

Maximum Ratings (@ $T_A = +25^{\circ}\text{C}$, unless otherwise specified.)

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

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	20	V
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
RMS Reverse Voltage	$V_{R(RMS)}$	14	V
Average Rectified Output Current @ $T_L = +90^{\circ}\text{C}$	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	Value	Unit
Power Dissipation (Note 6)	P_D	410	mW
Typical Thermal Resistance Junction to Ambient (Note 6)	$R_{\theta JA}$	244	$^{\circ}\text{C/W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +125	$^{\circ}\text{C}$

Electrical Characteristics (@ $T_A = +25^{\circ}\text{C}$, unless otherwise specified.)

Characteristic	Symbol	Value	Unit	Test Conditions
Minimum Reverse Breakdown Voltage (Note 7)	$V_{(BR)R}$	20	V	$I_R = 250\mu\text{A}$
Maximum Forward Voltage Drop	V_{FM}	0.300	V	$I_F = 0.1\text{A}, T_J = +25^{\circ}\text{C}$
		0.385		$I_F = 0.5\text{A}, T_J = +25^{\circ}\text{C}$
		0.220		$I_F = 0.1\text{A}, T_J = +100^{\circ}\text{C}$
		0.330		$I_F = 0.5\text{A}, T_J = +100^{\circ}\text{C}$
Maximum Leakage Current (Note 8)	I_{RM}	75	μA	$V_R = 10\text{V}, T_J = +25^{\circ}\text{C}$
		250	μA	$V_R = 20\text{V}, T_J = +25^{\circ}\text{C}$
	I_{RM}	5.0	mA	$V_R = 10\text{V}, T_J = +100^{\circ}\text{C}$
		8.0	mA	$V_R = 20\text{V}, T_J = +100^{\circ}\text{C}$
Typical Total Capacitance	C_T	170	pF	$V_R = 0\text{V DC}, f = 1\text{MHz}$

Notes: 6. Device mounted on FR-4 PC board, 2"× 2", 2 oz. Copper, single sided, Cathode pad dimensions 0.75" × 1.0", Anode pad dimensions 0.25" × 1.0".
7. Pulse Test: Pulse width = 300 μs , Duty Cycle $\leq 2\%$.
8. No purposefully added lead. Halogen and Antimony Free.

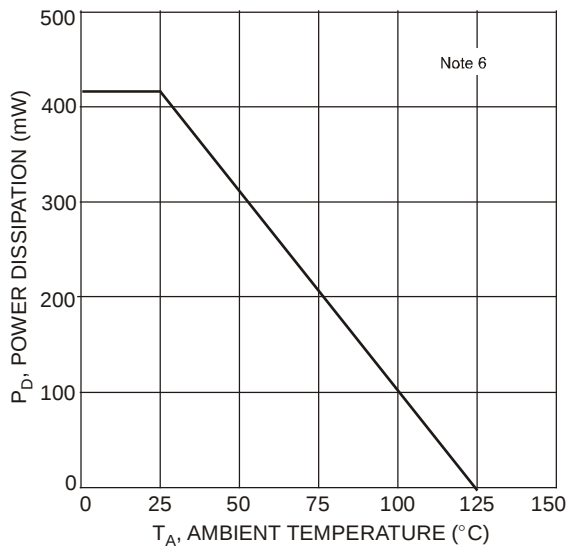


Fig. 1 Forward Power Dissipation

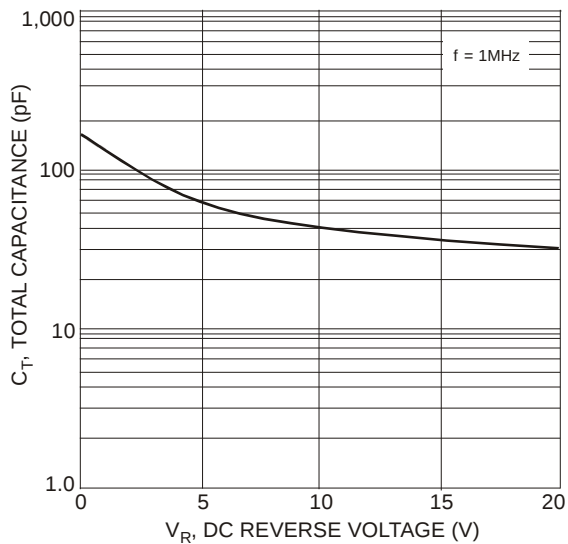


Fig. 3 Total Capacitance vs. Reverse Voltage

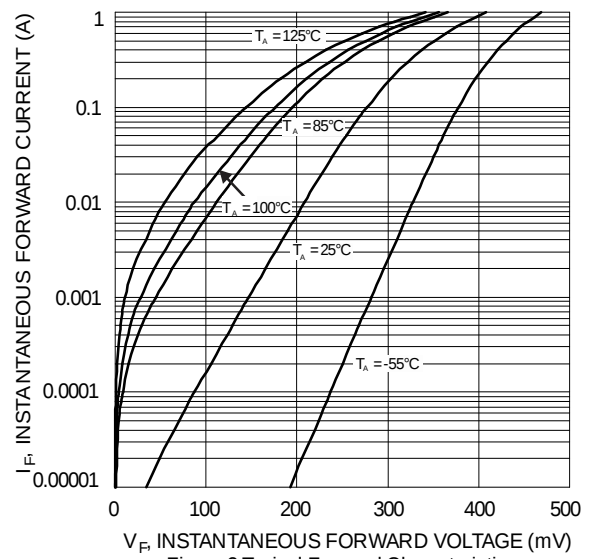


Figure 2 Typical Forward Characteristics

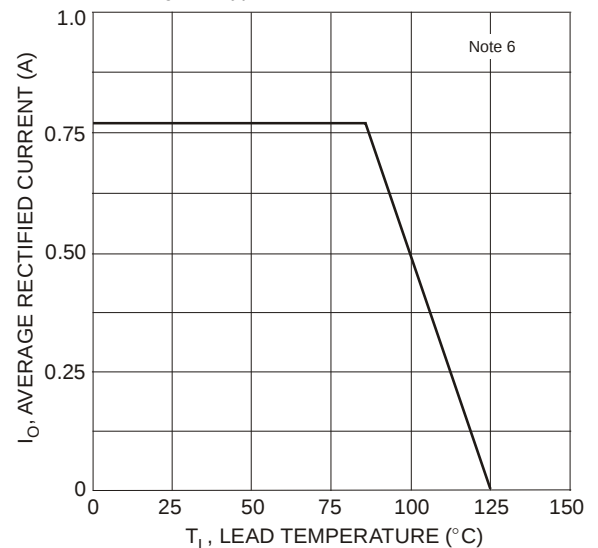
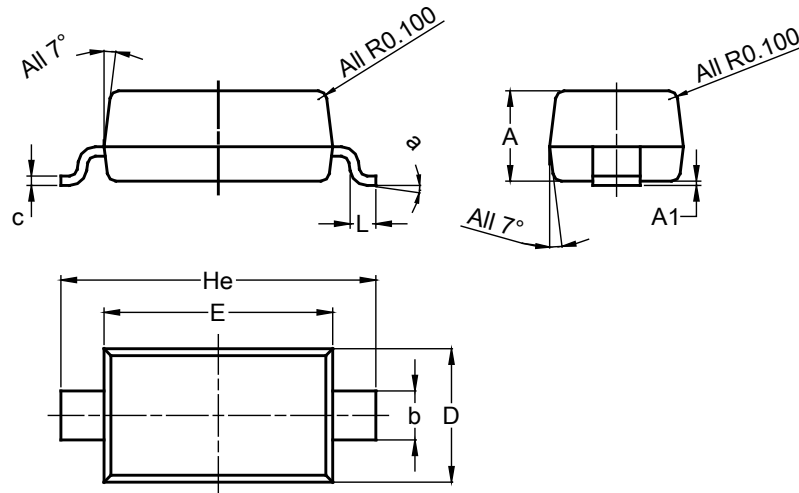


Fig. 4 Forward Current Derating Curve

Package Outline Dimensions

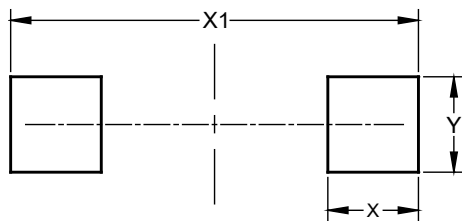
Please see <http://www.diodes.com/package-outlines.html> for the latest version.



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	0°	8°	--
All Dimensions in mm			

Suggested Pad Layout

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



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

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