



# BAT54TB/ATB/CTB/RTB/STB

## SURFACE MOUNT SCHOTTKY BARRIER

**VOLTAGE** 30 Volts    **CURRENT** 0.2 Amperes

**SOT-523**    Unit : inch(mm)

### FEATURES

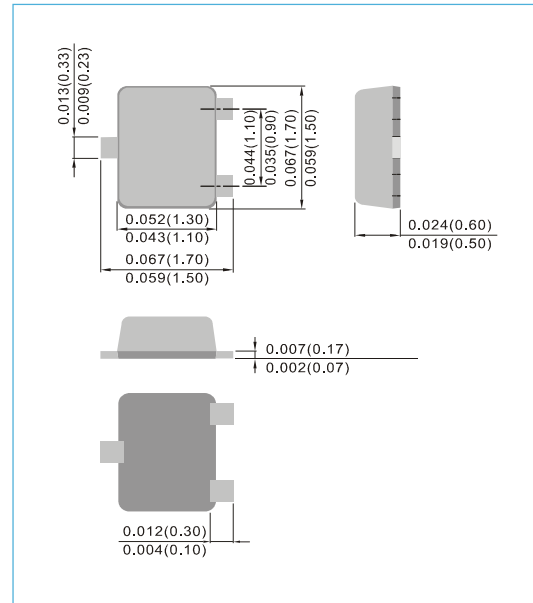
- Low turn-on voltage
- Fast switching
- PN Junction Guard Ring for Transient and ESD Protection.
- Lead free in comply with EU RoHS 2002/95/EC directives.
- Green molding compound as per IEC61249 Std. . (Halogen Free)

### MECHANICAL DATA

Case: SOT-523, Plastic

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

Approx. Weight: 0.002 gram



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise noted)

PARAMETER	SYMBOL	BAT54TB	BAT54ATB	BAT54CTB	BAT54RTB	BAT54STB	UNITS	
Marking code	-	LV	LW	LX	LG	LY	-	
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	30						V
Average Forward Current	I <sub>O</sub>	0.2						A
Peak Forward Surge Current, 1.0s (JEDEC method)	I <sub>FSM</sub>	0.6						A
Instantaneous Forward Voltage at I <sub>F</sub> =1mA at I <sub>F</sub> =100mA	V <sub>F</sub>	0.32 1.0						V
DC Reverse Current at Rated DC Blocking Voltage@V <sub>R</sub> =25V	I <sub>R</sub>	2.0						μA
Typical Junction Capacitance at V <sub>R</sub> =0V, f=1.0MHz	C <sub>J</sub>	10						pF
Typical Thermal Resistance, Junction to Ambient (Note 1)	R <sub>θJA</sub>	833						°C/ W
Operating Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +125						°C
Circuit Figure	-	Single	Common Anode	Common Cathode	Series (Rev)	Series	-	

Note :

1. Mounted on minimum pad layout.

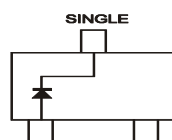


Fig.14(TOP VIEW)

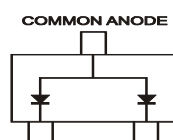


Fig.15(TOP VIEW)

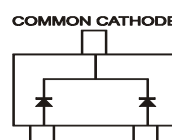


Fig.16(TOP VIEW)

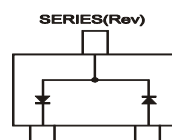


Fig.33(TOP VIEW)

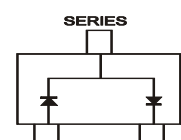
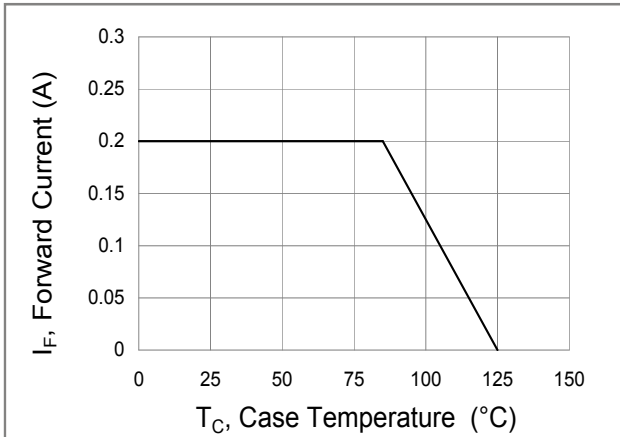


Fig.17(TOP VIEW)

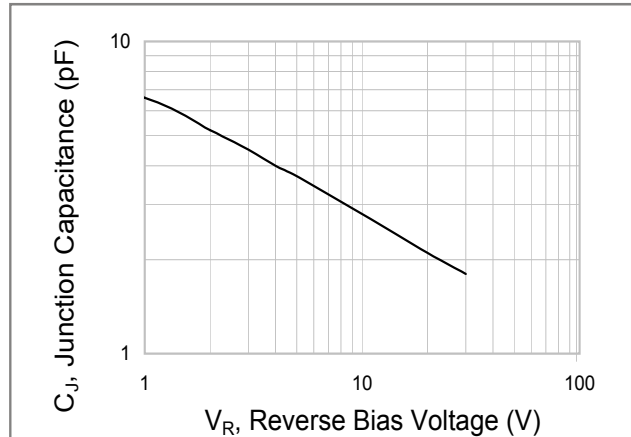


# BAT54TB/ATB/CTB/RTB/STB

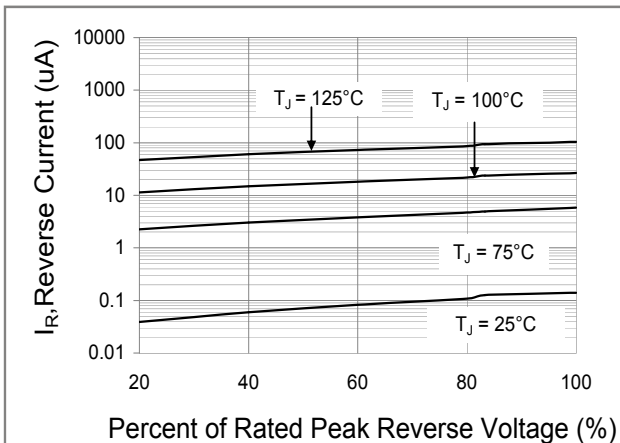
## RATING AND CHARACTERISTIC CURVES



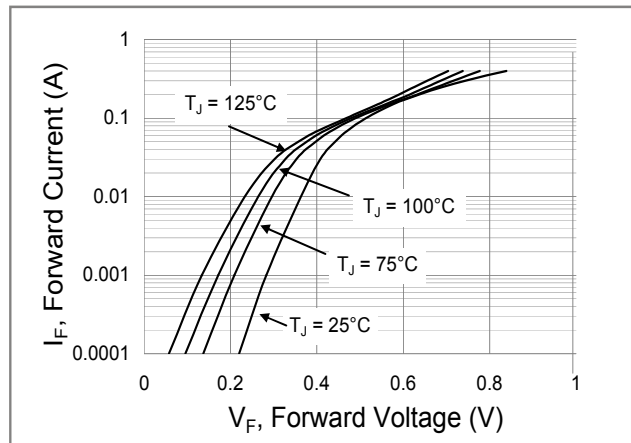
**Fig.1 Forward Current Derating Curve**



**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**

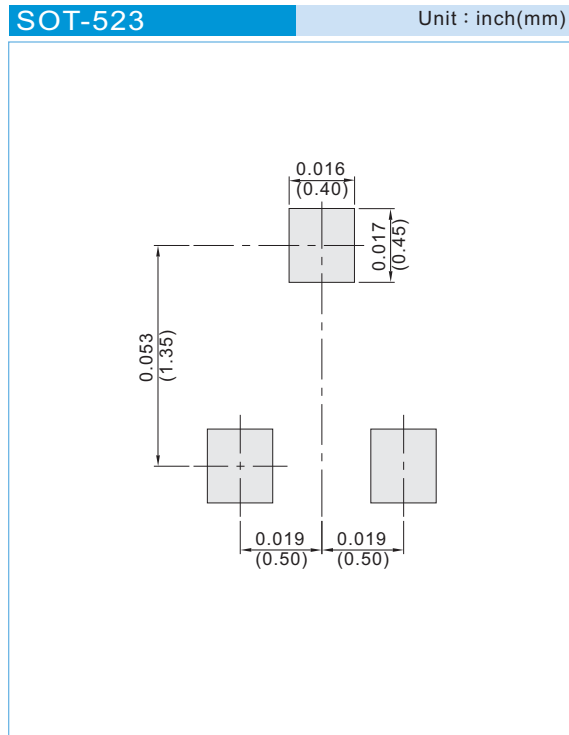


**Fig.4 Typical Forward Characteristics**



# BAT54TB/ATB/CTB/RTB/STB

## MOUNTING PAD LAYOUT



## ORDER INFORMATION

- Packing information

T/R - 4K per 7" plastic Reel



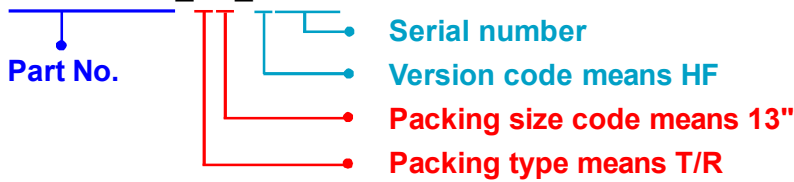
# BAT54TB/ATB/CTB/RTB/STB

Part No\_packing code\_Version

BAT54TB\_R1\_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>			



## BAT54TB/ATB/CTB/RTB/STB

---

### 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.