



# BAT54-AU SERIES

## SURFACE MOUNT SCHOTTKY BARRIER

**VOLTAGE** 30 Volt **CURRENT** 0.2 Ampere

### FEATURES

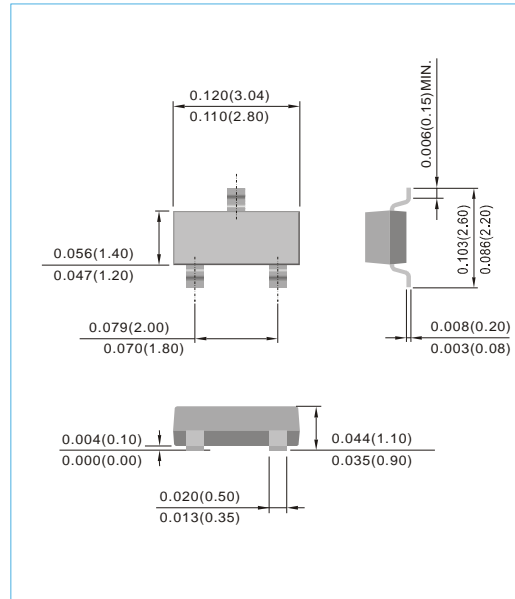
- Low turn-on voltage
- Fast switching
- PN Junction Guard Ring for Transient and ESD Protection.
- AEC-Q101 qualified
- Lead free in compliance with EU RoHS2.0 (2011/65/EU & 2015/865/EU directive)
- Green molding compound as per IEC61249 Std. . (Halogen Free)

### 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)

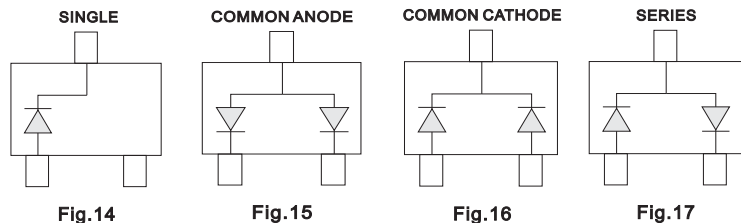


## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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@ $T_A=25^\circ\text{C}$	$P_D$	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 (tp=8.3ms,50%Duty Cycle)	$I_{FRM}$	300				mA
Peak Forward Surge Current, 1s	$I_{FSM}$	0.6				A
Maximum Instantaneous Forward Voltage @ $I_F=1\text{mA}$ @ $I_F=100\text{mA}$	$V_F$	0.32 0.6				V
Typical Instantaneous Forward Voltage @ $I_F=0.1\text{mA}$	$V_F$	0.22				V
Maximum DC Reverse Current at Rated DC Blocking Voltage@ $V_R=25\text{V}$	$I_R$	2				$\mu\text{A}$
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	-

Note : 1.  $I_F=10\text{mA}$  through  $I_R=10\text{mA}$  to  $I_R=1\text{mA}$ ,  $R_L=100\Omega$ .





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## TYPICAL CHARACTERISTIC CURVES

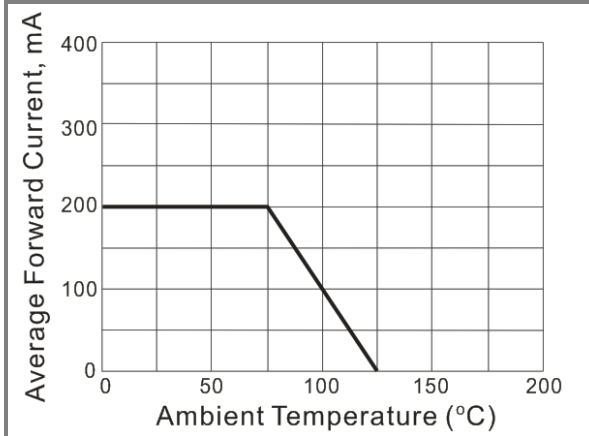


Fig.1 Forward Current Derating Curve

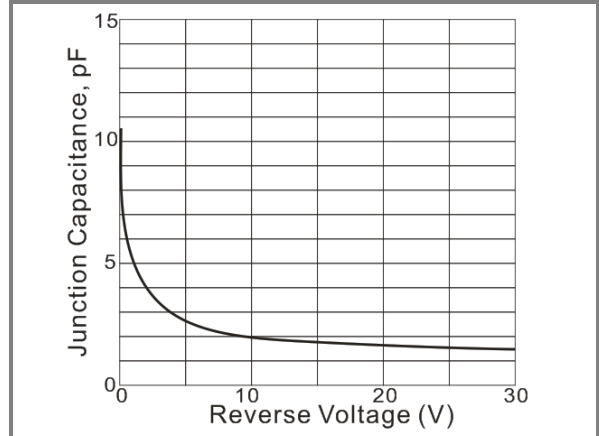


Fig.2 Typical Junction Capacitance

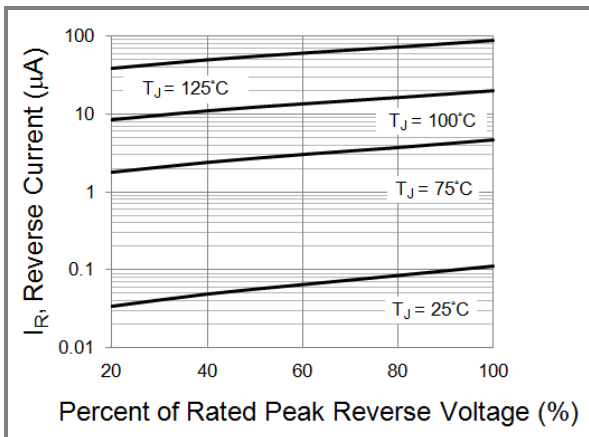


Fig.3 Typical Reverse Characteristics

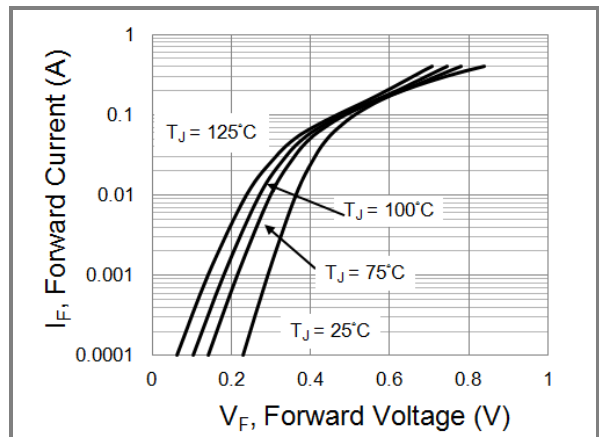


Fig.4 Typical Forward Characteristics

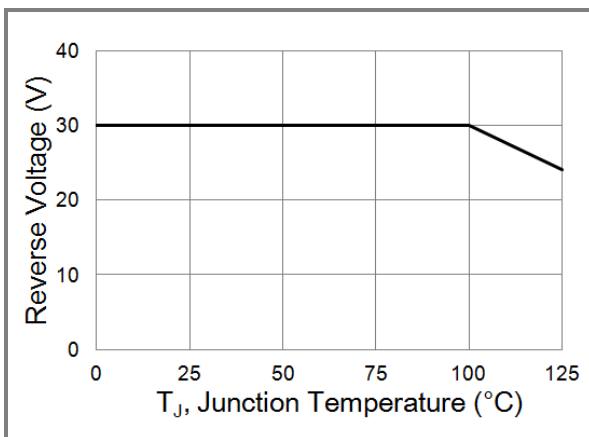


Fig.5 Operating Temperature Derating Curve

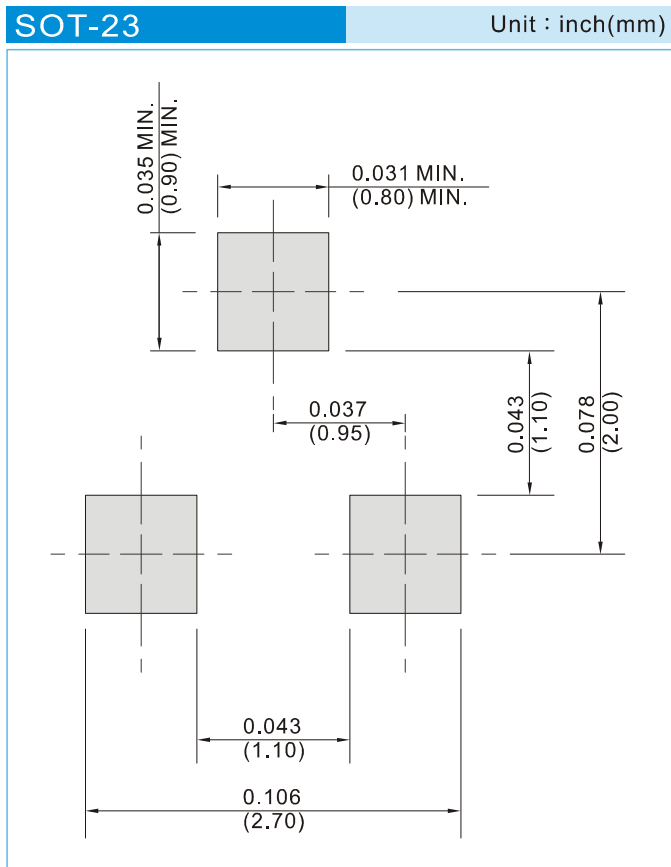


# BAT54-AU SERIES

## 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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