



*DC COMPONENTS CO., LTD.*

RECTIFIER SPECIALISTS

BAT42  
BAT43

**TECHNICAL SPECIFICATIONS OF SCHOTTKY BARRIER RECTIFIER**

**VOLTAGE RANGE - 30 Volts**

**CURRENT - 0.2 Ampere**

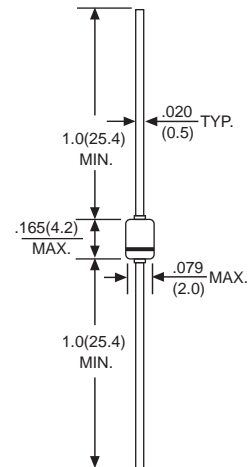
**FEATURES**

- \* 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: Glass sealed case
- \* Lead: Solder plated, solderable per MIL-STD-202E, Method 208 guaranteed
- \* Polarity: Color band denotes cathode end
- \* Mounting position: Any
- \* Weight: 0.13 gram

**DO-35**



Dimensions in inches and (millimeters)

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

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

|  | SYMBOL   | BAT42          | BAT43            | UNITS |
|--|----------|----------------|------------------|-------|
| Maximum Recurrent Peak Reverse Voltage               | VRRM     | 30             |                  | Volts |
| Maximum RMS Voltage                                  | VRMS     | 21             |                  | Volts |
| Maximum DC Blocking Voltage                          | Vdc      | 30             |                  | Volts |
| Maximum Average Forward Rectified Current at TA=75°C | IO       | 0.2            |                  | Amps  |
| Peak Forward Surge Current at t=10mS                 | IFSM     | 4.0            |                  | Amps  |
| Maximum Instantaneous Forward Voltage                | VF       | 1.0 @ IF=0.2A  |                  | Volts |
|  |          | 0.4 @ IF=0.01A | 0.33 @ IF=0.002A |       |
| Maximum DC Reverse Current @ VR=25V                  | IR       | 0.5            |                  | µAmps |
| Typical Thermal Resistance (Note1)                   | RθJA     | 300            |                  | °C/W  |
| Typical Junction Capacitance (Note 2)                | CJ       | 10             |                  | pF    |
| Storage Operating Temperature Range                  | TJ, TSTG | -55 to +125    |                  | °C    |

NOTES : 1. Leads maintained at specified ambient temperature at a distance of 4.0mm from case.  
2. Measured at 1 MHz and applied reverse voltage of 1.0 volts.

# RATING AND CHARACTERISTIC CURVES (BAT42 AND BAT43)

FIG. 1 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS AT DIFFERENT TEMPERATURES

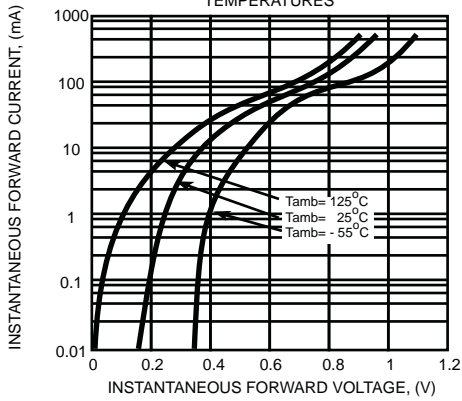


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

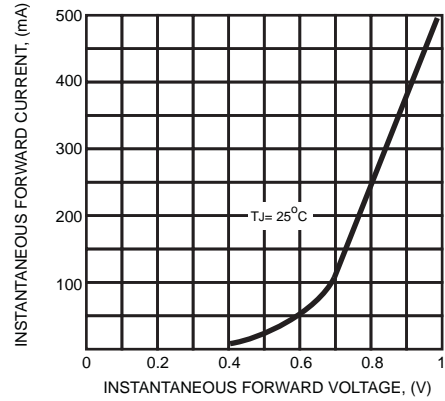


FIG. 3 - TYPICAL REVERSE CURRENT VERSUS AMBIENT TEMPERATURE

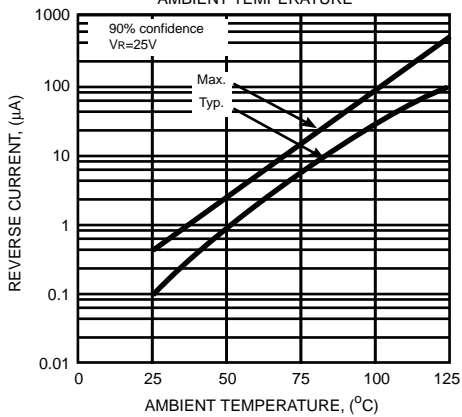


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

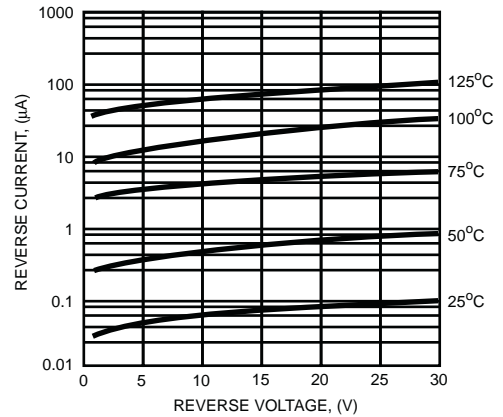
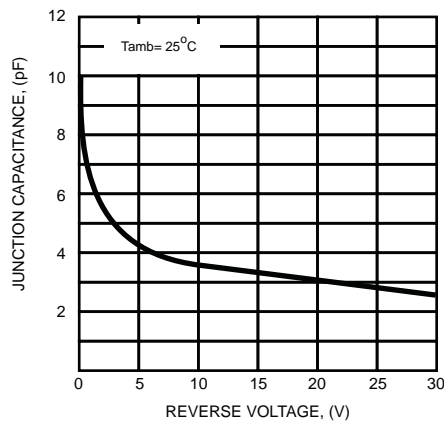


FIG. 5 - TYPICAL JUNCTION CAPACITANCE



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