

# BD840YS~BD8200YS

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

**Voltage**

**40~200 V**

**Current**

**8 A**

**TO-252**

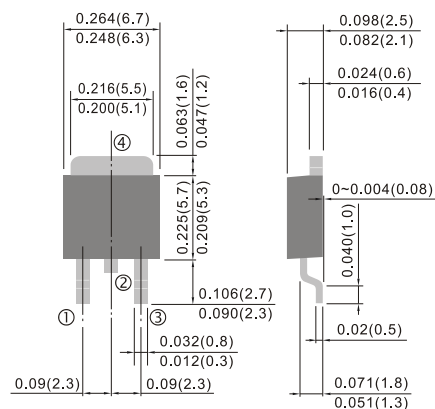
Unit : inch(mm)

### 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
- 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                            | BD840YS     | BD845YS     | BD850YS | BD860YS | BD880YS | BD890YS | BD8100YS | BD8150YS | BD8200YS | UNIT |
|-------------------------------------------------------------------------------------|------------------------|-----------------------------------|-------------|-------------|---------|---------|---------|---------|----------|----------|----------|------|
| Maximum repetitive 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>R</sub>                    | 40          | 45          | 50      | 60      | 80      | 90      | 100      | 150      | 200      | V    |
| Maximum average forward rectified current                                           |                        | I <sub>F(AV)</sub>                | 8           |             |         |         |         |         |          |          |          | A    |
| Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load |                        | I <sub>FSM</sub>                  | 85          |             |         |         |         |         |          |          |          | A    |
| Maximum forward voltage at 8A                                                       |                        | V <sub>F</sub>                    | 0.7         |             | 0.75    |         | 0.8     |         |          | 0.9      |          | V    |
| Maximum dc reverse current at<br>rated dc blocking voltage                          | T <sub>J</sub> =25 °C  | I <sub>R</sub>                    | 0.05        |             |         |         |         |         |          |          |          | mA   |
|                                                                                     | T <sub>J</sub> =100 °C |                                   | 20          |             |         |         |         |         |          |          |          |      |
| 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

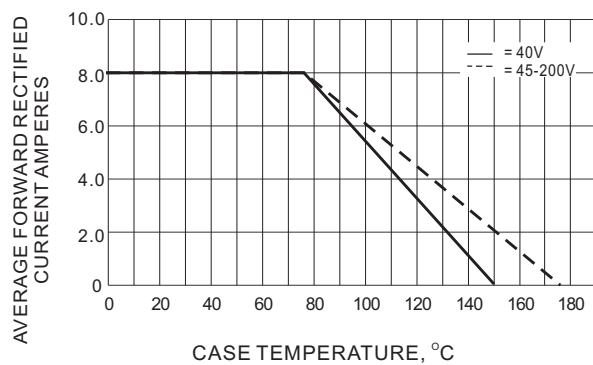


Fig.1- FORWARD CURRENT DERATING CURVE

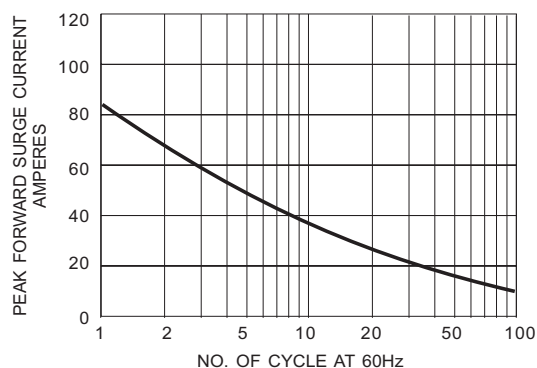


Fig.2- MAXIMUM NON - REPETITIVE SURGE CURRENT

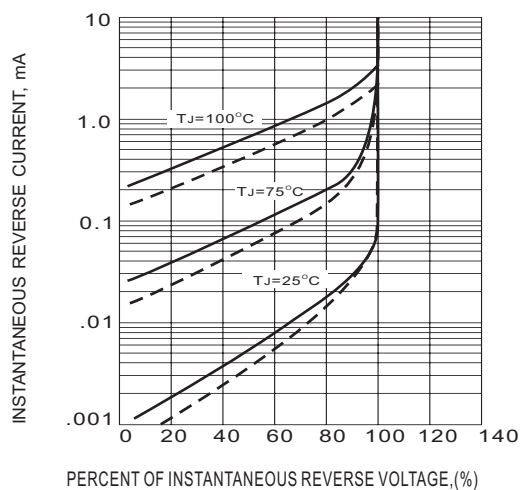


Fig.3- TYPICAL REVERSE CHARACTERISTICS

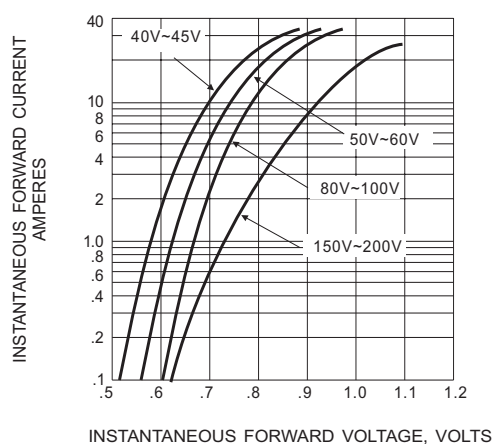
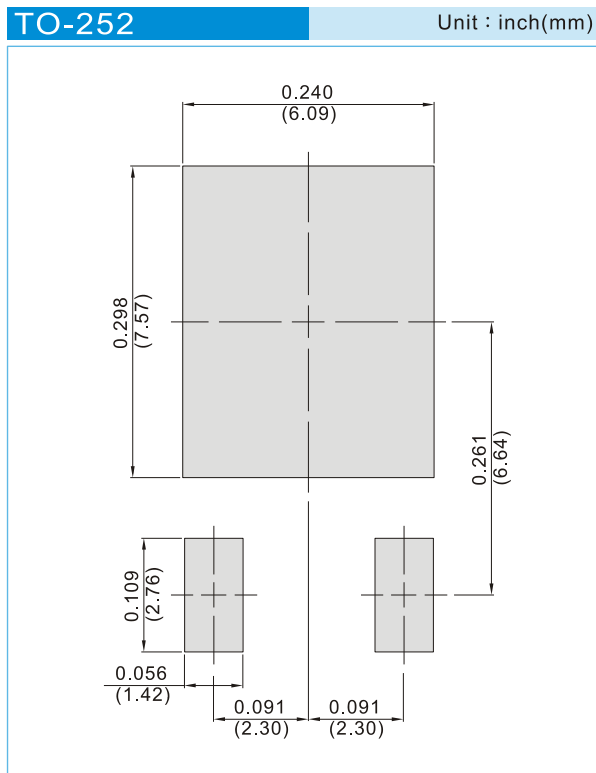


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

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### MOUNTING PAD LAYOUT



### ORDER INFORMATION

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

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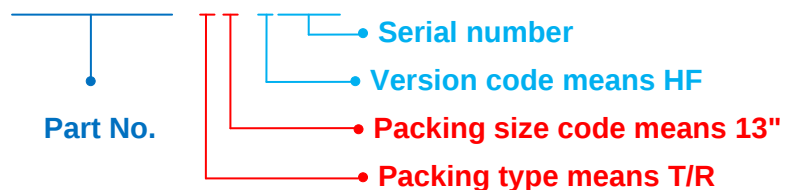
Part No\_packing code\_Version

BD840YS\_L2\_00001

BD840YS\_S2\_00001

For example :

RB500V-40\_R2\_00001



| Packing Code <b>XX</b>               |                      |                                     |                      | Version Code <b>XXXXXX</b> |                      |                                       |
|--------------------------------------|----------------------|-------------------------------------|----------------------|----------------------------|----------------------|---------------------------------------|
| Packing type                         | 1 <sup>st</sup> Code | Packing size code                   | 2 <sup>nd</sup> Code | HF or RoHS                 | 1 <sup>st</sup> Code | 2 <sup>nd</sup> ~5 <sup>th</sup> 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<br>CATHODE UP (PBCU)   | U                    |                            |                      |                                       |
| FORMING                              | F                    | PANASERT T/B<br>CATHODE DOWN (PBCD) | D                    |                            |                      |                                       |



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