



# BAT54 SERIES

## SURFACE MOUNT SCHOTTKY BARRIER

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

### FEATURES

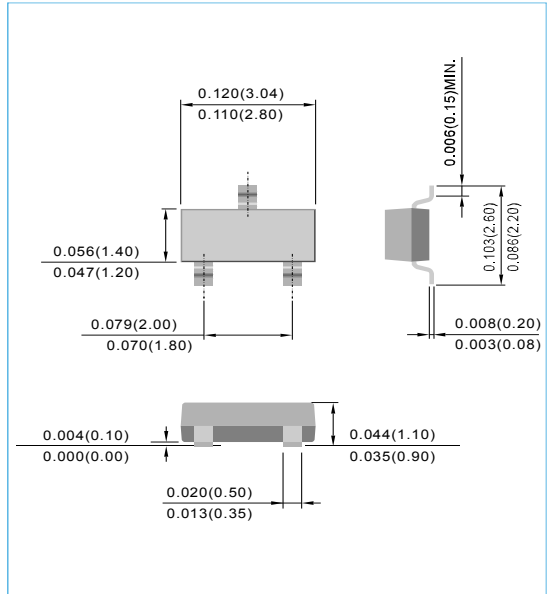
- Low turn-on voltage
- Fast switching
- PN Junction Guard Ring for Transient and ESD Protection.
- Lead free in comply with EU RoHS 2002/95/EC directives.
- Green molding compound as per IEC61249 Std. . (Halogen Free)

### MECHANICAL DATA

- Case: SOT-23, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0003 ounces, 0.0084 grams

**SOT-23**

Unit : inch(mm)



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

Parameter	Symbol	BAT54	BAT54A	BAT54C	BAT54S	Units
Marking code	-	L4	L42	L43	L44	-
Forward Power Dissipation@ $T_A=25^\circ\text{C}$	$P_D$	225				mW
Peak Repetitive Reverse Voltage	$V_{RRM}$	30				V
Maximum Average Forward Current at $T_A=75^\circ\text{C}$	$I_O$	0.2				A
Repetitive Peak Forward Current( $t_p=8.3\text{ms}, 50\%$ Duty Cycle)	$I_{FRM}$	300				mA
Peak Forward Surge Current, 1.0s (JEDEC method)	$I_{FSM}$	0.6				A
Maximum Instantaneous Forward Voltage @ $I_F=1\text{mA}$ @ $I_F=100\text{mA}$	$V_F$	0.32 0.8				V
Maximum DC Reverse Current at Rated DC Blocking Voltage@ $V_R=25\text{V}$	$I_R$	2.0				$\mu\text{A}$
Junction Capacitance at $V_R=1\text{V}$	$C_J$	10				pF
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	500				$^\circ\text{C}/\text{W}$
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 TO +125				$^\circ\text{C}$
Circuit Figure	-	Single	Common Anode	Common Cathode	Series	-

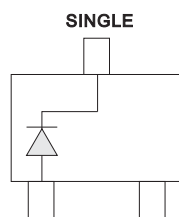


Fig.14

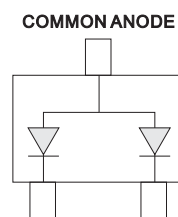


Fig.15

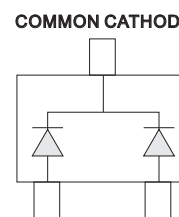


Fig.16

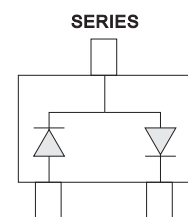


Fig.17



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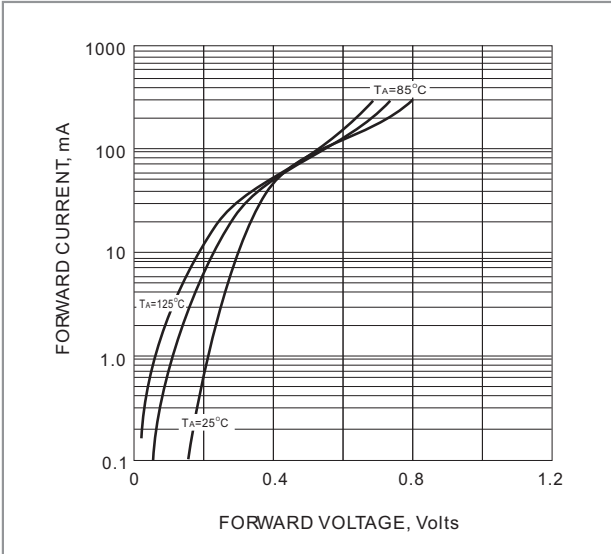


FIG. 1-TYPICAL FORWARD CHARACTERISTIC

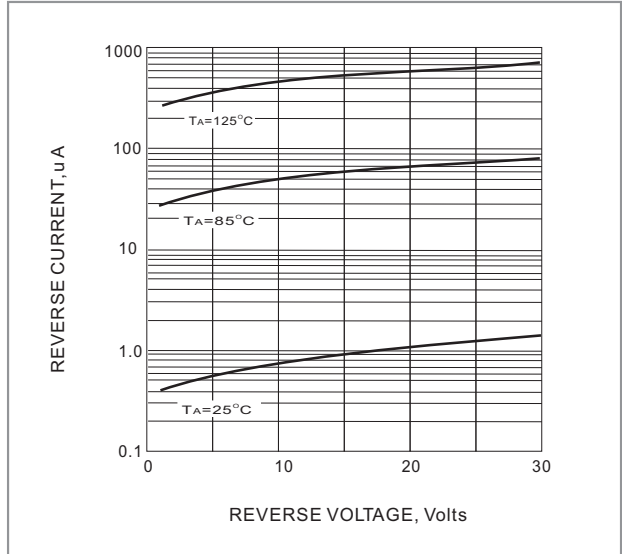


FIG. 2-TYPICAL REVERSE CHARACTERISTICS

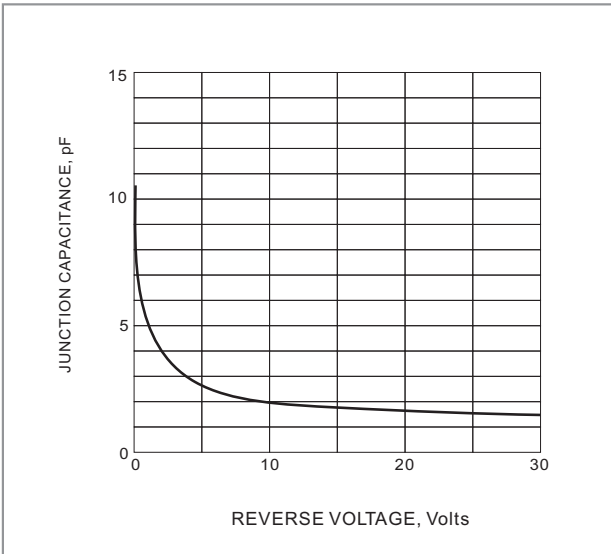


FIG. 3 TYPICAL JUNCTION CAPACITANCE

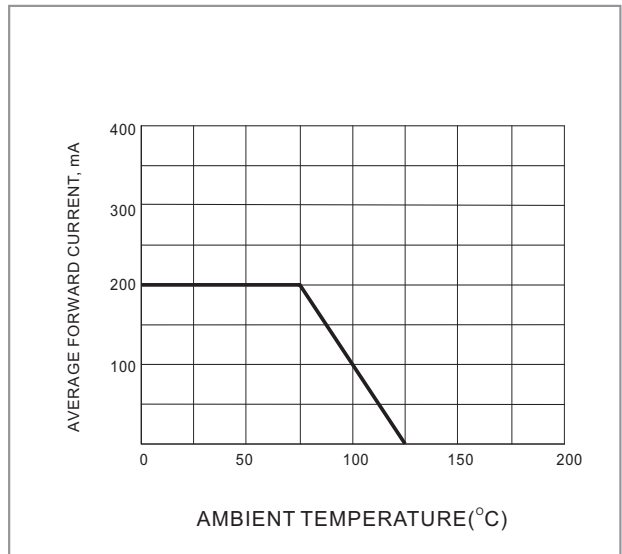
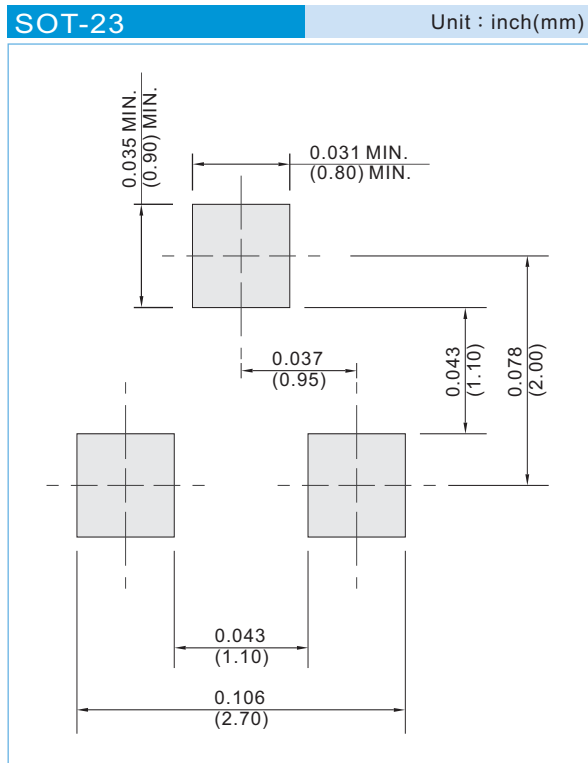


FIG. 4 FORWARD CURRENT DERATING



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## MOUNTING PAD LAYOUT



## ORDER INFORMATION

- Packing information
  - T/R - 12K per 13" plastic Reel
  - T/R - 3K per 7" plastic Reel



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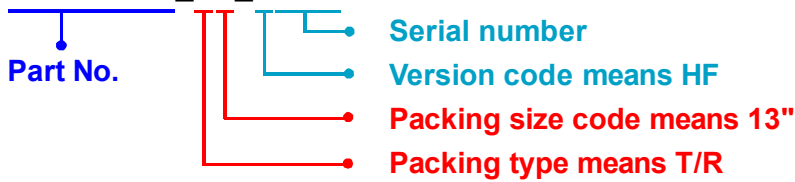
Part No\_packing code\_Version

BAT54\_R1\_00001

BAT54\_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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