



## SURFACT MOUNT SCHOTTKY BARRIER

**VOLTAGE** 30 Volts

CURRENT 0.2 Ampers

**PACKAGE** 

**SOT-23** 

## **FEATURES**

- · Low turn-on voltage
- · Fast switching
- PN Junction Guard Ring for Transient and ESD Protection.

## **MECHANICAL DATA**

Case: SOT-23, Plastic

Terminals: Solderable per MIL-STD-202, Method 208

Approx. Weight: 0.008 gram Marking: L4, L42, L43, L44



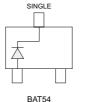
## **MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

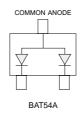
Ratings at 25°C ambient temperature unless otherwise specified.

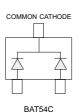
Single phase, half wave, 60 Hz, resistive or inductive load.

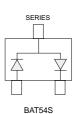
For capacitive load, derate current by 20%.

| Parameter   | Symbol       | BAT54                             | BAT54A | BAT54C | BAT54S | Units  |
|---|--------------|-----------------------------------|--------|--------|--------|--------|
| Peak Repetitive Reverse Voltage   | VRRM         | 30                                | 30     | 30     | 30     | V      |
| Maximum Average Forward Current at Ta=25°C  | lo           | 0.2                               | 0.2    | 0.2    | 0.2    | Α      |
| Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method) | <b>I</b> FSM | 0.6                               | 0.6    | 0.6    | 0.6    | Α      |
| Maximum Instantaneous Forward Voltage   | VF           | 0.32 @ IF=0.001A<br>1.0 @ IF=0.1A |        |        |        | ٧      |
| Maximum DC Reverse Current at Rated DC Blocking Voltage   | lR           | 0.002 @V <sub>R</sub> =25V        |        |        |        | mA     |
| Thermal Resistance, Junction to Ambient Air   | RθJA         | 635                               |        |        |        | °C / W |
| Operating Junction Temperature Range  | TJ           | -55 TO +125                       |        |        |        | °C     |
| Storage Temperature Range   | Тѕтс         | -55 TO +125                       |        |        |        | °C     |









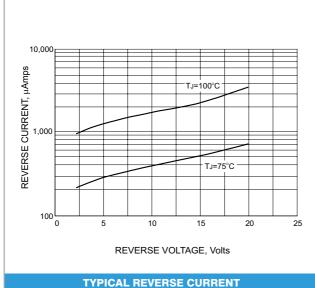
Part Number: BAT54, BAT54A, BAT54C, BAT54S

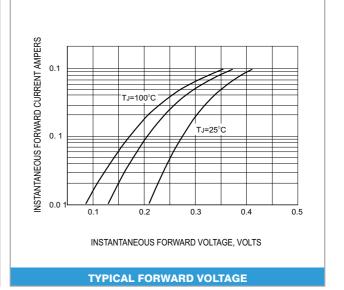
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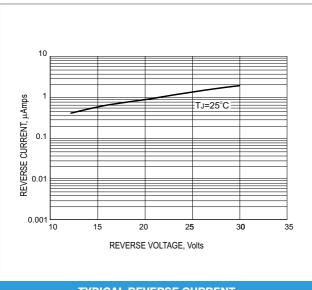


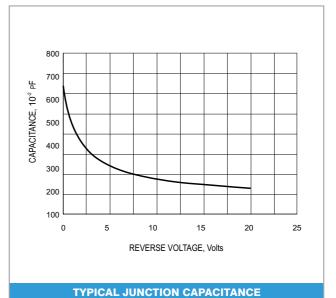
# RATING and CHARACTERISTIC CURVES



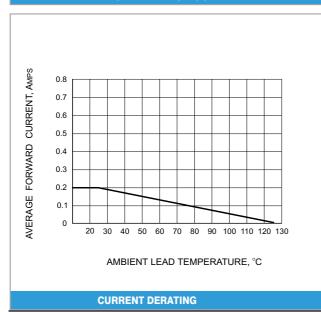








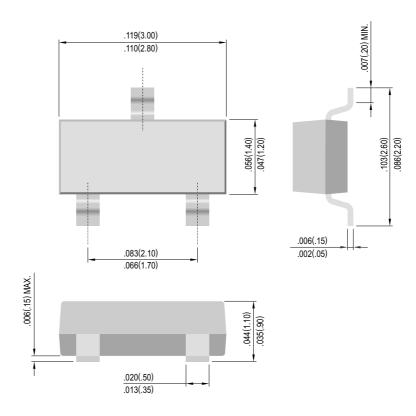
### **TYPICAL REVERSE CURRENT**



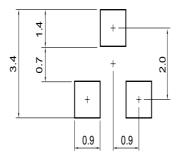




## SOT-23



## **Suggested Mounting Pad Layout**



Dimensions in (millimeters)

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Part Number: BAT54, BAT54A, BAT54C, BAT54S