



DC COMPONENTS CO., LTD.  
RECTIFIER SPECIALISTS

BAT42W  
BAT43W

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

FEATURES

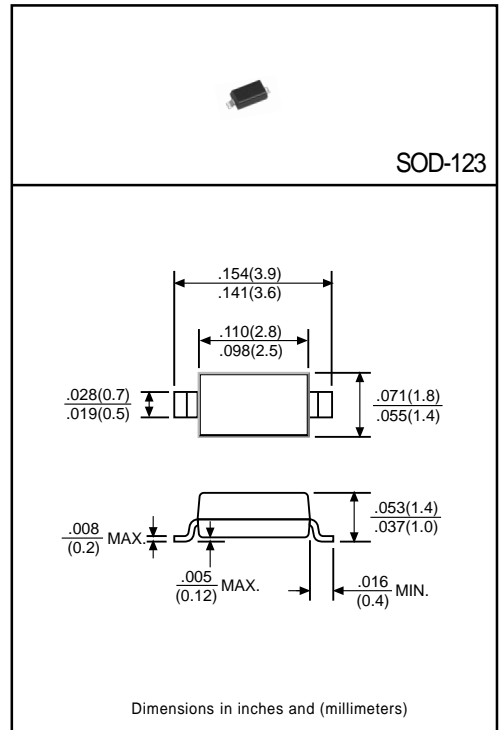
- \* For general purpose applications
- \* Low turn-on voltage.
- \* Fast switching time.
- \* Protected by a PN junction guard ring against excessive voltage, such as electrostatic discharge(ESD).

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%.



	SYMBOL	BAT42W	BAT43W	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 at t=10mS	I <sub>FSM</sub>	4.0		Amps
Maximum Instantaneous Forward Voltage	V <sub>F</sub>	1.0 @ I <sub>F</sub> =0.2A		Volts
		0.4 @ I <sub>F</sub> =0.01A	0.33 @ I <sub>F</sub> =0.002A	
Maximum DC Reverse Current @ V <sub>R</sub> =25V	I <sub>R</sub>	0.5		μAmps
Typical Thermal Resistance (Note 1)	R <sub>θJA</sub>	300		°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 (BAT42W AND BAT43W)

FIG. 1 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS AT DIFFERENT TEMPERATURES

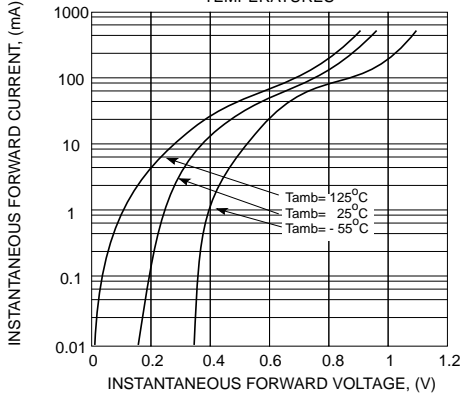


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

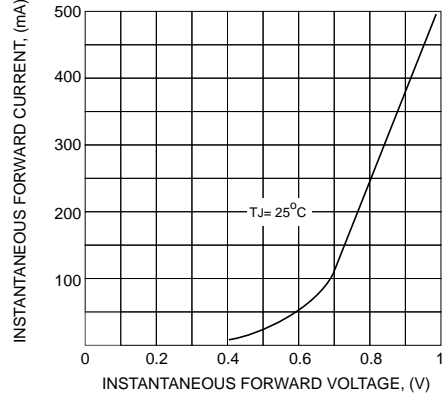


FIG. 3 - TYPICAL REVERSE CURRENT VERSUS AMBIENT TEMPERATURE

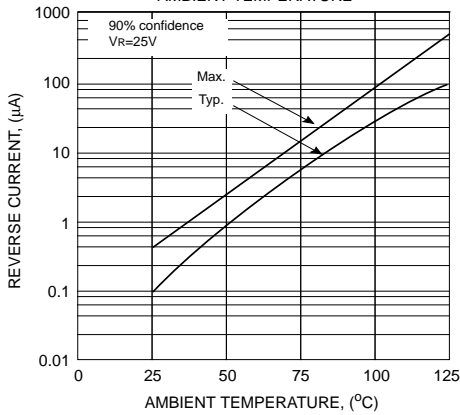


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

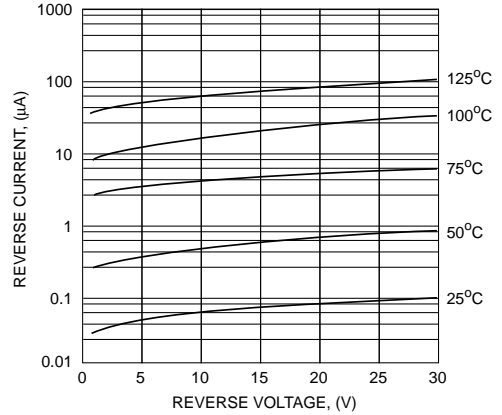


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

