

# GBU10L/15L/25L SERIES

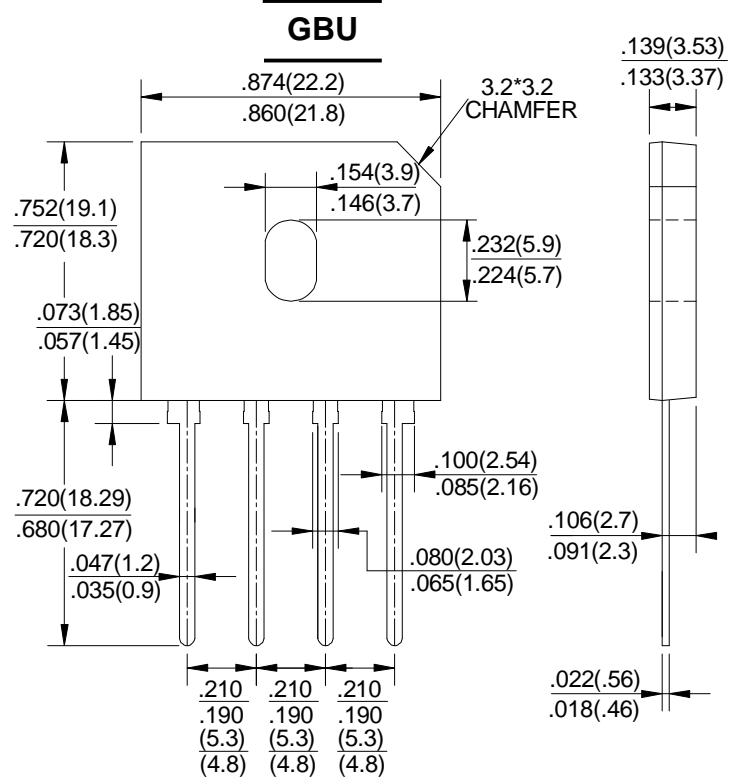


## GLASS PASSIVATED LOW VF BRIDGE RECTIFIERS

REVERSE VOLTAGE - 50 to 1000Volts  
FORWARD CURRENT - 10/15/25 Amperes

### FEATURES

- Surge overload rating -220~350 amperes peak
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- Plastic material has U/L flammability classification 94V-0
- Mounting position: Any



### 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%

| CHARACTERISTICS  | SYMBOL            | GBU                        | GBU                     | GBU                     | GBU                     | GBU                     | GBU                     | GBU                     | UNIT             |
|--|-------------------|----------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|------------------|
|  |                   | 10005L<br>15005L<br>25005L | 1001L<br>1501L<br>2501L | 1002L<br>1502L<br>2502L | 1004L<br>1504L<br>2504L | 1006L<br>1506L<br>2506L | 1008L<br>1508L<br>2508L | 1010L<br>1510L<br>2510L |                  |
| Maximum Recurrent Peak Reverse Voltage   | V <sub>RRM</sub>  | 50                         | 100                     | 200                     | 400                     | 600                     | 800                     | 1000                    | V                |
| Maximum RMS Voltage  | V <sub>RMS</sub>  | 30                         | 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 (with heatsink Note 2)<br>Rectified Current @ T <sub>C</sub> =100°C (without heatsink) | I <sub>(AV)</sub> |                            | 10<br>3.0               |                         |                         | 15<br>3.2               |                         | 25<br>4.2               | A                |
| Peak Forward Surge Current<br>8.3ms Single Half Sine-Wave<br>Super Imposed on Rated Load (JEDEC Method)        | I <sub>FSM</sub>  | GBU<br>10                  | 250                     | GBU<br>15               |                         | 300                     | GBU<br>25               | 350                     | A                |
| Maximum Forward Voltage at 5.0/7.5/12.5A DC  | V <sub>F</sub>    | 0.95                       |                         |                         |                         |                         |                         |                         | V                |
| Maximum DC Reverse Current @ T <sub>J</sub> =25°C<br>at Rated DC Blocking Voltage @ T <sub>J</sub> =125°C      | I <sub>R</sub>    | 5.0<br>200                 |                         |                         |                         |                         |                         |                         | uA               |
| I <sup>2</sup> t Rating for Fusing (t<8.3ms)   | I <sup>2</sup> t  | 250                        |                         |                         |                         |                         |                         |                         | A <sup>2</sup> s |
| Typical Junction Capacitance Per Element (Note1)   | C <sub>J</sub>    | 70                         |                         |                         |                         |                         |                         |                         | pF               |
| Typical Thermal Resistance (Note2)   | R <sub>θJC</sub>  | 2.2                        |                         |                         |                         |                         |                         |                         | °C/W             |
| Operating Temperature Range  | T <sub>J</sub>    | -55 to +150                |                         |                         |                         |                         |                         |                         | °C               |
| Storage Temperature Range  | T <sub>STG</sub>  | -55 to +150                |                         |                         |                         |                         |                         |                         | °C               |

NOTES: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

2. Device mounted on 100mm\*100mm\*1.6mm cu plate heatsink.

# RATING AND CHARACTERISTIC CURVES

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FIG.1-MAXIMUM FORWARD SURGE CURRENT

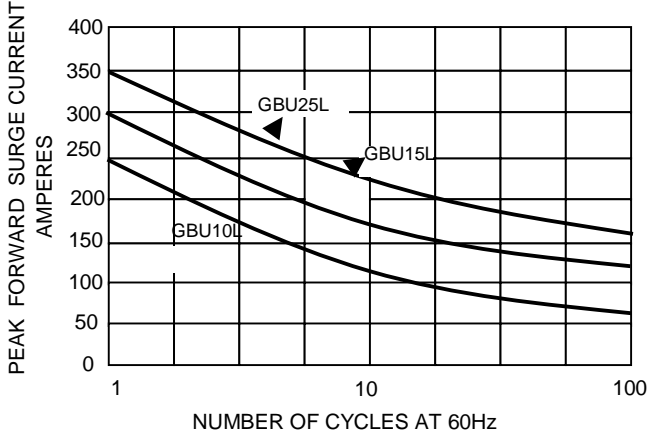


FIG.2- DERATING CURVE  
OUTPUT RECTIFIED CURRENT

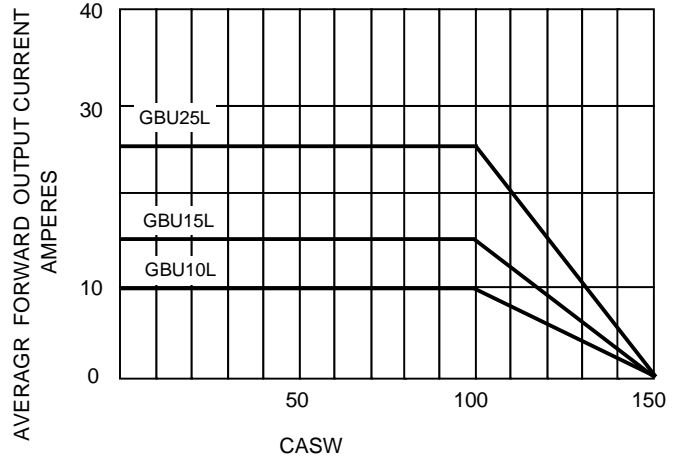


FIG.3-TYPICAL FORWARD CHARACTERISTICS

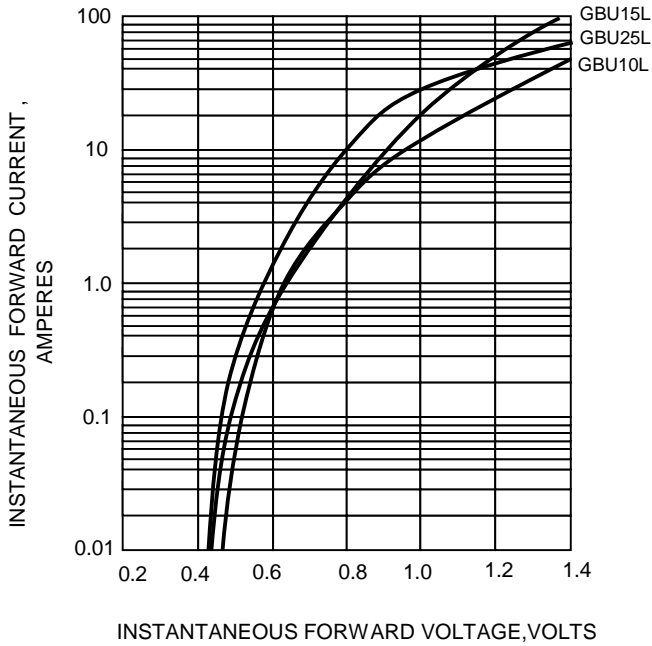


FIG.4-TYPICAL REVERSE CHARACTERISTICS

