



# BAT42W~BAT43W

## SURFACE MOUNT SCHOTTKY BARRIER

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

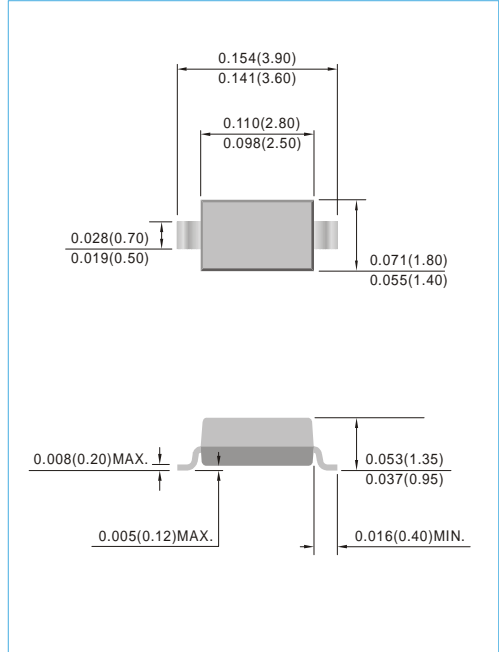
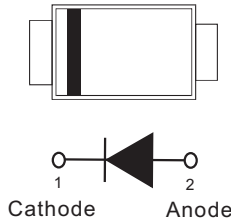
**SOD-123**      Unit : inch(mm)

### 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%.

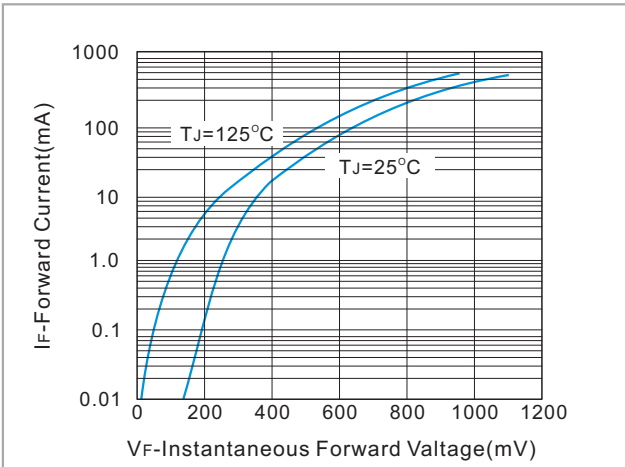
PARAMETER	SYMBOL	BAT42W	BAT43W	UNITS
Marking Code	-	L2	L3	-
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	30		V
Maximum RMS Voltage	$V_{RMS}$	21		V
Maximum DC Blocking Voltage	$V_{DC}$	30		V
Maximum Average Forward Current at $T_A=25^\circ\text{C}$	$I_{F(AV)}$	0.2		A
Peak Forward Surge Current, 1.0ms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

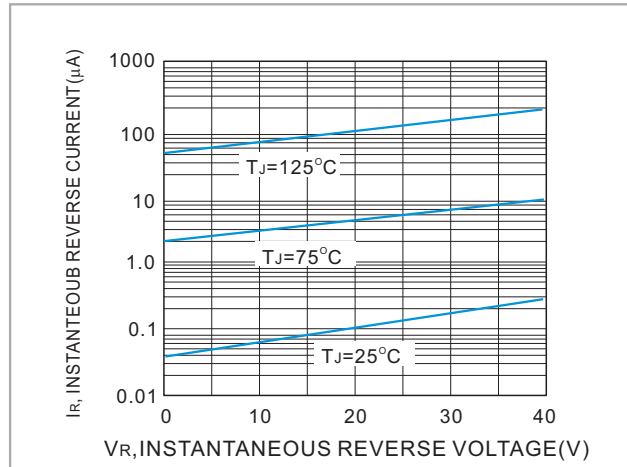
2.Mounted on FR-4 board with recommended pad layout



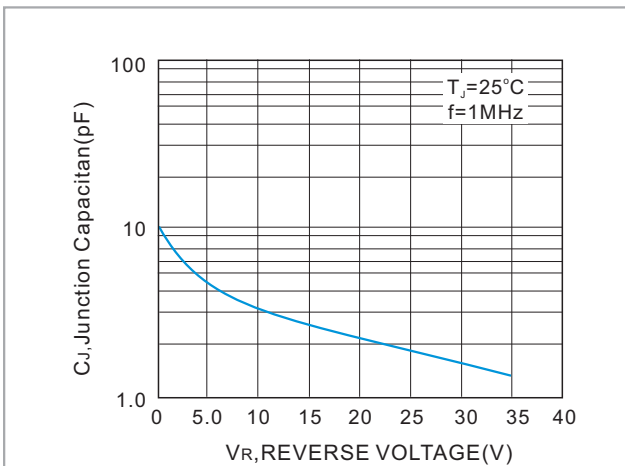
# BAT42W~BAT43W



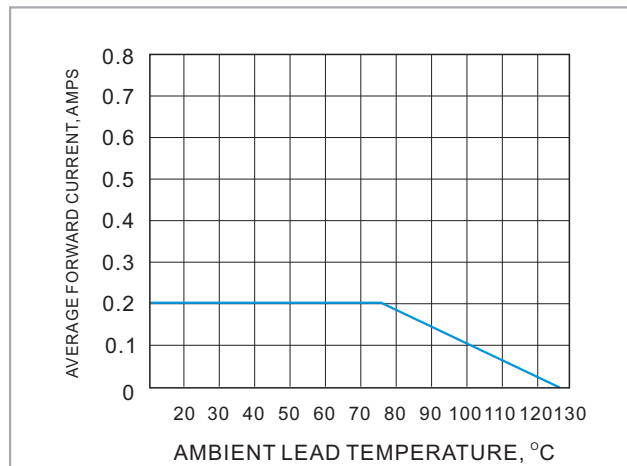
**Fig. 1-TYPICAL FORWARD CHARACTERISTIC**



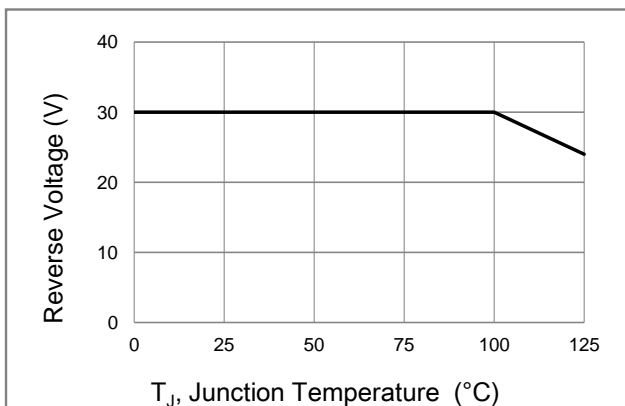
**Fig. 2-TYPICAL REVERSE CHARACTERISTICS**



**Fig. 3-TYPICAL JUNCTION CAPACITANCE**



**Fig. 4-FORWARD DERATING CURVE**

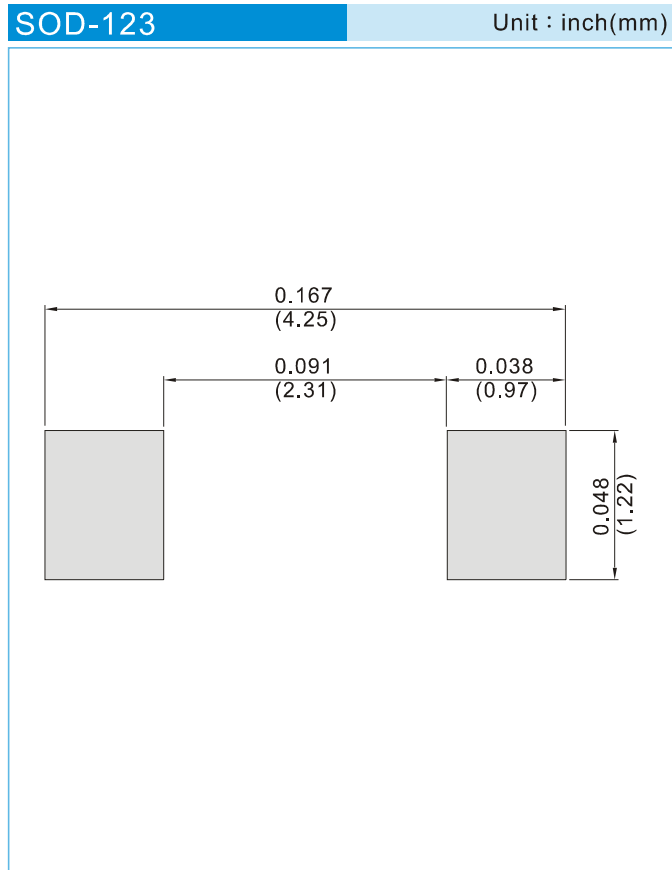


**Fig.5 Operating Temperature Derating Curve**



## BAT42W~BAT43W

### MOUNTING PAD LAYOUT



### ORDER INFORMATION

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



## BAT42W~BAT43W

### 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>			



## BAT42W~BAT43W

---

### Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.