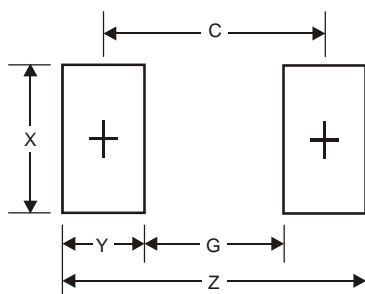


## Package Outline Dimensions



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
$\alpha$	0°	8°
All Dimensions in mm		

## Suggested Pad Layout



Dimensions	Value (in mm)
Z	3.75
G	1.05
X	0.65
Y	1.35
C	2.40

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