



BD540YS~BD5200YS

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

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

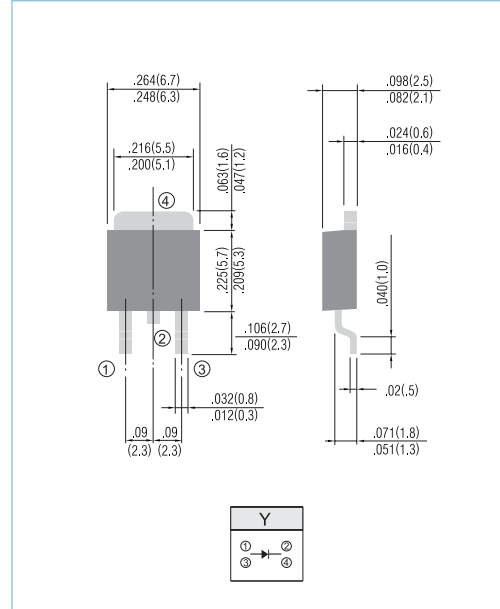
FEATURES

- 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
- 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 | BD540YS | BD545YS | BD540YS | BD550YS | BD580YS | BD590YS | BD5100YS | BD5150YS | BD5200YS | UNITS |
|--|-----------------|-------------|---------|---------|---------|-------------|---------|----------|----------|-----------------|-------|
| Maximum Recurrent 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_{DC} | 40 | 45 | 50 | 60 | 80 | 90 | 100 | 150 | 200 | V |
| Average Rectified Output Current (See Figure 1) | $I_{F(AV)}$ | 5.0 | | | | | | | | | A |
| Non-Repetitive Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load | I_{FSM} | 100 | | | | | | | | | A |
| Forward Voltage at 5.0A | V_F | 0.70 | | 0.74 | | 0.80 | | 0.9 | | V | |
| Peak Reverse Current $T_j=25^{\circ}C$ at Rated DC Blocking Voltage $T_j=100^{\circ}C$ | I_R | | | | | 0.05 | | | | 20 | mA |
| Typical Thermal Resistance(Note 2) | $R_{\theta JC}$ | | | | | 5.0 | | | | $^{\circ}C / W$ | |
| Operating Junction and Storage Temperature Range | T_j, T_{STG} | -55 to +150 | | | | -65 to +175 | | | | $^{\circ}C$ | |



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RATING AND CHARACTERISTIC CURVES

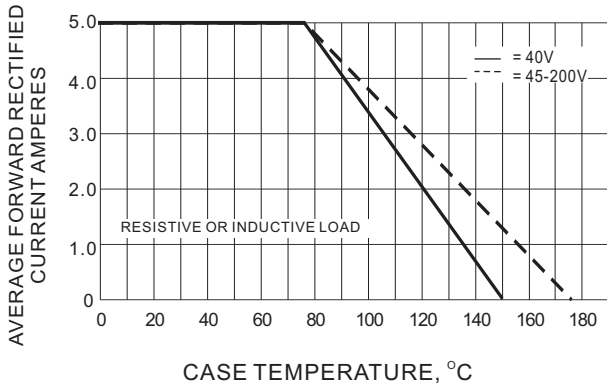


Fig.1- FORWARD CURRENT DERATING CURVE

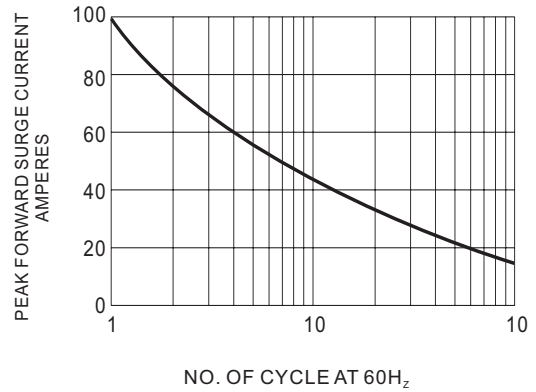


Fig.2 -MAXIMUM NON-REPETITIVE SURGE CURRENT

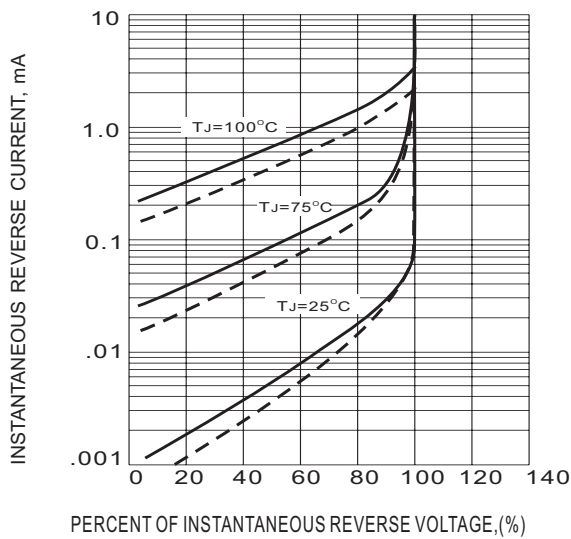


Fig.3-TYPICAL REVERSE CHARACTERISTIC

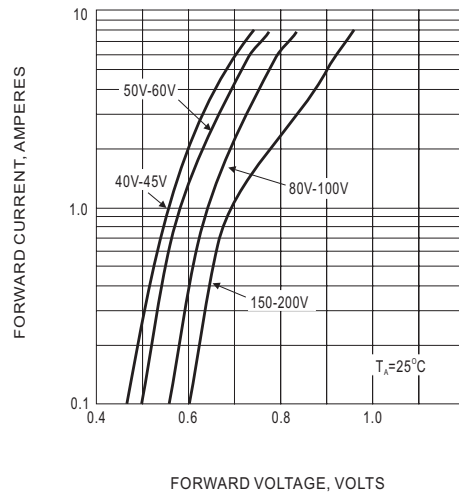


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC