

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

FEATURES

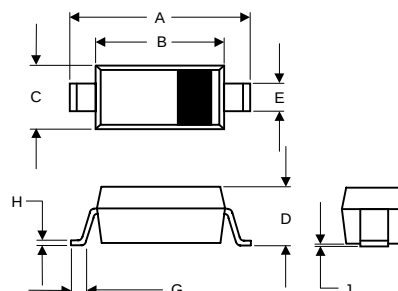
- RoHS Compliant Product
- High Current Capability
- Extremely Low Thermal Resistance
- For Surface Mount Application
- Higher Temp Soldering : 250 °C for 10 Seconds at Terminals
- Low Forward Voltage

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 ($I_{F(AV)}$ @ $T_J = 25^\circ\text{C}$)	1.0		A
Peak Forward Current (I_{FSM} @ 8.3 ms Half Sine)	20		A
Maximum Instantaneous Forward Voltage			
V_F @ $I_F = 0.5\text{ A}$, $T_A = 25^\circ\text{C}$	0.38	0.47	V
V_F @ $I_F = 1.0\text{ A}$, $T_A = 25^\circ\text{C}$	0.45	0.55	
V_F @ $I_F = 2.0\text{ A}$, $T_A = 25^\circ\text{C}$	0.65	0.70	
Maximum DC Reverse Current			
At Rated DC Blocking Voltage (I_R @ $T_J = 25^\circ\text{C}$)	0.3		mA
Typical Junction Capacitance (C_J)	215		pF
Operating Temperature Range T_J	- 50 ~ + 125		°C
Storage Temperature Range T_{STG}	- 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

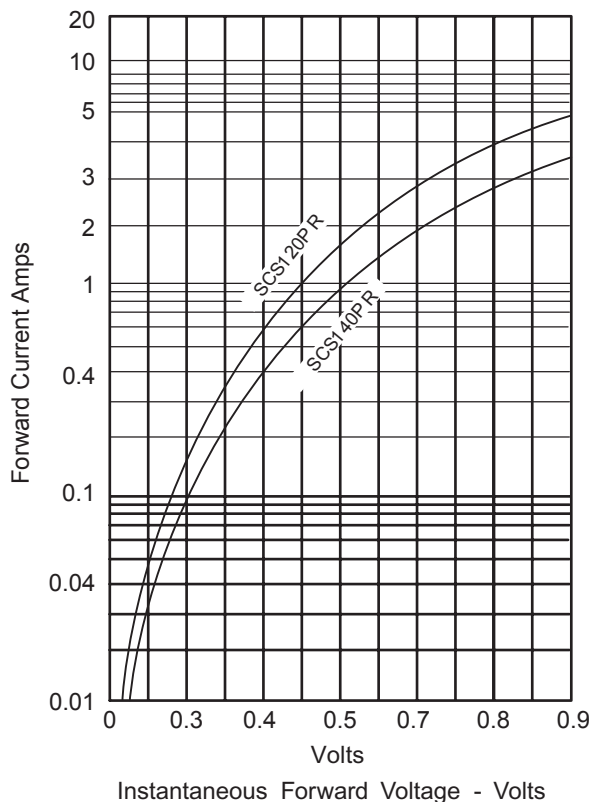


FIG.2 JUNCTION CAPACITANCE

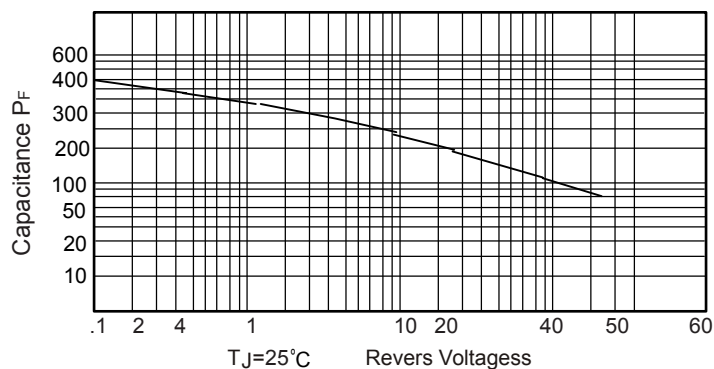


FIG.3 FORWARD DERATING CURVE

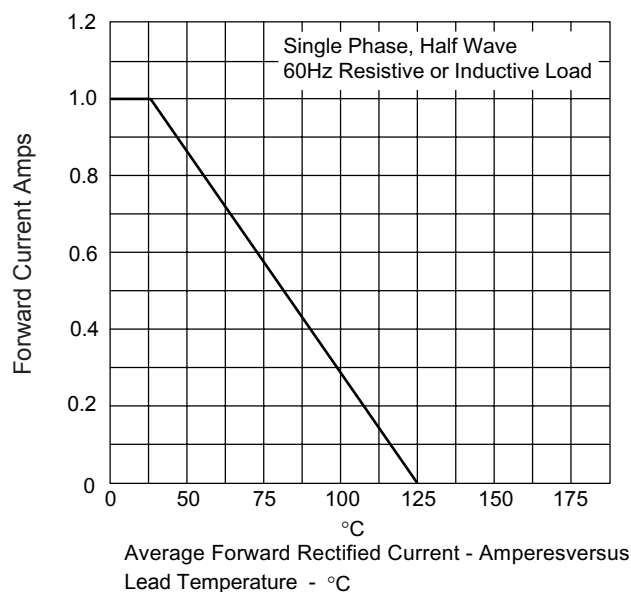


FIG.4 PEAK FORWARD SURGE CURRENT

