

BD640CS~BD6200CS

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

Voltage

40~200 V

Current

6 A

TO-252

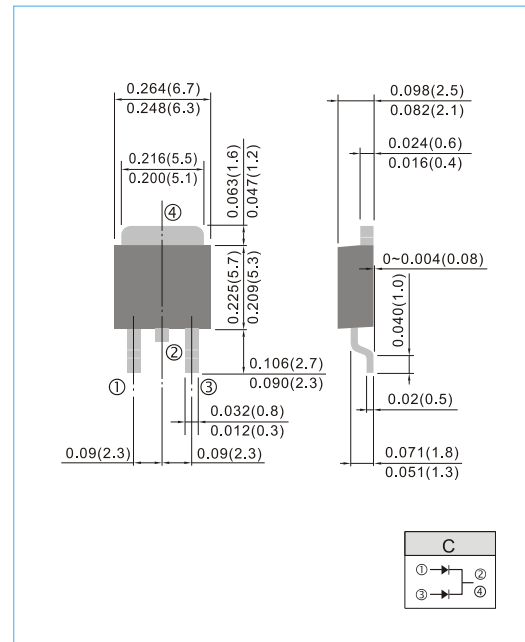
Unit : inch(mm)

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O.
- For surface mounted applications in order to optimize board space
- Low power loss, High efficiency
- High surge capacity
- High temperature soldering guaranteed: 260°C/10 seconds at terminals
- For use in low voltage, high frequency inverters free wheeling, and polarity protection applications
- Lead free in compliance with EU RoHS 2011/65/EU directive.
- Green molding compound as per IEC61249 Std.. (Halogen Free)

Mechanical Data

- Case: TO-252 Molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marking
- Standard packaging: 16mm tape (EIA-481)
- Approx. Weight: 0.0104 ounces, 0.297 grams
- Marking: Part number



Maximum Ratings ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

| PARAMETER | | SYMBOL | BD640CS | BD645CS | BD650CS | BD660CS | BD680CS | BD690CS | BD6100CS | BD6150CS | BD6200CS | UNIT |
|-------------------------------------------------------------------------------------|------------------------|-----------------------------------|-------------|-------------|---------|---------|---------|---------|----------|----------|----------|------|
| Maximum repetitive peak reverse voltage | | V _{RRM} | 40 | 45 | 50 | 60 | 80 | 90 | 100 | 150 | 200 | V |
| Maximum rms voltage | | V _{RMS} | 28 | 31.5 | 35 | 42 | 56 | 63 | 70 | 105 | 140 | V |
| Maximum dc blocking voltage | | V _R | 40 | 45 | 50 | 60 | 80 | 90 | 100 | 150 | 200 | V |
| Maximum average forward rectified current | | I _{F(AV)} | 6 | | | | | | | | | A |
| Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load | | I _{FSM} | 75 | | | | | | | | | A |
| Maximum forward voltage at 3A per diode | | V _F | 0.7 | | 0.75 | | 0.8 | | | 0.9 | | V |
| Maximum dc reverse current at rated dc blocking voltage | T _J =25 °C | I _R | 0.05 | | | | | | | | | mA |
| | T _J =100 °C | | 20 | | | | | | | | | |
| Typical thermal resistance | | R _{θJC} | 5 | | | | | | | | | °C/W |
| Operating junction and storage temperature range | | T _J , T _{STG} | -55 to +150 | -65 to +175 | | | | | | | | °C |

Note: Both Bonding and Chip structure are available.

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RATING AND CHARACTERISTIC CURVES

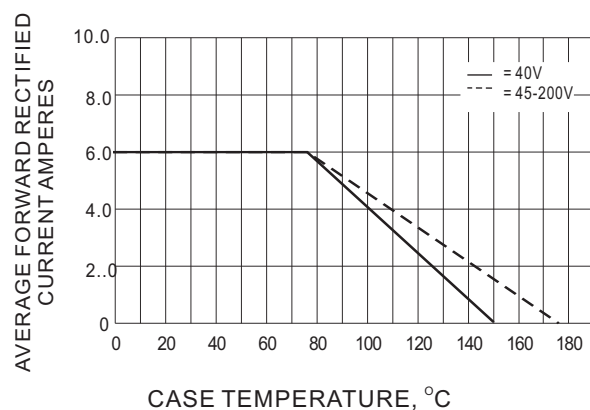


Fig.1- FORWARD CURRENT DERATING CURVE

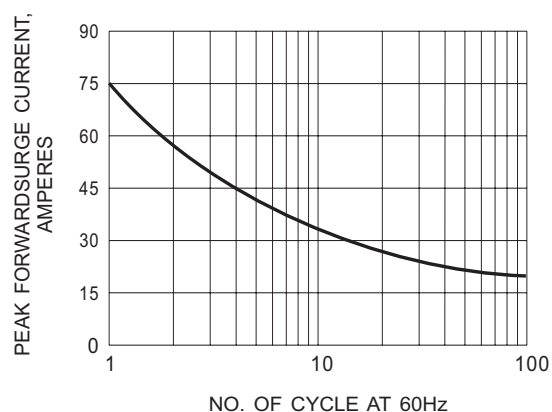


Fig.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

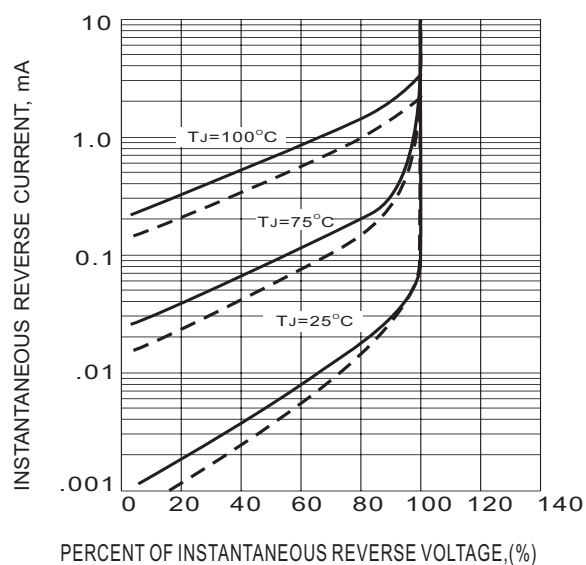


Fig.3- TYPICAL REVERSE CHARACTERISTIC

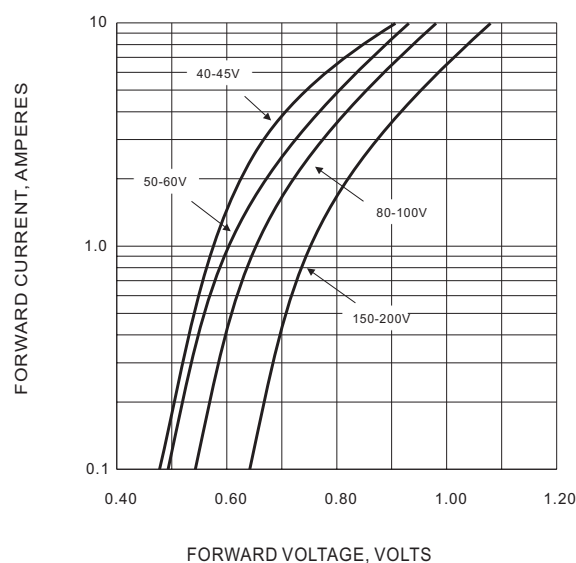
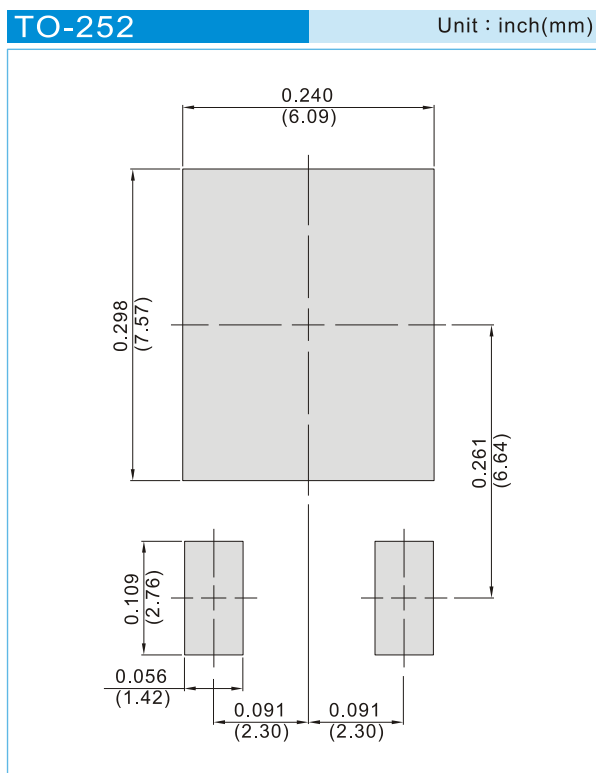


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

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MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
T/R – 3K per 13" plastic Reel

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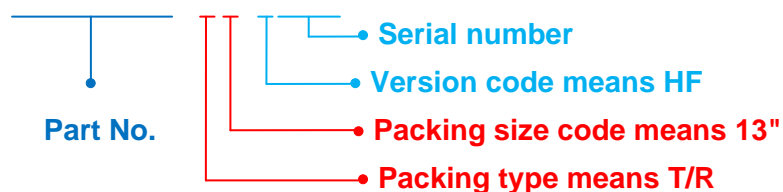
Part No_packing code_Version

BD640CS_L2_00001

BD640CS_S2_00001

For example :

RB500V-40_R2_00001



| Packing Code XX | | | | Version Code XXXXX | | |
|--------------------------------------|----------------------|----------------------------------|----------------------|---------------------------|----------------------|---------------------------------------|
| Packing type | 1 st Code | Packing size code | 2 nd Code | HF or RoHS | 1 st Code | 2 nd ~5 th Code |
| Tape and Ammunition Box (T/B) | A | N/A | 0 | HF | 0 | serial number |
| Tape and Reel (T/R) | R | 7" | 1 | RoHS | 1 | serial number |
| Bulk Packing (B/P) | B | 13" | 2 | | | |
| Tube Packing (T/P) | T | 26mm | X | | | |
| Tape and Reel (Right Oriented) (TRR) | S | 52mm | Y | | | |
| Tape and Reel (Left Oriented) (TRL) | L | PANASERT T/B CATHODE UP (PBCU) | U | | | |
| FORMING | F | PANASERT T/B CATHODE DOWN (PBCD) | D | | | |



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