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

Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_{RM}	80	V
RMS Reverse Voltage	$V_{R(RMS)}$	56	V
Average Rectified Output Current	I_O	0.5	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	14	A

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Typical Thermal Resistance Junction to Ambient (Note 5)	$R_{\theta JA}$	354	°C/W
Typical Thermal Resistance Junction to Ambient (Note 6)	$R_{\theta JA}$	200	°C/W
Typical Thermal Resistance Junction to Case (Note 5)	$R_{\theta JC}$	80	°C/W
Typical Thermal Resistance Junction to Case (Note 6)	$R_{\theta JC}$	70	°C/W
Operating Temperature Range	T_J	-55 to +175	°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 Condition
Reverse Breakdown Voltage (Note 7)	$V_{(BR)}$	80	—	—	V	I_R = 1.0mA
Forward Voltage Drop	V_F	— —	0.69 0.56	0.80 —	V	I_F = 0.5A, T_A = +25°C I_F = 0.5A, T_A = +125°C
Leakage Current (Note 7)	I_R	— —	0.5 280	5 —	µA	V_R = 80V, T_A = +25°C V_R = 80V, T_A = +125°C
Total Capacitance	C_T	—	15	—	pF	V_R = 5V, f = 1.0MHz

Notes: 5. Device mounted on FR-4 substrate, 2 oz. copper, minimum recommended pad layout per http://www.diodes.com/package-outlines.html.
6. Device mounted on FR-4 substrate, 2 oz. copper, 1inch square Cu pad.
7. Short duration pulse test used to minimize self-heating effect.

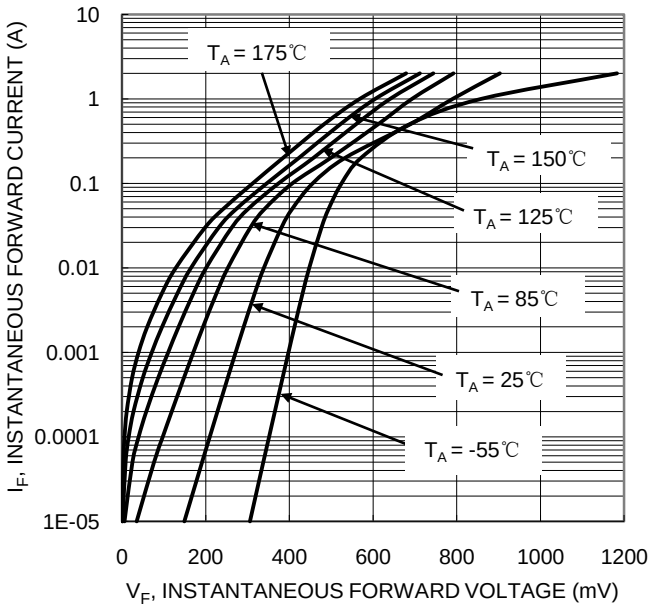


Figure 1. Typical Forward Characteristics

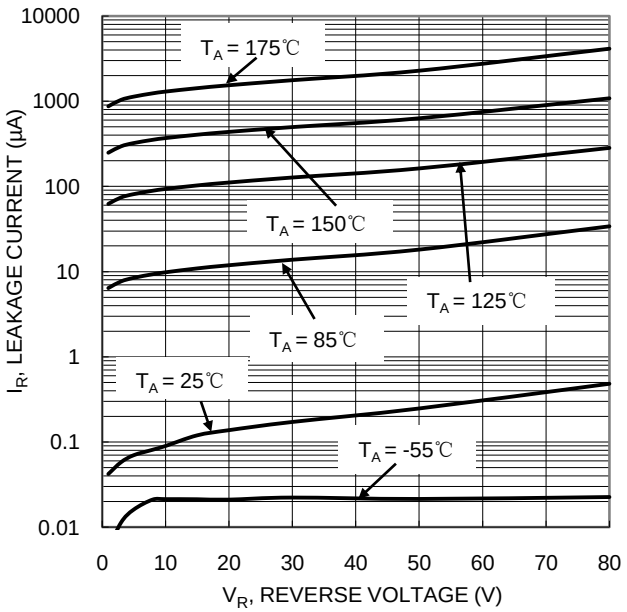


Figure 2. Typical Reverse Characteristics

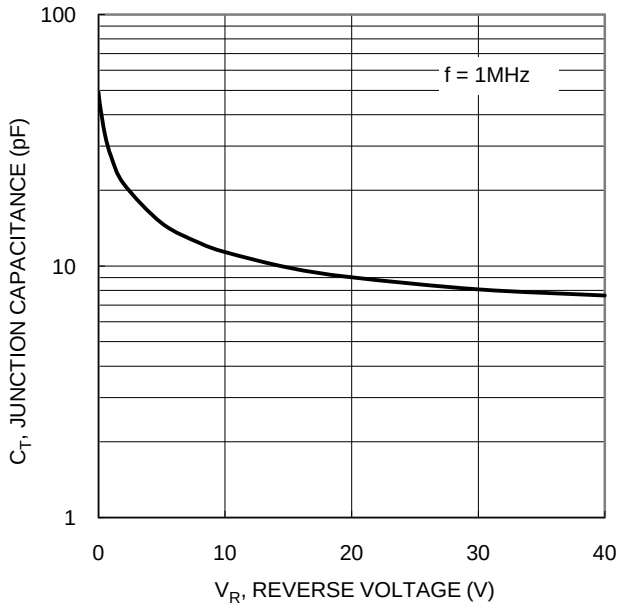


Figure 3. Typical Junction Capacitance

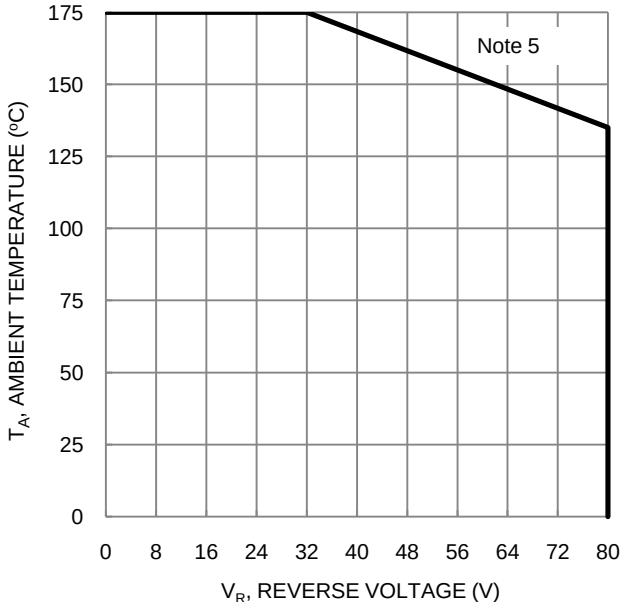


Figure 4. Operating Temperature Derating

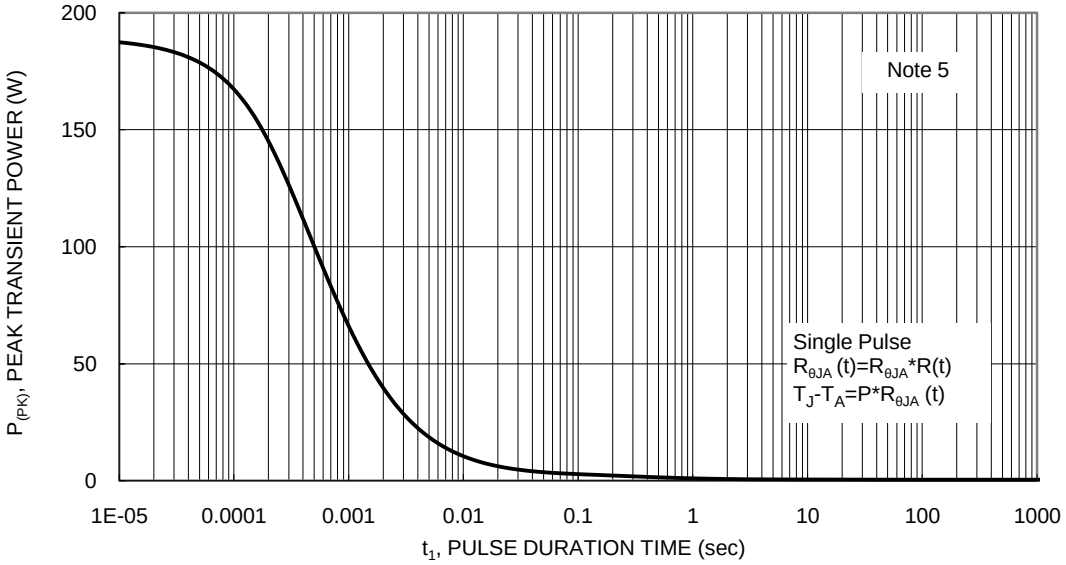


Figure 5. Single Pulse Maximum Power Dissipation

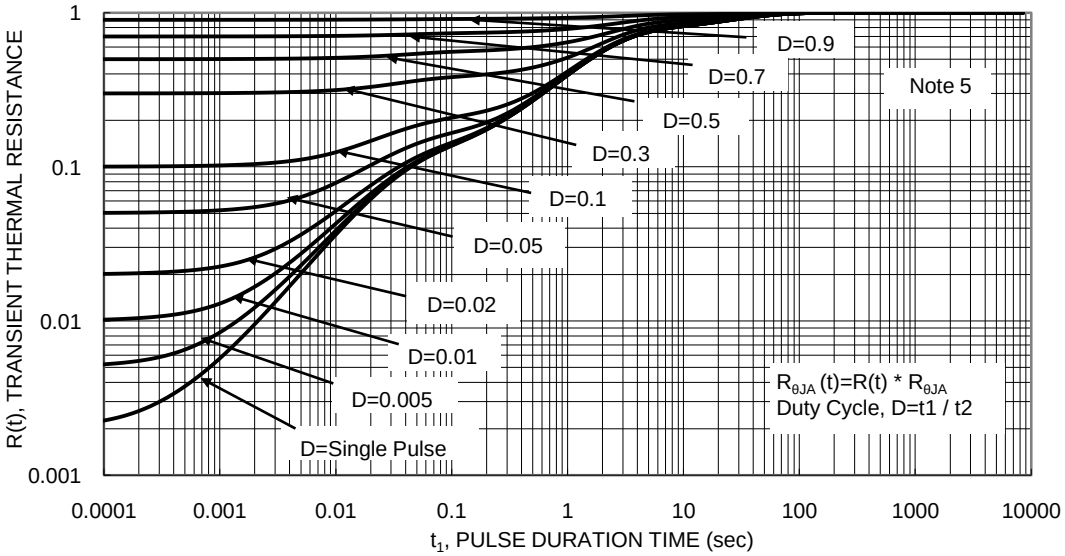
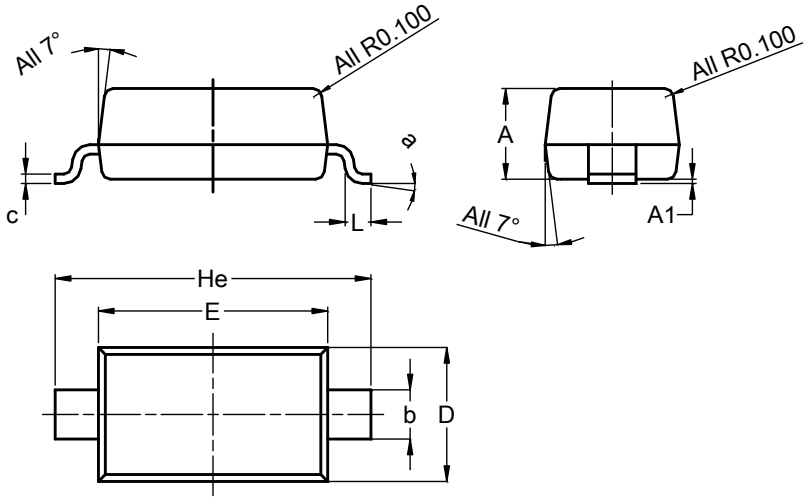


Figure 6. Transient Thermal Resistance

Package Outline Dimensions

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

SOD123

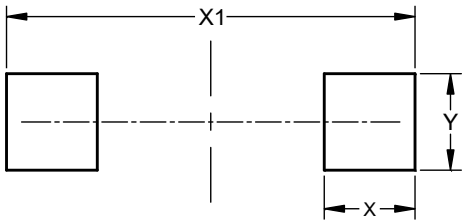


SOD123			
Dim	**Min**	**Max**	**Typ**
A	1.00	1.35	1.05
A1	0.00	0.10	0.05
b	0.52	0.62	0.57
c	0.10	0.15	0.11
D	1.40	1.70	1.55
E	2.55	2.85	2.65
He	3.55	3.85	3.65
L	0.25	0.40	0.30
a	0º	8º	--
All Dimensions in mm			

Suggested Pad Layout

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

SOD123



Dimensions	Value (in mm)
X	0.900
X1	4.050
Y	0.950

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