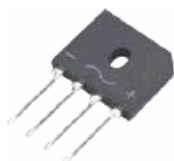



**RoHS**  
COMPLIANCE


# GBU1001 - GBU1007

## Single Phase 10.0 AMPS. Glass Passivated Bridge Rectifiers

GBU

### Features

- ✧ UL Recognized File # E-326243
- ✧ Glass passivated junction
- ✧ Ideal for printed circuit board
- ✧ High case dielectric strength of 1500Vrms
- ✧ Plastic material has Underwriters laboratory flammability Classification 94V-0
- ✧ Typical IR less than 0.1uA
- ✧ High surge current capability
- ✧ High temperature soldering guaranteed:  
260°C / 10 seconds at 5 lbs., ( 2.3 kg ) tension
- ✧ Green compound with suffix "G" on packing code & prefix "G" on datecode.

### Mechanical Data

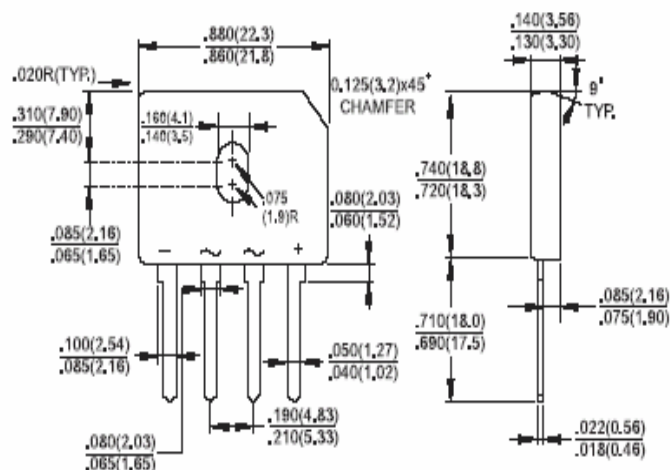
- ✧ Case : Molded plastic body
- ✧ Terminal : Pure tin plated , Lead free. Leads solderable per MIL-STD-202 Method 208
- ✧ Weight : 0.141 ounce ,4 grams
- ✧ Mounting Torque : 5 in lbs max.

### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

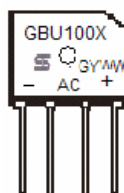
Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%



### Dimension in inches and (millimeter)

### Marking Diagram



GBU100X= Specific Device Code  
 G = Green Compound  
 Y = Year Code  
 WW = Week Code

| Type Number                                                                                         | Symbol                               | GBU<br>1001 | GBU<br>1002 | GBU<br>1003 | GBU<br>1004 | GBU<br>1005 | GBU<br>1006 | GBU<br>1007 | Units            |
|-----------------------------------------------------------------------------------------------------|--------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|
| Maximum Recurrent Peak Reverse Voltage                                                              | V <sub>RRM</sub>                     | 50          | 100         | 200         | 400         | 600         | 1000        | 1000        | V                |
| Maximum RMS Voltage                                                                                 | V <sub>RMS</sub>                     | 35          | 70          | 140         | 2100        | 420         | 560         | 700         | V                |
| Maximum DC Blocking Voltage                                                                         | V <sub>DC</sub>                      | 50          | 100         | 200         | 400         | 600         | 1000        | 1000        | V                |
| Maximum Average Forward Rectified Current<br>@ T <sub>C</sub> = 100°C                               | I <sub>(AV)</sub>                    | 10.0        |             |             |             |             |             |             | A                |
| Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method ) | I <sub>FSM</sub>                     | 220         |             |             |             |             |             |             | A                |
| Rating of fusing ( t < 8.3mS )                                                                      | I <sup>2</sup> t                     | 200         |             |             |             |             |             |             | A <sup>2</sup> S |
| Maximum Instantaneous Forward Voltage @ 5.0A<br>@ 10.0A                                             | V <sub>F</sub>                       | 1.0<br>1.1  |             |             |             |             |             |             | V                |
| Maximum DC Reverse Current @ TA=25°C<br>at Rated DC Blocking Voltage @ TA=125°C                     | I <sub>R</sub>                       | 5.0<br>500  |             |             |             |             |             |             | uA               |
| Typical Junction Capacitance per leg (Note 1)                                                       | Cj                                   | 211         |             |             |             | 94          |             |             | pF               |
| Typical Thermal Resistance (Note 2)                                                                 | R <sub>θJA</sub><br>R <sub>θJC</sub> | 21<br>2.0   |             |             |             |             |             |             | oC/W             |
| Operating Temperature Range                                                                         | T <sub>J</sub>                       | -55 to +150 |             |             |             |             |             |             | °C               |
| Storage Temperature Range                                                                           | T <sub>STG</sub>                     | -55 to +150 |             |             |             |             |             |             | °C               |

Note 1 : Measured at 1MHz and applied Reverse bias of 4.0V DC.

2. Unit case mounted on 4" x 6" x 0.25" Al plate heat sink.

## Rating and Sharacteristic Curves (GBU1001 Thru GBU1007)

FIG 1 Maximum Derating Curve for Output

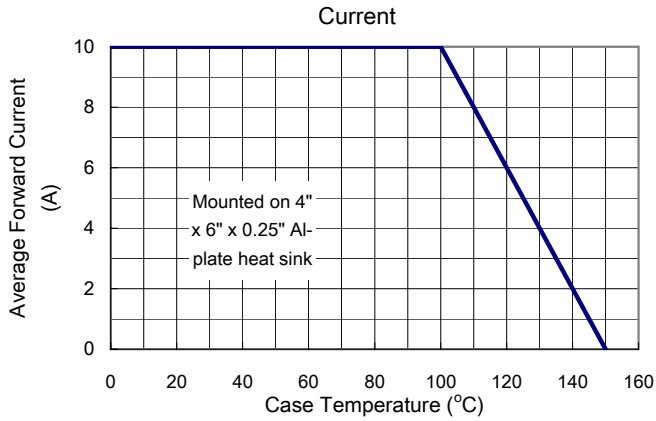


FIG 2 Maximum Forward Surge Current per Leg

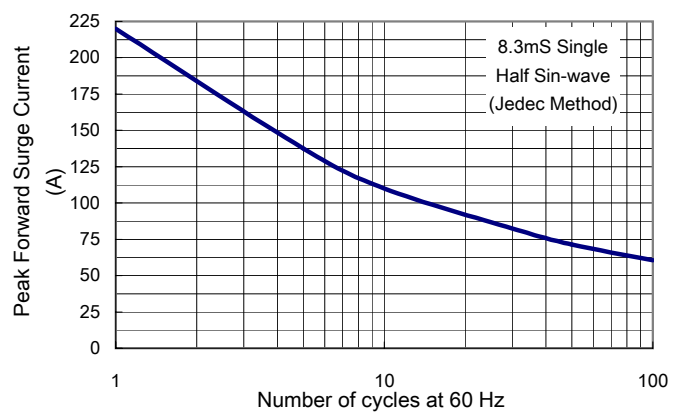


FIG 3 Typical Reverse Characteristics per Leg

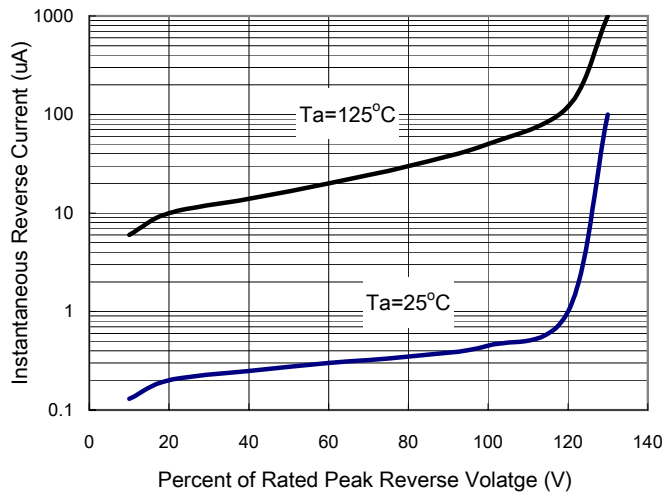


FIG 4 Typical Forward Characteristics per Leg.

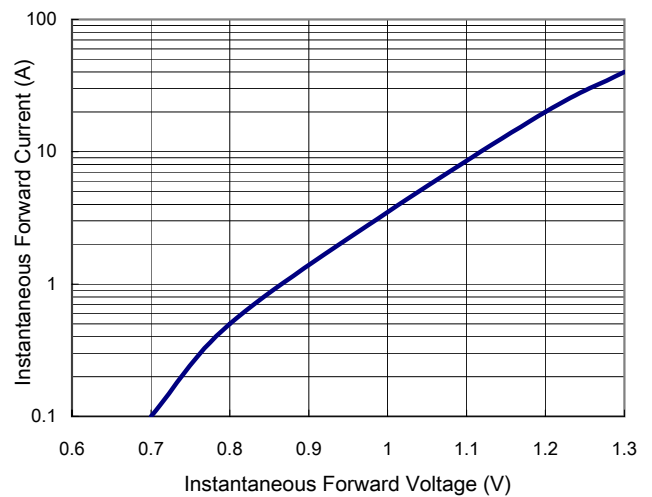


FIG 5 Typical Junction Capacitance

