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_R	40	V
RMS Reverse Voltage	$V_{R(RMS)}$	28	V
Average Rectified Output Current (See Figure 4)	I_O	0.5	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	5.5	A

Thermal Characteristics

Characteristic	Symbol	Typ	Max	Unit
Thermal Resistance Junction to Ambient Air (Note 6) T_A = +25°C	$R_{\theta JA}$	385	—	°C/W
Thermal Resistance Junction to Ambient Air (Note 7) T_A = +25°C	$R_{\theta JA}$	325	—	°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	Value	Unit	Test Conditions
Minimum Reverse Breakdown Voltage (Note 8)	$V_{(BR)R}$	40	V	I_R = 20μA
Maximum Forward Voltage Drop	V_{FM}	0.510 0.620 0.460 0.610	V	I_F = 0.5A, T_J = +25°C I_F = 1.0A, T_J = +25°C I_F = 0.5A, T_J = +100°C I_F = 1.0A, T_J = +100°C
Maximum Leakage Current (Note 8)	I_{RM}	10 20	μA	V_R = 20V, T_J = +25°C V_R = 40V, T_J = +25°C
		5.0 13	mA	V_R = 20V, T_J = +100°C V_R = 40V, T_J = +100°C
Total Capacitance	C_T	170	pF	f = 1MHz, V_R = 0V

Notes:
6. FR-4 PCB, minimum recommended pad layout per http://www.diodes.com/package-outlines.html.
7. Polymide PCB, minimum recommended pad layout per http://www.diodes.com/package-outlines.html.
8. Short duration pulse test used to minimize self-heating effect.

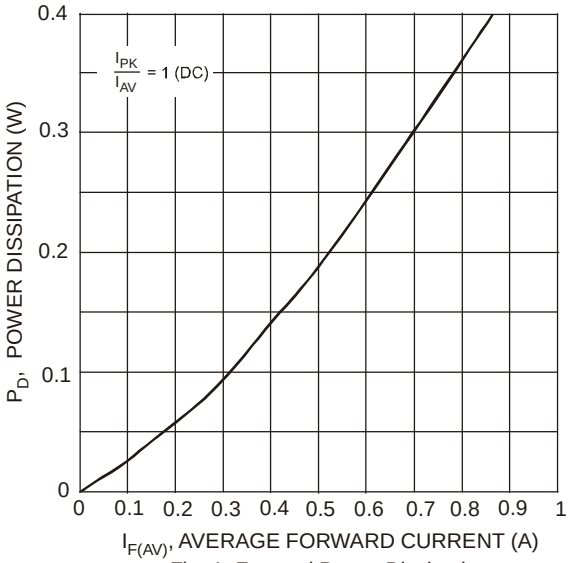


Fig. 1 Forward Power Dissipation

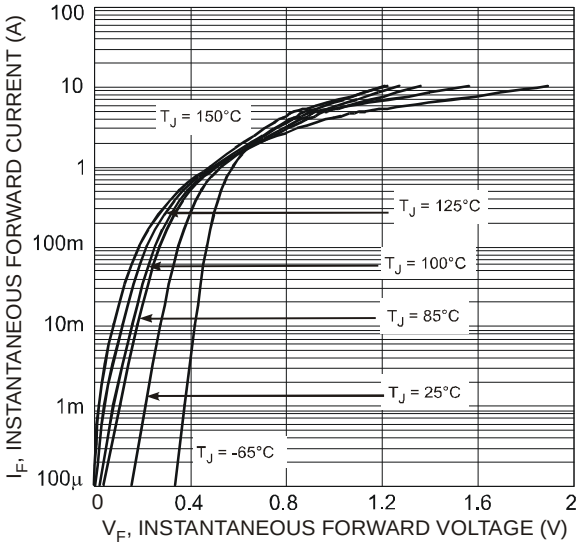


Fig. 2 Typical Forward Characteristics

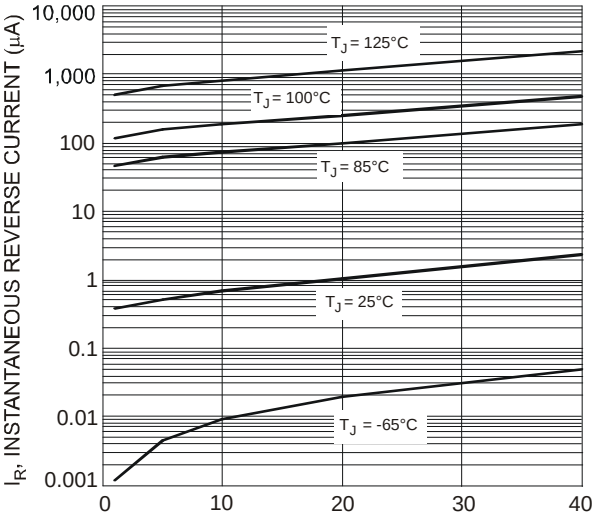


Fig. 3 Typical Reverse Characteristics

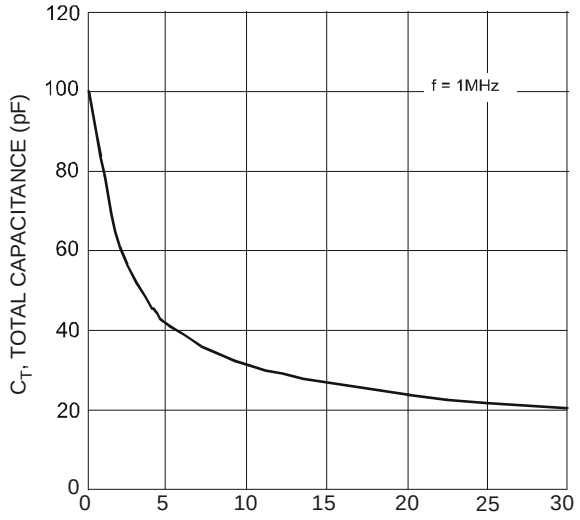


Fig. 4 Total Capacitance vs. Reverse Voltage

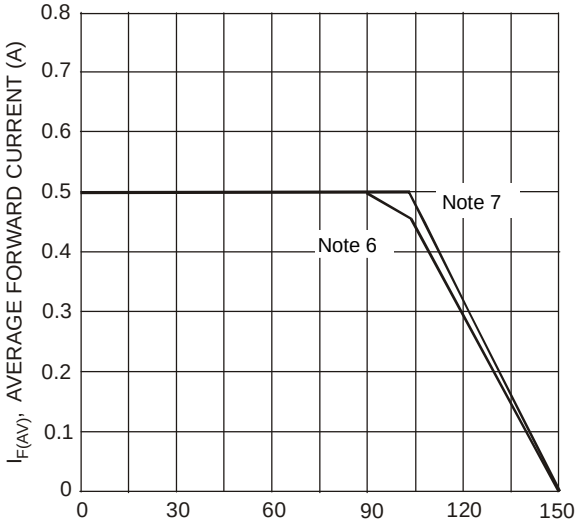
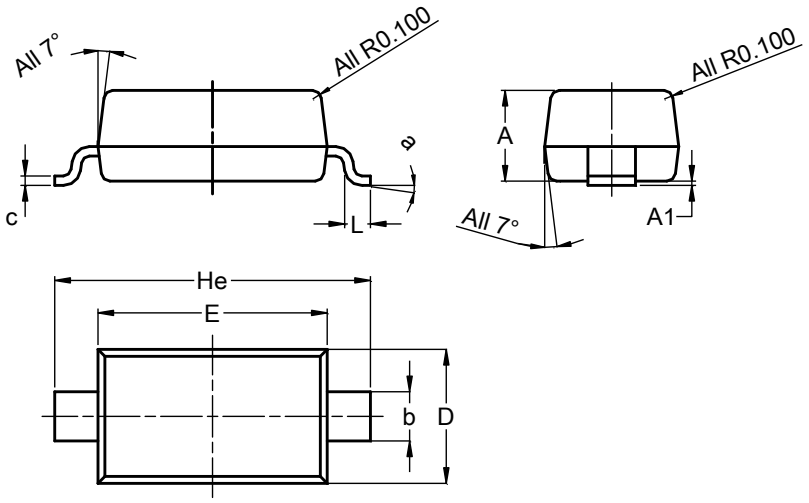


Fig. 5 Forward Current Derating Curve

Package Outline Dimensions

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

SOD123

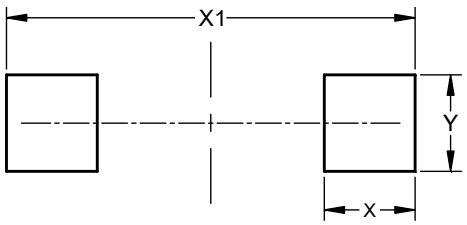


SOD123			
Dim	**Min**	**Max**	**Typ**
A	1.00	1.35	1.05
A1	0.00	0.10	0.05
b	0.52	0.62	0.57
c	0.10	0.15	0.11
D	1.40	1.70	1.55
E	2.55	2.85	2.65
He	3.55	3.85	3.65
L	0.25	0.40	0.30
a	0º	8º	--
All Dimensions in mm			

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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