



# BAT54TB/ATB/CTB/RTB/STB

## SURFACE MOUNT SCHOTTKY BARRIER

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

**SOT-523**    Unit : inch(mm)

### FEATURES

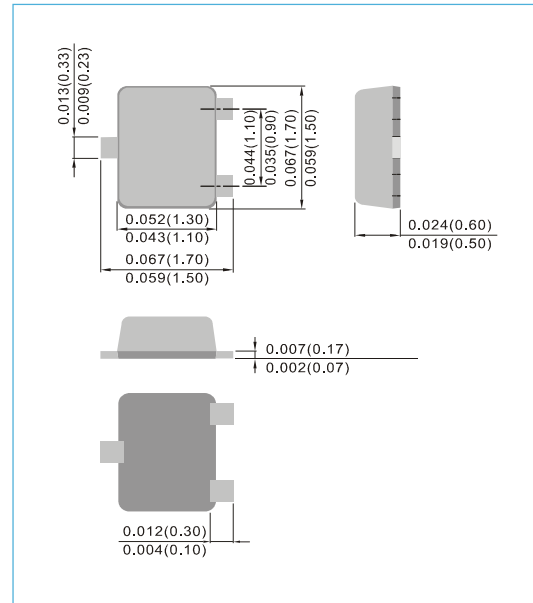
- Low turn-on voltage
- Fast switching
- PN Junction Guard Ring for Transient and ESD Protection.
- Lead free in comply with EU RoHS 2002/95/EC directives.
- Green molding compound as per IEC61249 Std. . (Halogen Free)

### 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.

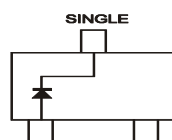


Fig.14(TOP VIEW)

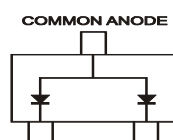


Fig.15(TOP VIEW)

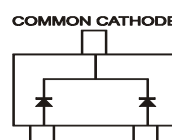


Fig.16(TOP VIEW)

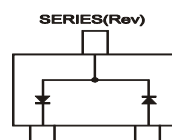


Fig.33(TOP VIEW)

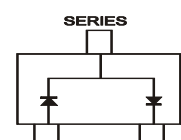
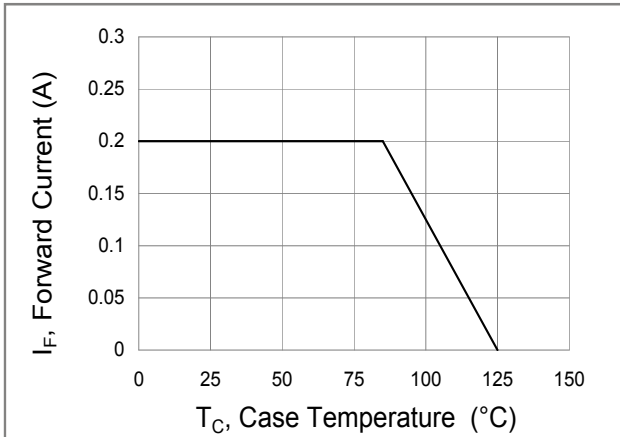


Fig.17(TOP VIEW)

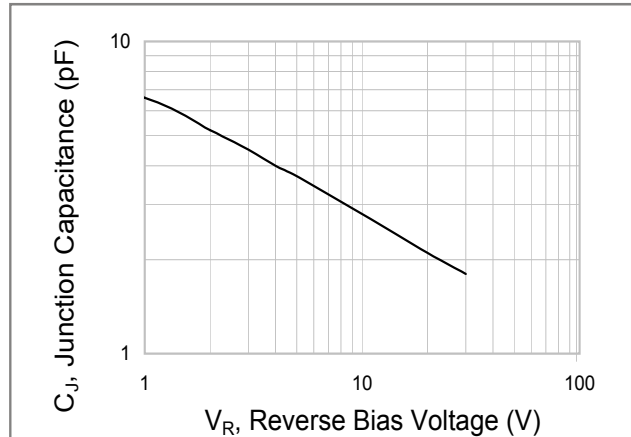


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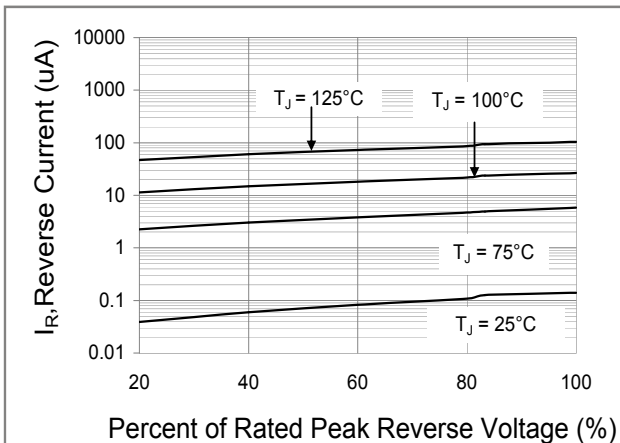
## RATING AND CHARACTERISTIC CURVES



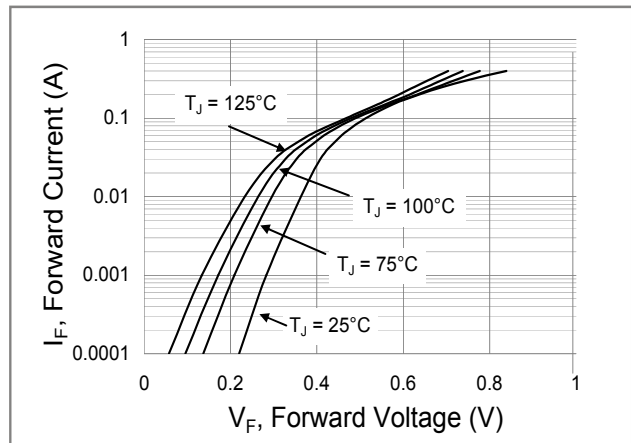
**Fig.1 Forward Current Derating Curve**



**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**

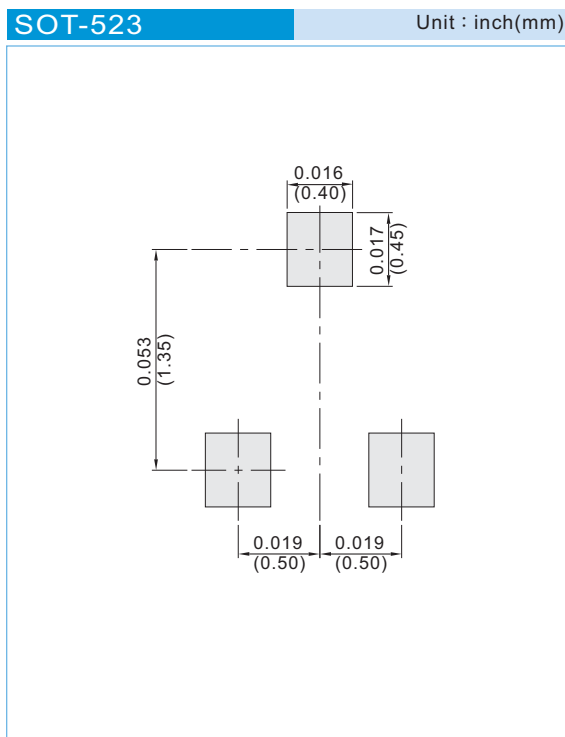


**Fig.4 Typical Forward Characteristics**



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## MOUNTING PAD LAYOUT



## ORDER INFORMATION

- Packing information

T/R - 4K per 7" plastic Reel

## LEGAL STATEMENT

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# BAT54TB/ATB/CTB/RTB/STB

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
T/B	<b>A</b>	N/A	<b>0</b>	<b>HF</b>	<b>0</b>	serial number
T/R	<b>R</b>	7"	<b>1</b>	<b>RoHS</b>	<b>1</b>	serial number
B/P	<b>B</b>	13"	<b>2</b>			
T/P	<b>T</b>	26mm	<b>X</b>			
TRR	<b>S</b>	52mm	<b>Y</b>			
TRL	<b>L</b>	PBCU	<b>U</b>			
FORMING	<b>F</b>	PBCD	<b>D</b>			

**Part No\_packing code\_Version**

BAT54TB\_R1\_00001

BAT54TB\_R2\_00001