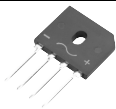




# GBU601 THRU GBU607

Single Phase 6.0 AMPS. Glass Passivated Bridge Rectifiers



Voltage Range  
50 to 1000 Volts  
Current  
6.0 Amperes

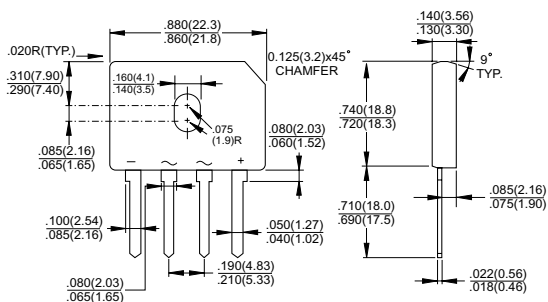
## Features

- ✧ UL Recognized File # E-96005
- ✧ Ideal for printed circuit board
- ✧ Reliable low cost construction
- ✧ Plastic material has Underwriters Laboratory Flammability Classification 94V-0
- ✧ Surge overload rating to 175 amperes peak
- ✧ High temperature soldering guaranteed: 250°C / 10 seconds / .375", (9.5mm) lead lengths at 5 lbs., (2.3kg) tension

## Mechanical Data

- ✧ Case: Molded plastic body.
- ✧ Terminals: Plated leads solderable per MIL-STD-750, Method 2026.
- ✧ Weight: 0.3 ounce, 8.0 grams
- ✧ Mounting torque: 5 in. lb. max.

## GBU



Dimensions in inches and (millimeters)

## 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%

| Type Number                                                                                            | GBU 601      | GBU 602 | GBU 603 | GBU 604 | GBU 605 | GBU 606 | GBU 607 | Units    |
|--------------------------------------------------------------------------------------------------------|--------------|---------|---------|---------|---------|---------|---------|----------|
| Maximum Recurrent Peak Reverse Voltage                                                                 | 50           | 100     | 200     | 400     | 600     | 800     | 1000    | V        |
| Maximum RMS Voltage                                                                                    | 35           | 70      | 140     | 280     | 420     | 560     | 700     | V        |
| Maximum DC Blocking Voltage                                                                            | 50           | 100     | 200     | 400     | 600     | 800     | 1000    | V        |
| Maximum Average Forward Rectified Current @T <sub>C</sub> = 100°C                                      | 6.0          |         |         |         |         |         |         | A        |
| Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method )    | 175          |         |         |         |         |         |         | A        |
| Maximum Instantaneous Forward Voltage @ 6.0A                                                           | 1.0          |         |         |         |         |         |         | V        |
| Maximum DC Reverse Current @ T <sub>A</sub> =25°C at Rated DC Blocking Voltage @ T <sub>A</sub> =125°C | 5.0<br>500   |         |         |         |         |         |         | uA<br>uA |
| Typical Thermal Resistance R $\theta$ JA (Note 1, 2)<br>R $\theta$ JC                                  | 7.0<br>2.0   |         |         |         |         |         |         | °C/W     |
| Typical Junction Capacitance (Note 3)                                                                  | 211          |         |         |         | 94      |         |         | pF       |
| Operating Temperature Range T <sub>J</sub>                                                             | -55 to +150  |         |         |         |         |         |         | °C       |
| Storage Temperature Range T <sub>STG</sub>                                                             | -55 to + 150 |         |         |         |         |         |         | °C       |

Notes: 1. Mounted on Al. Plate Heatsink of 2.6 x 1.4 x 0.06" THK (6.5 x 3.5 x 0.15 cm).

2. Bolt on Heatsink with silicone Thermal Compound for Maximum Heat Transfer with #6 Screws.

3. Measured at 1.0 MHZ and Applied Reverse Voltage of 4.0 Volts.

## RATINGS AND CHARACTERISTIC CURVES (GBU601 THRU GBU607)

FIG.1- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMENT

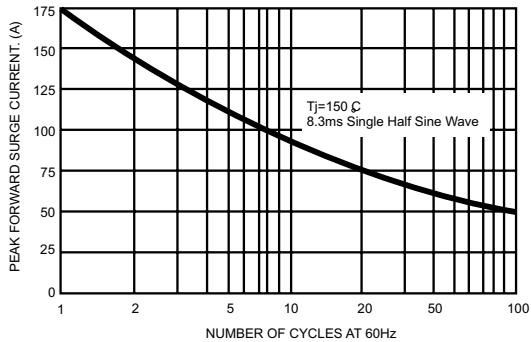


FIG.2-MAXIMUM FORWARD CURRENT DERATING CURVE

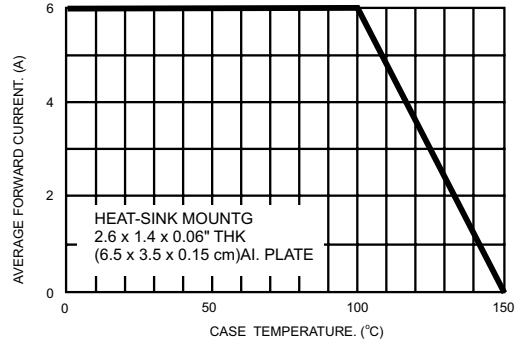


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

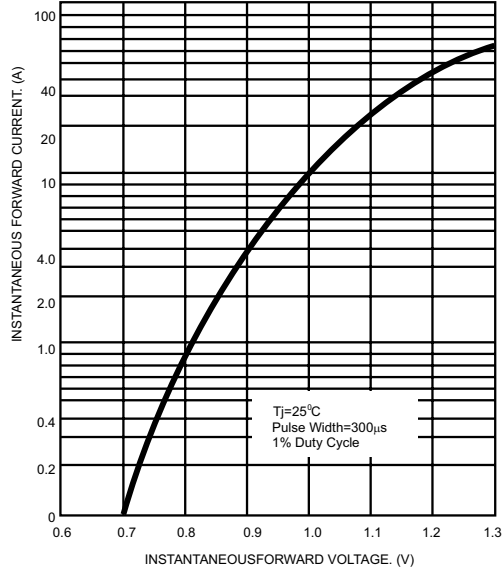


FIG.4- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

