

## 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

RoHS product for packing code suffix "G"

Halogen free product for packing code suffix "H"

## MECHANICAL DATA

Case: Molded plastic

Epoxy: UL 94V-0 rate flame retardant

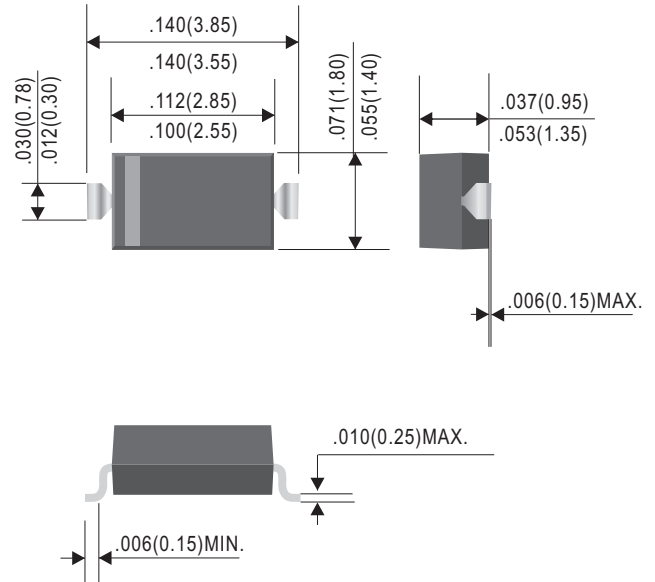
Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed

Polarity: Color band denotes cathode end

Mounting position: Any

## PACKAGE DIMENSIONS

SOD-123P  
PLASTIC PACKAGE



## 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 ( $I_{F(AV)}$ @ $T_J = 90^\circ\text{C}$ )	0.5						A
Peak Forward Current ( $I_{FSM}$ @ 8.3ms half sine)	5.5						A
Maximum Instantaneous Forward Voltage ( $V_F$ @ $I_{FM} = 0.5\text{A}$ , $T_A = 25^\circ\text{C}$ )	0.45	0.52	0.65	0.83			V
Maximum DC Reverse Current At Rated DC Blocking Voltage ( $I_R$ @ $T_J = 25^\circ\text{C}$ )	0.2						mA
Typical Junction Capacitance ( $C_J$ )	30						pF
Operating Temperature Range $T_J$	-50 — +150						°C
Storage Temperature Range $T_{STG}$	-65 — +175						°C

### NOTES:

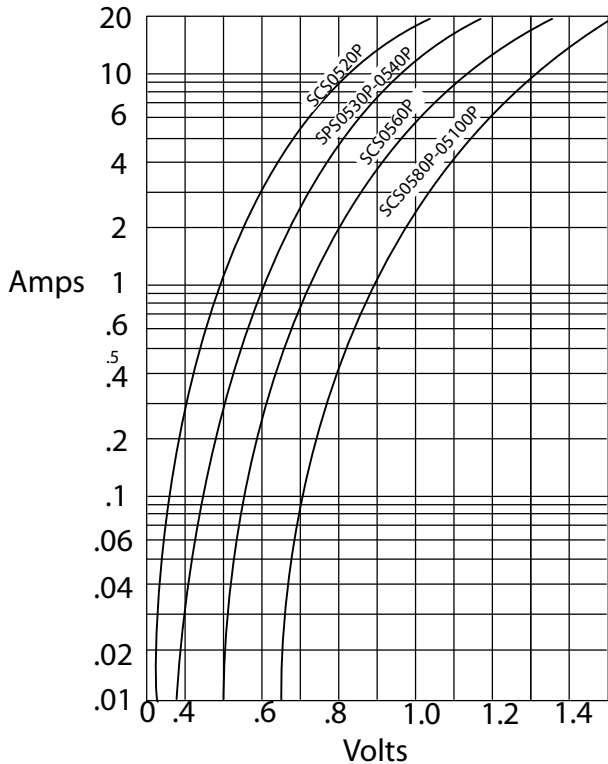
1. Measured at 1MHz and applied reverse voltage of 5.0V D.C.
2. Thermal Resistance Junction to Case.

### Marking Code

SCS0520P	BB or B2
SCS0530P	BH or B3
SCS0540P	BJ or B4
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

FIG.2-JUNCTION CAPACITANCE

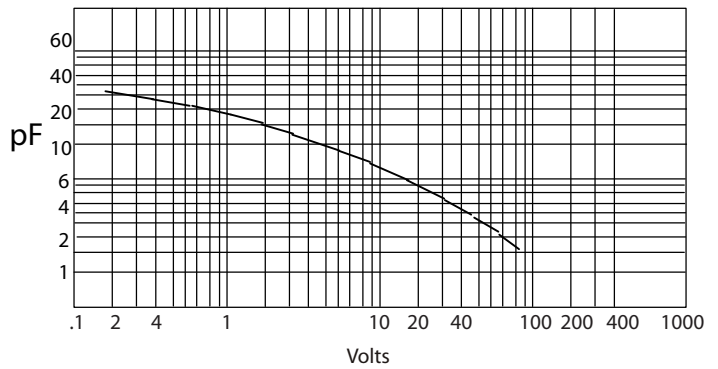
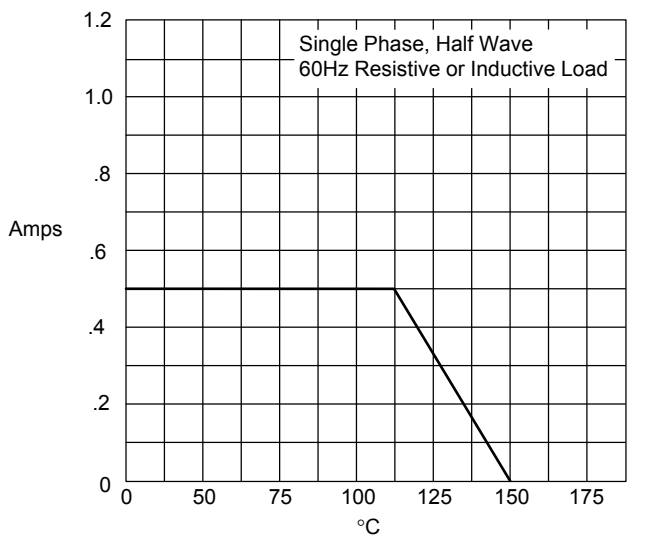
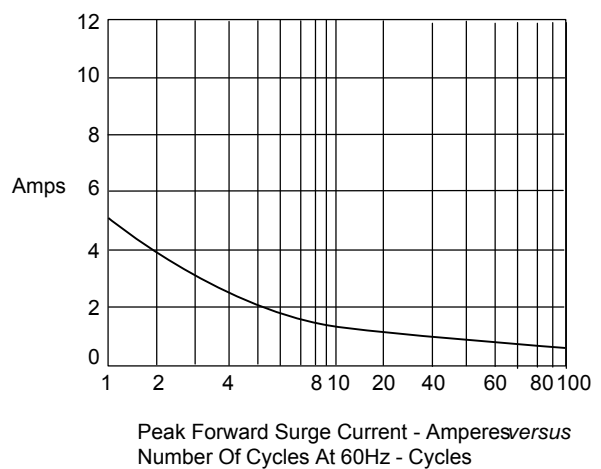


FIG.3-FORWARD DERATING CURVE



Average Forward Rectified Current - Amperes versus  
Ambient Temperature - °C

FIG.4-PEAK FORWAED SURGE CURRENT



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