

SURFACT MOUNT SCHOTTKY BARRIER
VOLTAGE 30 Volts

CURRENT 0.2 Amperes

PACKAGE SOT-23

FEATURES

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

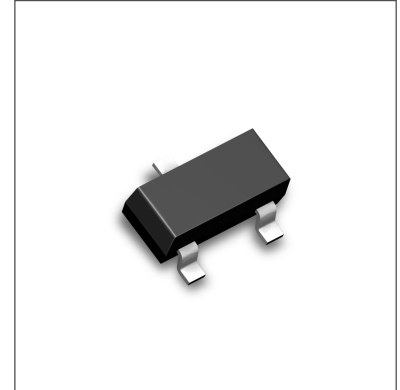
MECHANICAL DATA

Case: SOT-23, Plastic

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

Approx. Weight: 0.008 gram

Marking: L4, L42, L43, L44

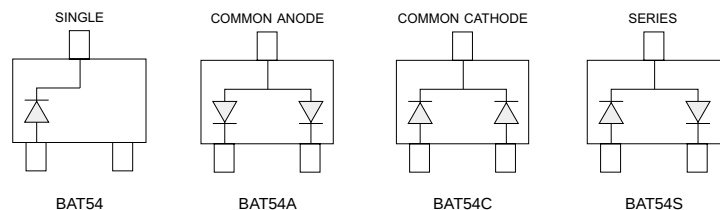

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

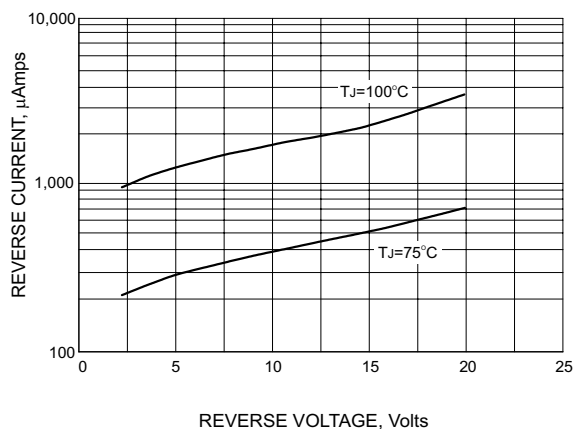
Ratings at 25°C ambient temperature unless otherwise specified.

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

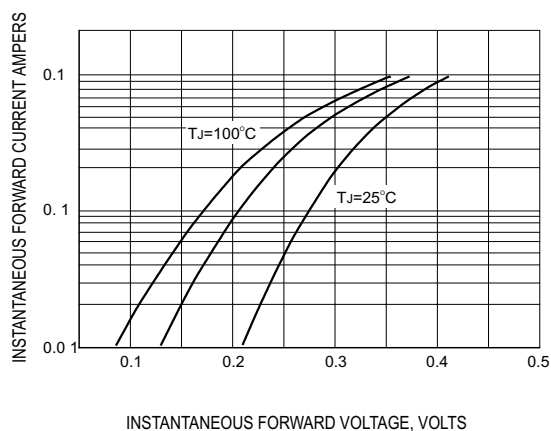
For capacitive load, derate current by 20%.

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				$^\circ\text{C}$

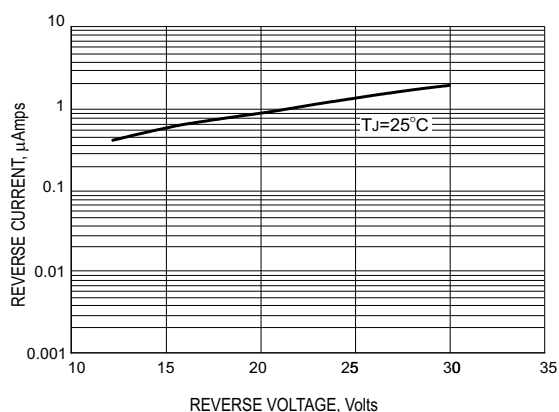




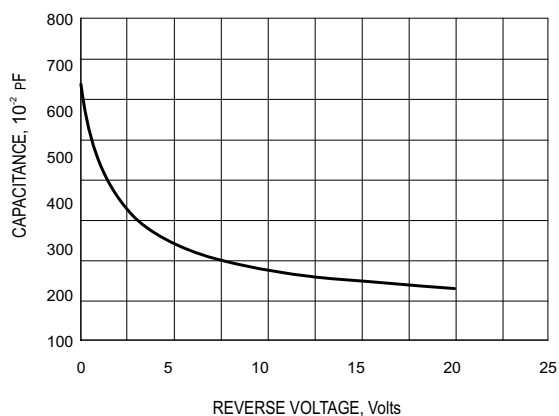
TYPICAL REVERSE CURRENT



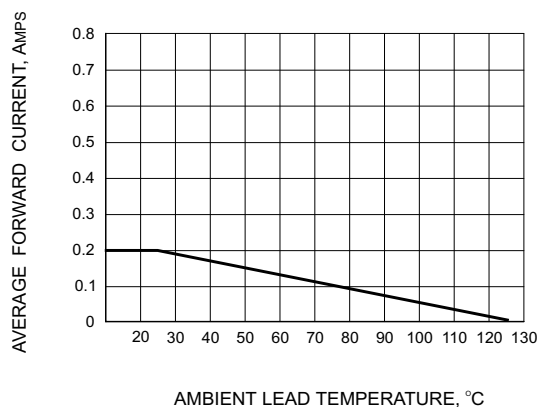
TYPICAL FORWARD VOLTAGE



TYPICAL REVERSE CURRENT

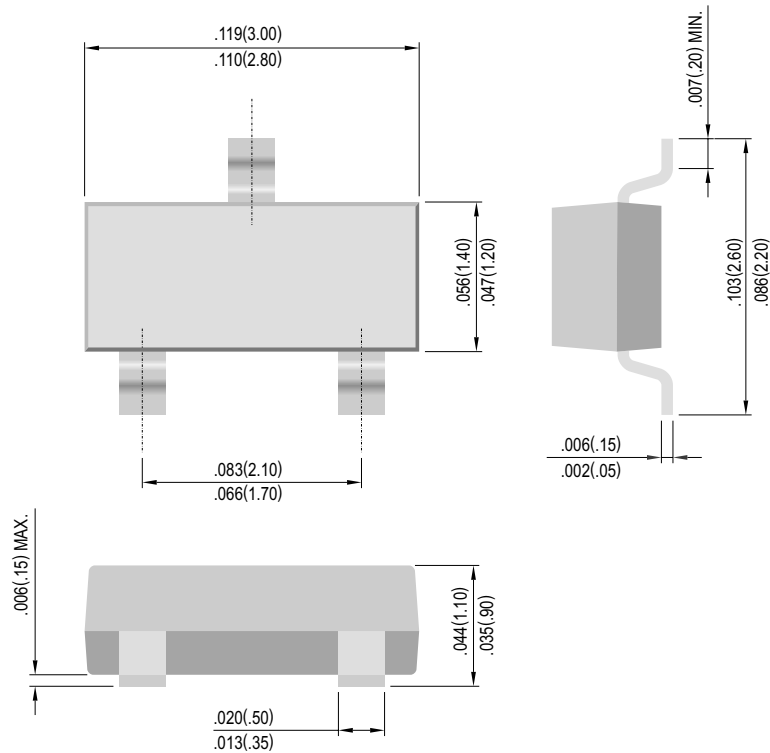


TYPICAL JUNCTION CAPACITANCE

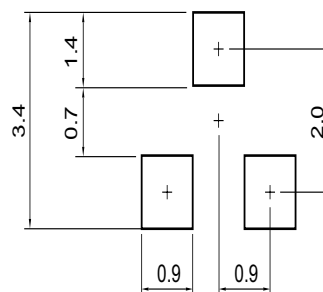


CURRENT DERATING

SOT-23



Suggested Mounting Pad Layout



Dimensions in (millimeters)

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