

## 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.

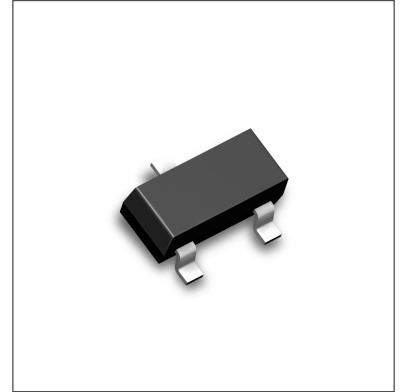
### MECHANICAL DATA

Case: SOT-23, Plastic

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

Approx. Weight: 0.008 gram

Marking: L4, L42, L43, L44



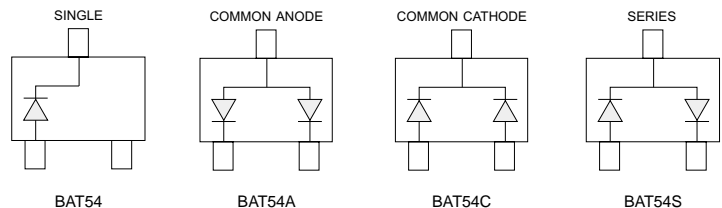
### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

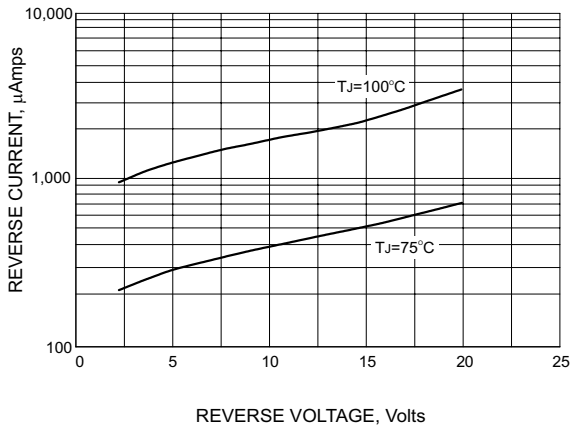
Ratings at 25°C ambient temperature unless otherwise specified.

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

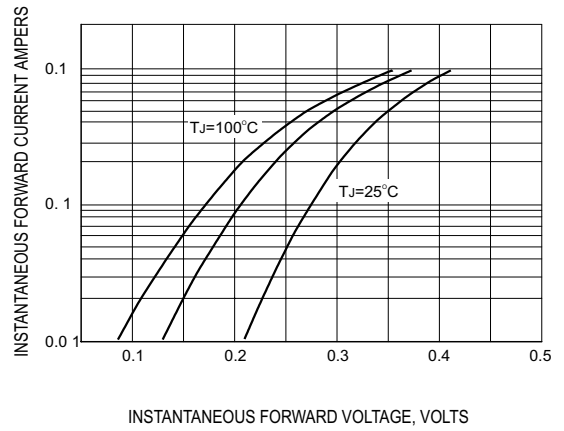
For capacitive load, derate current by 20%.

Parameter	Symbol	BAT54	BAT54A	BAT54C	BAT54S	Units
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	30	30	30	30	V
Maximum Average Forward Current at Ta=25°C	I <sub>O</sub>	0.2	0.2	0.2	0.2	A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	0.6	0.6	0.6	0.6	A
Maximum Instantaneous Forward Voltage	V <sub>F</sub>	0.32 @ I <sub>F</sub> =0.001A 1.0 @ I <sub>F</sub> =0.1A				V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	0.002 @ V <sub>R</sub> =25V				mA
Thermal Resistance, Junction to Ambient Air	R <sub>θJA</sub>	635				°C / W
Operating Junction Temperature Range	T <sub>J</sub>	-55 TO +125				°C
Storage Temperature Range	T <sub>STG</sub>	-55 TO +125				°C

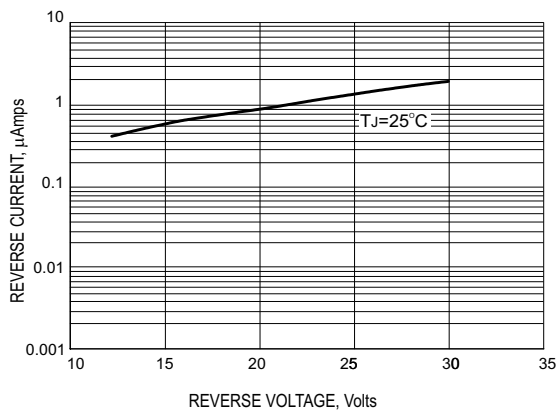




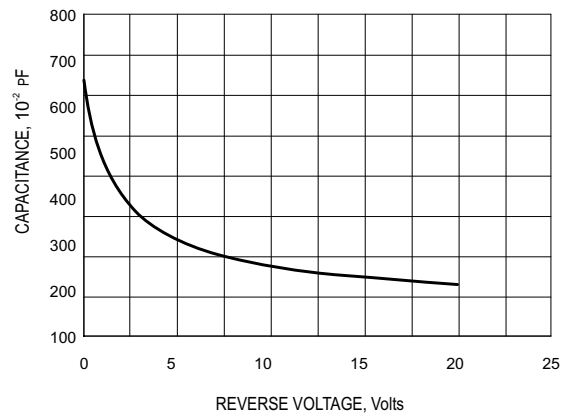
**TYPICAL REVERSE CURRENT**



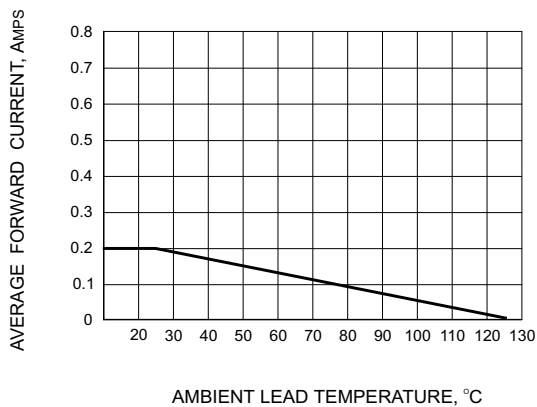
**TYPICAL FORWARD VOLTAGE**



**TYPICAL REVERSE CURRENT**

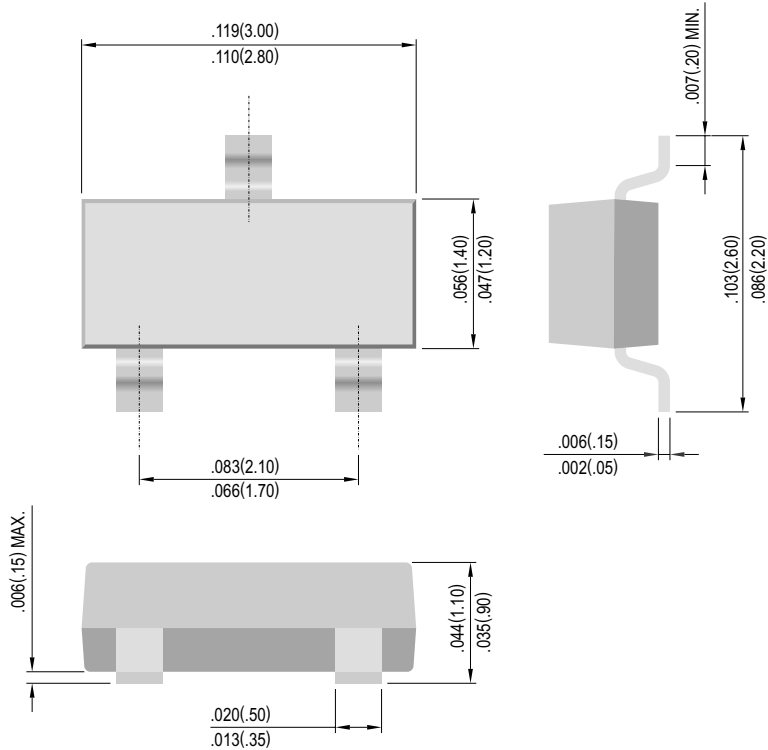


**TYPICAL JUNCTION CAPACITANCE**

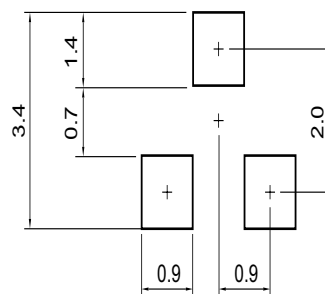


**CURRENT DERATING**

**SOT-23**



**Suggested Mounting Pad Layout**



Dimensions in (millimeters)

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