

## Maximum Ratings (@T<sub>A</sub> = +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	V <sub>RRM</sub>	60	V
Working Peak Reverse Voltage	V <sub>RWM</sub>		
DC Blocking Voltage	V <sub>RM</sub>		
Average Rectified Output Current	I <sub>O</sub>	500	mA
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I <sub>FSM</sub>	15	A

## Thermal Characteristics

Characteristic	Symbol	Value	Unit
Thermal Resistance Junction to Ambient Air (Note 6)	R <sub>θJA</sub>	305	°C/W
Thermal Resistance Junction to Ambient Air (Note 7)	R <sub>θJA</sub>	271	
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 Condition
Forward Voltage (Per Diode)	V <sub>F</sub>	-	-	0.44	V	I <sub>F</sub> = 0.25A, T <sub>J</sub> = +25°C
			0.44	0.50		I <sub>F</sub> = 0.5A, T <sub>J</sub> = +25°C
			-	0.46		I <sub>F</sub> = 0.5A, T <sub>J</sub> = +125°C
Leakage Current (Note 8)	I <sub>R</sub>	-	-	100	μA	V <sub>R</sub> = 60V, T <sub>J</sub> = +25°C
			-	25	mA	V <sub>R</sub> = 60V, T <sub>J</sub> = +125°C

- Notes:
- Part mounted on FR-4 board with recommended pad layout, which can be found on our website at <http://www.diodes.com/package-outlines.html>.
  - Part mounted on Polymide board with recommended pad layout, which can be found on our website at <http://www.diodes.com/package-outlines.html>.
  - Short duration pulse test used to minimize self-heating effect.

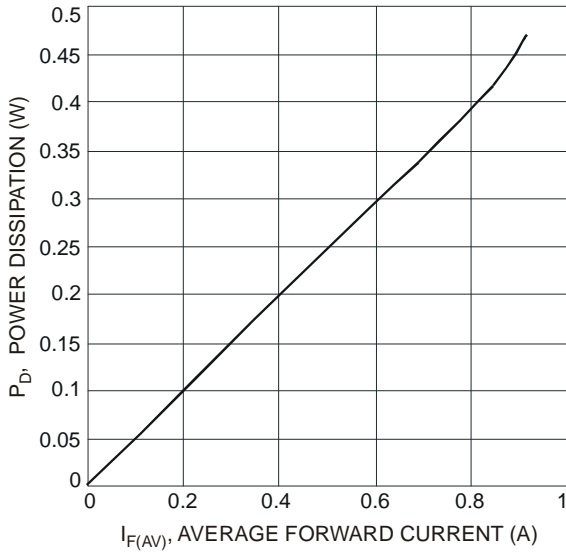


Fig. 1 Forward Power Dissipation

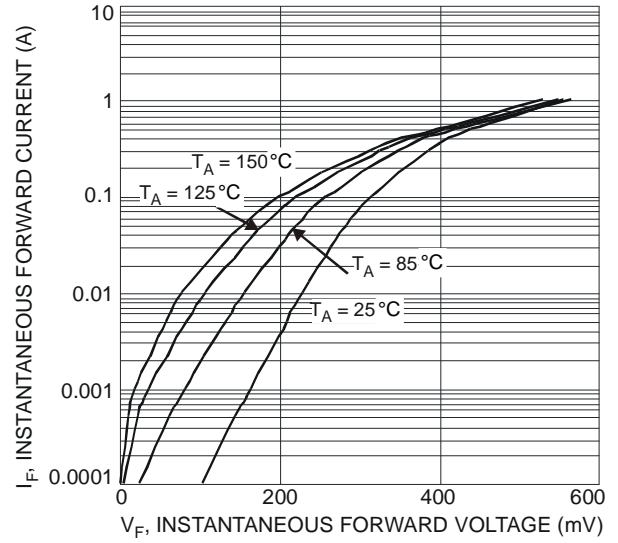


Fig. 2 Typical Forward Characteristics

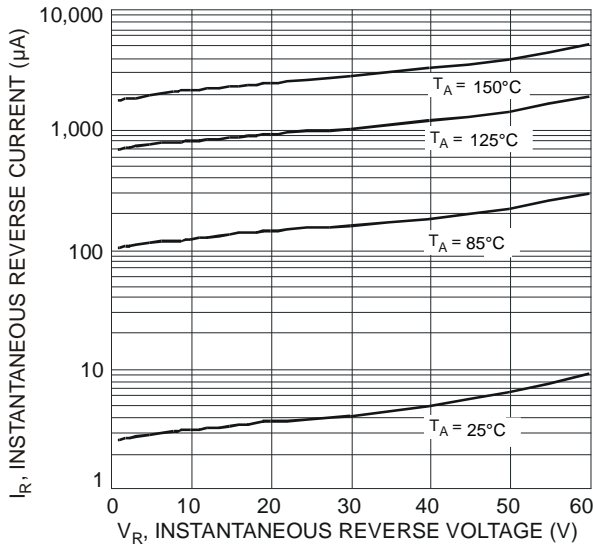


Fig. 3 Typical Reverse Characteristics

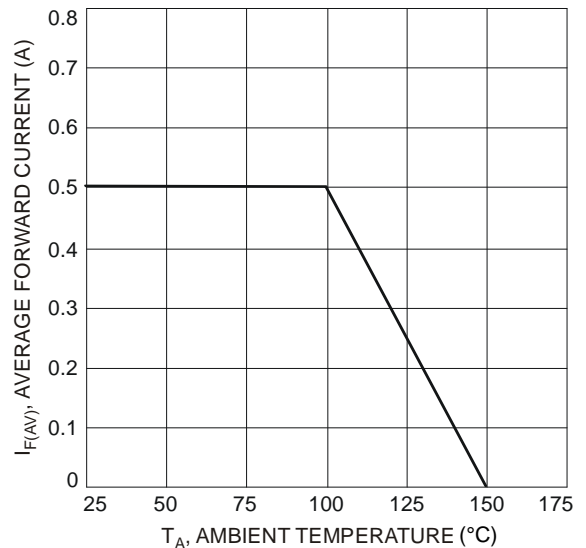


Fig. 4 Forward Current Derating Curve

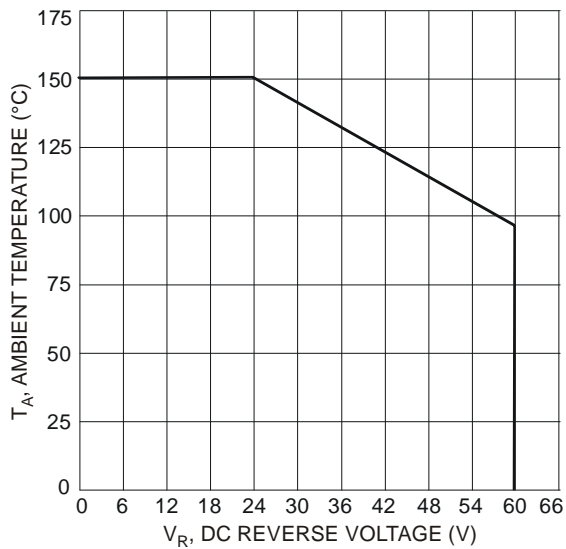
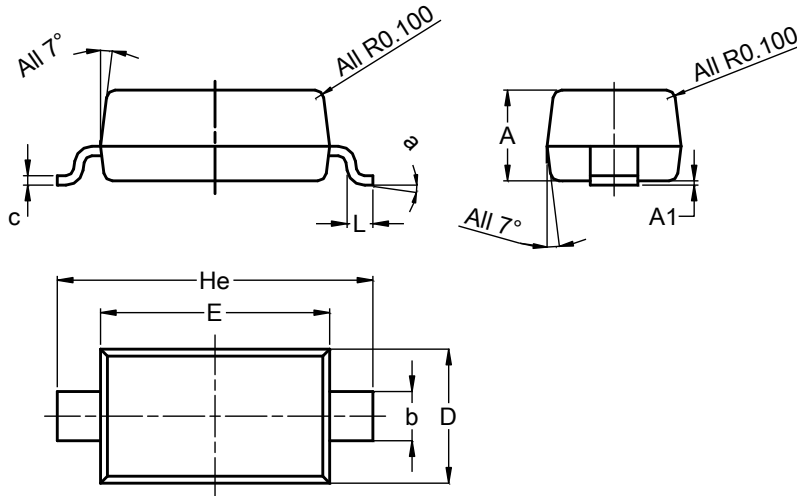


Fig. 5 Operating Temperature Derating

## Package Outline Dimensions

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

### SOD123

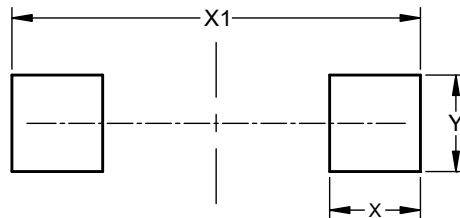


SOD123			
Dim	Min	Max	Typ
<b>A</b>	1.00	1.35	1.05
<b>A1</b>	0.00	0.10	0.05
<b>b</b>	0.52	0.62	0.57
<b>c</b>	0.10	0.15	0.11
<b>D</b>	1.40	1.70	1.55
<b>E</b>	2.55	2.85	2.65
<b>He</b>	3.55	3.85	3.65
<b>L</b>	0.25	0.40	0.30
<b>a</b>	$0^\circ$	$8^\circ$	--
All Dimensions in mm			

## Suggested Pad Layout

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

### SOD123



Dimensions	Value (in mm)
<b>X</b>	0.900
<b>X1</b>	4.050
<b>Y</b>	0.950

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