

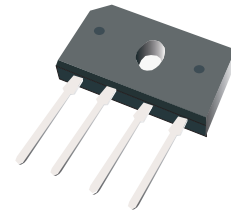
Glass Passivated Bridge Rectifiers

GBU10005-G Thru. GBU1010-G

Reverse Voltage: 50 to 1000V

Forward Current: 10A

RoHS Device

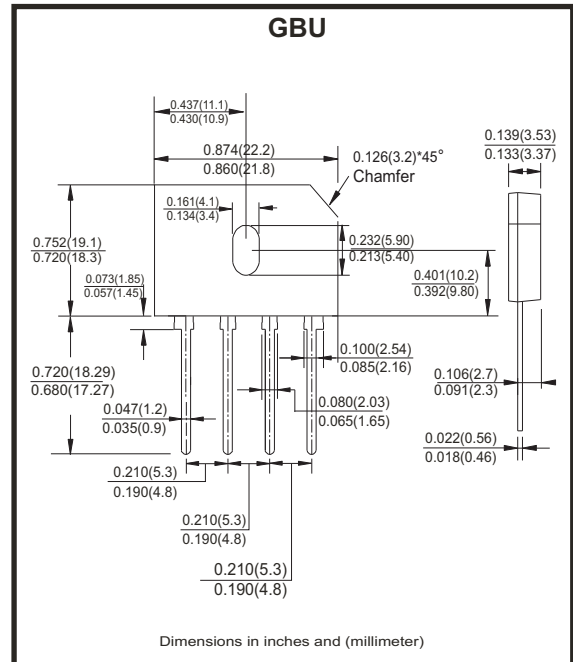


Features

- Surge overload rating - 220 amperes peak.
- Ideal for printed circuit board.

Mechanical Data

- Epoxy: U/L 94-V0 rate flame retardant.
- Case: Molded plastic, GBU
- Mounting position: Any
- Weight: 3.91grams(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 10005-G | GBU 1001-G | GBU 1002-G | GBU 1004-G | GBU 1006-G | GBU 1008-G | GBU 1010-G | Unit | |
|--|-----------------|-------------|------------|------------|------------|-------------|------------|------------|------|------------------|
| Maximum reverse peak repetitive voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V | |
| Maximum RMS bridge input 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 hestsink) | $I_{(AV)}$ | | | | | 10.0 | | | | A |
| Peak forward surage current , 8.3ms single half sine-wave Super imposed on rated load (JEDEC Method) | I_{FSM} | | | | | 220 | | | | A |
| Maximum forward voltage at 5.0A DC | V_F | | | | | 1.0 | | | | V |
| Maximum DC reverse current at rate DC blocking voltage @Tj=25°C @Tj=125°C | I_R | | | | | 10.0 | | | | μA |
| $I^2 T$ rating for fusing (t<8.3ms) | $I^2 t$ | | | | | 200 | | | | A ² 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.

Rating and Characteristics Curves (GBU10005-G Thru. GBU1010-G)

Fig.1- Derating Curve Output Rectified Current

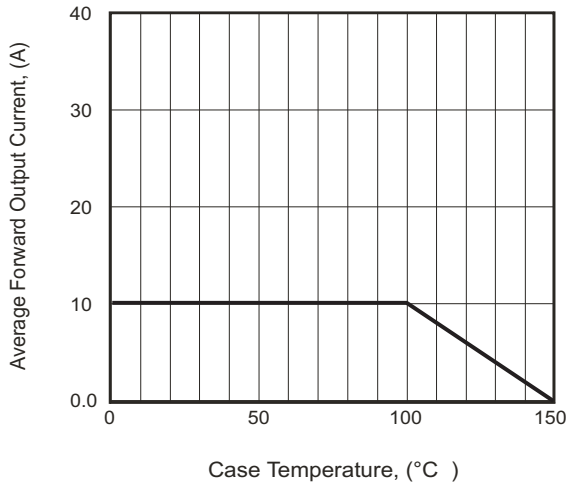


Fig.2- Maximum Forward Surge Current

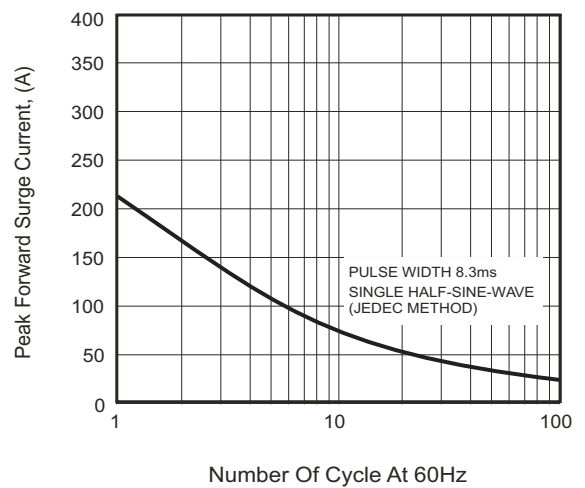


Fig.3- Typical Forward Characteristics

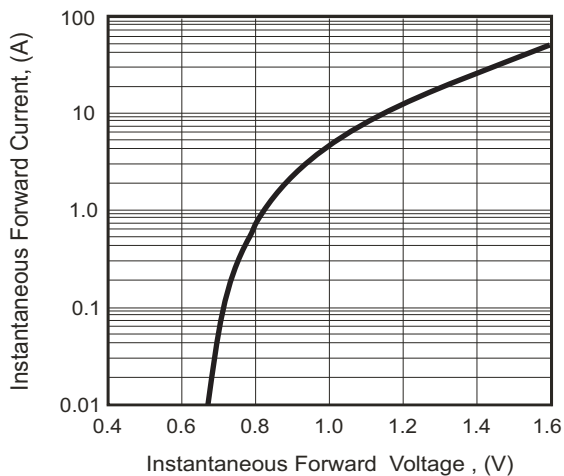
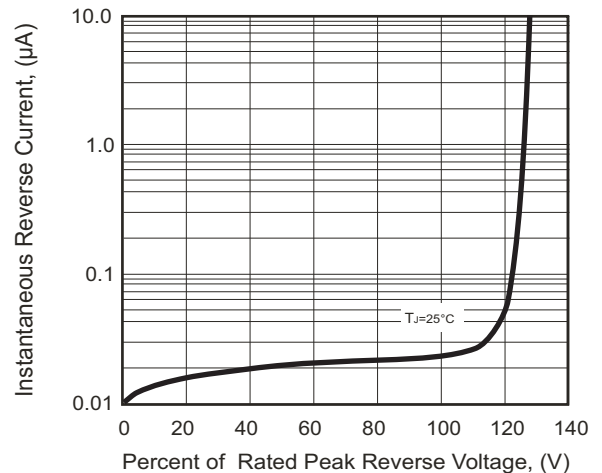
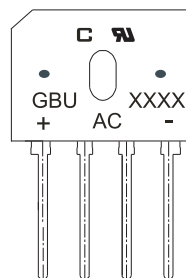


Fig.4- Typical Reverse Characteristics



Marking Code

| Part Number | Marking code |
|-------------|--------------|
| GBU10005-G | GBU10005 |
| GBU1001-G | GBU1001 |
| GBU1002-G | GBU1002 |
| GBU1004-G | GBU1004 |
| GBU1006-G | GBU1006 |
| GBU1008-G | GBU1008 |
| GBU1010-G | GBU1010 |



XXXX / XXXXX = Product type marking code
 □ = Compchip Logo

Standard Packaging

| Case Type | TUBE PACK | |
|-----------|-----------------|----------------|
| | TUBE (pcs) | BOX (pcs) |
| GBU | 20 | 1000 |