DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

BAT54W
BAT54AW
BAT54CW
BAT54SW

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

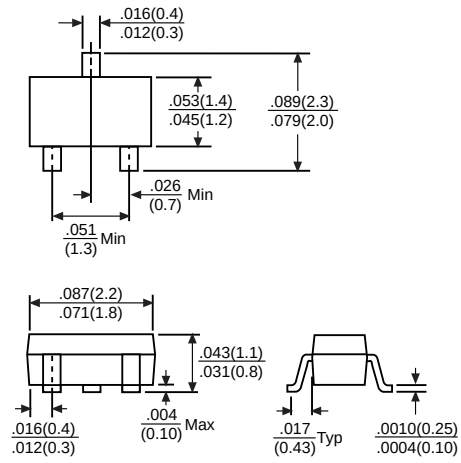
* Case: Molded plastic
* Epoxy: UL 94V-0 rate flame retardant
* Terminals: Solder plated, solderable per MIL-STD-202E, Method 208 guaranteed
* Mounting position: Any
* Weight: 0.008 grams Approx.

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%.



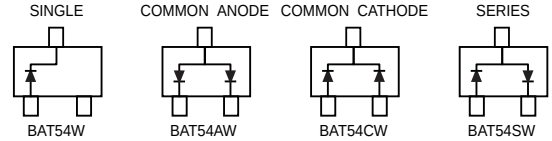
SOT-323



Dimensions in inches and (millimeters)

	SYMBOL	BAT54W	BAT54AW	BAT54CW	BAT54SW	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 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 T_A=25°C, V_R=25V	I_R	2.0				µAmps
Typical Thermal Resistance (Note1)	$R_{\theta JA}$	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)

Diode, Bridge Rectifiers INDEX ①
Diode, Bridge Rectifiers INDEX ②
Transistors, SCR, IC INDEX ①
Transistors, SCR, IC INDEX ②
EXIT

RATING AND CHARACTERISTIC CURVES (BAT54W, BAT54AW, BAT54CW, BAT54SW)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

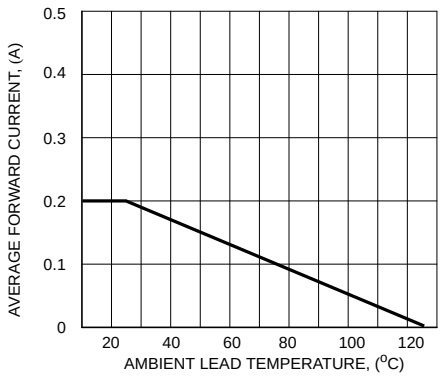


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

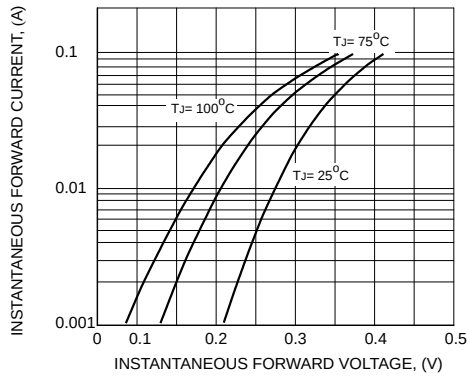


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

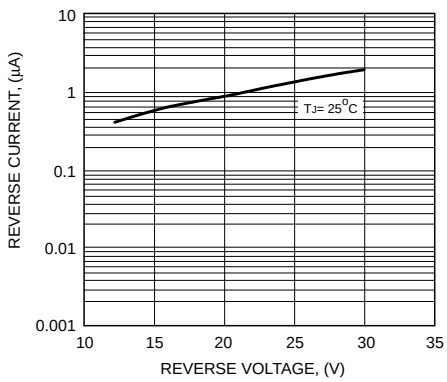


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

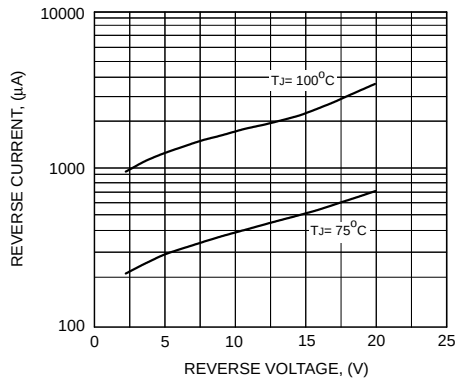


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

