

RoHS Compliant Product

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

● FEATURES

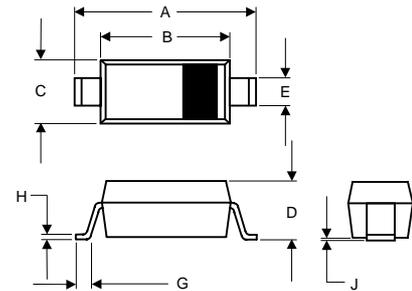
- High Current Capability
- Extremely Low Thermal Resistance
- For Surface Mount Application
- Higher Temp Soldering : 250 °C for 10 Seconds at Terminals
- Low Forward Voltage

● 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	-----	1.25	-----	0.049
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	SCS0520P	SCS0530P	SCS0540P	SCS0560P	SCS0580P	SCS05100P	UNITS
Maximum Recurrent Peak Reverse Voltage	20	30	40	60	80	100	V
Working Peak Reverse Voltage	20	30	40	60	80	100	V
Maximum DC Blocking Voltage	20	30	40	60	80	100	V
Average Forward Current ($I_{F(AV)}$ @ $T_J = 25^\circ C$)	0.5						A
Peak Forward Current (I_{FSM} @ 8.3 ms Half Sine)	5.5						A
Maximum Instantaneous Forward Voltage (V_F @ $I_{FM} = 0.5 A, T_A = 25^\circ C$)	0.45	0.52	0.65	0.83			V
Maximum DC Reverse Current At Rated DC Blocking Voltage (I_R @ $T_J = 25^\circ C$)	0.2						mA
Typical Junction Capacitance (C_J)	30						pF
Thermal Resistance - Junction to Ambient (Note 2)	210						°C/W
Thermal Resistance - Junction to Lead (Note 2)	155						
Operating Temperature Range T_J	- 50 ~ + 125						°C
Storage Temperature Range T_{STG}	- 65 ~ + 150						°C

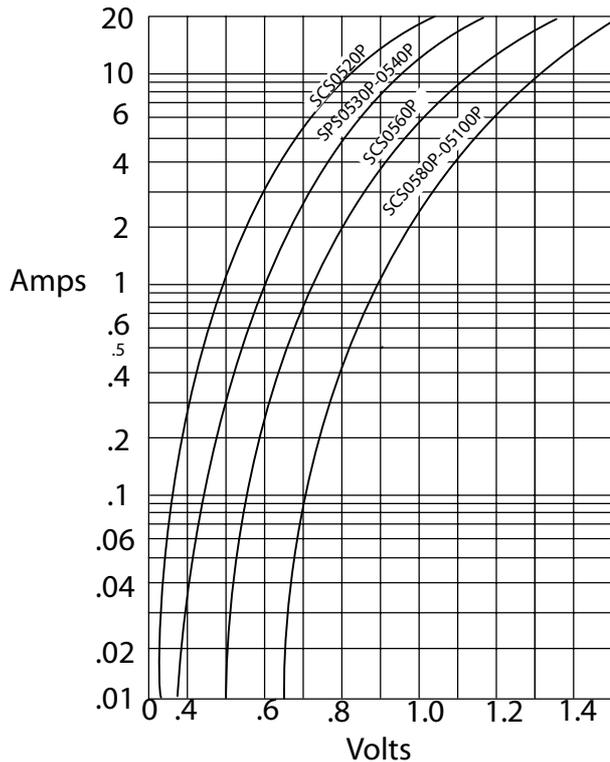
NOTES:

1. Measured at 1MHz and applied reverse voltage of 5.0V D.C.
2. 1 inch square pad size (1 x 0.5 inch for each lead) on FR4 board.

Marking Code	
SCS0520P	BB
SCS0530P	BH
SCS0540P	BJ
SCS0560P	BS
SCS05100P	BT

● RATING AND CHARACTERISTIC CURVES (SCS0520P THRU SCS05100P)

FIG.1 TYPICAL FORWARD CHARACTERISTICS



Instantaneous Forward Current - Amperes versus
Instantaneous Forward Voltage - Volts
Amps

FIG.2-JUNCTION CAPACITANCE

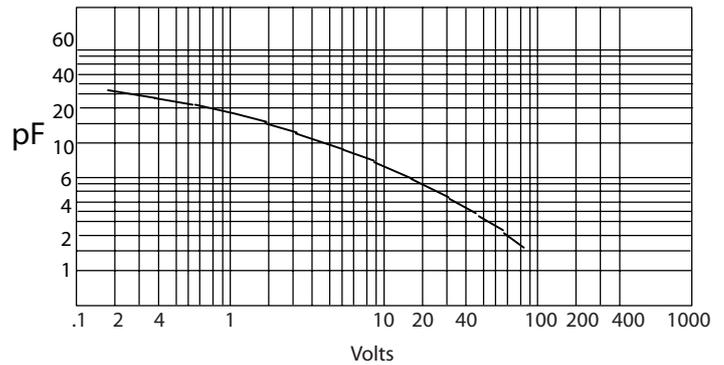
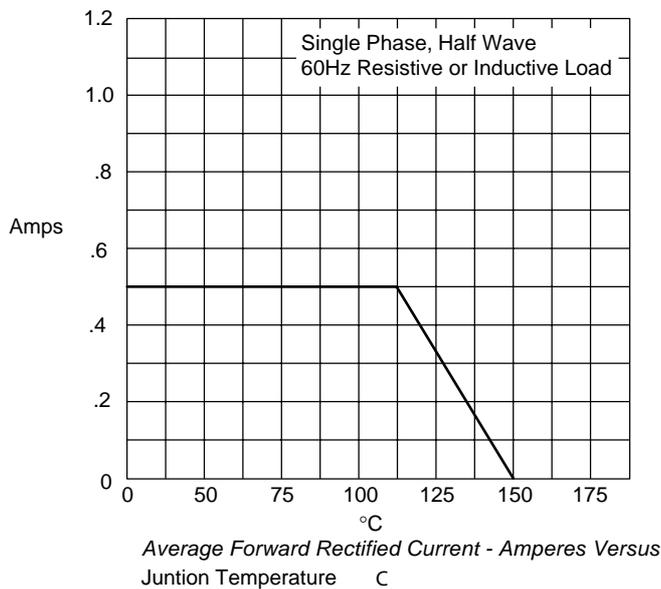
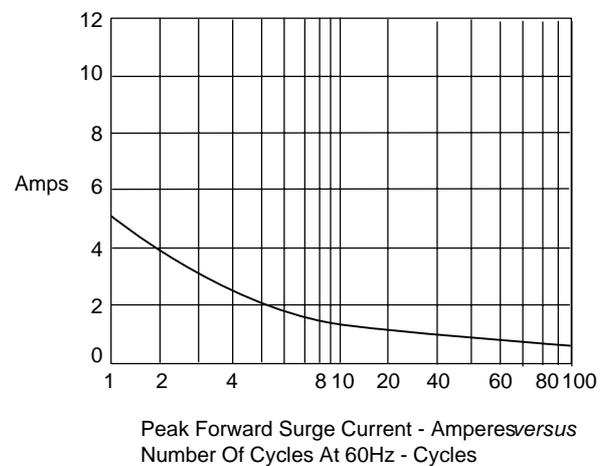


FIG.3-FORWARD DERATING CURVE



Average Forward Rectified Current - Amperes versus
Junction Temperature °C

FIG.4-PEAK FORWARD SURGE CURRENT



Peak Forward Surge Current - Amperes versus
Number Of Cycles At 60Hz - Cycles