

RoHS Compliant Product

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

## FEATURES

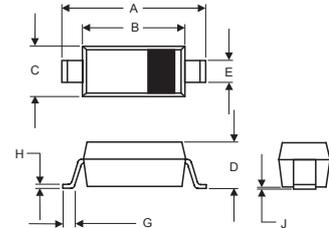
- High Current Capability
- Extremely Low Thermal Resistance
- For Surface Mount Application
- Higher Temp Soldering : 250°C for 10 Seconds at Terminals
- Low Forward Voltage

## 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

## MARKING CODE

SCS120P	BR
SCS140P	BM
SCS160P	XG
SCS1100P	XH

## 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%.

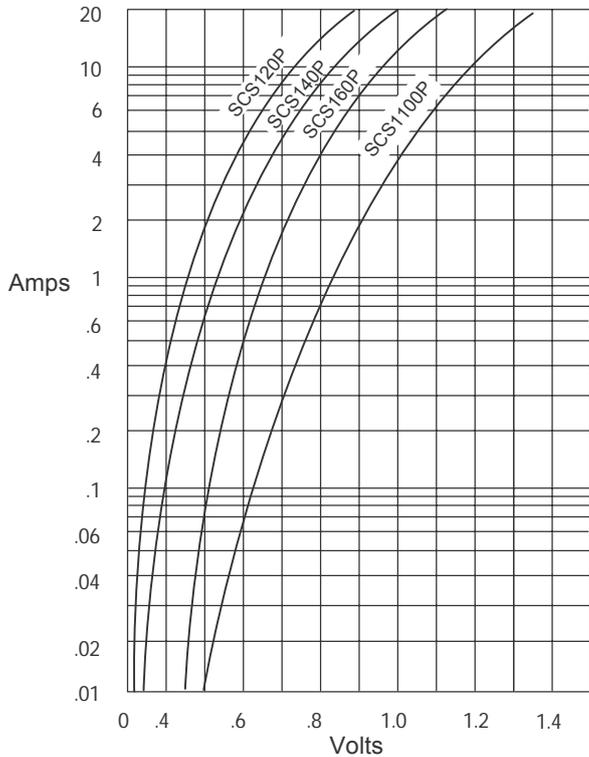
TYPE NUMBER	SYMBOL	SCS120P	SCS140P	SCS160P	SCS1100P	UNITS
Peak Repetitive Peak reverse voltage	$V_{RRM}$	20	40	60	100	V
Working Peak Reverse Voltage	$V_{RWM}$					
Maximum DC Blocking Voltage	$V_R$					
Average Forward Current @ $T_J=25^\circ\text{C}$	$I_{F(AV)}$	1.0				A
Peak Forward Current @ 8.3 ms Half Sine	$I_{FSM}$	10				A
Maximum Instantaneous Forward Voltage $V_F @ I_{FM} = 1.0 \text{ A}, T_A = 25^\circ\text{C}$	$V_F$	0.45	0.55	0.66	0.83	V
Maximum DC Reverse Current At Rated DC Blocking Voltage @ $T_J = 25^\circ\text{C}$	$I_R$	0.3				mA
Typical Junction Capacitance	$C_J$	30				pF
Operating Temperature Range	$T_J$	- 50 ~ + 150				°C
Storage temperature	$T_{STG}$	- 65 ~ + 175				°C

NOTES:

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

**RATINGS AND CHARACTERISTIC CURVES**

FIG.1 TYPICAL FORWARD CHARACTERISTICS



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

FIG.2-JUNCTION CAPACITANCE

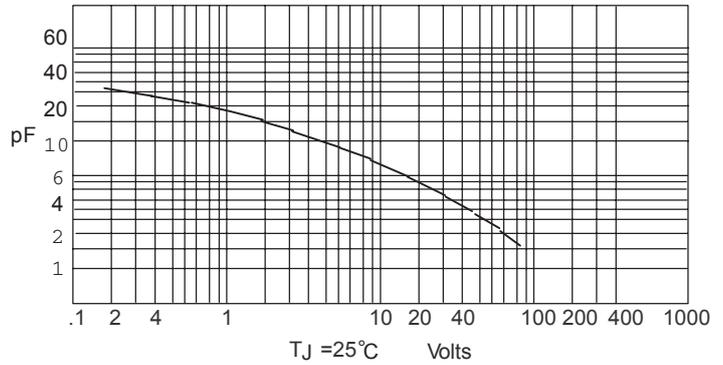
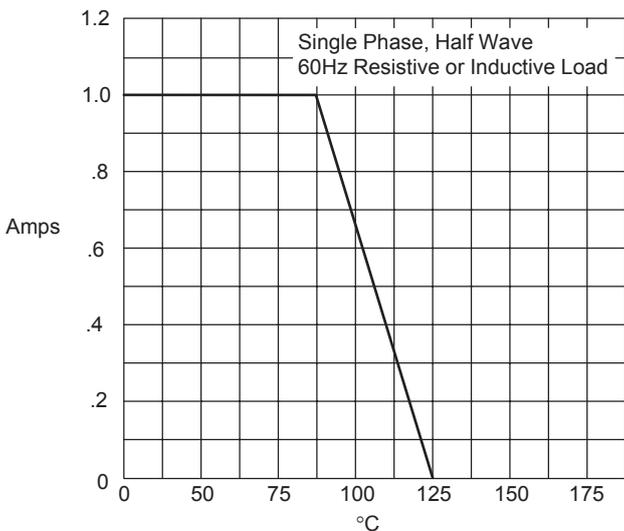
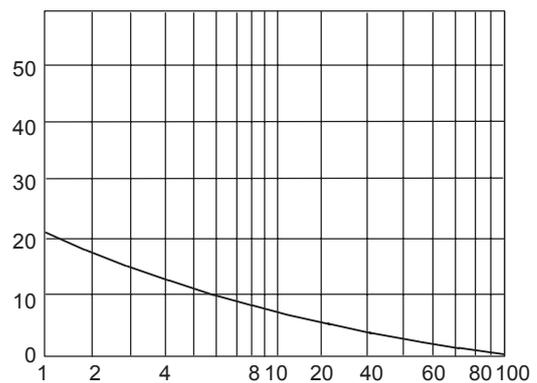


FIG.3-FORWARD DERATING CURVE



Average Forward Rectified Current - Amperes *versus*  
Junction Temperature - °C

FIG.4-PEAK FORWARD SURGE CURRENT



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