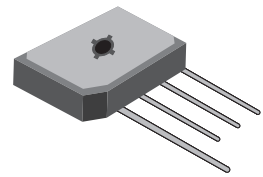


## BR5005L-G Thru. BR5010L-G

**Reverse Voltage: 50 to 1000V**

**Forward Current: 50A**

**RoHS Device**

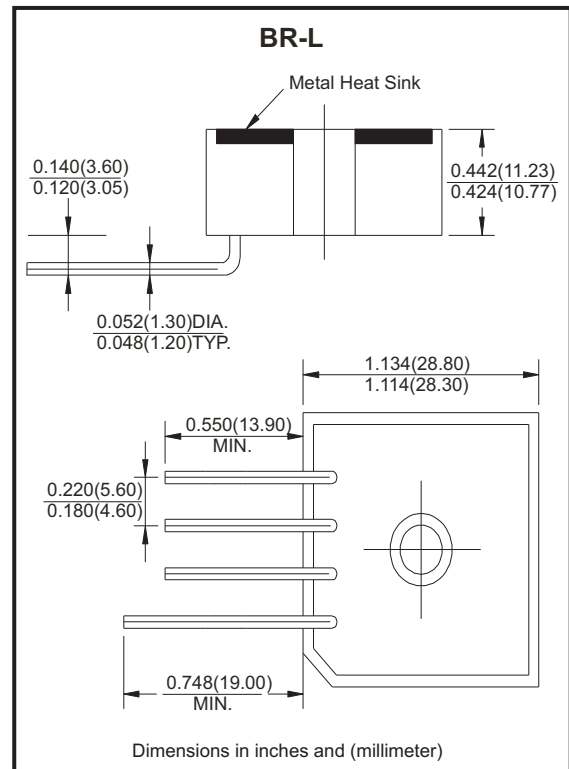


### Features

- Plastic case with heatsink for heat dissipation.
- Surge overload -500 Amperes peak.
- UL recognized file # E349301 

### Mechanical Data

- Epoxy: UL 94V-0 rate flame retardant.
- Case: Molded plastic with heatsink integrally, mounted in the bridge encapsulation.
- Mounting position: Any
- Weight: 30 grams
- Terminals: Wire lead Ø 50mils.



### Maximum ratings and electrical characteristics

Rating at 25°C ambient temperature unless otherwise specified.  
Single phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%

| Parameter                                                                            |                         | Symbol            | BR 5005L-G  | BR 501L-G | BR 502L-G | BR 504L-G | BR 506L-G | BR 508L-G | BR 5010L-G | Unit |
|--------------------------------------------------------------------------------------|-------------------------|-------------------|-------------|-----------|-----------|-----------|-----------|-----------|------------|------|
| Maximum Recurrent Peak Reverse Voltage                                               |                         | V <sub>RRM</sub>  | 50          | 100       | 200       | 400       | 600       | 800       | 1000       | V    |
| Maximum RMS Bridge Input Voltage                                                     |                         | V <sub>RMS</sub>  | 35          | 70        | 140       | 280       | 420       | 560       | 700        | V    |
| Maximum DC Blocking Voltage                                                          |                         | V <sub>DC</sub>   | 50          | 100       | 200       | 400       | 600       | 800       | 1000       | V    |
| Maximum Average Forward Current for Resistive Load @T <sub>c</sub> =55°C             |                         | I <sub>(AV)</sub> | 50          |           |           |           |           |           |            | A    |
| Peak Forward Surge Current , 8.3ms Single Half Sine-Wave Super Imposed On Rated Load |                         | I <sub>FSM</sub>  | 500         |           |           |           |           |           |            | A    |
| Maximum Forward Voltage Per Bridge Element at 25A Peak                               |                         | V <sub>F</sub>    | 1.1         |           |           |           |           |           |            | V    |
| Maximum Reverse Current at Rate DC Blocking Voltage                                  | @ T <sub>J</sub> =25°C  | I <sub>R</sub>    | 10          |           |           |           |           |           |            | μA   |
|                                                                                      | @ T <sub>J</sub> =100°C |                   | 1000        |           |           |           |           |           |            |      |
| Typical Thermal Resistance (Fig.3)                                                   |                         | R <sub>θJC</sub>  | 2.0         |           |           |           |           |           |            | °C/W |
| Operating Temperature Range                                                          |                         | T <sub>J</sub>    | -55 to +150 |           |           |           |           |           |            | °C   |
| Storage Temperature Range                                                            |                         | T <sub>STG</sub>  | -55 to +150 |           |           |           |           |           |            | °C   |

## Rating and Characteristics Curves (BR5005L-G Thru. BR5010L-G)

Fig.1 - Derating Curve Output Rectified Current

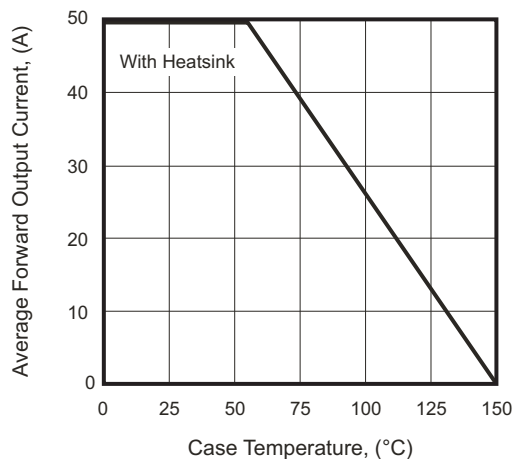


Fig.2 - Maximum Forward Surge Current

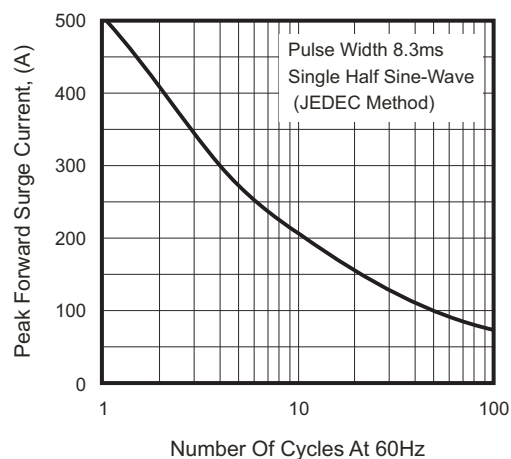


Fig.3 - Typical Forward Characteristics

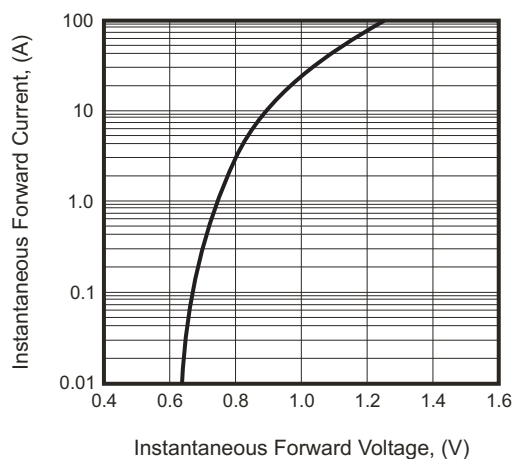
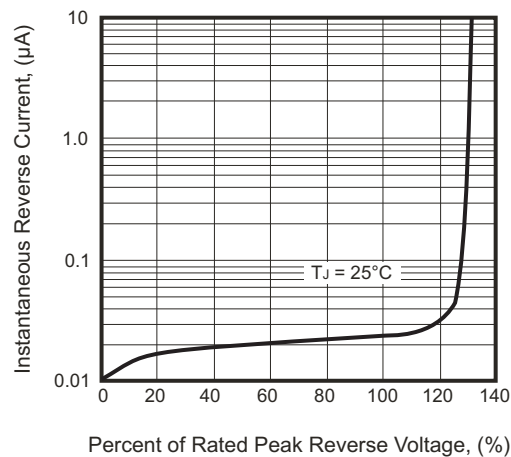
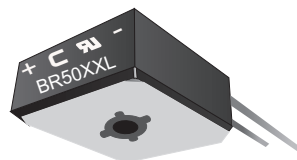


Fig.4 - Typical Reverse Characteristics



## Marking Code

| Part Number | Marking code |
|-------------|--------------|
| BR5005L-G   | BR5005L      |
| BR501L-G    | BR501L       |
| BR502L-G    | BR502L       |
| BR504L-G    | BR504L       |
| BR506L-G    | BR506L       |
| BR508L-G    | BR508L       |
| BR5010L-G   | BR5010L      |



**X / XX = Product type marking code**

## Standard Packaging

| Case Type | BULK PACK      |                   |
|-----------|----------------|-------------------|
|           | BOX<br>( pcs ) | CARTON<br>( pcs ) |
| BR-L      | 60             | 120               |

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