

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

Characteristic	Symbol	Value	Unit	Conditions
Peak Pulse Power	P _{PP}	640	W	8/20μs, per Figure 3
Peak Pulse Current	I _{PP}	40	A	8/20μs, per Figure 3
ESD Protection – Contact Discharge	V _{ESD_CONTACT}	±30	kV	IEC 61000-4-2 Standard
ESD Protection – Air Discharge	V _{ESD_AIR}	±30	kV	IEC 61000-4-2 Standard

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Package Power Dissipation (Note 5)	P _D	250	mW
Thermal Resistance, Junction to Ambient (Note 5)	R _{θJA}	500	°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}	—	—	5.5	V	—
Channel Leakage Current (Note 6)	I _{RM}	—	1	3	μA	V _{RWM} = 5.0V
Breakdown Voltage	V _{BR}	6.0	—	—	V	I _R = 1mA
Clamping Voltage	V _{CL}	—	—	10.5	V	I _{PP} = 1A, t _p = 8/20μs
		—	—	14.5		I _{PP} = 10A, t _p = 8/20μs
		—	—	16.0		I _{PP} = 40A, t _p = 8/20μs
Channel Input Capacitance	C _T	—	—	200	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, which can be found on our website at <http://www.diodes.com/package-outlines.html>.
 6. Short duration pulse test used to minimize self-heating effect.

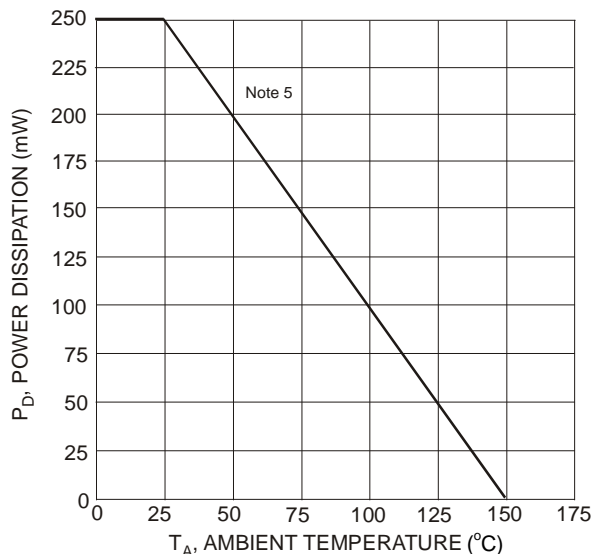


Figure 1 Power Derating Curve

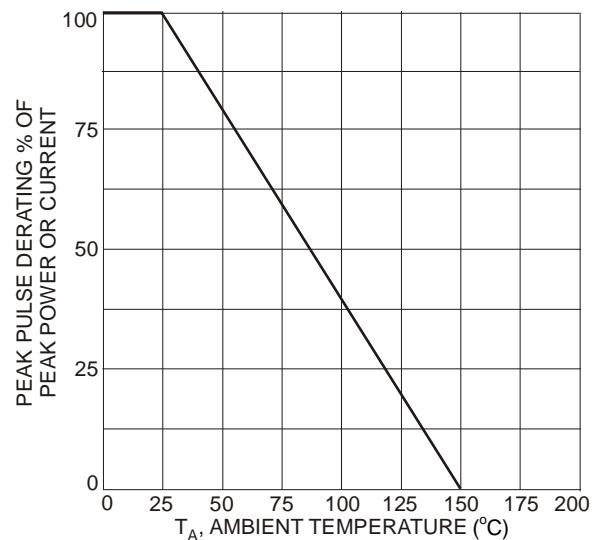
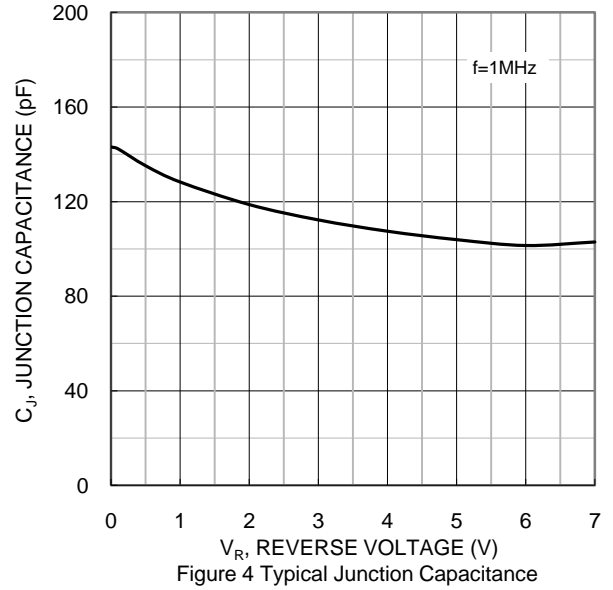
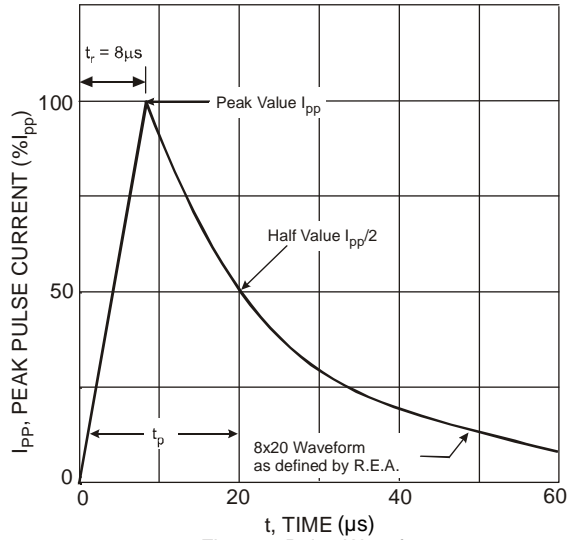


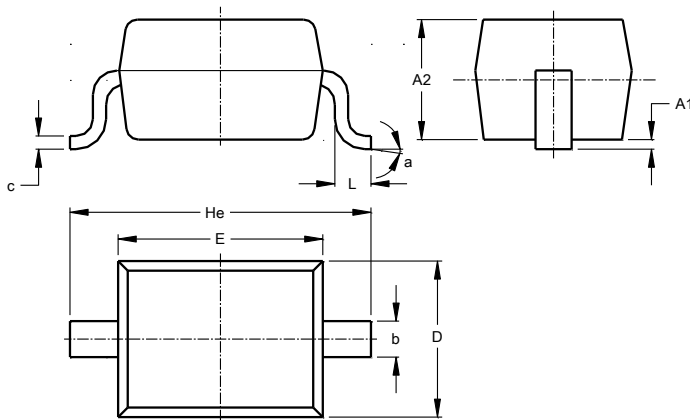
Figure 2 Pulse Derating Curve



Package Outline Dimensions

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

SOD323

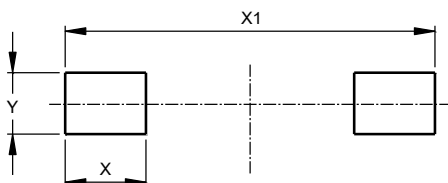


SOD323			
Dim	Min	Max	Typ
A1	--	0.10	0.05
A2	1.00	1.10	1.05
b	0.25	0.35	0.30
c	0.10	0.15	0.11
D	1.20	1.40	1.30
E	1.60	1.80	1.70
He	2.30	2.70	2.50
L	0.20	0.40	0.30
a	0°	8°	--
All Dimensions in mm			

Suggested Pad Layout

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

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

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