

# BD840CT~BD8200CT

## THROUGH HOLE MOUNT SCHOTTKY BARRIER RECTIFIERS

**VOLTAGE** 40 to 200 Volts **CURRENT** 8 Ampere

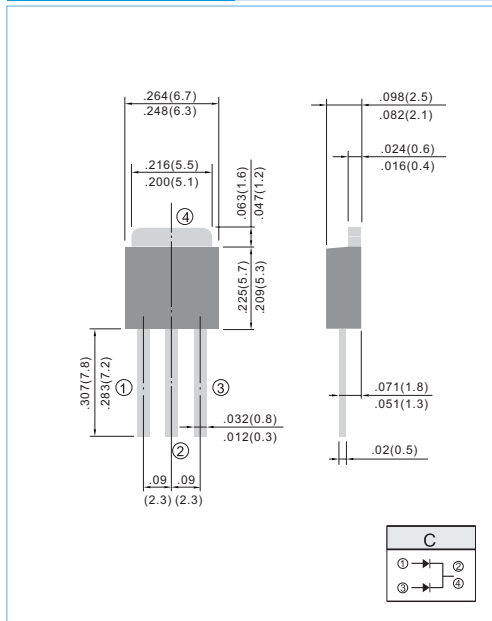
**TO-251AB** Unit : inch (mm)

### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Low power loss, High efficiency
- High surge capacity
- In compliance with EU RoHS 2002/95/EC directives

### MECHANICAL DATA

- Case: TO-251AB molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marking
- Standard packaging: 16mm tape (EIA-481)
- Weight: 0.0104 ounces, 0.297grams.



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Resistive or inductive load.

| PARAMETER                                                                                             | SYMBOL                            | BD840CT     | BD845CT     | BD850CT | BD860CT | BD880CT | BD890CT | BD8100CT | BD8150CT | BD8200CT | UNITS  |
|-------------------------------------------------------------------------------------------------------|-----------------------------------|-------------|-------------|---------|---------|---------|---------|----------|----------|----------|--------|
| Maximum Recurrent Peak Reverse Voltage                                                                | V <sub>RRM</sub>                  | 40          | 45          | 50      | 60      | 80      | 90      | 100      | 150      | 200      | V      |
| Maximum RMS Voltage                                                                                   | V <sub>RMS</sub>                  | 28          | 31.5        | 35      | 42      | 56      | 63      | 70       | 105      | 140      | V      |
| Maximum DC Blocking Voltage                                                                           | V <sub>DC</sub>                   | 40          | 45          | 50      | 60      | 80      | 90      | 100      | 150      | 200      | V      |
| Maximum Average Forward Current (See Figure 1)                                                        | I <sub>F(AV)</sub>                | 8           |             |         |         |         |         |          |          |          | A      |
| Peak Forward Surge Current :8.3ms single half sine-wave superimposed on rated load(JEDEC method)      | I <sub>FSM</sub>                  | 85          |             |         |         |         |         |          |          |          | A      |
| Maximum Forward Voltage at 4.0A                                                                       | V <sub>F</sub>                    | 0.70        |             | 0.75    |         | 0.80    |         |          | 0.90     |          | V      |
| Maximum DC Reverse Current T <sub>J</sub> =25°C<br>at Rated DC Blocking Voltage T <sub>J</sub> =100°C | I <sub>R</sub>                    | 0.05<br>20  |             |         |         |         |         |          |          |          | mA     |
| Typical Thermal Resistance                                                                            | R <sub>θJC</sub>                  | 5           |             |         |         |         |         |          |          |          | °C / W |
| Operating Junction and Storage Temperature Range                                                      | T <sub>J</sub> , T <sub>STG</sub> | -55 to +150 | -65 to +175 |         |         |         |         |          |          |          | °C     |

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### RATING AND CHARACTERISTIC CURVES

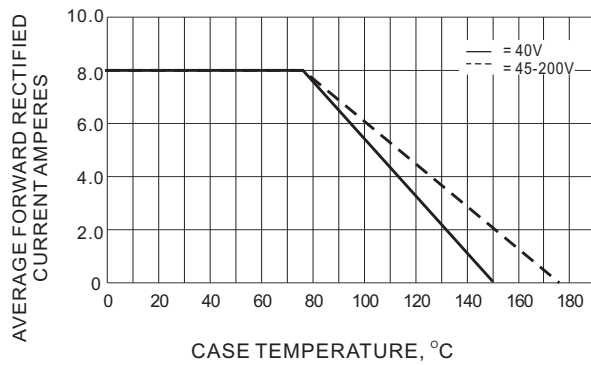


Fig.1- FORWARD CURRENT DERATING CURVE

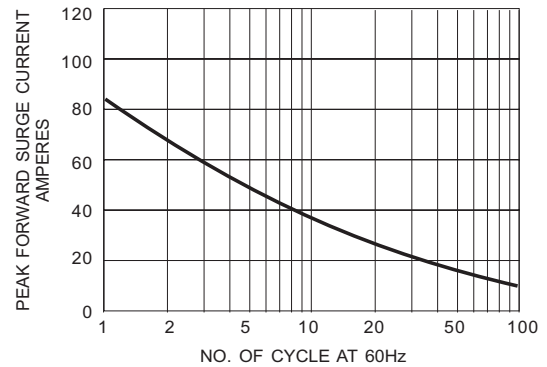


Fig.2- MAXIMUM NON - REPETITIVE SURGE CURRENT

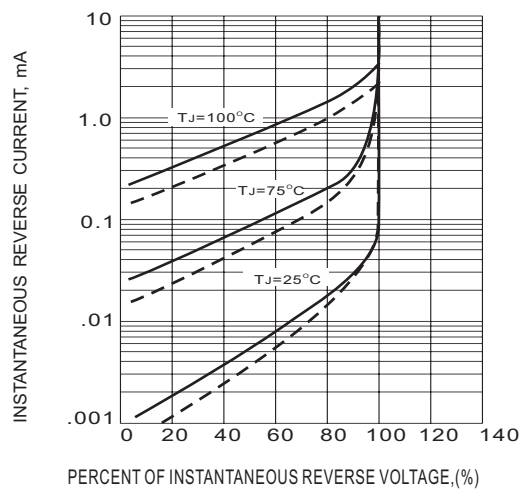


Fig.3- TYPICAL REVERSE CHARACTERISTICS

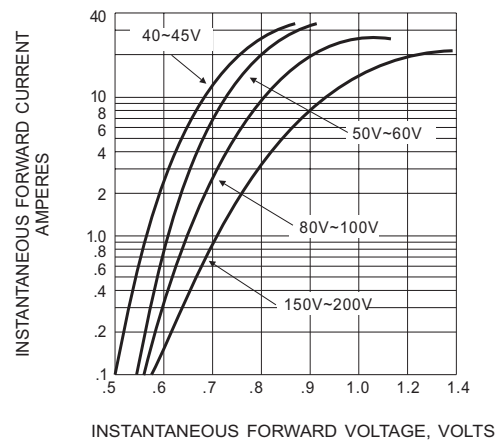


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

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