

# GBU15005 THRU GBU1510



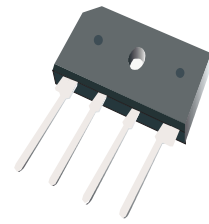
## Glass Passivated Bridge Rectifiers

Reverse Voltage: 50 to 1000 Volts

Forward Current: 15.0 Ampere

RoHS Device

Halogen Free

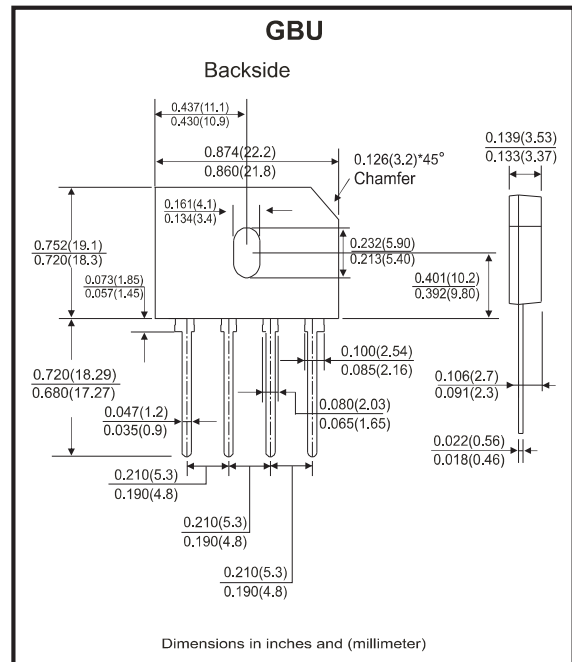


### Features

- Surge overload rating -240 amperes peak.
- Ideal for printed circuit board.

### Mechanical Data

- Epoxy: UL 94V-0 rate flame retardant.
- Case: Molded plastic, GBU
- Mounting position: Any
- Weight: 3.91 grams (approx.).



### 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          | GBU 15005   | GBU 1501 | GBU 1502 | GBU 1504 | GBU 1506 | GBU 1508 | GBU 1510 | Unit             |
|----------------------------------------------------------------------------------------------------|-----------------|-------------|----------|----------|----------|----------|----------|----------|------------------|
| Maximum Recurrent Peak Reverse Voltage                                                             | $V_{RRM}$       | 50          | 100      | 200      | 400      | 600      | 800      | 1000     | V                |
| Maximum RMS Voltage                                                                                | $V_{RMS}$       | 35          | 70       | 140      | 280      | 420      | 560      | 700      | V                |
| Maximum DC Blocking Voltage                                                                        | $V_{DC}$        | 50          | 100      | 200      | 400      | 600      | 800      | 1000     | V                |
| Maximum Average Forward (With heatsink Note2), Rectified Current @Tc=100°C (without heatsink)      | $I_{AV}$        | 15.0<br>3.2 |          |          |          |          |          |          | A                |
| Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Super Imposed On Rated Load (JEDEC Method) | $I_{FSM}$       | 240         |          |          |          |          |          |          | A                |
| Maximum Forward Voltage at 7.5A DC                                                                 | $V_F$           | 1.0         |          |          |          |          |          |          | V                |
| Maximum DC Reverse Current @Tj=25°C At Rate DC Blocking Voltage @Tj=125°C                          | $I_R$           | 10.0<br>500 |          |          |          |          |          |          | $\mu A$          |
| $I^2T$ Rating for Fusing(t<8.3ms)                                                                  | $I^2t$          | 239         |          |          |          |          |          |          | A <sup>2</sup> s |
| Typical Junction Capacitance Per Element (Note 1)                                                  | $C_J$           | 70          |          |          |          |          |          |          | pF               |
| Typical Thermal Resistance                                                                         | $R_{\theta JC}$ | 2.2         |          |          |          |          |          |          | °C/W             |
| Operating Temperature Range                                                                        | $T_J$           | -55 to +150 |          |          |          |          |          |          | °C               |
| Storage Temperature Range                                                                          | $T_{STG}$       | -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.

Company reserves the right to improve product design , functions and reliability without notice.

Rev:1.0

## Rating and Characteristics Curves

Fig.1 - Derating Curve Output Rectified Current

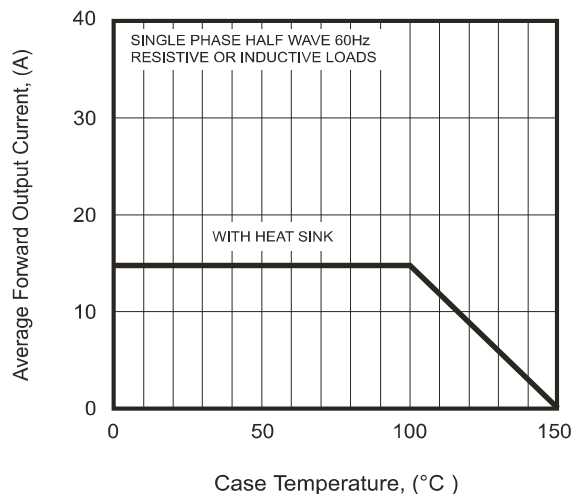


Fig.2 - Max. Forward Surge Current

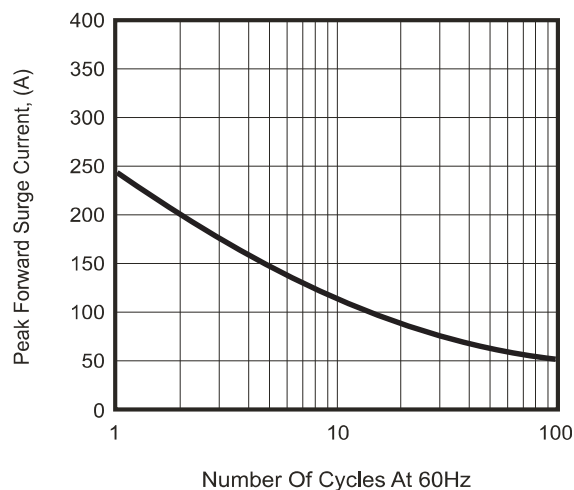


Fig.3 - Typical Forward Characteristics

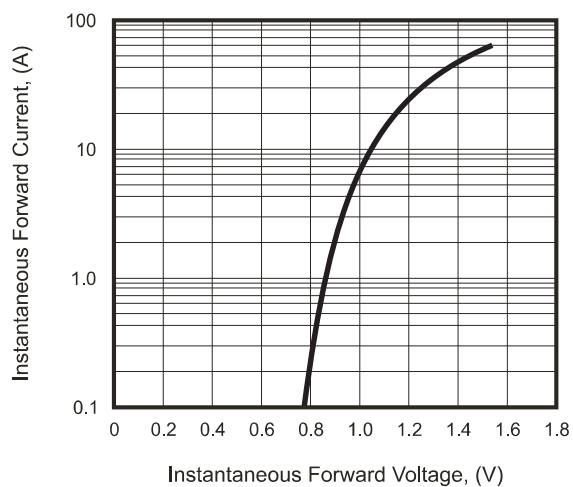
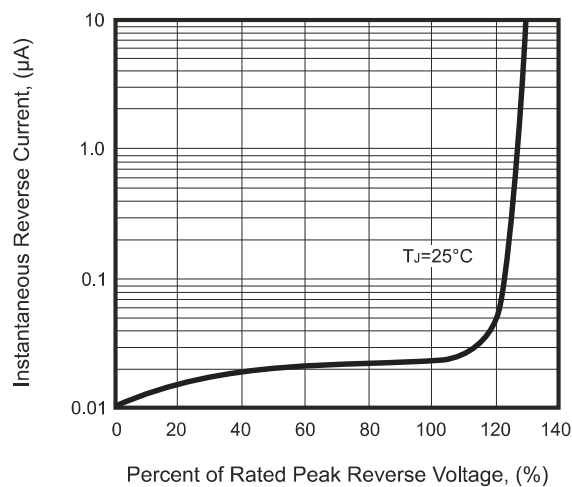
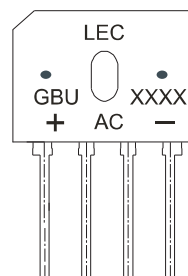


Fig.4 - Typical Reverse Characteristics



## Marking Code

| Part Number | Marking code |
|-------------|--------------|
| GBU15005    | GBU15005     |
| GBU1501     | GBU1501      |
| GBU1502     | GBU1502      |
| GBU1504     | GBU1504      |
| GBU1506     | GBU1506      |
| GBU1508     | GBU1508      |
| GBU1510     | GBU1510      |



XXXX / XXXXX = Product type marking code  
LEC = Longmacro Logo

## Standard Packaging

| Case Type | BULK PACK      |                   |
|-----------|----------------|-------------------|
|           | BOX<br>( pcs ) | Carton<br>( pcs ) |
| GBU       | 250            | 3,000             |