

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: Solderable Per MIL-STD-202, Method 208 Guaranteed
- Polarity: Color Band Denotes Cathode End
- Mounting Position: Any

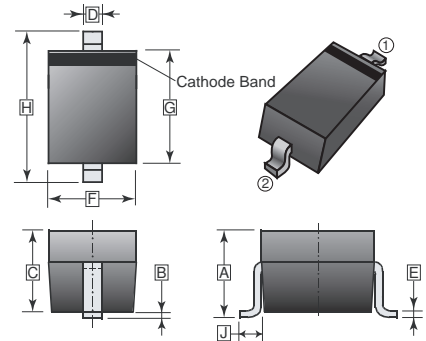
## MARKING

BR

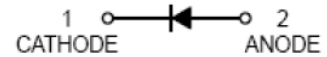
## PACKAGE INFORMATION

Package	MPQ	Leader Size
SOD-123	3K	7 inch

### SOD-123



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	0.94	1.35	F	1.40	1.80
B	0.10 REF.		G	2.54	2.85
C	1.00	1.30	H	3.55	3.86
D	0.30	0.78	J	0.50 REF.	
E	0.08	0.25			



## ORDER INFORMATION

Part Number	Type
SCS0520LP-C	Lead (Pb)-free and Halogen-free

## 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, de-rate current by 20%)

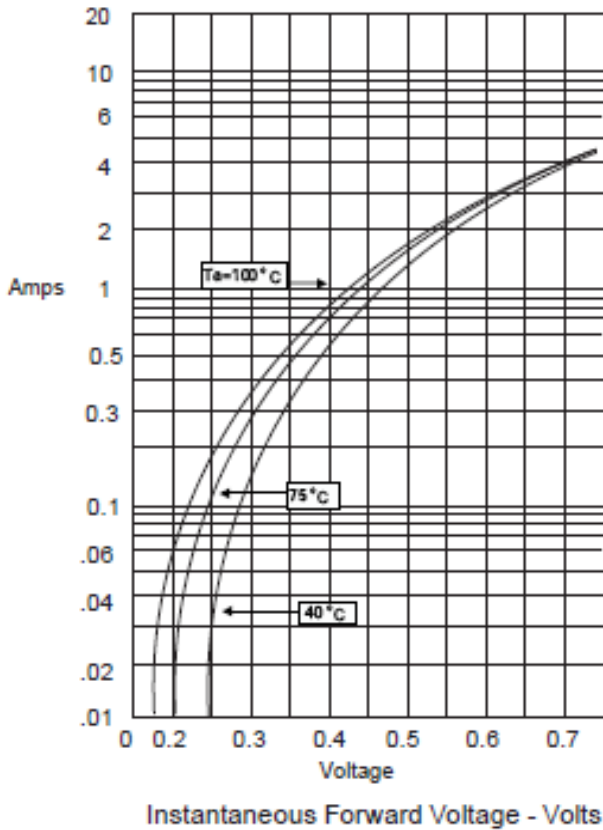
Parameter	Symbol	Ratings	Unit
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	V
Working Peak Reverse Voltage	$V_{RWM}$	20	V
Maximum DC Blocking Voltage	$V_R$	20	V
Average Forward Current @ $T_J=25^\circ\text{C}$	$I_{F(AV)}$	0.5	A
Peak Forward Current @ 8.3ms Half Sine	$I_{FSM}$	10	A
Maximum Instantaneous Forward Voltage @ $I_{FM}=0.5\text{A}$ , $T_J=25^\circ\text{C}$	$V_F$	0.385	V
Maximum DC Reverse Current @ Rated DC Blocking Voltage, $T_J=25^\circ\text{C}$	$I_R$	0.2	mA
Typical Junction Capacitance <sup>1</sup>	$C_J$	30	pF
Typical Thermal Resistance from Junction-Ambient <sup>2</sup>	$R_{\theta JA}$	310	°C/W
Operating and Storage Temperature Range	$T_J, T_{STG}$	125, -55~150	°C

Notes:

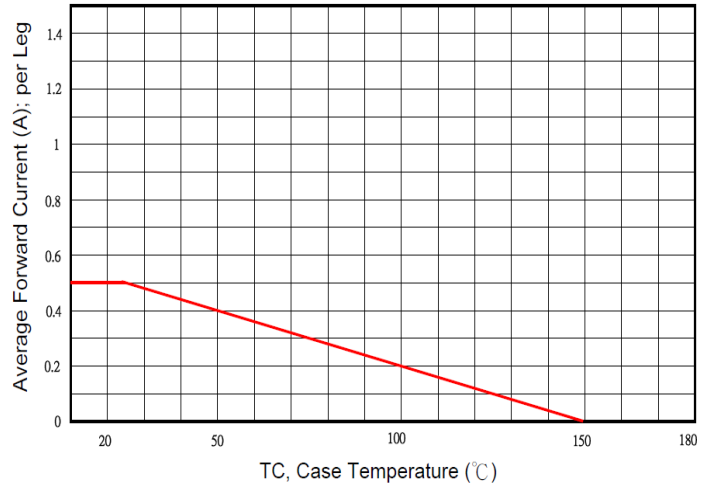
1. Measured at 1MHz and applied reverse of 5V DC.
2. FR-4 PCB, 2oz. 0.7mmx1.2mm copper pad.

**RATINGS AND CHARACTERISTIC CURVES**

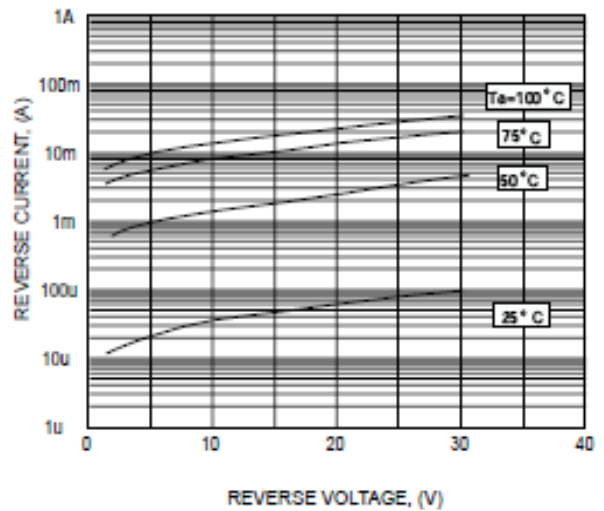
TYPICAL FORWARD CHARACTERISTICS



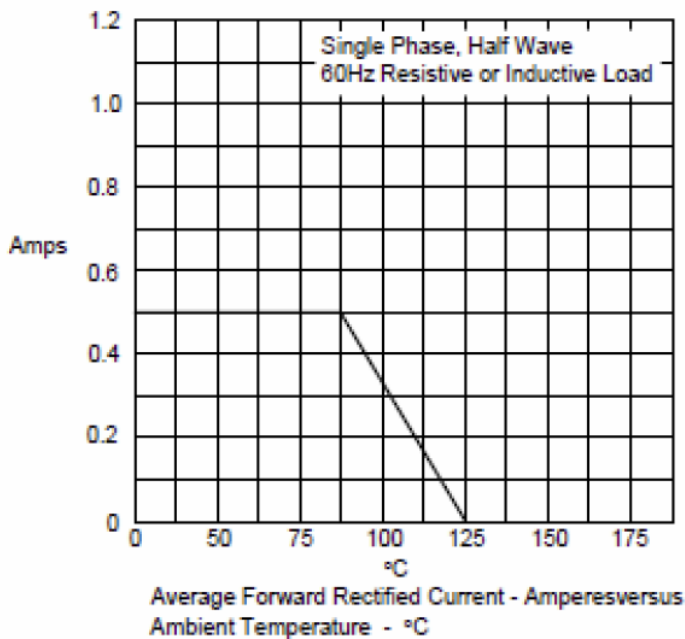
Typical Forward Current Derating Curve



REVERSE CHARACTERISTICS



FORWARD DERATING CURVE



PEAK FORWARD SURGE CURRENT

