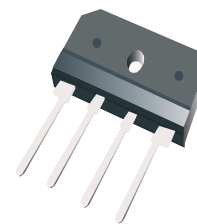


## GBU8005-G Thru. GBU810-G

Reverse Voltage: 50 to 1000V

Forward Current: 8.0A

RoHS Device

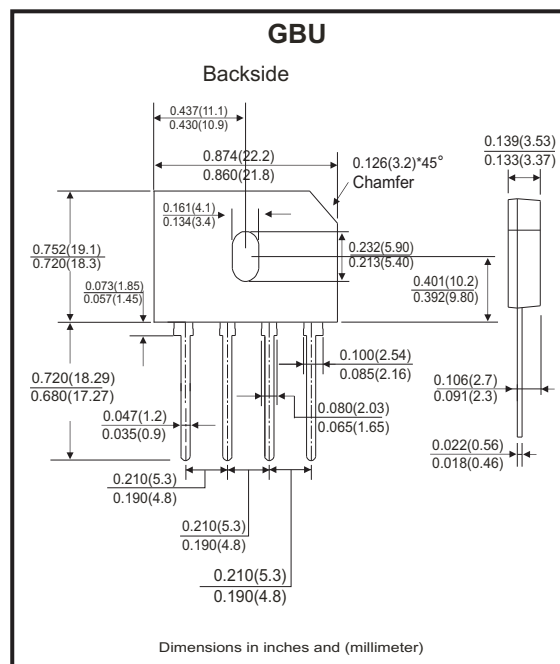


### Features

- Surge overload rating -200 amperes peak.
- Ideal for printed circuit board.

### Mechanical Data

- Epoxy: U/L 94V-0 rate flame retardant.
- Case: Molded plastic, GBU
- Mounting position: Any
- Weight: 3.91grams



### 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 8005-G  | GBU 801-G | GBU 802-G | GBU 804-G | GBU 806-G | GBU 808-G | GBU 810-G | 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)       | $I_{AV}$        | 8.0<br>3.2  |           |           |           |           |           |           | A    |
| Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Super Imposed On Rated Load (JEDEC Method) | $I_{FSM}$       | 200         |           |           |           |           |           |           | A    |
| Maximum Forward Voltage at 4.0A 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 |           |           |           |           |           |           | μA   |
| $I^2 T$ Rating for Fusing (t<8.3ms)                                                                | $I^2 t$         | 166         |           |           |           |           |           |           | °C/W |
| Typical Junction Capacitance Per Element (Note 1)                                                  | $C_J$           | 60          |           |           |           |           |           |           | pF   |
| Typical Thermal Resistance                                                                         | $R_{\theta JA}$ | 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 75mm\*75mm\*1.6mm Cu plate heatsink.

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

REV: B

Fig.1 - Forward Current Derating Curve

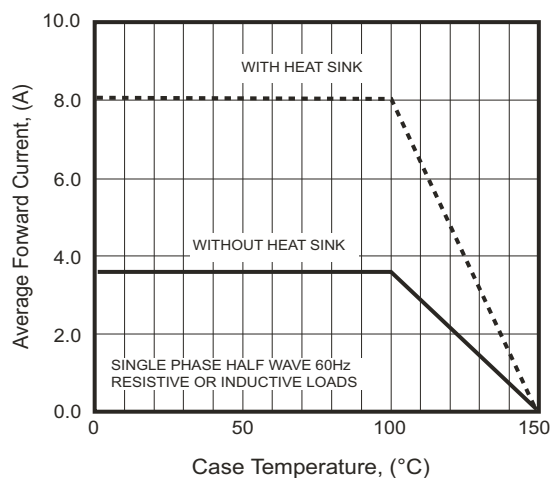


Fig.2 - Maximum NON-Repetitive Surge Current

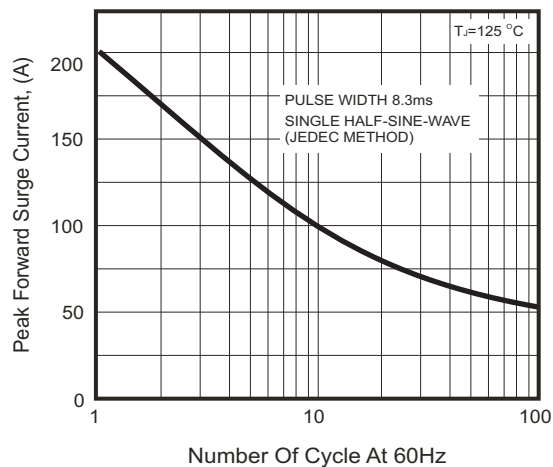


Fig.3 - Typical Junction Capacitance

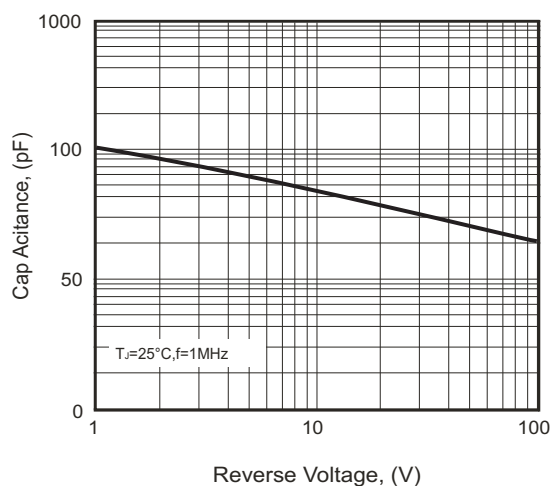


Fig.4 - Typical Forward Characteristics

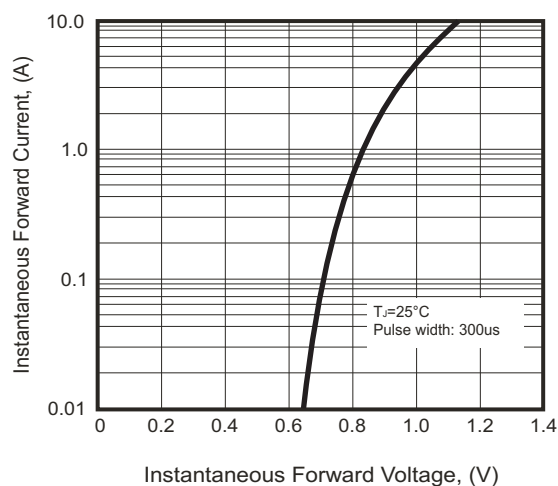
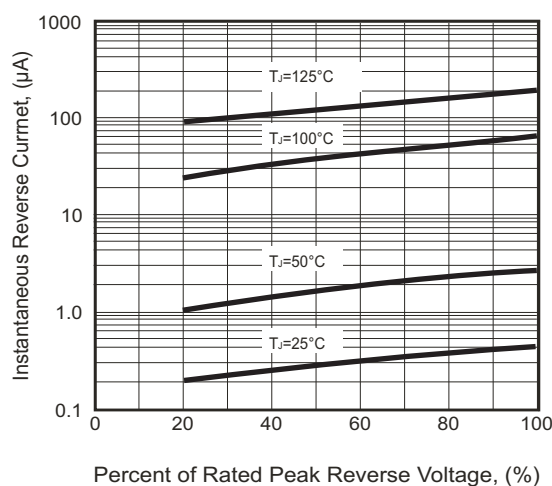
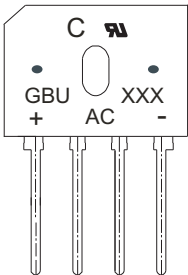


Fig.5 - Typical Reverse Characteristics



## Marking Code

| Part Number | Marking code |
|-------------|--------------|
| GBU8005-G   | GBU8005      |
| GBU801-G    | GBU801       |
| GBU802-G    | GBU802       |
| GBU804-G    | GBU804       |
| GBU806-G    | GBU806       |
| GBU808-G    | GBU808       |
| GBU810-G    | GBU810       |



XXX / XXXX = Product type marking code  
C = Comchip Logo

## Standard Packaging

| Case Type | TUBE PACK       |                   |
|-----------|-----------------|-------------------|
|           | TUBE<br>( pcs ) | Carton<br>( pcs ) |
| GBU       | 20              | 1,000             |