

RoHS Compliant Product

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

## FEATURES

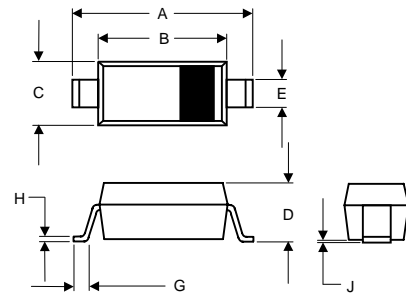
- High Current Capability
- Extremely Low Thermal Resistance
- For Surface Mount Application
- Higher Temp Soldering : 250 °C for 10 Seconds At Terminals
- Low Forward Voltage

## 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	-----	1.15	-----	0.045
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	SCK120LP	SCK140LP	UNITS
Maximum Recurrent Peak Reverse Voltage	20	40	V
Working Peak Reverse Voltage	20	40	
Maximum DC Blocking Voltage	20	40	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)		10	A
Maximum Instantaneous Forward Voltage ( $V_F @ I_{FM} = 1.0\text{A}$ , $T_A = 25^\circ\text{C}$ )	0.37	0.46	V
Maximum DC Reverse Current At Rated DC Blocking Voltage ( $I_R$ @ $T_J = 25^\circ\text{C}$ )	1.0	0.1	mA
Typical Junction Capacitance ( $C_J$ )		60	pF
Operating Temperature Range $T_J$		-50 ~ +125	°C
Storage Temperature Range $T_{STG}$		-65 ~ +150	°C

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

Marking Code	
SCK120LP	KA
SCK140LP	KC

RATING AND CHARACTERISTIC CURVES (SCK120LP THRU SCS140LP)

FIG.1 TYPICAL FORWARD CHARACTERISTICS

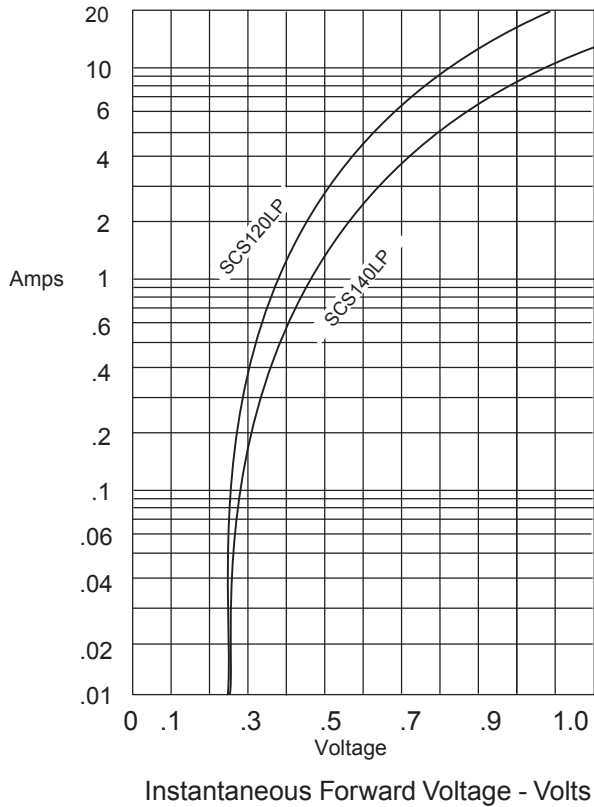


FIG.2-JUNCTION CAPACITANCE

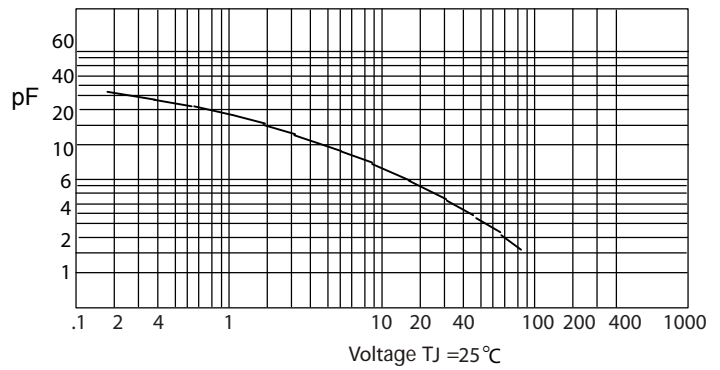


FIG.3-FORWARD DERATING CURVE

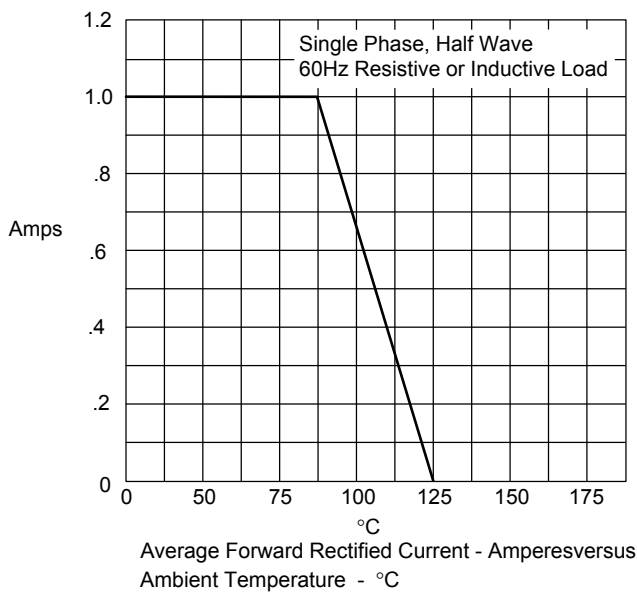


FIG.4-PEAK FORWARD SURGE CURRENT

