



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

BAT54
BAT54A
BAT54C
BAT54S

TECHNICAL SPECIFICATIONS OF SURFACE MOUNT SCHOTTKY BARRIER DIODES
VOLTAGE - 30 Volts CURRENT - 0.2 Ampere

FEATURES

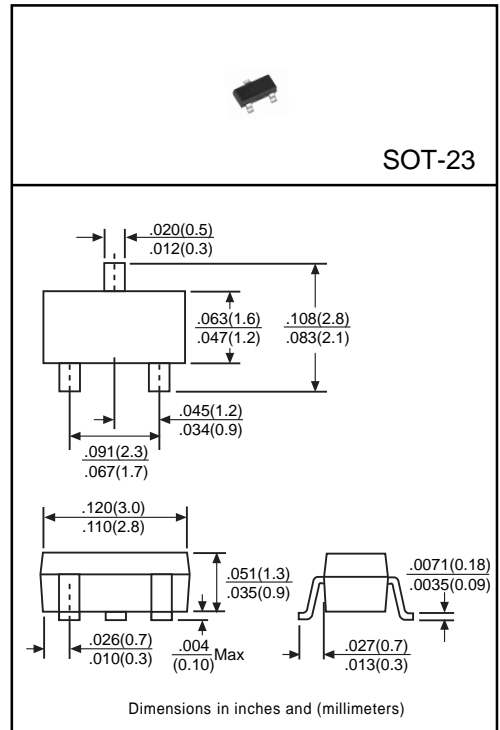
- * For general purpose applications
- * Low turn-on voltage.
- * Fast switching time.
- * Protected by a PN junction guard ring against excessive voltage, such as electrostatic discharge(ESD).

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

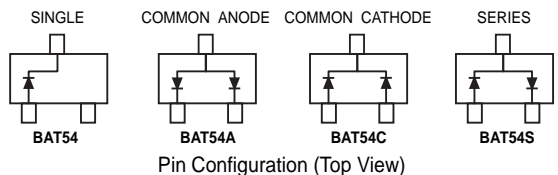
Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.



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 T _A =75°C	I _O			0.2		Amps
Peak Forward Surge Current at t=1S	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 @ V _R =25V	I _R		2.0			μAmps
Typical Thermal Resistance (Note 1)	R _{θJA}		500			°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.



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

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

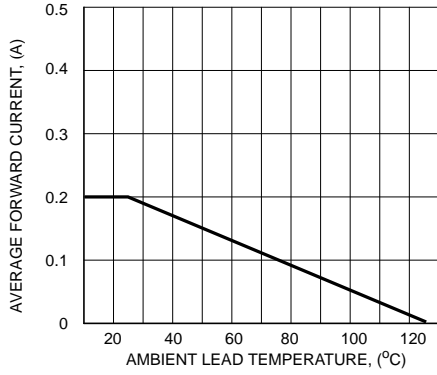


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

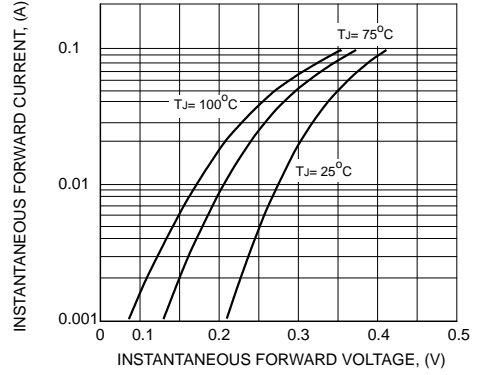


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

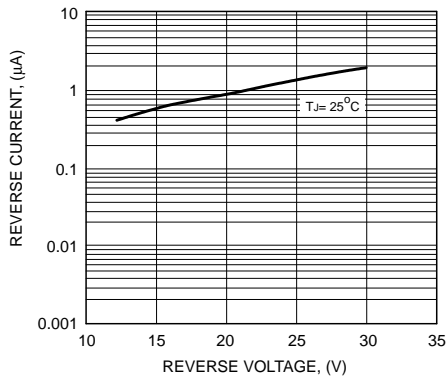


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

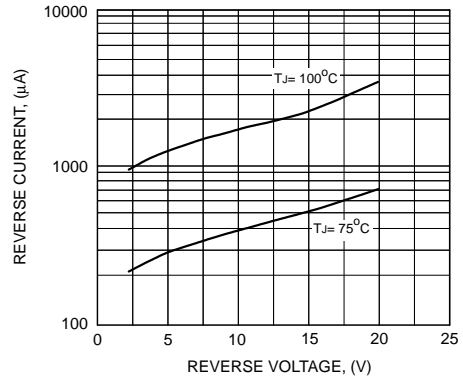
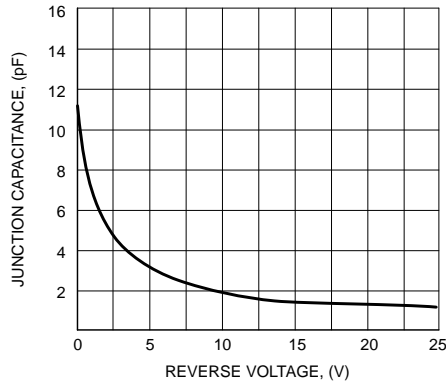


FIG. 5 - TYPICAL JUNCTION CAPACITANCE



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