



SS0520~SS0540

SURFACE MOUNT SCHOTTKY BARRIER

VOLTAGE 20 to 40 Volts

CURRENT 0.50 Amperes

SOD-123

Unit: inch (mm)

FEATURES

- Low turn-on voltage
- Fast switching
- PN Junction Guard Ring for Transient and ESD Protection.
- In compliance with EU RoHS 2002/95/EC directives

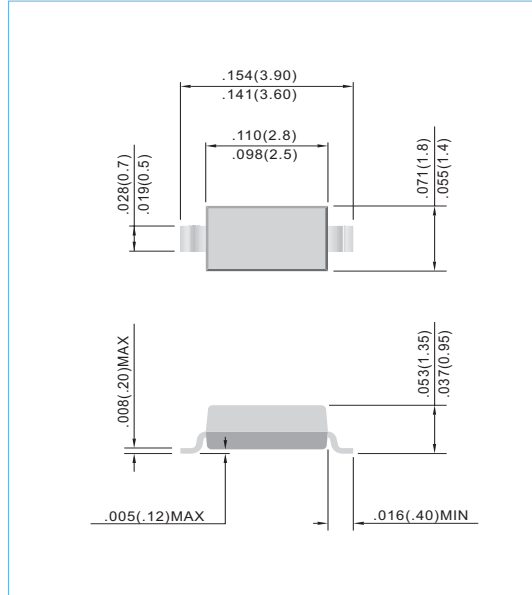
MECHANICAL DATA

Case: SOD-123, Plastic

Terminals: Solderable per MIL-STD-750, Method 2026

Polarity : Color band cathode

Approx. Weight: 0.008 gram



MAXIMUM RATINGS

Ratings at 25°C ambient temperature unless otherwise specified. For capacitive load, derate current by 20%.

Parameter	Symbol	SS0520	SS0530	SS0540	Units
Marking Code		B2	B3	B4	
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
Typical junction capacitance at $V_R=0\text{V DC}$	C_J	170			pF
Typical 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			$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. For capacitive load, derate current by 20%.

Parameter	Symbol	SS0520	SS0530	SS0540	Units
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@ $V_R=10\text{V}$	20@ $V_R=15\text{V}$	10@ $V_R=20\text{V}$	μA



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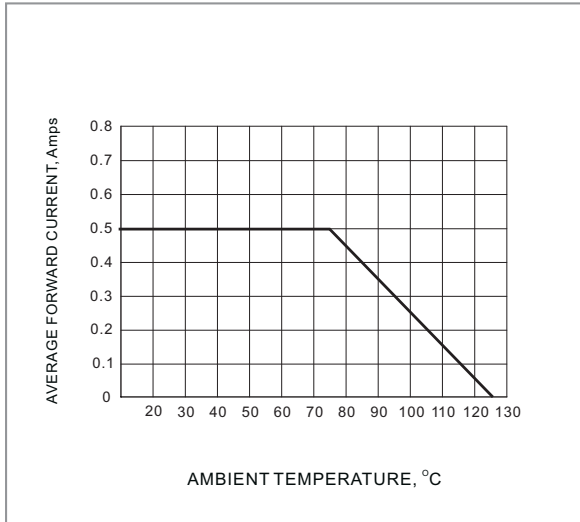


Fig. 1 FORWARD CURRENT DERATING

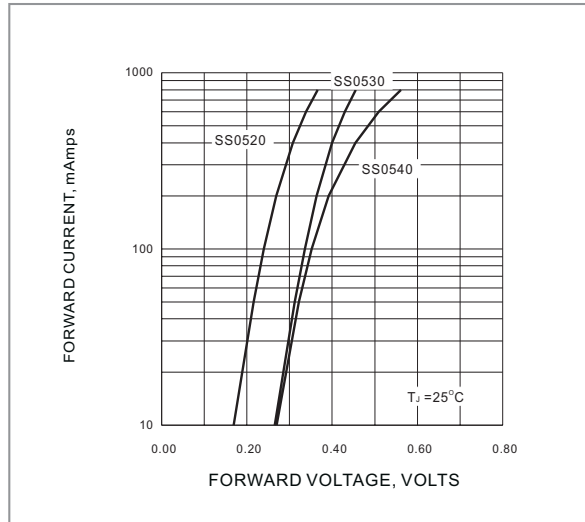


Fig. 2 TYPICAL FORWARD VOLTAGE

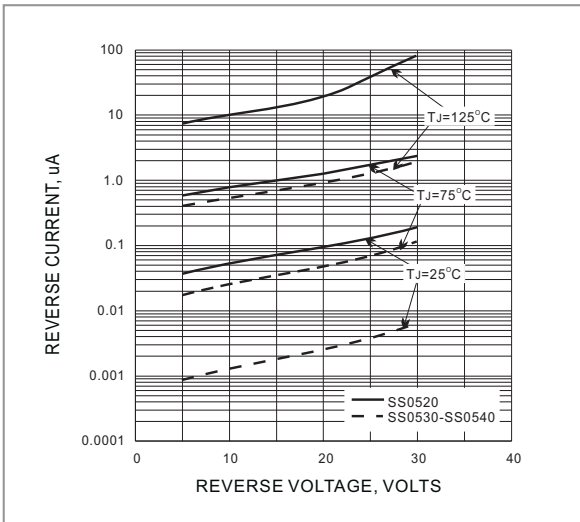


Fig. 3 TYPICAL REVERSE CURRENT

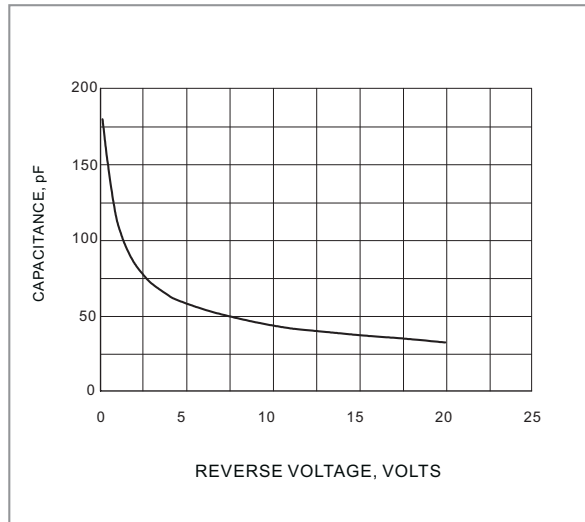
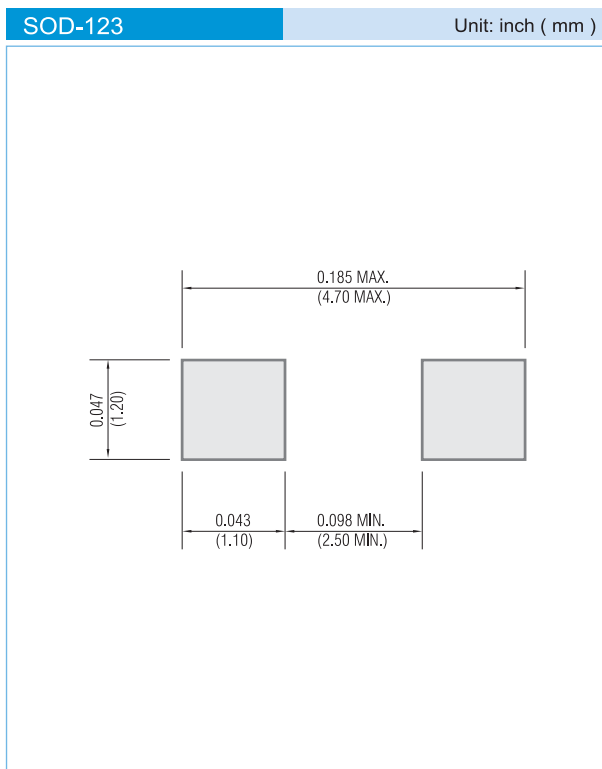


Fig. 4 TYPICAL JUNCTION CAPACITANCE



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MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
 - T/R - 10K per 13" plastic Reel
 - T/R - 3K per 7" plastic Reel

LEGAL STATEMENT

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