



# 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

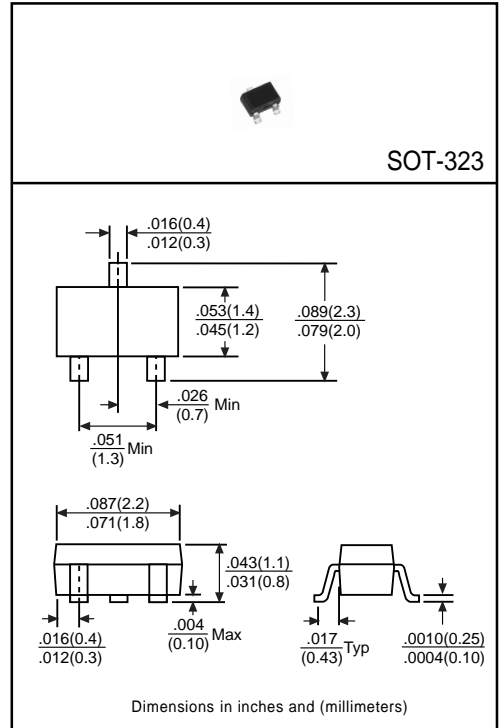
- \* For general purpose applications
- \* Low turn-on voltage.
- \* Fast switching time.
- \* Protected by a PN junction guard ring against excessive voltage, such as electrostatic discharge(ESD).

#### 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.

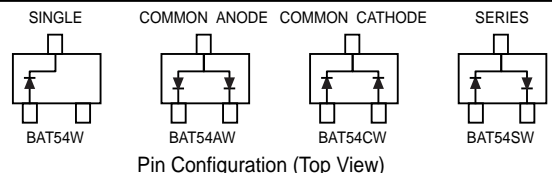
#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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%.



	SYMBOL	BAT54W	BAT54AW	BAT54CW	BAT54SW	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>			30		Volts
Maximum RMS Voltage	V <sub>RMS</sub>			21		Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>			30		Volts
Maximum Average Forward Rectified Current at T <sub>A</sub> =75°C	I <sub>O</sub>			0.2		Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>			0.6		Amps
Maximum Instantaneous Forward Voltage	V <sub>F</sub>	1.0 @ I <sub>F</sub> =0.1A				Volts
		0.32 @ I <sub>F</sub> =0.001A				
Maximum DC Reverse Current at T <sub>A</sub> =25°C, V <sub>R</sub> =25V	I <sub>R</sub>			2.0		μAmps
Typical Thermal Resistance (Note1)	R <sub>θJA</sub>			635		°C/W
Typical Junction Capacitance (Note 2)	C <sub>J</sub>			10		pF
Storage Operating Temperature Range	T <sub>J</sub> , T <sub>STG</sub>			-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 (BAT54W, BAT54AW, BAT54CW, BAT54SW)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

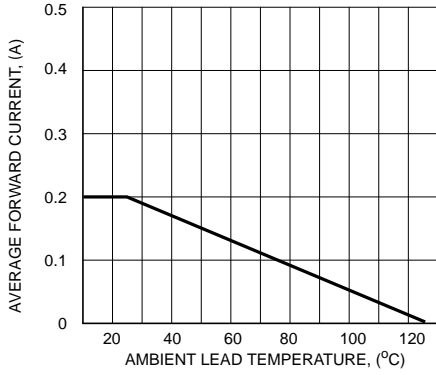


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

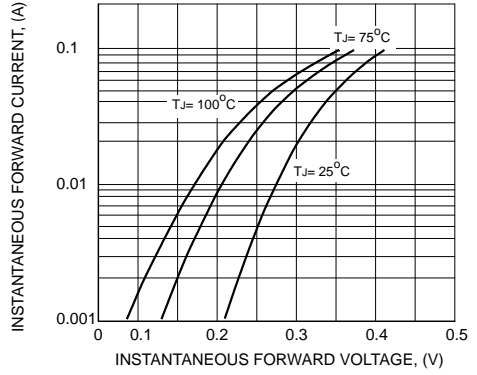


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

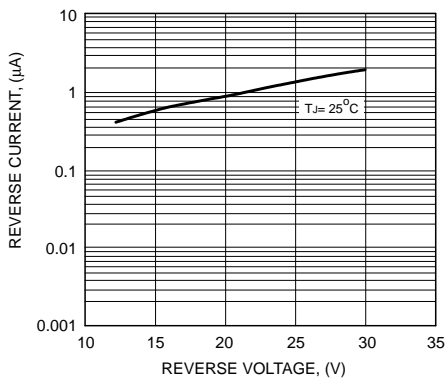


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

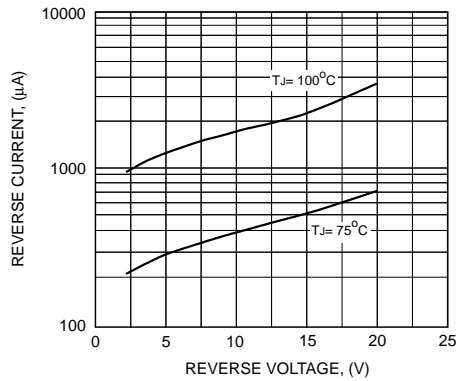


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

