



BAT54 SERIES

SURFACE MOUNT SCHOTTKY BARRIER

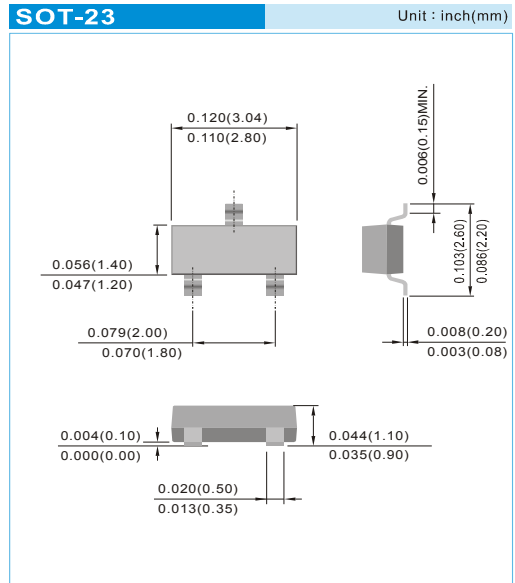
VOLTAGE 30 Volt **CURRENT** 0.2 Ampere

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.

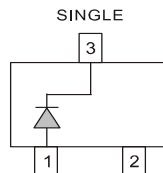


FIG.14(TOP VIEW)

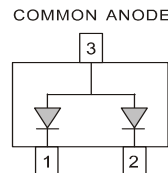


FIG.15(TOP VIEW)

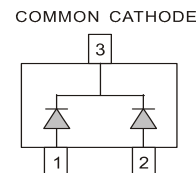


FIG.16(TOP VIEW)

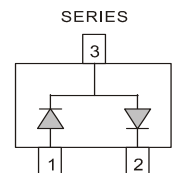


FIG.17(TOP VIEW)



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TYPICAL CHARACTERISTIC CURVES

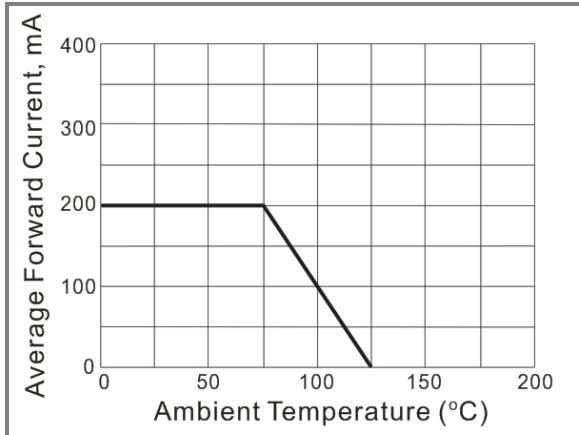


Fig.1 Forward Current Derating Curve

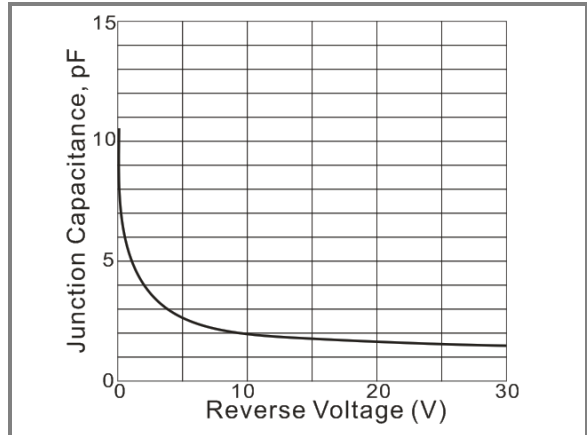


Fig.2 Typical Junction Capacitance

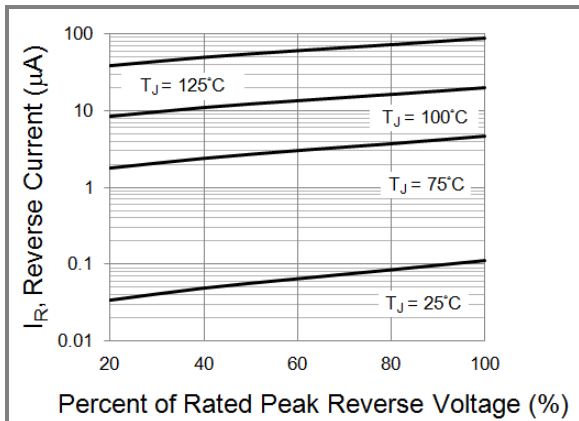


Fig.3 Typical Reverse Characteristics

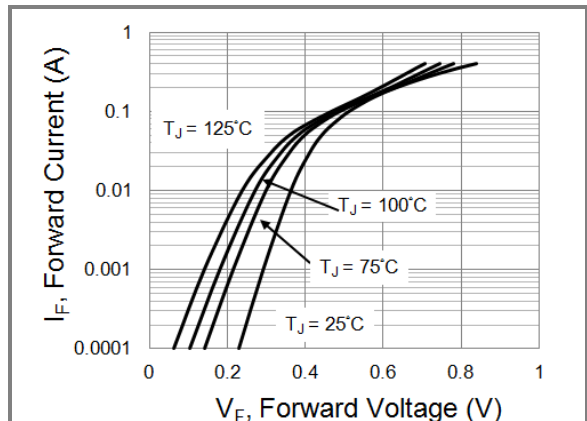


Fig.4 Typical Forward Characteristics

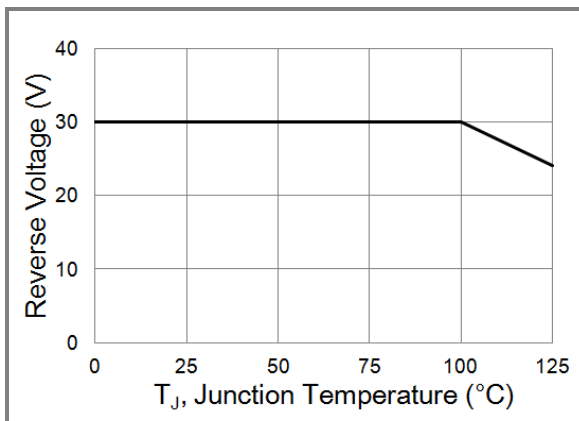


Fig.5 Operating Temperature Derating Curve

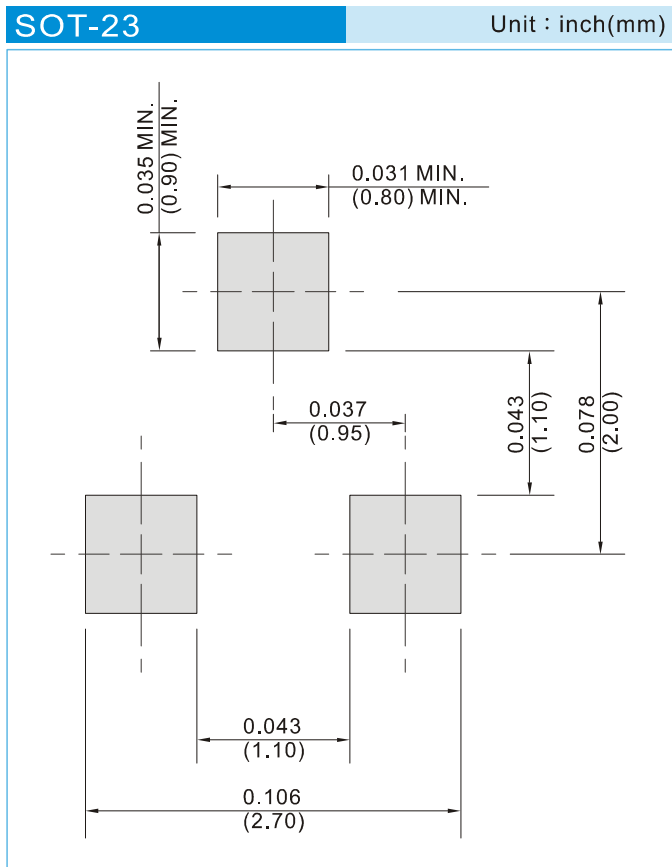


BAT54 SERIES

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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