

## 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

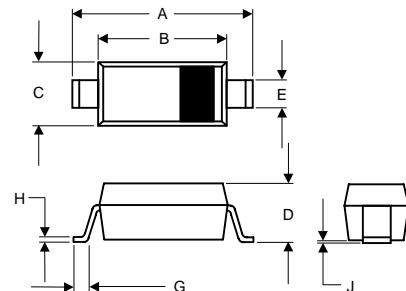
Polarity: Color band denotes cathode end

Mounting position: Any

Weight:0.0102g

## 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	-----	1.35	-----	0.053
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%.

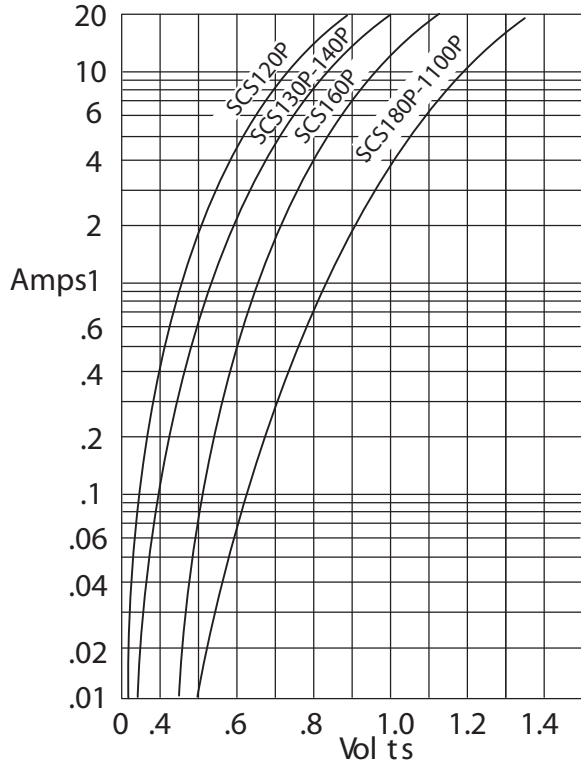
TYPE NUMBER	SCS120P	SCS130P	SCS140P	SCS160P	SCS180P	SCS1100P	UNITS
Maximum Recurrent Peak Reverse Voltage	20	30	40	60	80	100	V
Working Peak Reverse Voltage	20	30	40	60	80	100	
Maximum DC Blocking Voltage	20	30	40	60	80	100	V
Average Forward Current ( $I_{F(AV)}$ @ $T_J=90^\circ\text{C}$ )	1.0						A
Peak Forward Current ( $I_{FSM}$ @ 8.3ms half sine)	20						A
Maximum Instantaneous Forward Voltage ( $V_F @ I_{FM} = 1.0A, T_A = 25^\circ\text{C}$ )	0.45	0.52		0.66		0.83	V
Maximum DC Reverse Current At Rated DC Blocking Voltage	0.1						mA
Typical Junction Capacitance ( $C_J$ )	30						pF
Operating Temperature Range $T_J$	-50 — +150						°C
Storage Temperature Range $T_{STG}$	-65 — +175						°C

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

Marking Code	
SCS120P	BR or X2
SCS130P	BU or X3
SCS140P	BM or X4
SCS160P	XG
SCS180P	XK
SCS1100P	XH

### RATING AND CHARACTERISTIC CURVES (SCS120P THRU SCS1100P)

FIG.1 TYPICAL FORWARD CHARACTERISTICS



Instantaneous Forward Current - Am per versus  
Instantaneous Forward Voltage - Volts  
Amps

FIG.2-JUNCTION CAPACITANCE

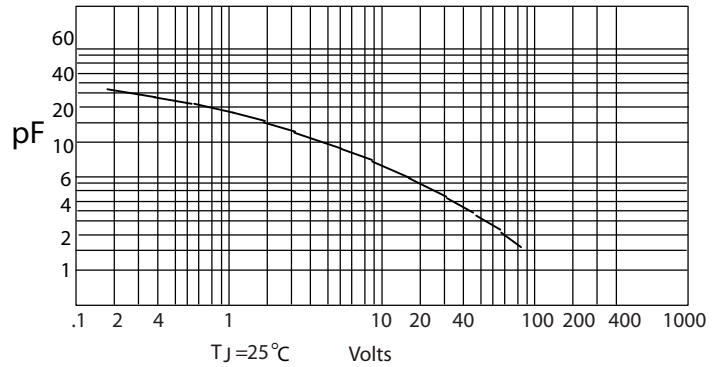
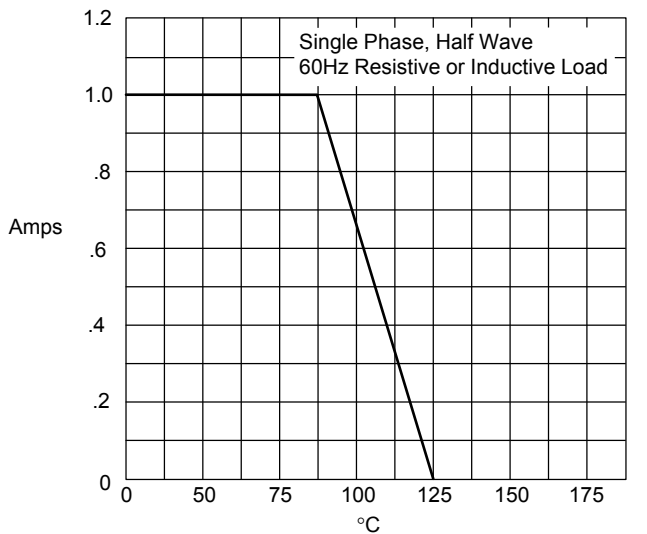
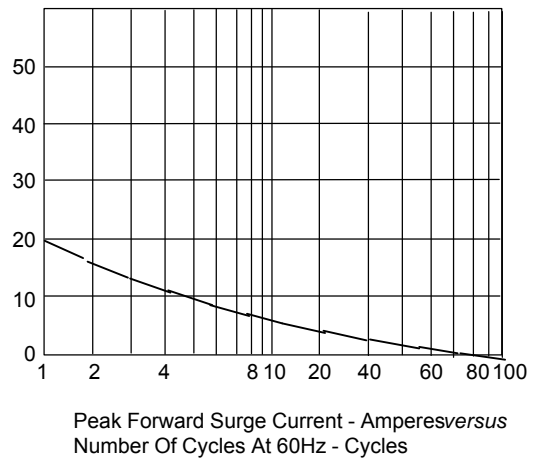


FIG.3-FORWARD DERATING CURVE



Average Forward Rectified Current - Am per versus  
Ambient Temperature -  $^\circ\text{C}$

FIG.4-PEAK FORWAED SURGE CURRENT



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