

PB FREE PRODUCT

FEATURES

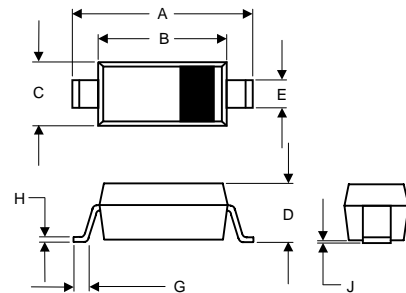
- High Current Capability
- Extremely Low Thermal Resistance
- For Surface Mount Application
- Higher Temp Soldering : 250 °C for 10 Seconds At Terminals
- Low Forward Voltage

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	-----	1.35	-----	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 ($I_R @ T_J = 25^\circ\text{C}$)	0.3						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.

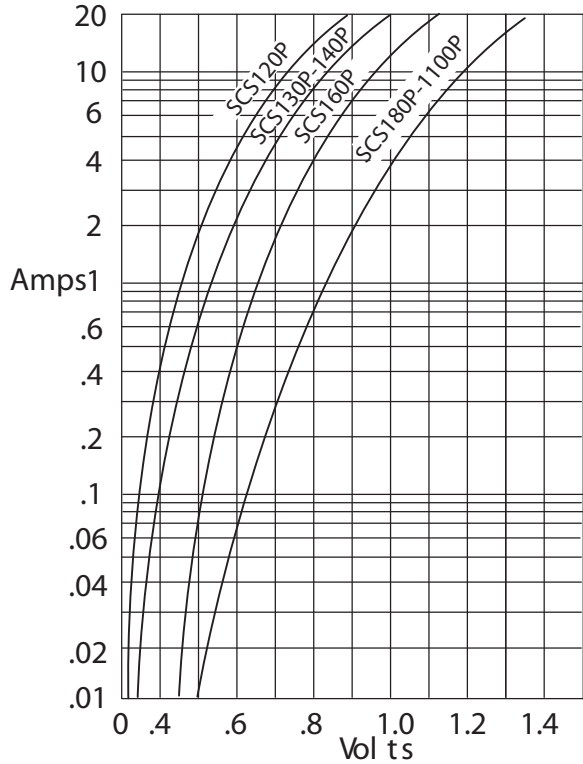
Marking Code

SCS120P	BR or X2
SCS130P	BU or X3
SCS140P	BM or X4
SCS160P	XG
CSC180P	XK
CSC1100P	XH

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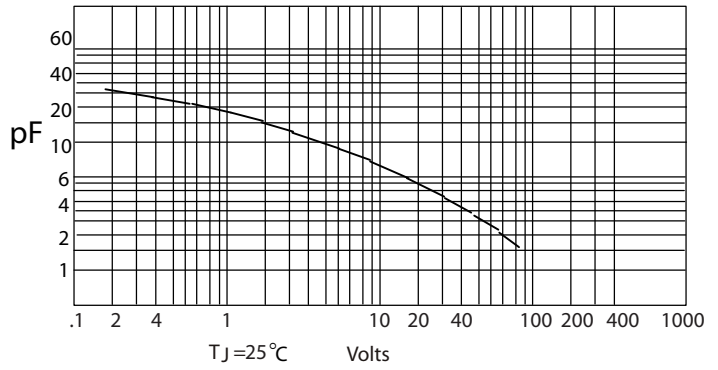
RATING AND CHARACTERISTIC CURVES (SCS120P THRU SCS1100P)

FIG.1 TYPICAL FORWARD CHARACTERISTICS



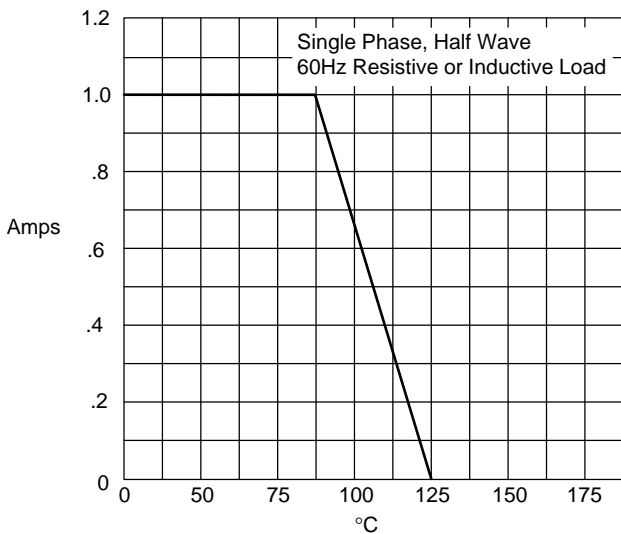
Instantaneous Forward Current - Am per versus
 Instantaneous Forward Voltage - Volts
 Amps

FIG.2-JUNCTION CAPACITANCE



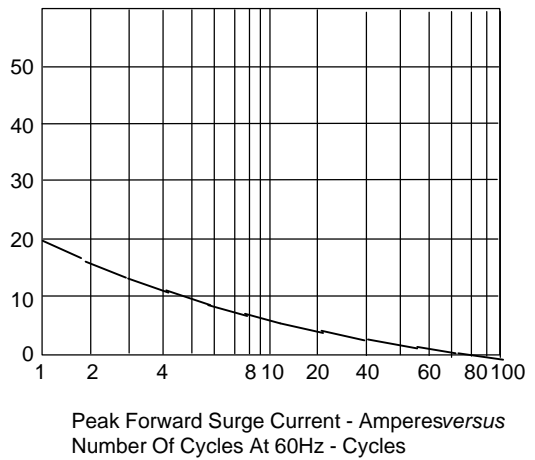
T_J = 25°C
 Volts

FIG.3-FORWARD DERATING CURVE



Average Forward Rectified Current - Am per versus
 Ambient Temperature - °C

FIG.4-PEAK FORWAED SURGE CURRENT



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