



# 1. DATA SHEET

## SS0520~SS0540

### SURFACE MOUNT SCHOTTKY BARRIER

**VOLTAGE** 20 to 40 Volts **CURRENT** 0.50 Ampers

SOD-123

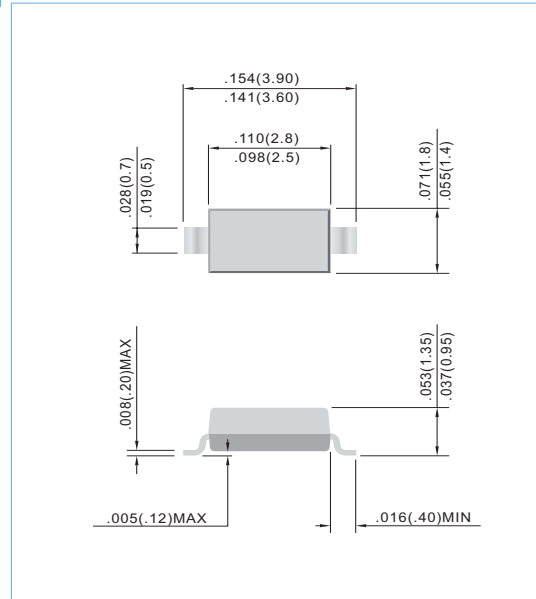
Unit: inch (mm)

#### FEATURES

- Low turn-on voltage
- Fast switching
- PN Junction Guard Ring for Transient and ESD Protection.
- Both normal and Pb free product are available :  
Normal : 80~95% Sn, 5~20% Pb  
Pb free: 99% Sn above

#### MECHANICAL DATA

Case: SOD-123, Plastic  
Terminals: Solderable per MIL-STD-202G, Method 208  
Polarity: See Diagram Below  
Approx. Weight: 0.008 gram



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

For capacitive load, derate current by 20%.

Parameter	Symbol	SS0520	SS0530	SS0540	Units
Marking Code		B 2	B 3	B 4	
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	V
Maximum RMS Voltage	$V_{RMS}$	14	21	28	V
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	V
Maximum Average Forward Current at $T_a=75^\circ\text{C}$	$I_{AV}$	0.5			A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	5.5			A
Maximum Instantaneous Forward Voltage	$V_F$	0.3@ 0.1A 0.385@ 0.5A	0.375@ 0.1A 0.430@ 0.5A	0.51@ 0.5A 0.62@ 1.0A	V
Maximum Reverse Current	$I_R$	75@ $V_R=10V$	20@ $V_R=15V$	10@ $V_R=20V$	$\mu\text{A}$
Typical junction capacitance at $V_R=0V$ DC	$C_J$	170			pF
Maximum Thermal Resistance	$R_{\theta JL}$ $R_{\theta JA}$	150 206			$^\circ\text{C} / \text{W}$
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 TO +125			$^\circ\text{C}$

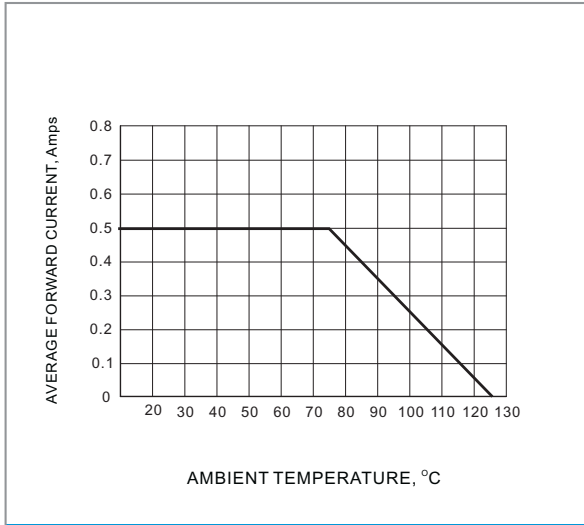


Fig.1 FORWARD CURRENT DERATING

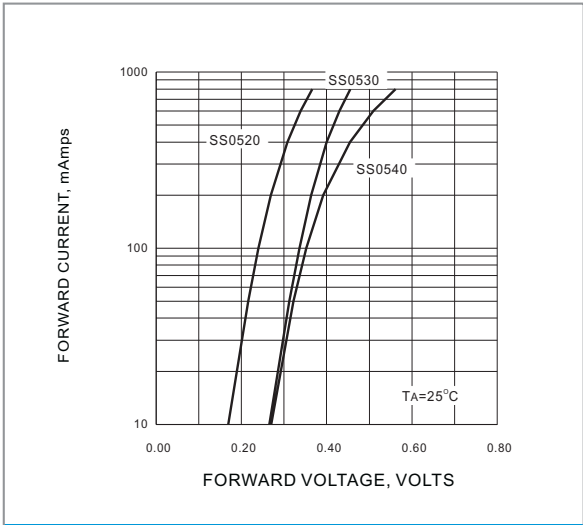


Fig.2 TYPICAL FORWARD VOLTAGE

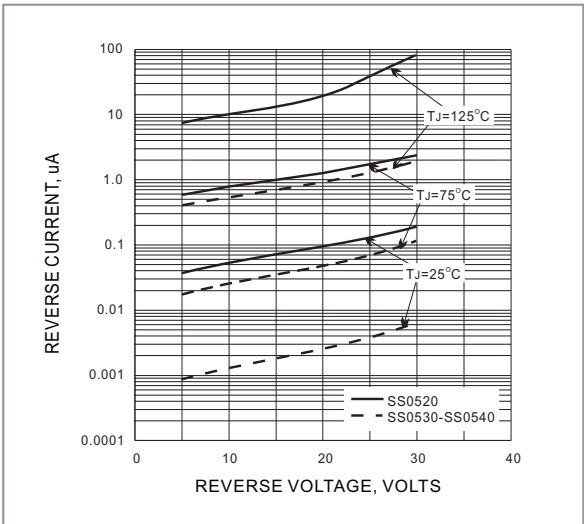


Fig.3 TYPICAL REVERSE CURRENT

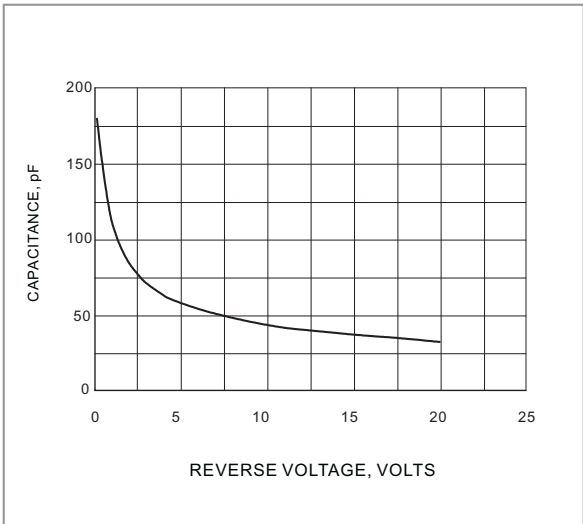
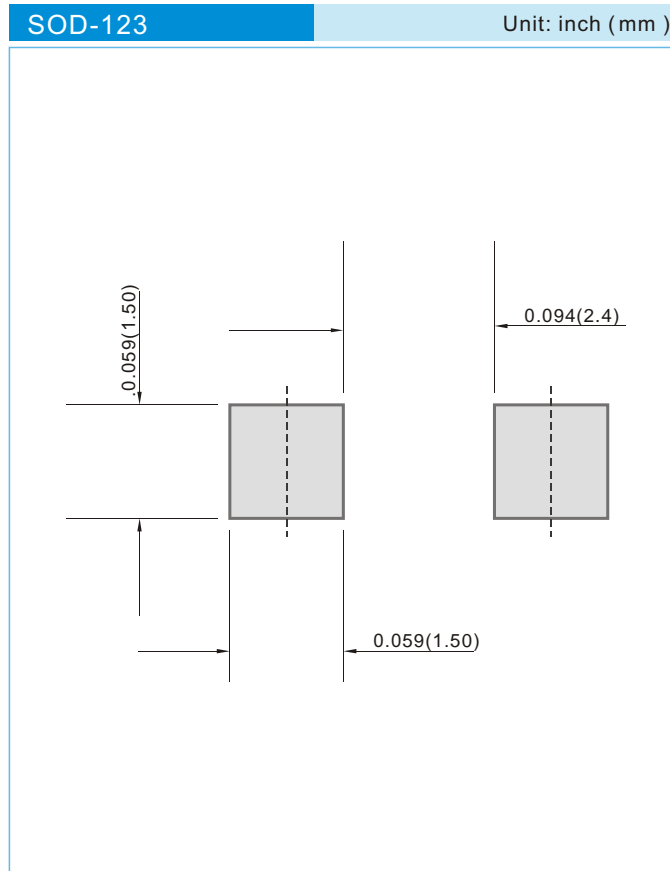


Fig.4 TYPICAL JUNCTION CAPACITANCE



## MOUNTING PAD LAYOUT



## ORDER INFORMATION

- Packing information

T/R - 10K per 13" plastic Reel

T/R - 3.0K per 7" plastic Reel

## LEGAL STATEMENT

### IMPORTANT NOTICE

This information is intended to unambiguously characterize the product in order to facilitate the customer's evaluation of the device in the application. The information will help the customer's technical experts determine that the device is compatible and interchangeable with similar devices made by other vendors. The information in this data sheet is believed to be reliable and accurate. The specifications and information herein are subject to change without notice. New products and improvements in products and product characterization are constantly in process. Therefore, the factory should be consulted for the most recent information and for any special characteristics not described or specified.

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