

BAT42W~BAT43W

SURFACE MOUNT SCHOTTKY BARRIER

VOLTAGE 30 Volt **CURRENT** 0.2 Ampere

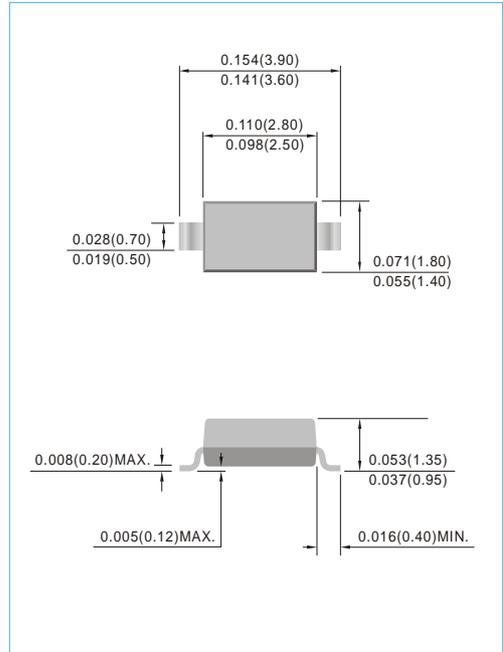
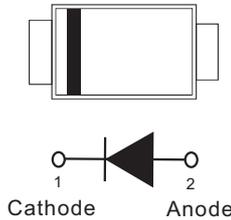
SOD-123 Unit : inch(mm)

FEATURES

- Low turn-on voltage
- Fast switching
- PN Junction Guard Ring for Transient and ESD Protection
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

MECHANICAL DATA

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



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

PARAMETER	SYMBOL	BAT42W	BAT43W	UNITS
Marking Code	-	L2	L3	-
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	30		V
Maximum RMS Voltage	V_{RMS}	21		V
Maximum DC Blocking Voltage	V_{DC}	30		V
Maximum Average Forward Current at $T_A=25^\circ\text{C}$	$I_{F(AV)}$	0.2		A
Peak Forward Surge Current, 1.0ms single half sine-wave superimposed on rated load	I_{FSM}	4.0		A
Maximum Instantaneous Forward Voltage	V_F	0.4 / 10mA 1.0 / 200mA	0.33 / 2.0mA 1.0 / 200mA	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	0.5		μA
Maximum Thermal Resistance	$R_{\theta JA}$	635		$^\circ\text{C} / \text{W}$
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +125		$^\circ\text{C}$

Note : 1. C_J at $V_R=1$, $f=1\text{MHz}$

2. Mounted on FR-4 board with recommended pad layout

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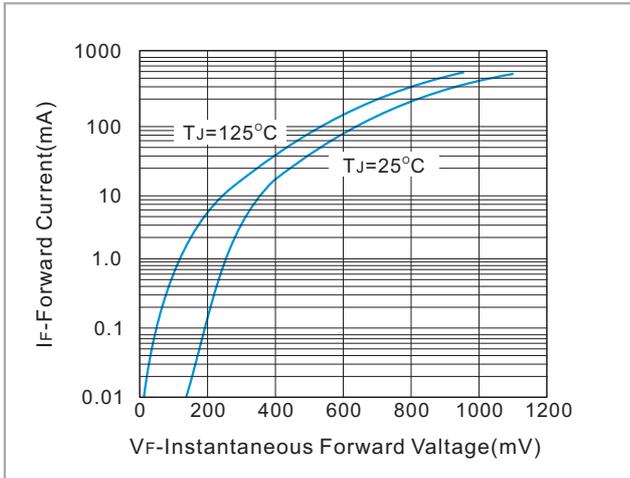


Fig. 1-TYPICAL FORWARD CHARACTERISTIC

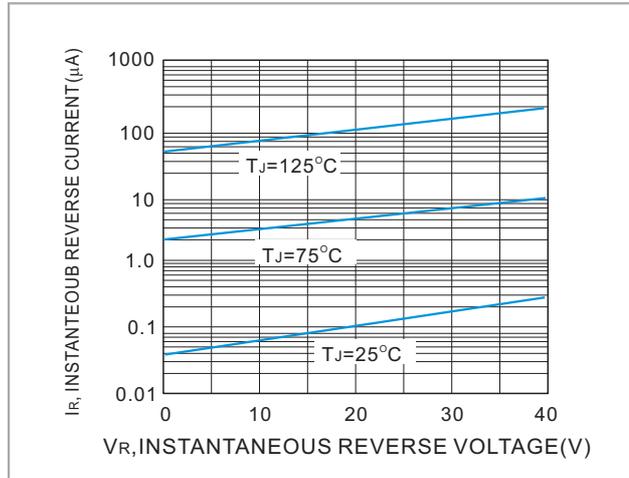


Fig. 2-TYPICAL REVERSE CHARACTERISTICS

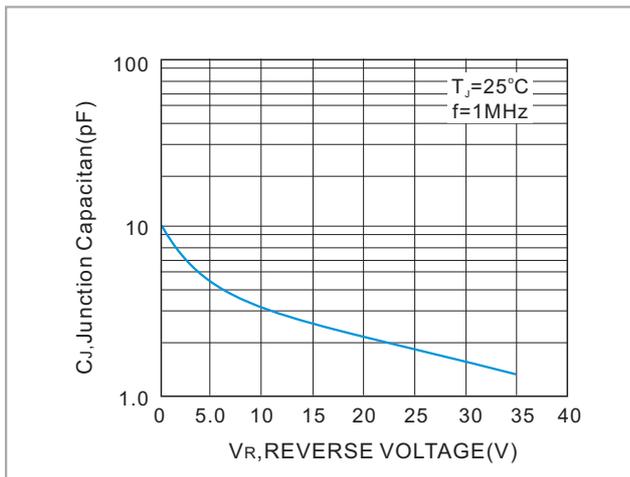


Fig. 3-TYPICAL JUNCTION CAPACITANCE

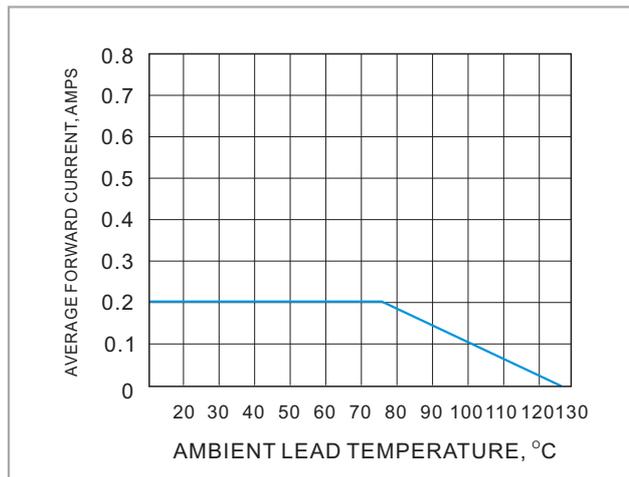


Fig. 4-FORWARD DERATING CURVE

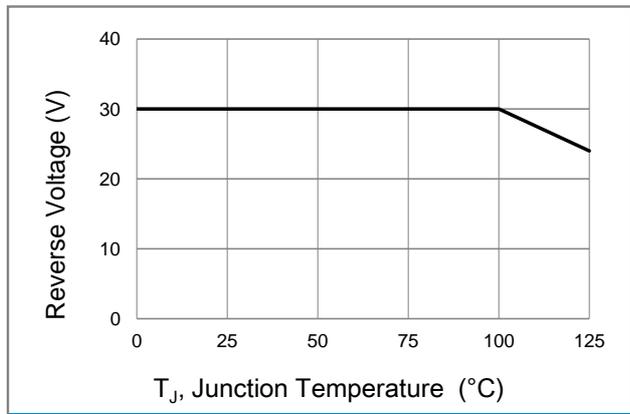
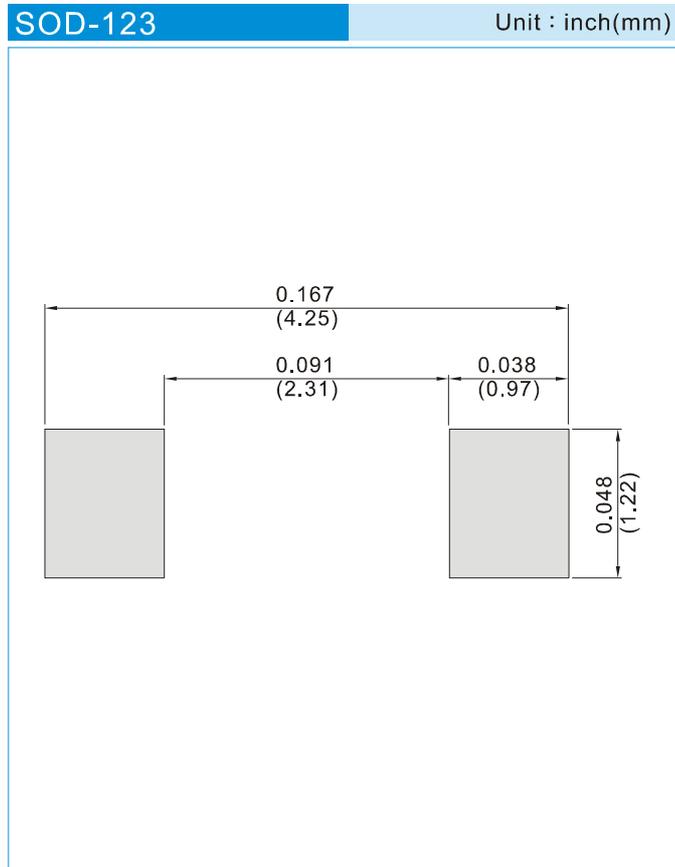


Fig.5 Operating Temperature Derating Curve

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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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