



# BAT42W~BAT43W

## SURFACE MOUNT SCHOTTKY BARRIER

**VOLTAGE** 30 Volt      **CURRENT** 0.2 Ampere

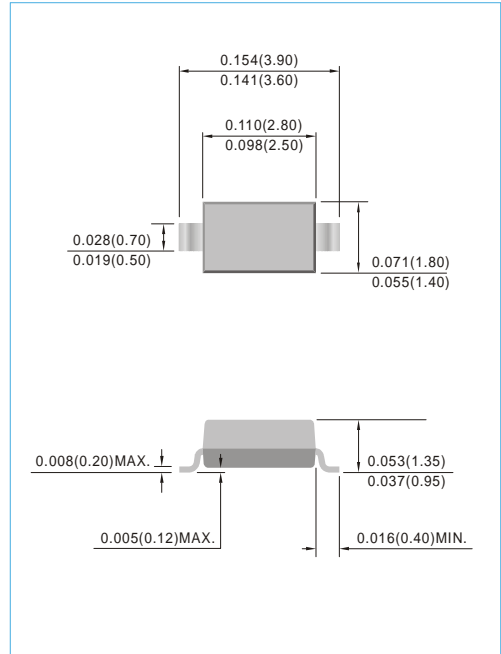
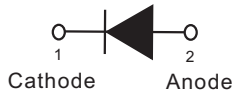
**SOD-123**      Unit : inch(mm)

### 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%.

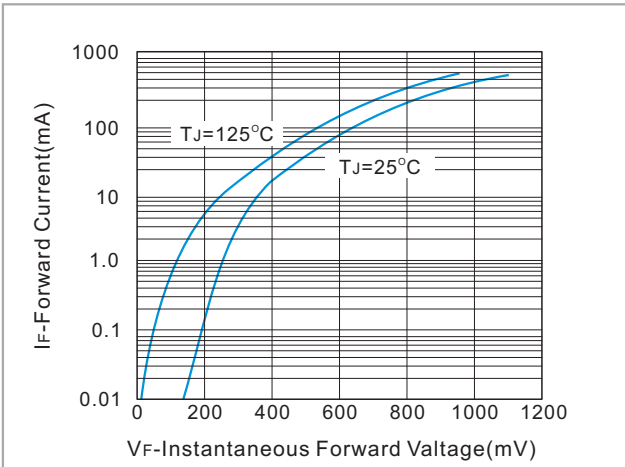
PARAMETER	SYMBOL	BAT42W	BAT43W	UNITS
Marking Code	-	L2	L3	-
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	30		V
Maximum RMS Voltage	$V_{RMS}$	21		V
Maximum DC Blocking Voltage	$V_{DC}$	30		V
Maximum Average Forward Current at $T_A=25^\circ\text{C}$	$I_{F(AV)}$	0.2		A
Peak Forward Surge Current, 1.0ms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

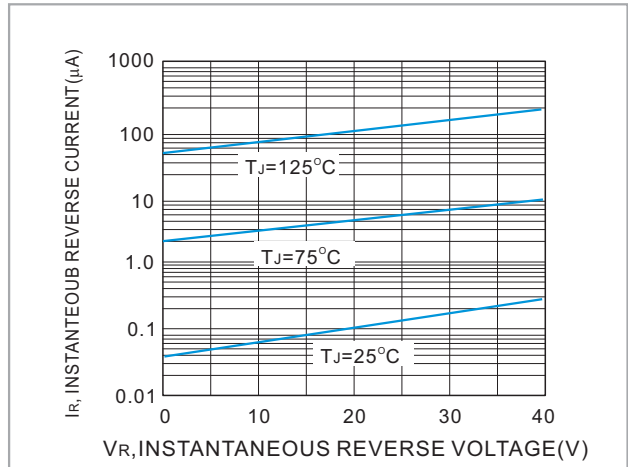
2. Mounted on FR-4 board with recommended pad layout



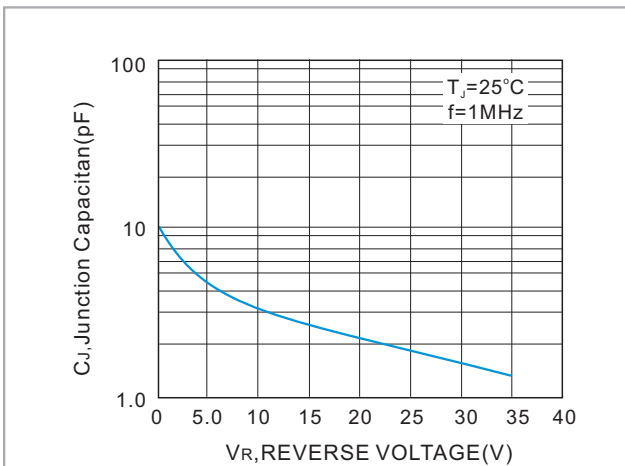
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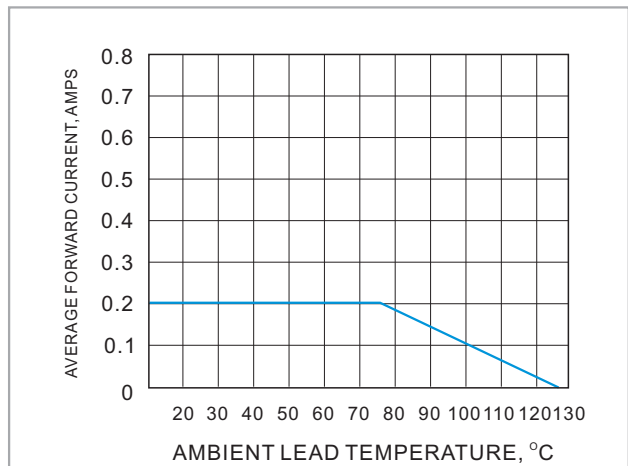
**Fig. 1-TYPICAL FORWARD CHARACTERISTIC**



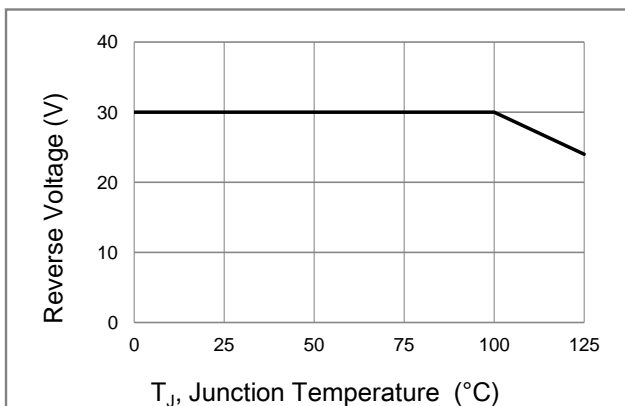
**Fig. 2-TYPICAL REVERSE CHARACTERISTICS**



**Fig. 3-TYPICAL JUNCTION CAPACITANCE**



**Fig. 4-FORWARD DERATING CURVE**

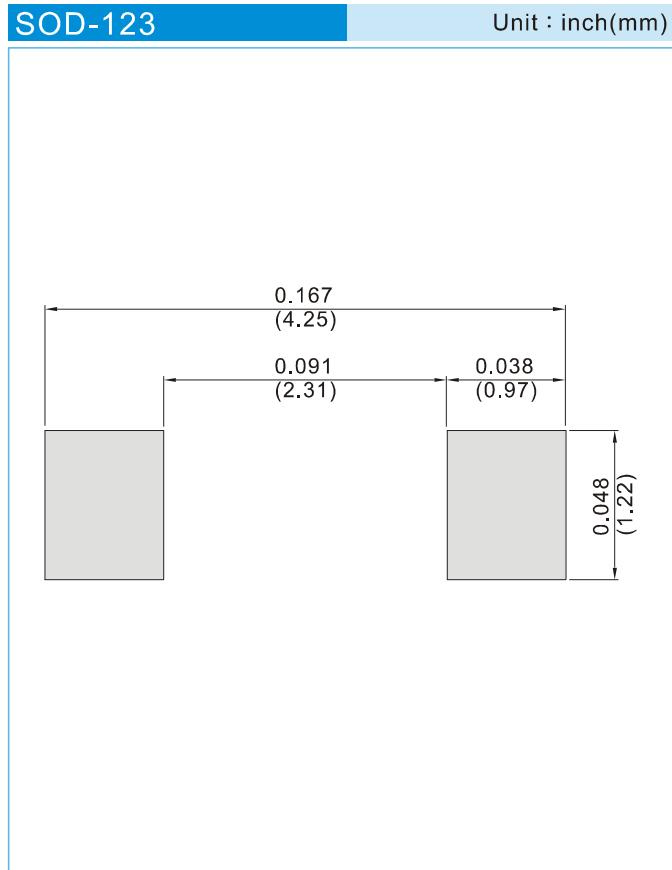


**Fig.5 Operating Temperature Derating Curve**



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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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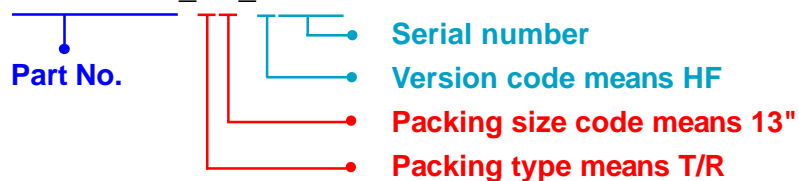
### Part No\_packing code\_Version

BAT42W\_R1\_00001

BAT42W\_R2\_00001

For example :

**RB500V-40\_R2\_00001**



Packing Code <b>XX</b>				Version Code <b>XXXXX</b>		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code
Tape and Ammunition Box (T/B)	<b>A</b>	N/A	<b>0</b>	<b>HF</b>	<b>0</b>	serial number
Tape and Reel (T/R)	<b>R</b>	7"	<b>1</b>	<b>RoHS</b>	<b>1</b>	serial number
Bulk Packing (B/P)	<b>B</b>	13"	<b>2</b>			
Tube Packing (T/P)	<b>T</b>	26mm	<b>X</b>			
Tape and Reel (Right Oriented) (TRR)	<b>S</b>	52mm	<b>Y</b>			
Tape and Reel (Left Oriented) (TRL)	<b>L</b>	PANASERT T/B CATHODE UP (PBCU)	<b>U</b>			
FORMING	<b>F</b>	PANASERT T/B CATHODE DOWN (PBCD)	<b>D</b>			



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