

SS0520~SS0540

SURFACE MOUNT SCHOTTKY BARRIER

VOLTAGE 20 to 40 Volt **CURRENT** 0.5 Ampere

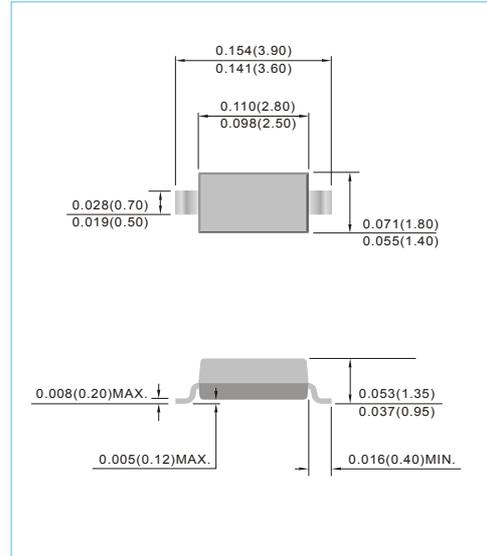
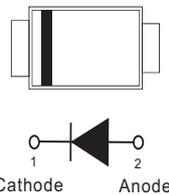
SOD-123 Unit : inch(mm)

FEATURES

- Low turn-on voltage
- Fast switching
- PN Junction Guard Ring for Transient and ESD Protection.
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

MECHANICAL DATA

- Case: SOD-123, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Approx. Weight: 0.0004 ounces, 0.01 grams



MAXIMUM RATINGS ($T_A=25^\circ\text{C}$ unless otherwise noted)

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	I_{FSM}	5.5			A
Power Dissipation (Mounted on 48cm ² FR-4 PCB)	P_D	300			mW
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 ($T_A=25^\circ\text{C}$ unless otherwise noted)

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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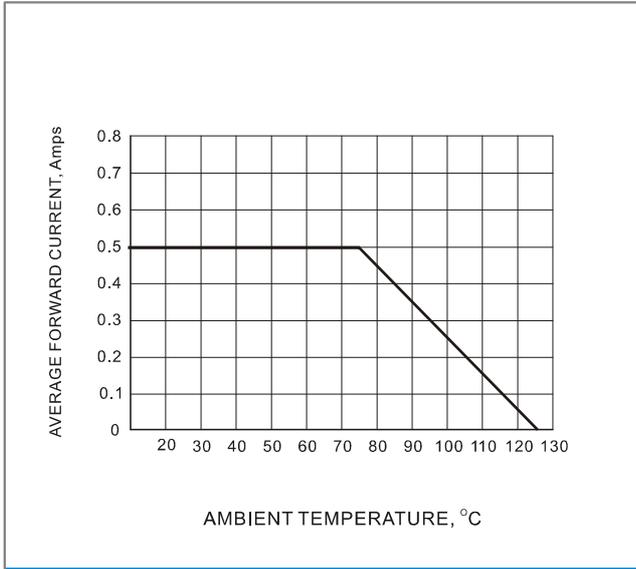


Fig.1 FORWARD CURRENT DERATING

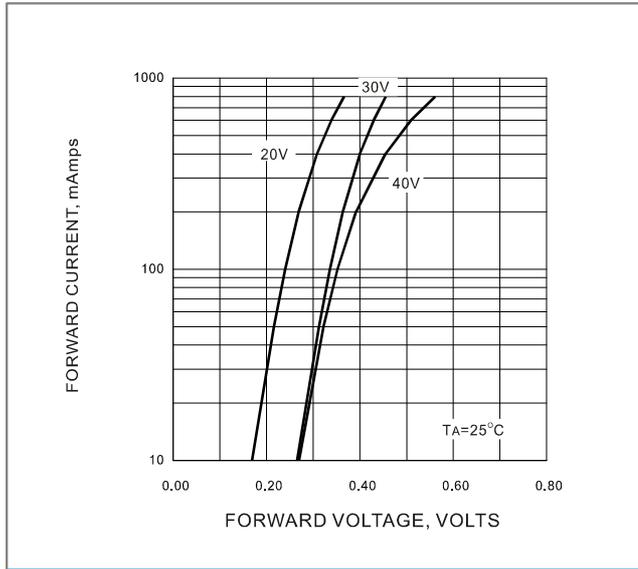


Fig.2 TYPICAL FORWARD VOLTAGE

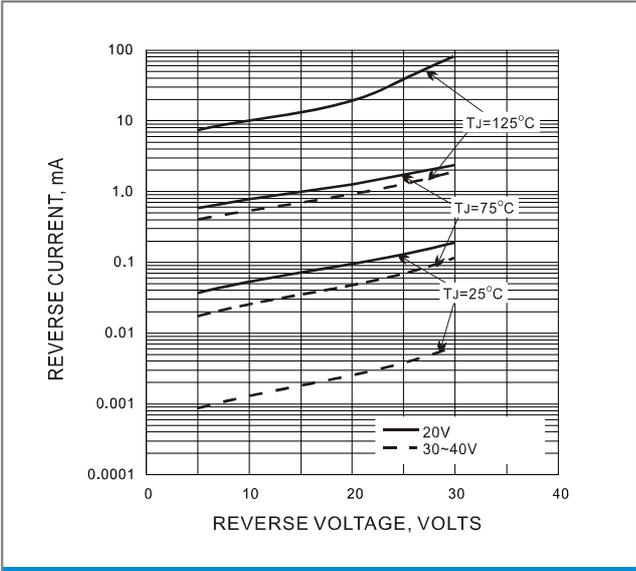


Fig.3 TYPICAL REVERSE CURRENT

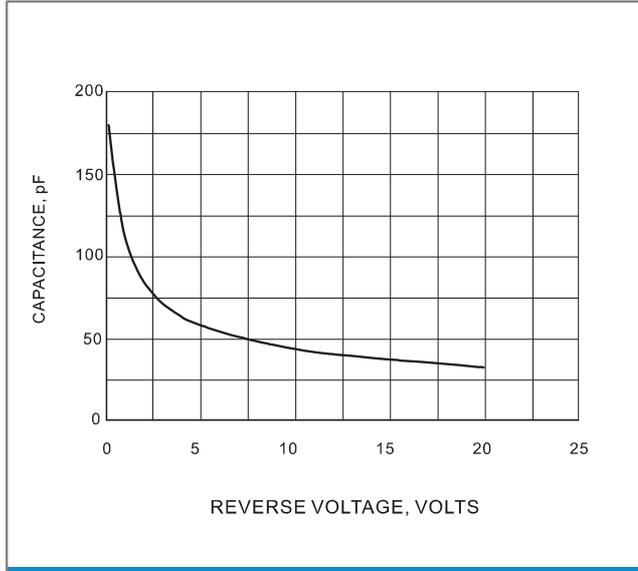


Fig.4 TYPICAL JUNCTION CAPACITANCE

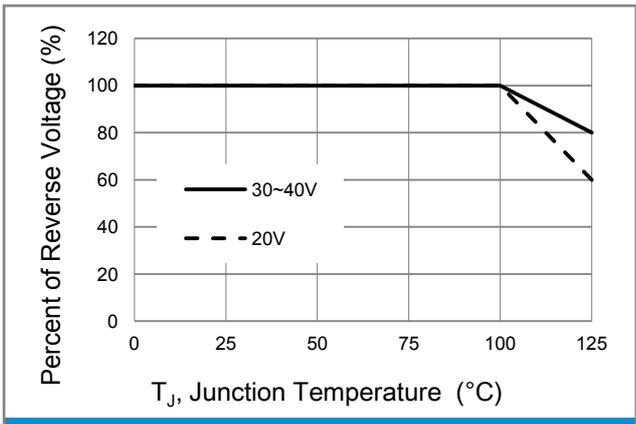
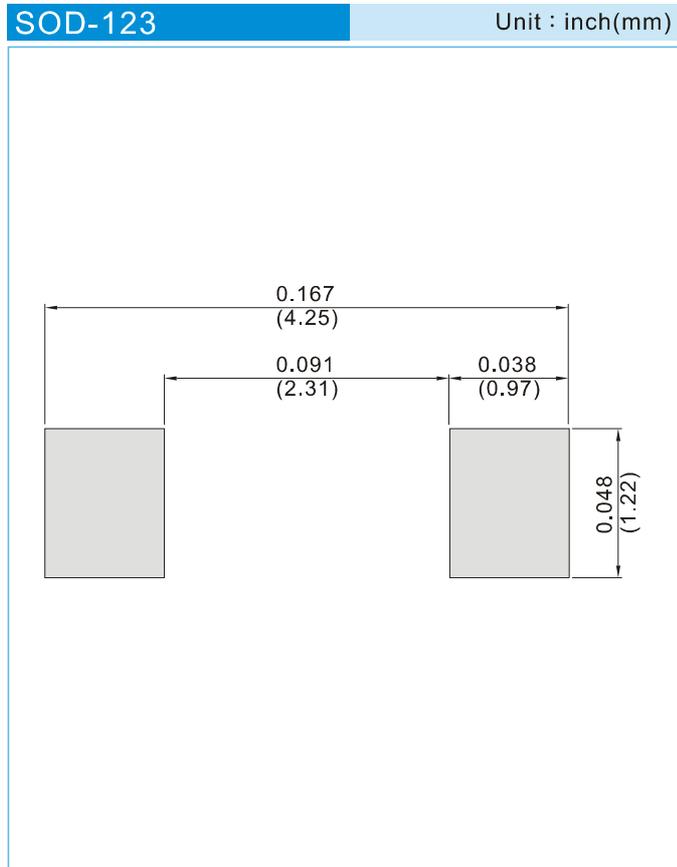


Fig.5 Operating Temperature Derating Curve

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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

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