



THE DATASHEET OF GBU1004-G

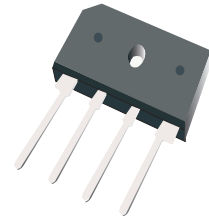


GBU10005-G Thru. GBU1010-G

Reverse Voltage: 50 to 1000V

Forward Current: 10A

RoHS Device

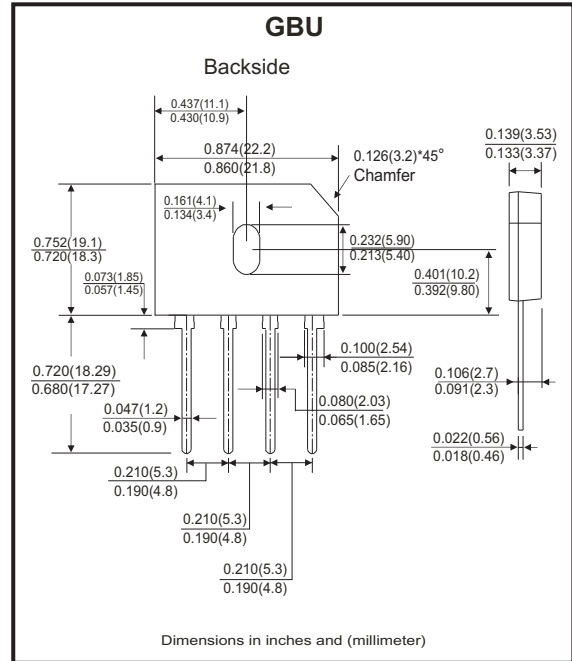


Features

- Surge overload rating -220 amperes peak.
- Ideal for printed circuit board.
- UL recognized file # E349301

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 10005-G | GBU 1001-G | GBU 1002-G | GBU 1004-G | GBU 1006-G | GBU 1008-G | GBU 1010-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 @ $T_c=100^\circ\text{C}$ (without heatsink) | $I_{(AV)}$ | | | | | 10.0 | | | | A |
| Peak Forward Surge 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 @ $T_J=25^\circ\text{C}$ At Rate DC Blocking Voltage @ $T_J=125^\circ\text{C}$ | I_R | | | | | 10.0 | | | | μA |
| $I^2 T$ Rating for Fusing($t < 8.3\text{ms}$) | $I^2 t$ | | | | | 200 | | | | A^2s |
| Typical Junction Capacitance Per Element (Note 1) | C_J | | | | | 70 | | | | pF |
| Typical Thermal Resistance | $R_{\theta JC}$ | | | | | 2.2 | | | | $^\circ\text{C/W}$ |
| Operating Temperature Range | T_J | | | | | -55 to +150 | | | | $^\circ\text{C}$ |
| Storage Temperature Range | T_{STG} | | | | | -55 to +150 | | | | $^\circ\text{C}$ |

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: C

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

Fig.1 - Derating Curve Output Rectified Current

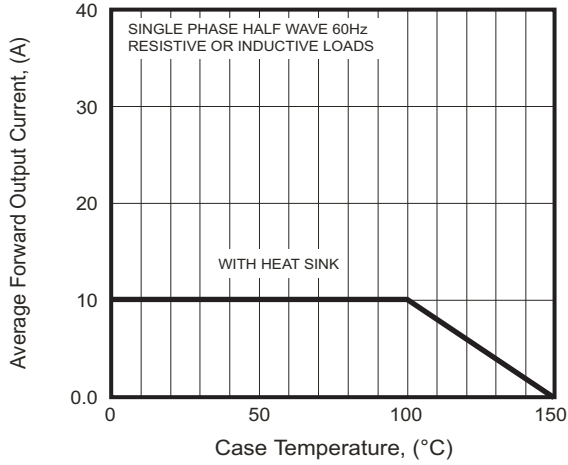


Fig.2 - Maximum Forward Surge Current

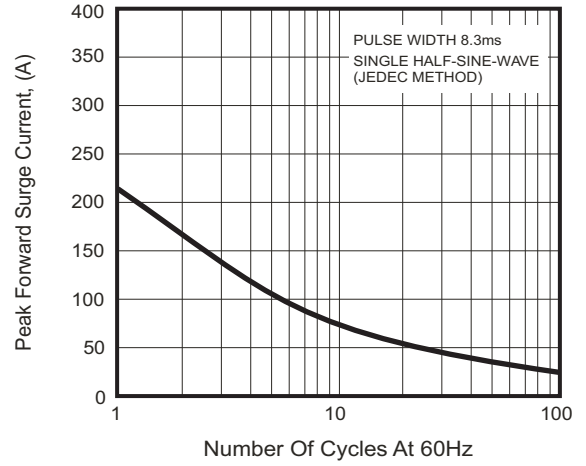


Fig.3 - Typical Forward Characteristics

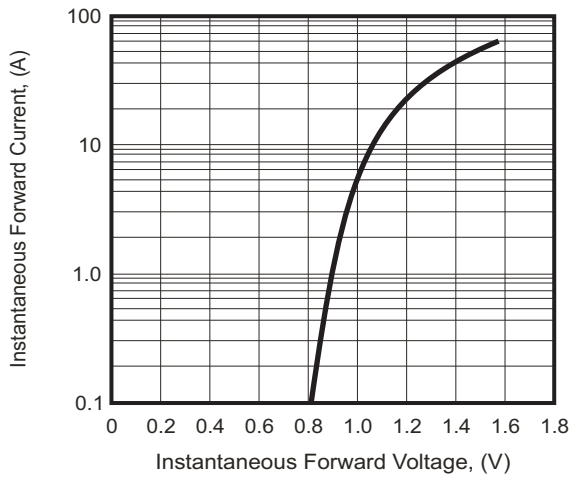
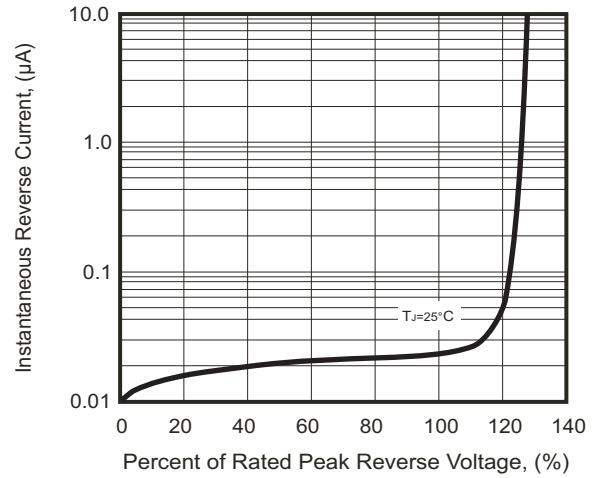
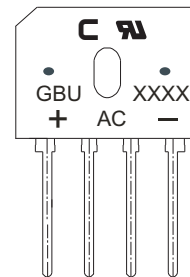


Fig.4 - Typical Reverse Characteristics



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
C = Compchip Logo

Standard Packaging

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

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