

RoHS Compliant Product

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

## FEATURES

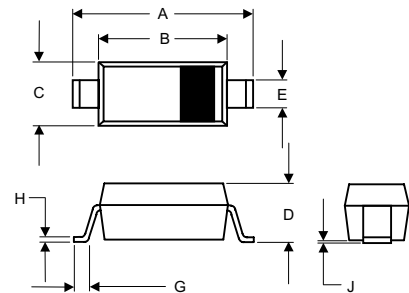
- High Current Capability
- Extremely Low Thermal Resistance
- For Surface Mount Application
- Higher Temp Soldering : 250 °C for 10 Seconds At Terminals
- Low Forward Voltage

## 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	-----	1.35	-----	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	SCS0520LP	UNITS
Maximum Recurrent Peak Reverse Voltage	20	V
Working Peak Reverse Voltage	20	V
Maximum DC Blocking Voltage	20	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)	10	A
Maximum Instantaneous Forward Voltage ( $V_F @ I_{FM} = 0.5A, T_A = 40^\circ\text{C}$ )	0.385	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 ~ +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 : BR

RATING AND CHARACTERISTIC CURVES (SCS0520LP)

FIG.1 TYPICAL FORWARD CHARACTERISTICS

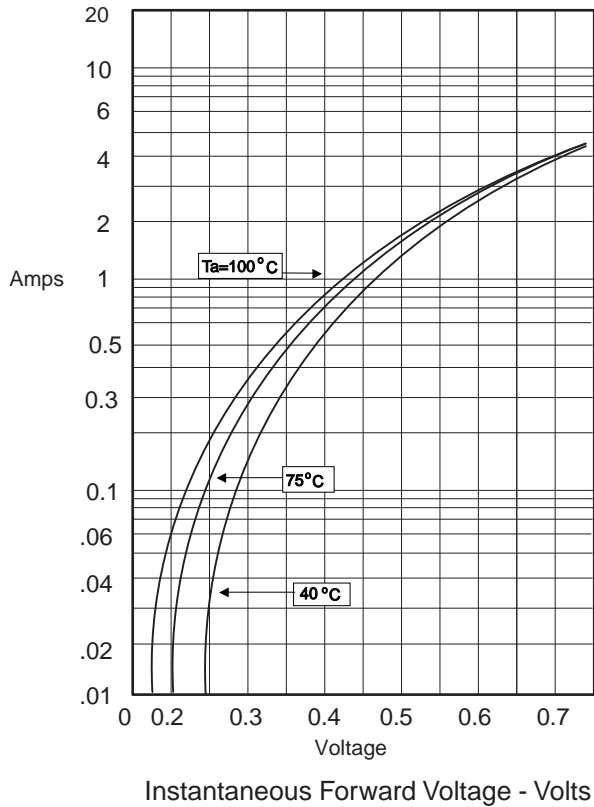


FIG.2-JUNCTION CAPACITANCE

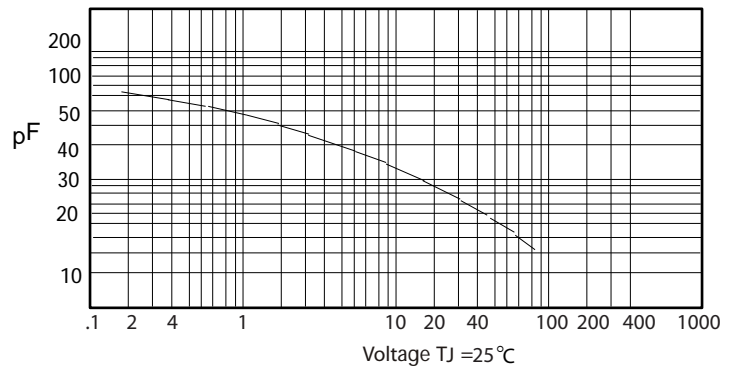


FIG. 4 - REVERSE CHARACTERISTICS

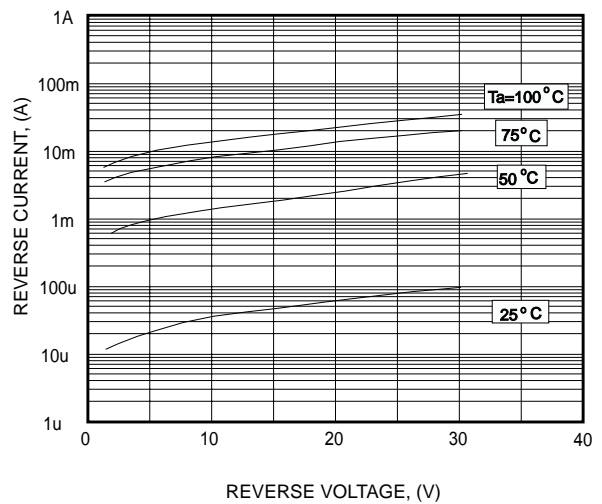


FIG.3-FORWARD DERATING CURVE

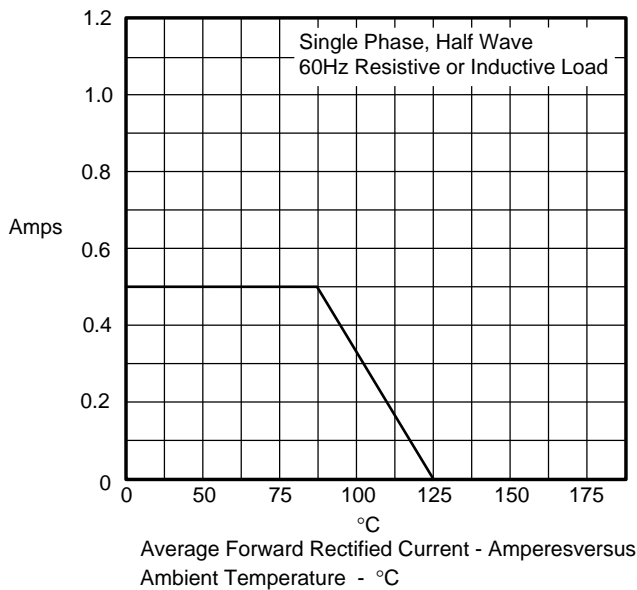


FIG. 5-PEAK FORWAED SURGE CURRENT

