

A suffix of "-C" specifies halogen & lead-free

**FEATURES**

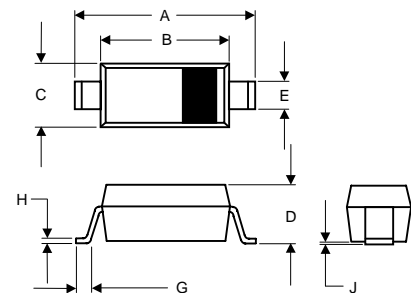
- RoHS Compliant Product
- High Current Capability
- Extremely Low Thermal Resistance
- For Surface Mount Application
- Higher Temp Soldering : 250 °C for 10 Seconds at Terminals
- Low Forward Voltage

**MECHANICAL DATA**

- Case: Molded Plastic
- Epoxy: UL 94V-0 Rate Flame Retardant
- Lead: Axial Leads, Solderable per MIL-STD-202, Method 208 Guaranteed
- Polarity: Color Band Denotes Cathode End
- Mounting Position: Any

**PACKAGE DIMENSIONS**

SOD-123  
PLASTIC PACKAGE



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	3.55	3.85	0.140	0.152
B	2.55	2.85	0.100	0.112
C	1.40	1.80	0.550	0.071
D	-----	1.15	-----	0.045
E	0.30	0.78	0.120	0.031
G	0.15	-----	0.006	-----
H	-----	0.25	-----	0.001
J	-----	0.15	-----	0.006

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Rating 25°C ambient temperature unless otherwise specified.  
Single phase half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

TYPE NUMBER	SCS120PR	SCS140PR	UNITS
Maximum Recurrent Peak Reverse Voltage	20	40	V
Working Peak Reverse Voltage	20	40	V
Maximum DC Blocking Voltage	20	40	V
Average Forward Current ( I <sub>F(AV)</sub> @ T <sub>J</sub> = 25 °C )	1.0		A
Peak Forward Current ( I <sub>FSM</sub> @ 8.3 ms Half Sine )	20		A
Maximum Instantaneous Forward Voltage			V
V <sub>F</sub> @ I <sub>F</sub> = 0.5 A, T <sub>A</sub> = 25 °C	0.38	0.47	
V <sub>F</sub> @ I <sub>F</sub> = 1.0 A, T <sub>A</sub> = 25 °C	0.45	0.55	
V <sub>F</sub> @ I <sub>F</sub> = 2.0 A, T <sub>A</sub> = 25 °C	0.65	0.70	
Maximum DC Reverse Current			mA
At Rated DC Blocking Voltage ( I <sub>R</sub> @ T <sub>J</sub> = 25 °C )	0.3		
Typical Junction Capacitance ( C <sub>J</sub> )	215		pF
Operating Temperature T <sub>J</sub>	- 50 ~ + 125		°C
Storage Temperature Range T <sub>STG</sub>	- 65 ~ + 150		°C

NOTES:

1. Measured at 1MHz and applied reverse voltage of 5.0V D.C.
2. Thermal Resistance Junction to Ambient.

Marking Code	
SCS120PR	SJ
SCS140PR	SL

● RATING AND CHARACTERISTIC CURVES (SCS120PR THRU SCS140PR)

FIG.1 TYPICAL FORWARD CHARACTERISTICS

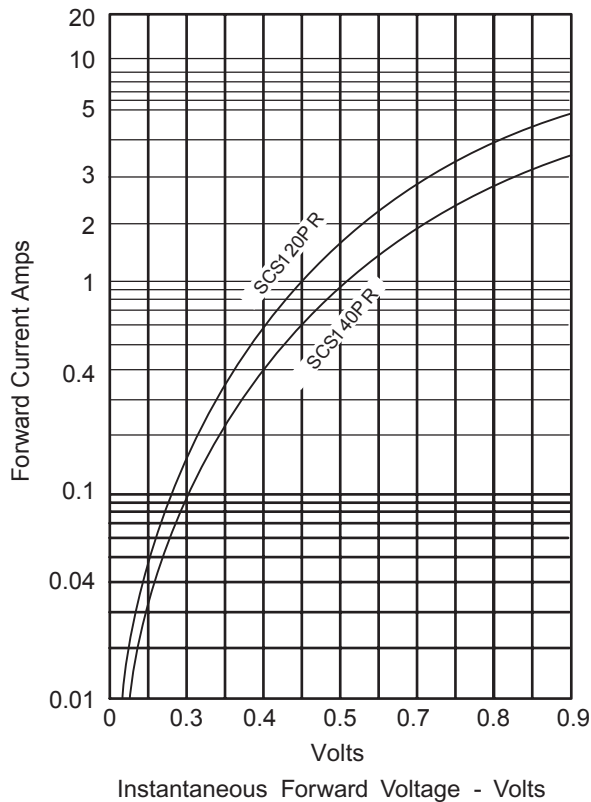


FIG.2 JUNCTION CAPACITANCE

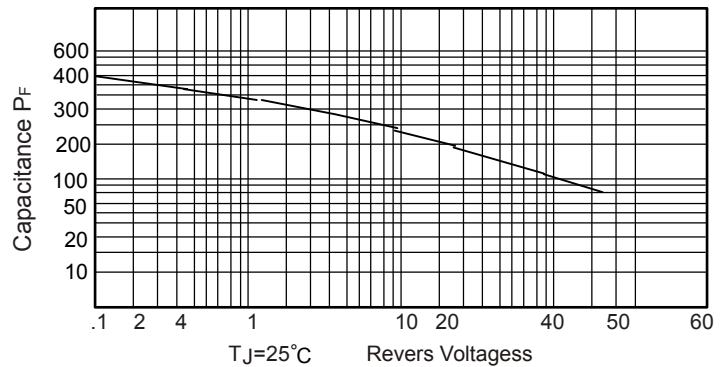


FIG.3 FORWARD DERATING CURVE

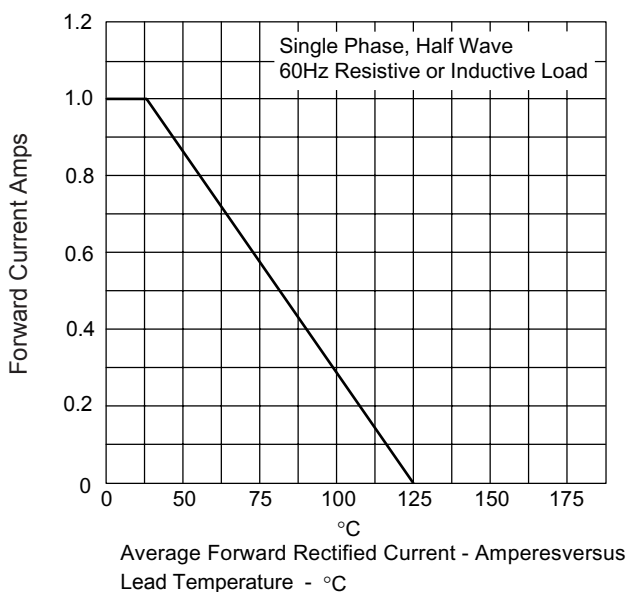


FIG.4 PEAK FORWAED SURGE CURRENT

