



*DC COMPONENTS CO., LTD.*

RECTIFIER SPECIALISTS

BAT54  
BAT54A  
BAT54C  
BAT54S

**TECHNICAL SPECIFICATIONS OF SCHOTTKY BARRIER RECTIFIER**

**VOLTAGE RANGE - 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**

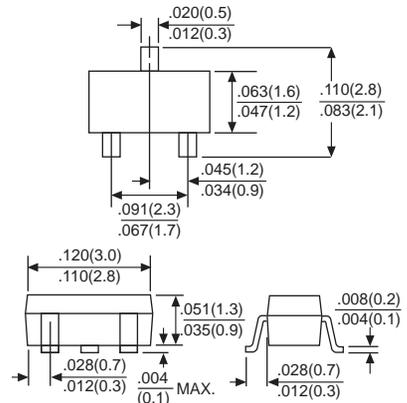
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Terminals: Solder plated, solderable per MIL-STD-202E, Method 208 guaranteed
- \* Mounting position: Any
- \* Weight: 0.008 grams Approx.

**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%.

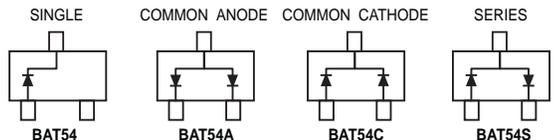


SOT-23



	SYMBOL	BAT54	BAT54A	BAT54C	BAT54S	UNITS
Maximum Recurrent Peak Reverse Voltage	V <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> =25°C	I <sub>O</sub>			0.2		Amps
Peak Forward Surge Current at t=1S	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 @ V <sub>R</sub> =25V	I <sub>R</sub>			2.0		μAmps
Typical Thermal Resistance (Note 1)	R <sub>θJA</sub>			500		°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.



Pin Configuration (Top View)

# RATING AND CHARACTERISTIC CURVES (BAT54/A/C/S)

FIG. 1  
TYPICAL FORWARD CURRENT  
DERATING CURVE

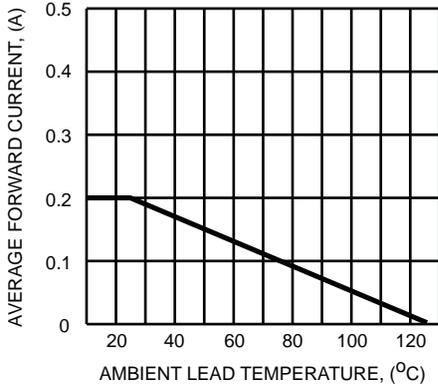


FIG. 2  
TYPICAL INSTANTANEOUS FORWARD  
CHARACTERISTICS

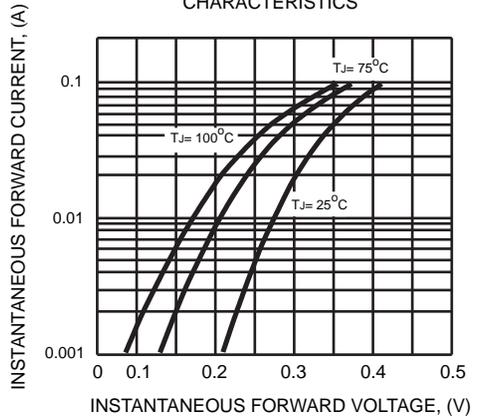


FIG. 3  
TYPICAL REVERSE CHARACTERISTICS

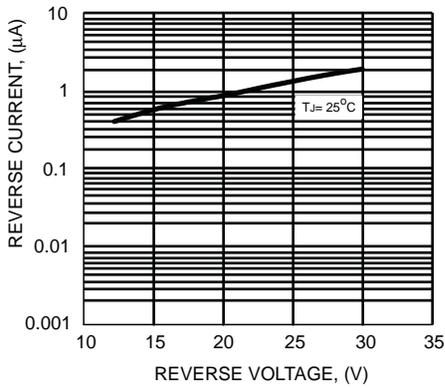


FIG. 4  
TYPICAL REVERSE CHARACTERISTICS

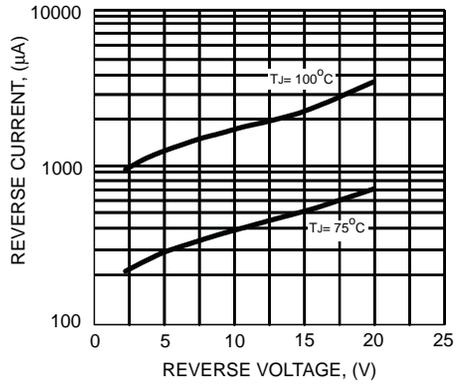
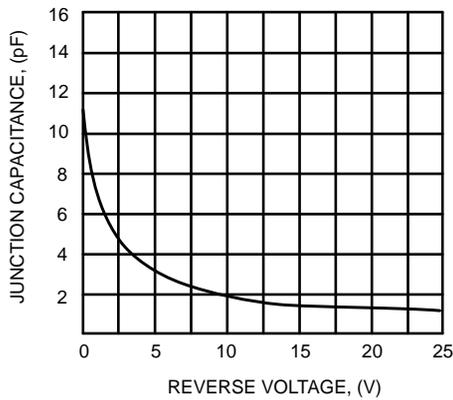


FIG. 5  
TYPICAL JUNCTION CAPACITANCE



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