

# BR-L 10A/15A/25A/35A SERIES

## SINGLE PHASE 10/15/25/35 AMPS. SILICON BRIDGE RECTIFIERS

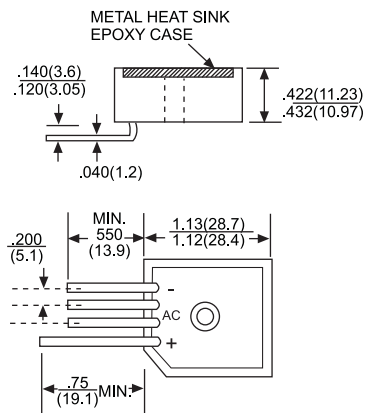
**Voltage Range**  
50 to 1000 Volts  
**Current**  
10/15/25/35 Amperes

### FEATURES

- Plastic case with heatsink for heat dissipation
- Surge overload 200 - 400 Amperes peak
- The plastic package has Underwriters Laboratory flammability classification 94V-0

### MECHANICAL DATA

- Case: Molded plastic with heatsink integrally mounted in the bridge encapsulation.
- Weight: 1 ounce, 30 grams.
- Mounting position: Any
- Terminals: Wire Lead  $\phi$  50 mils.



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

| Type Number  | BR   |                                    |       |       |                          |       |       | UNITS |                  |
|--|--|------------------------------------|-------|-------|--------------------------|-------|-------|-------|------------------|
|  | BR   | BR                                 | BR    | BR    | BR                       | BR    | BR    |       |                  |
|  | 10005L   | 1001L                              | 1002L | 1004L | 1006L                    | 1008L | 1010L |       |                  |
|  | 15005L   | 1501L                              | 1502L | 1504L | 1506L                    | 1508L | 1510L |       |                  |
|  | 25005L   | 2501L                              | 2502L | 2504L | 2506L                    | 2508L | 2510L |       |                  |
| 35005L   | 3501L  | 3502L                              | 3504L | 3506L | 3508L                    | 3510L |       |       |                  |
| Maximum Repetitive Peak Reverse Voltage  | V <sub>RRM</sub>                                       | 50                                 | 100   | 200   | 400                      | 600   | 800   | 1000  | V                |
| Maximum RMS bridge Voltage   | V <sub>RMS</sub>                                       | 35                                 | 70    | 140   | 280                      | 420   | 560   | 700   | V                |
| Maximum DC Blocking Voltage  | V <sub>DC</sub>  | 50                                 | 100   | 20    | 400                      | 600   | 800   | 1000  | V                |
| Maximum Average Forward Current for Resistive Load at T <sub>c</sub> =55°C         | BR10L<br>BR15L<br>BR25L<br>BR35L                       | I <sub>F(AV)</sub>                 |       |       | 10<br>15<br>25<br>35     |       |       |       | A                |
| Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load | BR10L<br>BR15L<br>BR25L<br>BR35L                       | I <sub>FSM</sub>                   |       |       | 200<br>300<br>400<br>400 |       |       |       | A                |
| Maximum Forward Voltage per Bridge Leg at specified Current                        | BR10L 5.0A<br>BR15L 7.5A<br>BR25L 12.5A<br>BR35L 17.5A | V <sub>F</sub>                     |       |       | 1.2                      |       |       |       | V                |
| Maximum Reverse Current at Rated DC Blocking Voltage                               | @TA=25°C<br>@TA=100°C                                  | I <sub>R</sub>                     |       |       | 5<br>1.0                 |       |       |       | uA<br>mA         |
| I <sup>2</sup> t Rating for fusing (t<8.3ms)                                       |  | I <sup>2</sup> t                   |       |       | 374/664                  |       |       |       | A <sup>2</sup> S |
| Typical Thermal Resistance(Fig.3)  |  | R <sub>θJC</sub>                   |       |       | 2.0                      |       |       |       | °C/W             |
| Operating Temperature Range<br>Storage Temperature Range                           |  | T <sub>J</sub><br>T <sub>STG</sub> |       |       | -55 to +150              |       |       |       | °C               |

# RATING AND CHARACTERISTIC CURVES

## BR-L 10A/15A/25A/35A SERIES

FIG.1 - MAXIMUM FORWARD SURGE CURRENT

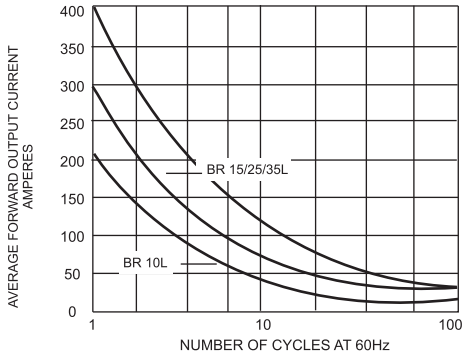


FIG.2 - DERATING CURVE  
OUTPUT RECTIFIED CURRENT

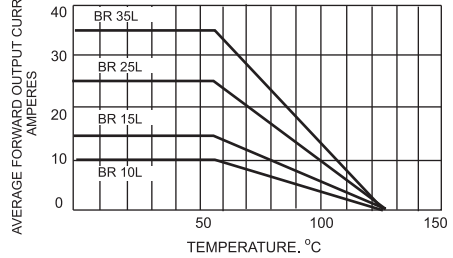


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

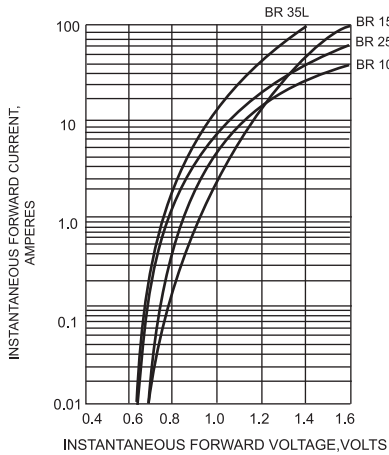


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

