



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

BAT54
BAT54A
BAT54C
BAT54S

TECHNICAL SPECIFICATIONS OF SMALL SIGNAL SCHOTTKY BARRIER DIODES
VOLTAGE - 30 Volts
CURRENT - 0.2 Amperes

FEATURES

- * For general purpose applications
- * Low turn-on voltage.
- * Fast switching time.
- * Protected by a PN junction guard ring against excessive voltage, such as electrostatic discharge(ESD).

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: Solder plated, solderable per MIL-STD-202E, Method 208 guaranteed
- * Mounting position: Any
- * Weight: 0.008 grams Approx.

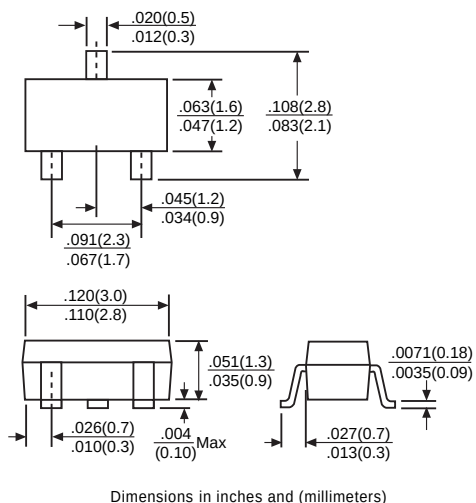
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

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

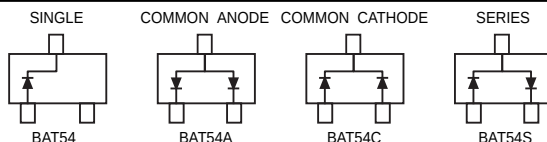
For capacitive load, derate current by 20%.

SOT-23



	SYMBOL	BAT54	BAT54A	BAT54C	BAT54S	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	30				Volts
Maximum RMS Voltage	V _{RMS}	21				Volts
Maximum DC Blocking Voltage	V _{DC}	30				Volts
Maximum Average Forward Rectified Current at TA=75°C	I _O	0.2				Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	0.6				Amps
Maximum Instantaneous Forward Voltage	V _F	1.0 @ I _F =0.1A				Volts
		0.32 @ I _F =0.001A				
Maximum DC Reverse Current at TA=25°C, VR=25V	I _R	2.0				μAmps
Typical Thermal Resistance (Note1)	R θJA	635				°C/W
Typical Junction Capacitance (Note 2)	C _J	10				pF
Storage Operating Temperature Range	T _J , T _{STG}	-55 to + 125				°C

NOTES : 1. Terminals maintained at specified ambient temperature.
2. Measured at 1 MHz and applied reverse voltage of 1.0 volts.



Pin Configuration (Top View)

RATING AND CHARACTERISTIC CURVES (BAT54, BAT54A, BAT54C, BAT54S)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

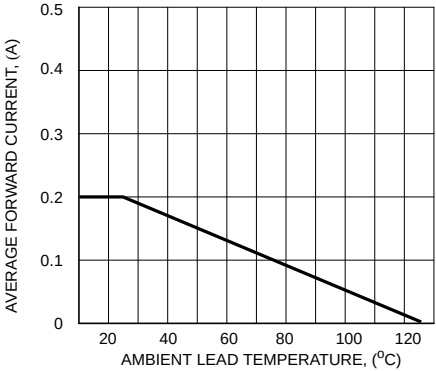


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

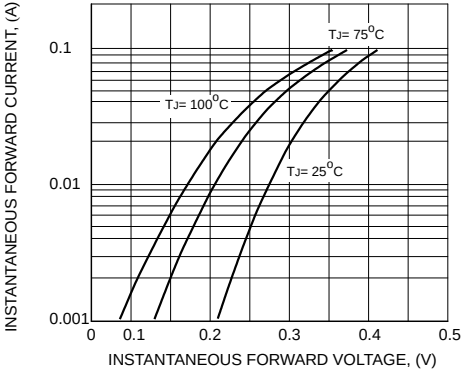


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

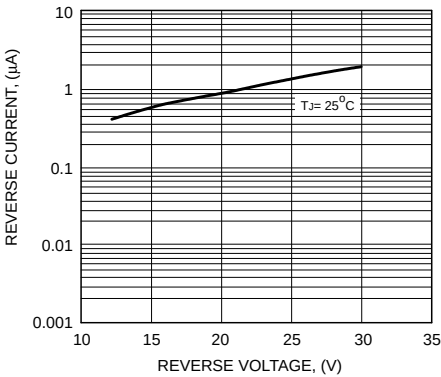


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

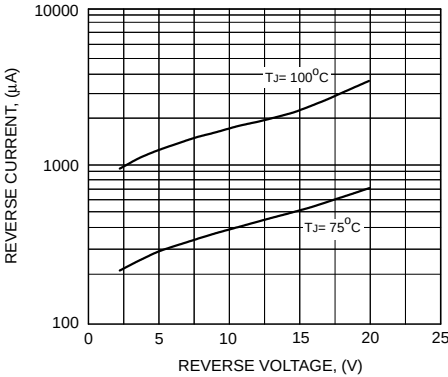


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

