

BAT54-AU SERIES

SURFACE MOUNT SCHOTTKY BARRIER

VOLTAGE 30 Volt **CURRENT** 0.2 Ampere

FEATURES

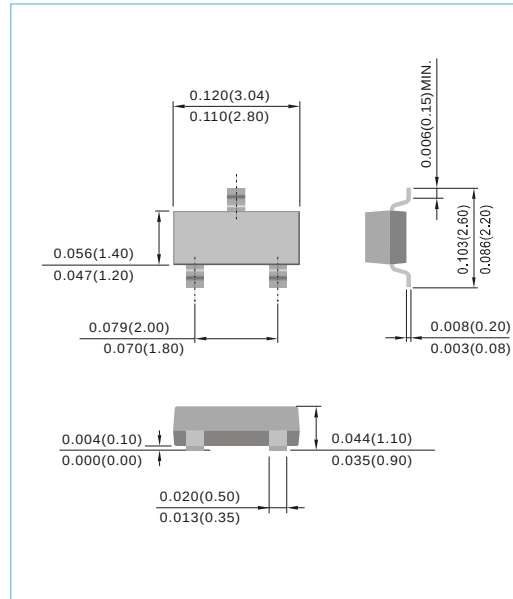
- Low turn-on voltage
- Fast switching
- PN Junction Guard Ring for Transient and ESD Protection.
- Acquire quality system certificate : TS16949
- AEC-Q101 qualified
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

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-AU	BAT54A-AU	BAT54C-AU	BAT54S-AU	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.

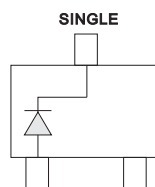


Fig.14

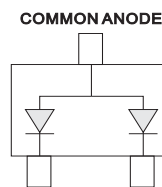


Fig.15

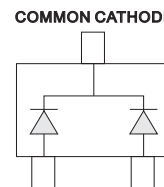


Fig.16

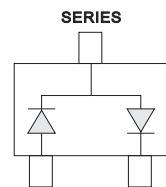


Fig.17

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TYPICAL CHARACTERISTIC CURVES

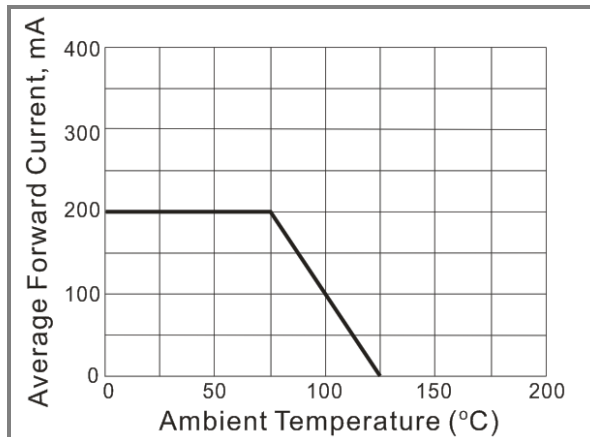


Fig.1 Forward Current Derating Curve

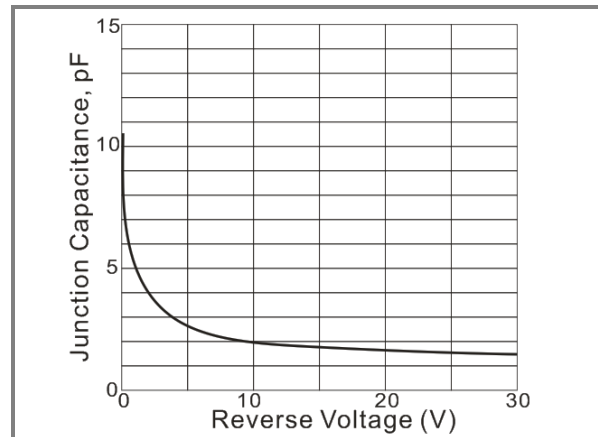


Fig.2 Typical Junction Capacitance

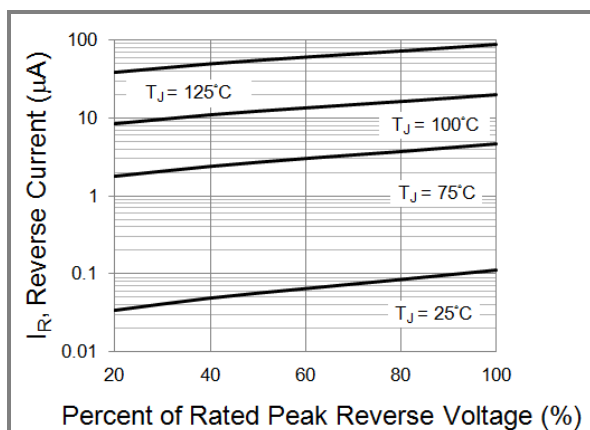


Fig.3 Typical Reverse Characteristics

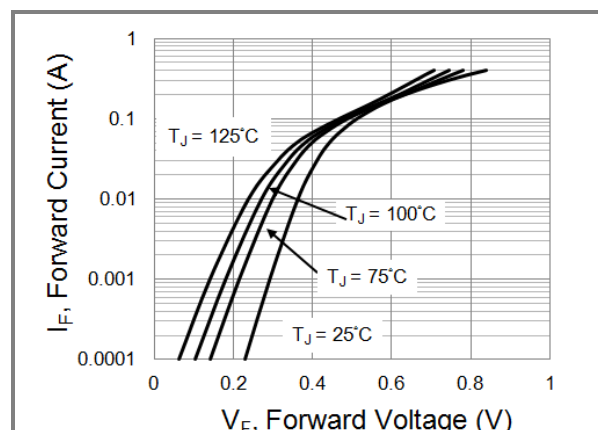


Fig.4 Typical Forward Characteristics

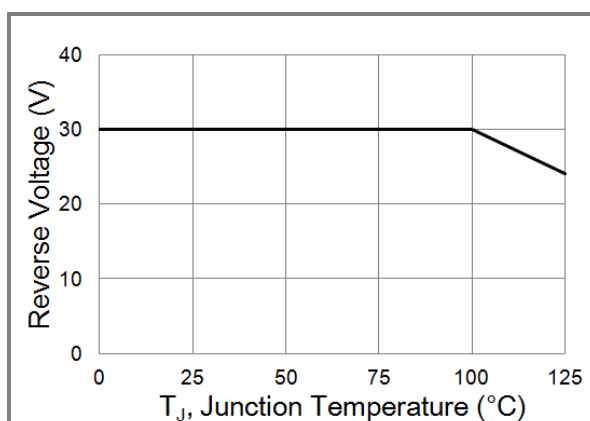


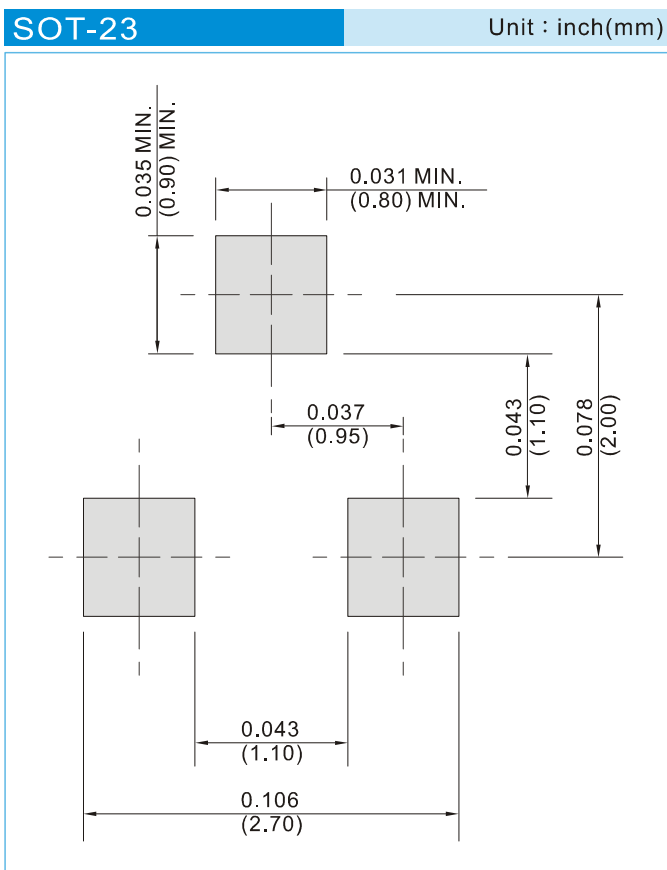
Fig.5 Operating Temperature Derating Curve

BAT54-AU SERIES

PART NO PACKING CODE VERSION

Part No Packing Code	Package Type	Packing Type	Marking	Version
BAT54-AU_R1_000A1	SOT-23	3K pcs / 7" reel	L4	Halogen free
BAT54-AU_R2_000A1	SOT-23	12K pcs / 13" reel	L4	Halogen free
BAT54A-AU_R1_000A1	SOT-23	3K pcs / 7" reel	L42	Halogen free
BAT54A-AU_R2_000A1	SOT-23	12K pcs / 13" reel	L42	Halogen free
BAT54C-AU_R1_000A1	SOT-23	3K pcs / 7" reel	L43	Halogen free
BAT54C-AU_R2_000A1	SOT-23	12K pcs / 13" reel	L43	Halogen free
BAT54S-AU_R1_000A1	SOT-23	3K pcs / 7" reel	L44	Halogen free
BAT54S-AU_R2_000A1	SOT-23	12K pcs / 13" reel	L44	Halogen free

MOUNTING PAD LAYOUT





BAT54-AU SERIES

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