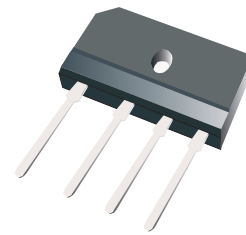


GBJ25005-G Thru. GBJ2510-G

Reverse Voltage: 50 to 1000V

Forward Current: 25.0A

RoHS Device

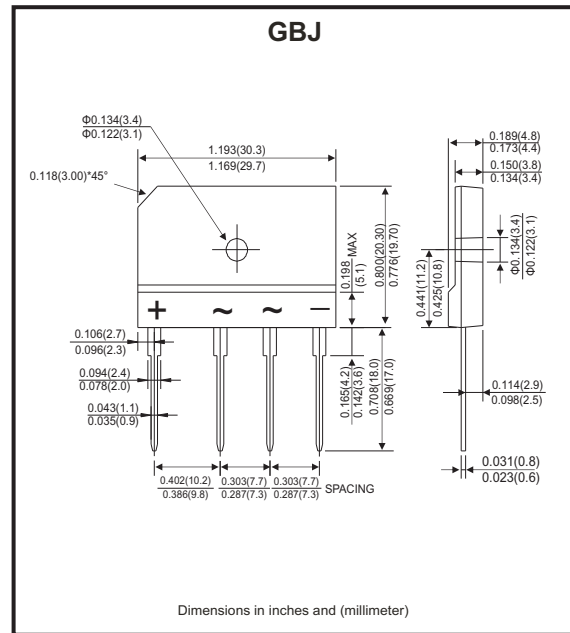


Features

- Rating to 1000V PRV.
- Ideal for printed circuit board.
- Low forward voltage drop.
- High current capability.
- UL recognized file # E349301

Mechanical Data

- Epoxy: UL 94V-0 rate flame retardant.
- Case: Molded plastic, GBJ
- Mounting position: Any
- Weight: 6.81grams



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 | GBJ 25005-G | GBJ 2501-G | GBJ 2502-G | GBJ 2504-G | GBJ 2506-G | GBJ 2508-G | GBJ 2510-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 Note 2) Rectified Current @ $T_c=100^\circ\text{C}$ (without heatsink) | $I_{(AV)}$ | 25.0 | | | | 4.2 | | | | A |
| Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Super Imposed On Rated Load (JEDEC Method) | I_{FSM} | | | | | 350 | | | | A |
| Maximum Forward Voltage at 12.5A 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 | | | | | 10.0 500 | | | | μA |
| $I^2 T$ Rating for Fusing ($t < 8.3\text{ms}$) | $I^2 t$ | | | | | 508 | | | | A^2s |
| Typical Junction Capacitance Per Element (Note 1) | C_J | | | | | 85 | | | | pF |
| Typical Thermal Resistance | $R_{\theta JC}$ | | | | | 0.6 | | | | $^\circ\text{C}/\text{W}$ |
| 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 300mm*300mm*1.6mm Cu plate heatsink.

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

REV: F

Rating and Characteristics Curves (GBJ25005-G Thru. GBJ2510-G)

Fig.1 - Forward Current Derating Curve



Fig.2 - Maximum Non-Repetitive Surge Current

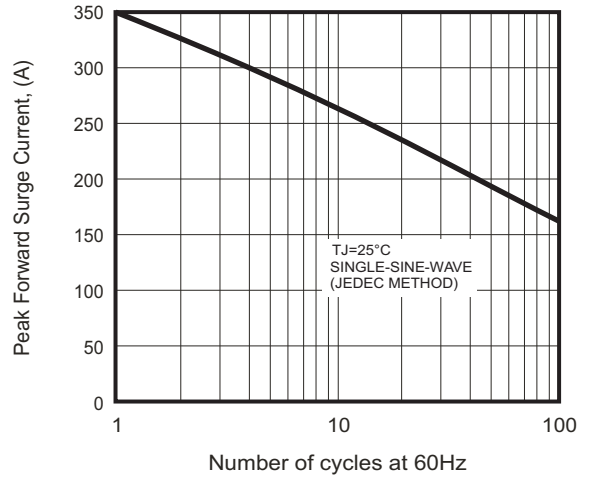


Fig.3 - Typical Junction Capacitance

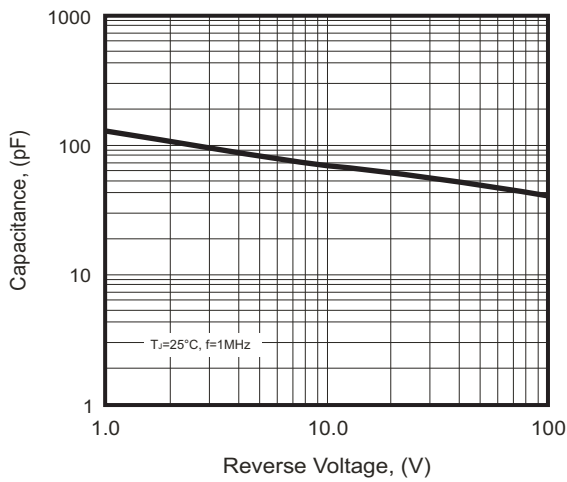


Fig.4 - Typical Forward Characteristics

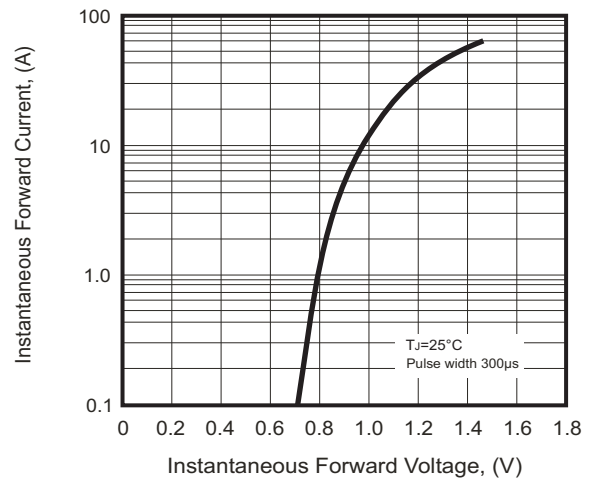
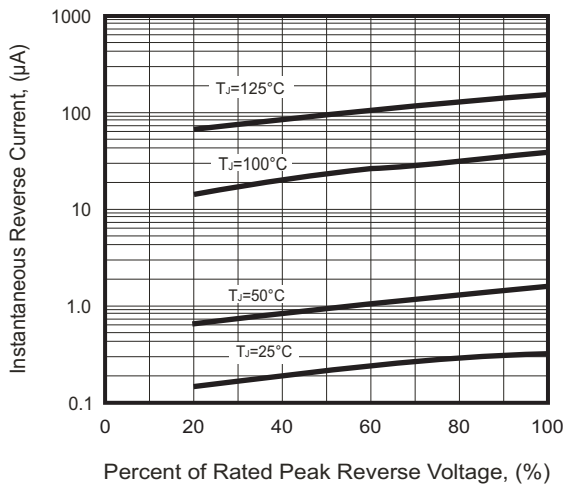
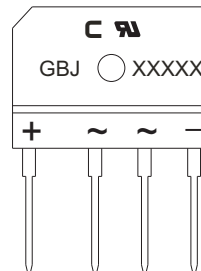


Fig.5 - Typical Reverse Characteristics



Marking Code

| Part Number | Marking code |
|-------------|--------------|
| GBJ25005-G | GBJ25005 |
| GBJ2501-G | GBJ2501 |
| GBJ2502-G | GBJ2502 |
| GBJ2504-G | GBJ2504 |
| GBJ2506-G | GBJ2506 |
| GBJ2508-G | GBJ2508 |
| GBJ2510-G | GBJ2510 |



XXXXX / XXXX = Product type marking code

C = Comchip Logo

Standard Packaging

| Case Type | TUBE PACK | |
|-----------|-----------------|-------------------|
| | TUBE (pcs) | Carton (pcs) |
| GBJ | 15 | 750 |