



BAT54 SERIES

SURFACE MOUNT SCHOTTKY BARRIER

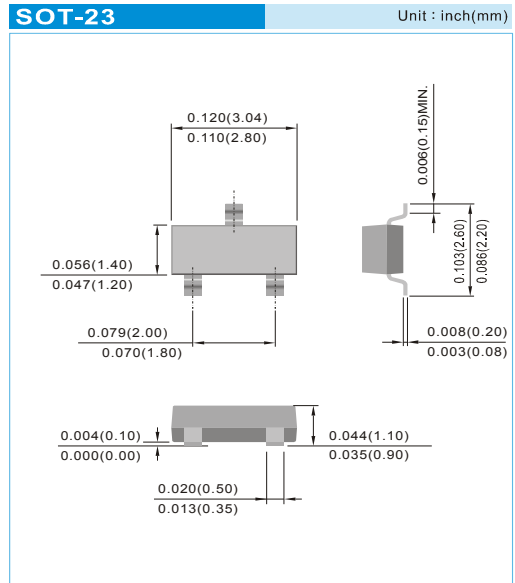
VOLTAGE 30 Volt **CURRENT** 0.2 Ampere

FEATURES

- Low turn-on voltage
- Fast switching
- PN Junction Guard Ring for Transient and ESD Protection.
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

MECHANICAL DATA

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



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
Forward Power Dissipation@T _A =25°C	P _D	225				mW
Peak Repetitive Reverse Voltage	V _{RRM}	30				V
Maximum Average Forward Current at T _A =75°C	I _O	0.2				A
Repetitive Peak Forward Current (tp=8.3ms,50%Duty Cycle)	I _{FRM}	300				mA
Peak Forward Surge Current, 1s	I _{FSM}	0.6				A
Maximum Instantaneous Forward Voltage @ I _F =1mA @ I _F =100mA	V _F	0.32 0.6				V
Typical Instantaneous Forward Voltage @ I _F =0.1mA	V _F	0.22				V
Maximum DC Reverse Current at Rated DC Blocking Voltage@V _R =25V	I _R	2				μA
Junction Capacitance at V _R =1V	C _J	10				pF
Thermal Resistance, Junction to Ambient	R _{θJA}	500				°C/ W
Operating Junction and Storage Temperature Range	T _J ¹ T _{STG}	-55 to +125				°C
Circuit Figure	-	Single	Common Anode	Common Cathode	Series	-

Note : 1. I_F=10mA through I_R=10mA to I_R=1mA, R_L=100Ω.

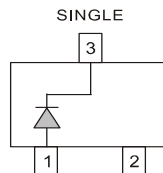


FIG.14(TOP VIEW)

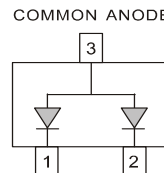


FIG.15(TOP VIEW)

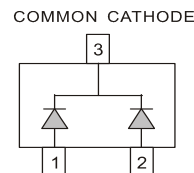


FIG.16(TOP VIEW)

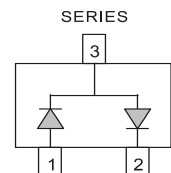


FIG.17(TOP VIEW)



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TYPICAL CHARACTERISTIC CURVES

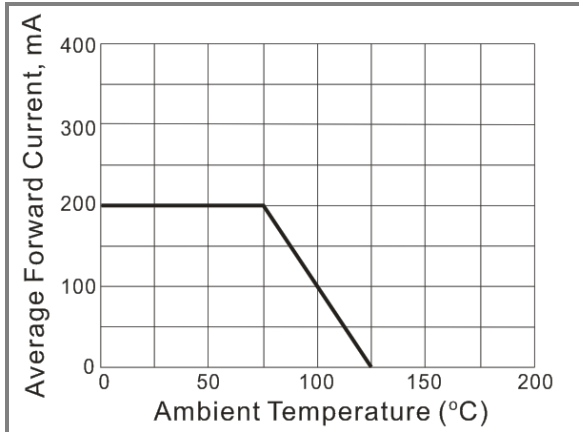


Fig.1 Forward Current Derating Curve

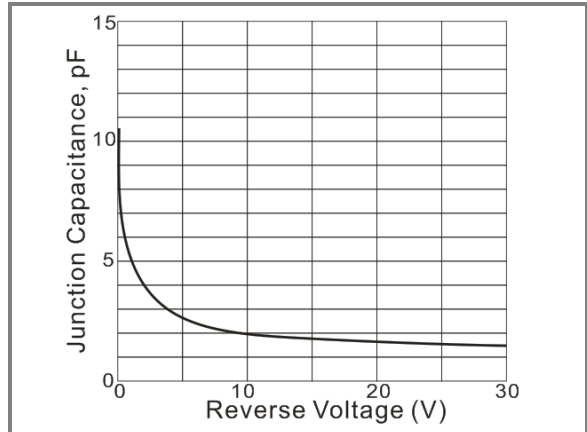


Fig.2 Typical Junction Capacitance

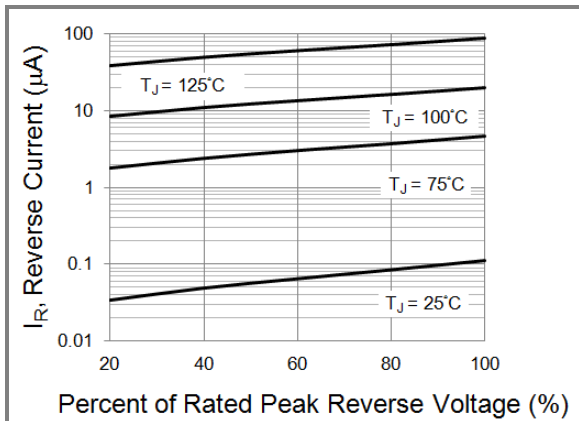


Fig.3 Typical Reverse Characteristics

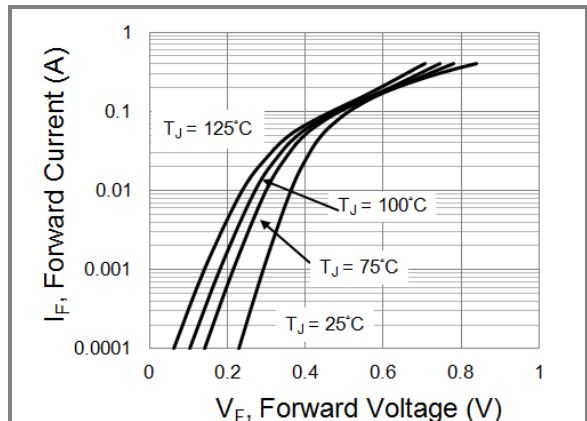


Fig.4 Typical Forward Characteristics

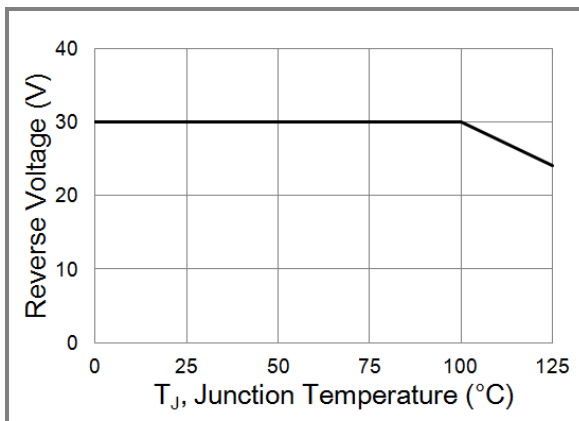


Fig.5 Operating Temperature Derating Curve

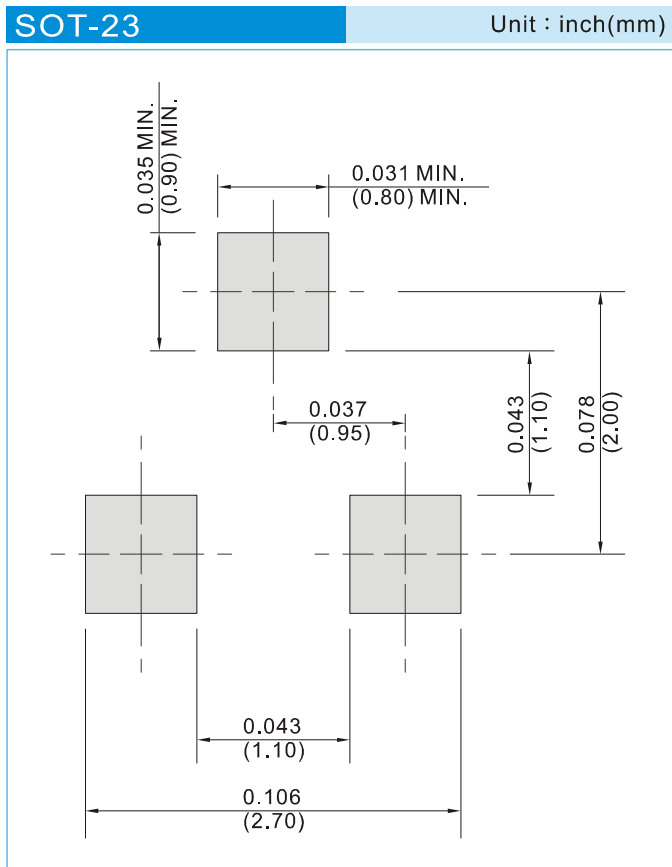


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PART NO PACKING CODE VERSION

Part No Packing Code	Package Type	Packing Type	Marking	Version
BAT54_R1_00001	SOT-23	3K pcs / 7" reel	L4	Halogen free
BAT54_R2_00001	SOT-23	12K pcs / 13" reel	L4	Halogen free
BAT54A_R1_00001	SOT-23	3K pcs / 7" reel	L42	Halogen free
BAT54A_R2_00001	SOT-23	12K pcs / 13" reel	L42	Halogen free
BAT54C_R1_00001	SOT-23	3K pcs / 7" reel	L43	Halogen free
BAT54C_R2_00001	SOT-23	12K pcs / 13" reel	L43	Halogen free
BAT54S_R1_00001	SOT-23	3K pcs / 7" reel	L44	Halogen free
BAT54S_R2_00001	SOT-23	12K pcs / 13" reel	L44	Halogen free

MOUNTING PAD LAYOUT





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