

## 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.

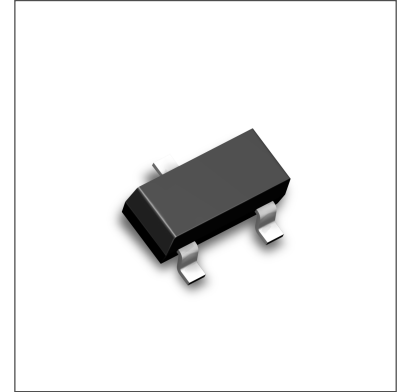
### MECHANICAL DATA

Case: SOT-23, Plastic

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

Approx. Weight: 0.008 gram

Marking: L4, L42, L43, L44



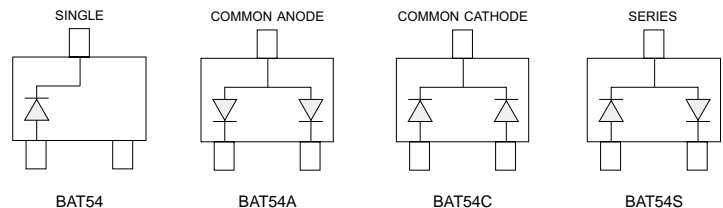
### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

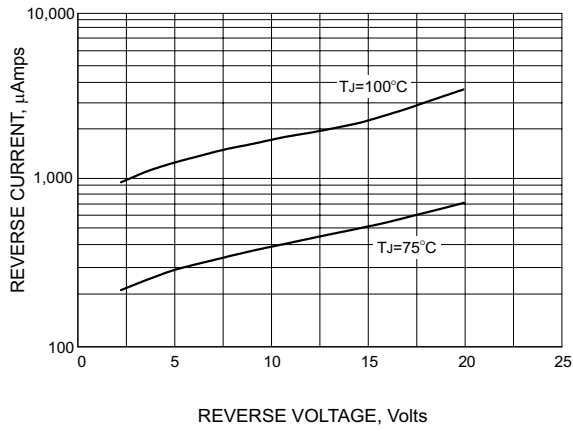
Ratings at 25°C ambient temperature unless otherwise specified.

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

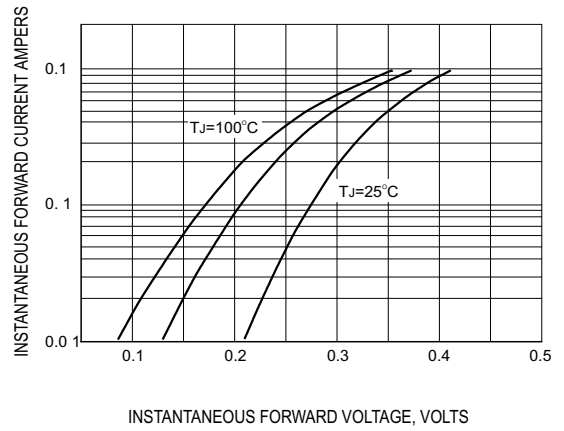
For capacitive load, derate current by 20%.

Parameter	Symbol	BAT54	BAT54A	BAT54C	BAT54S	Units
Peak Repetitive Reverse Voltage	$V_{RRM}$	30	30	30	30	V
Maximum Average Forward Current at $T_a=25^\circ\text{C}$	$I_o$	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)	$I_{FSM}$	0.6	0.6	0.6	0.6	A
Maximum Instantaneous Forward Voltage	$V_F$	0.32 @ $I_F=0.001\text{A}$ 1.0 @ $I_F=0.1\text{A}$				V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	0.002 @ $V_R=25\text{V}$				mA
Thermal Resistance, Junction to Ambient Air	$R_{\theta JA}$	635				$^\circ\text{C} / \text{W}$
Operating Junction Temperature Range	$T_J$	-55 TO +125				$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 TO +125				$^\circ\text{C}$

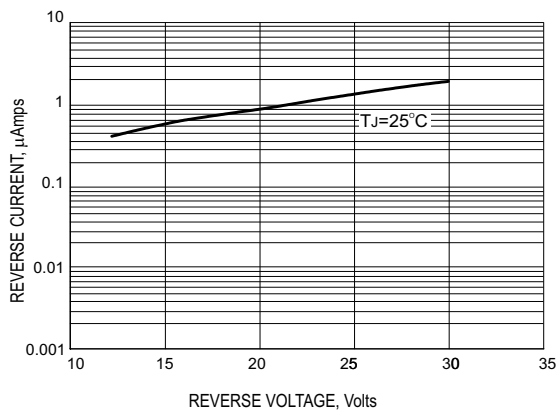




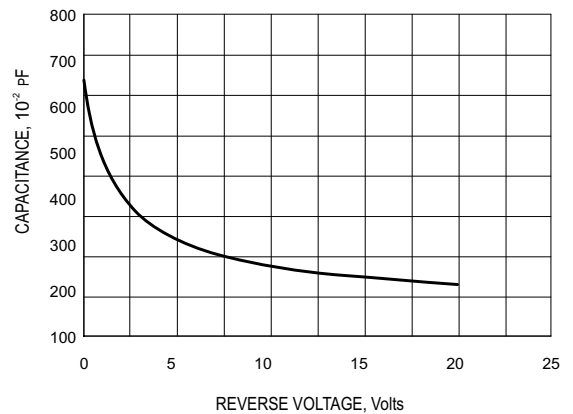
**TYPICAL REVERSE CURRENT**



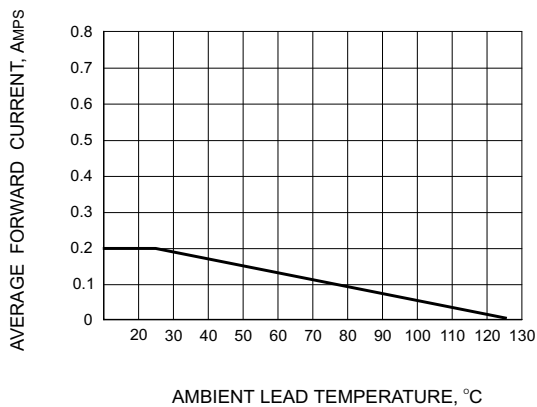
**TYPICAL FORWARD VOLTAGE**



**TYPICAL REVERSE CURRENT**

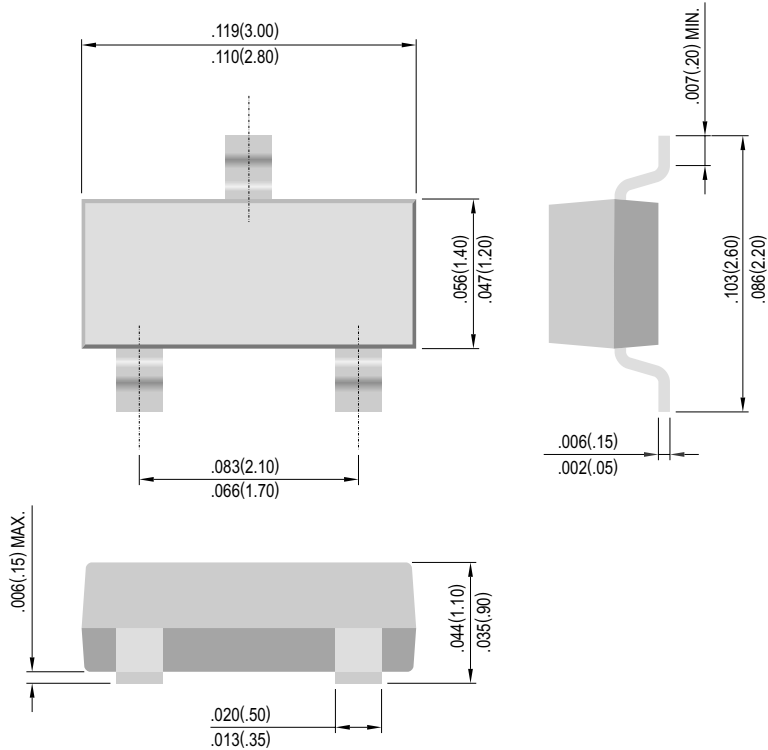


**TYPICAL JUNCTION CAPACITANCE**

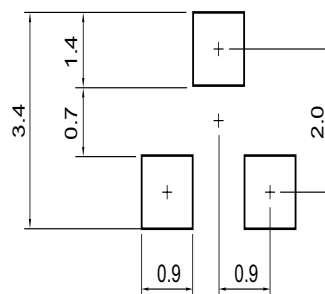


**CURRENT DERATING**

**SOT-23**



**Suggested Mounting Pad Layout**



Dimensions in (millimeters)

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