



# BAT42W~BAT43W

## SURFACE MOUNT SCHOTTKY BARRIER

**VOLTAGE** 30 Volts      **CURRENT** 0.2 AmperYs

**SOD-123**

Unit : inch(mm)

### FEATURES

- Low turn-on voltage
- Fast switching
- PN Junction Guard Ring for Transient and ESD Protection
- Lead free in comply with EU RoHS 2002/95/EC directives.
- Green molding compound as per IEC61249 Std. . (Halogen Free)

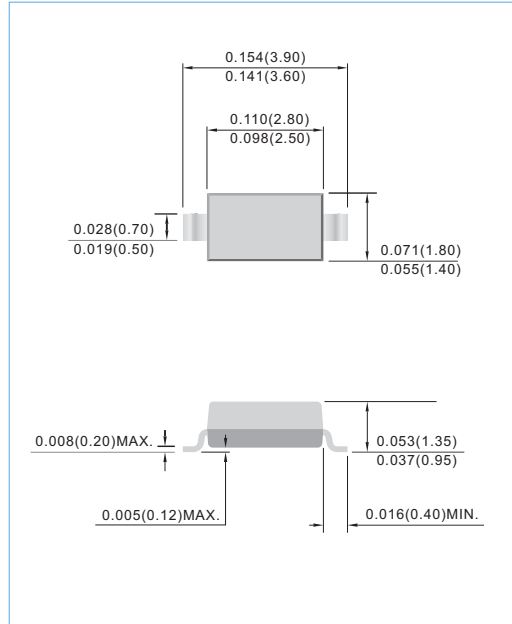
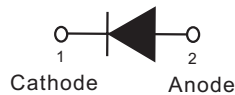
### MECHANICAL DATA

Case: SOD-123, Plastic

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

Polarity : Color band cathode

Approx. Weight: 0.01 grams



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

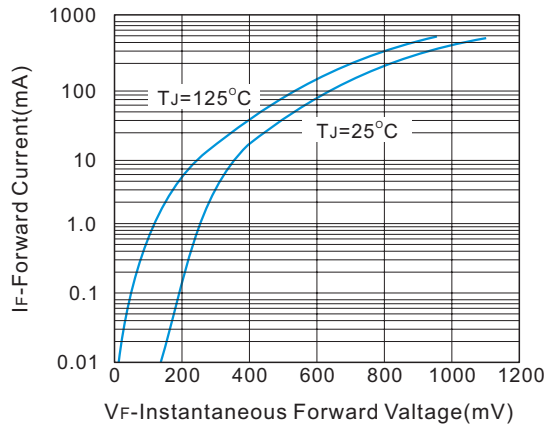
PARAMETER	SYMBOL	BAT42W	BAT43W	UNITS
Marking Code	-	L2	L3	-
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	30		V
Maximum RMS Voltage	$V_{RMS}$	21		V
Maximum DC Blocking Voltage	$V_{DC}$	30		V
Maximum Average Forward Current at $T_A=25^\circ\text{C}$	$I_{F(AV)}$	0.2		A
Peak Forward Surge Current, 1.0ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	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		$\mu\text{A}$
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  $V_R=1$ ,  $f=1\text{MHz}$

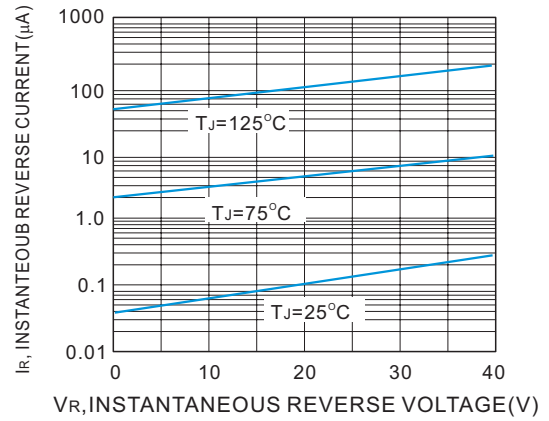
2. Mounted on FR-4 board with recommended pad layout



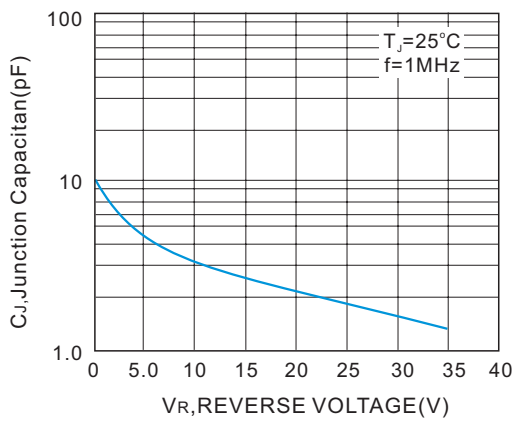
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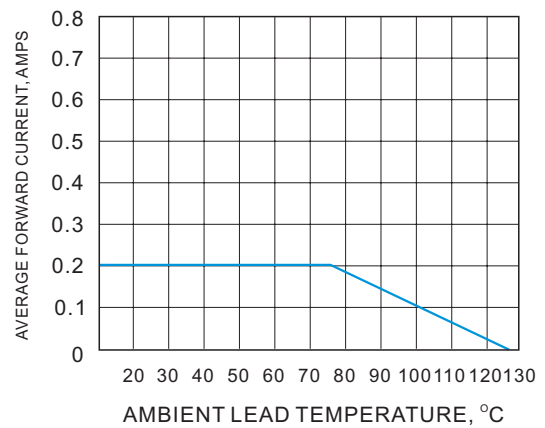
**Fig. 1-TYPICAL FORWARD CHARACTERISTIC**



**Fig. 2-TYPICAL REVERSE CHARACTERISTICS**



**Fig. 3-TYPICAL JUNCTION CAPACITANCE**

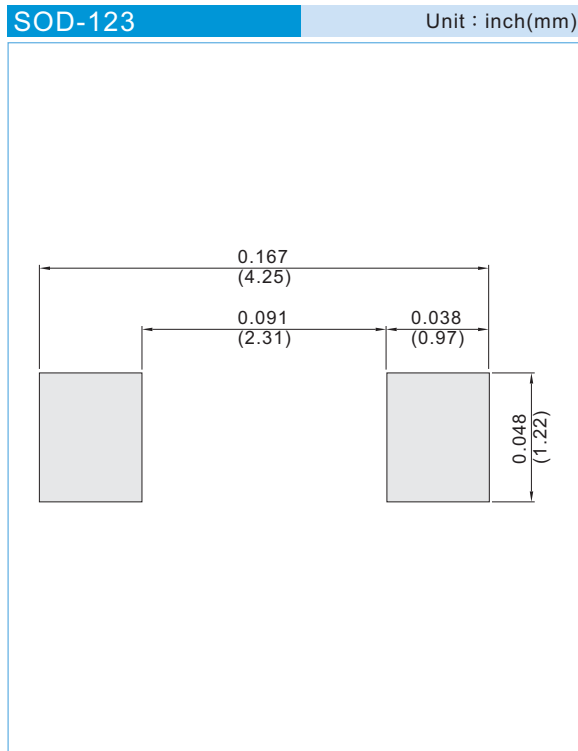


**Fig. 4-FORWARD DERATING CURVE**



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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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