

# BD540S~BD5200S

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

**VOLTAGE** 40 to 200 Volts **CURRENT** 5 Amperes

### FEATURES

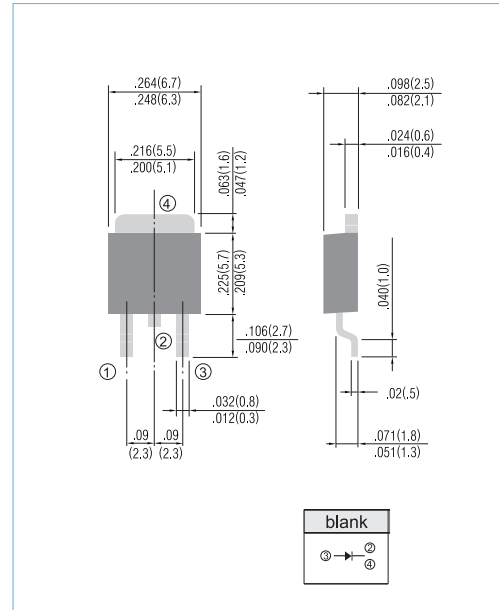
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Low power loss, High efficiency
- High surge capacity
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- In compliance with EU RoHS 2002/95/EC directives

### MECHANICAL DATA

- Case: TO-252 molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marking
- Weight: 0.0104 ounces, 0.297 grams.

TO-252

Unit: inch ( mm )



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

| PARAMETER                                                                                          | SYMBOL                            | BD540S      | BD545S      | BD550S | BD560S | BD580S | BD590S | BD5100S | BD5150S | BD5200S | 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      |
| Average Rectified Output Current (See Figure 1)                                                    | I <sub>F(AV)</sub>                | 5.0         |             |        |        |        |        |         |         |         | A      |
| Non-Repetitive Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load | I <sub>FSM</sub>                  | 100         |             |        |        |        |        |         |         |         | A      |
| Forward Voltage at 5.0A                                                                            | V <sub>F</sub>                    | 0.70        |             | 0.74   |        | 0.80   |        |         | 0.9     |         | V      |
| Peak 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(Note 2)                                                                 | R <sub>θJC</sub>                  | 5.0         |             |        |        |        |        |         |         |         | °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

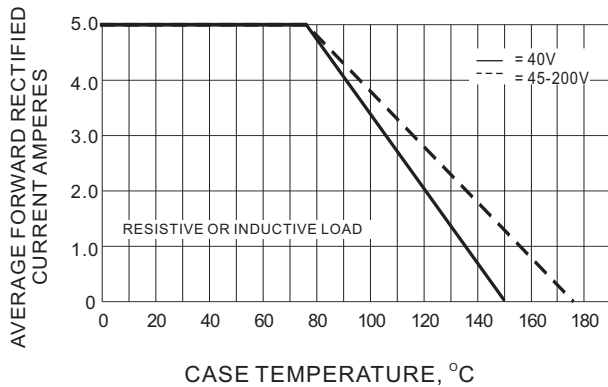


Fig.1- FORWARD CURRENT DERATING CURVE

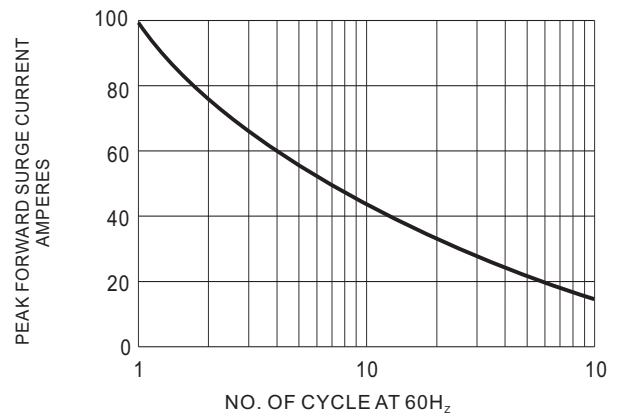


Fig.2 -MAXIMUM NON-REPETITIVE SURGE CURRENT

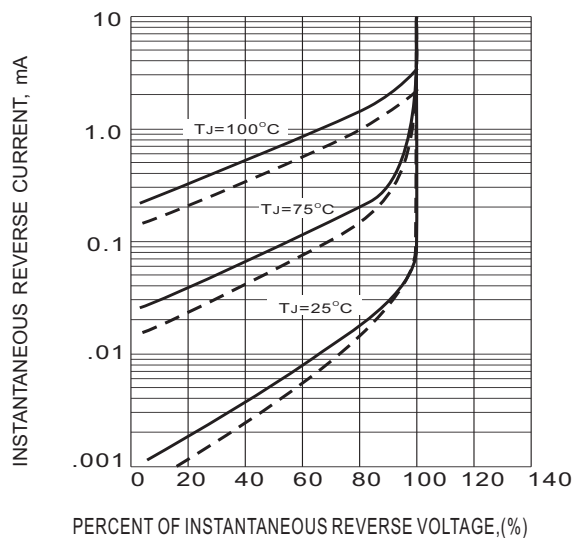


Fig.3-TYPICAL REVERSE CHARACTERISTIC

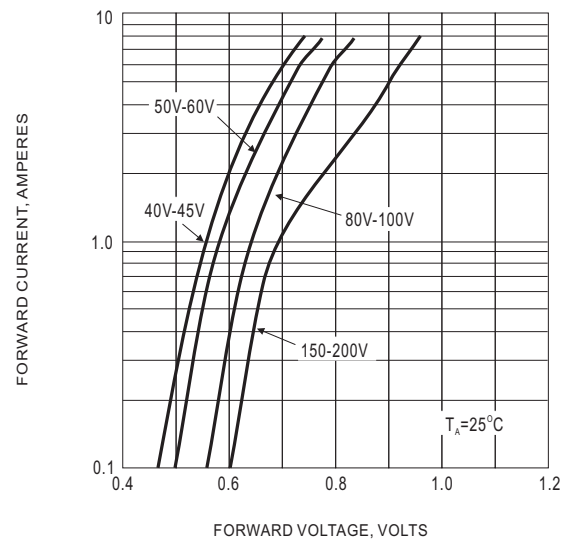
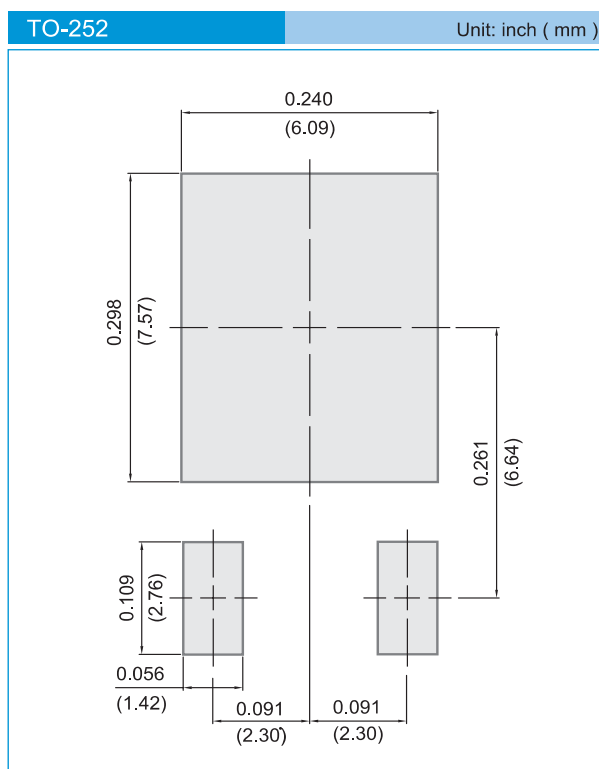


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

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### MOUNTING PAD LAYOUT



### ORDER INFORMATION

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

### LEGAL STATEMENT

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