

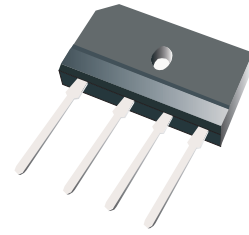
# Glass Passivated Bridge Rectifiers

## GBJ25005-G Thru. GBJ2510-G

Reverse Voltage: 50 to 1000V

Forward Current: 25.0A

RoHS Device

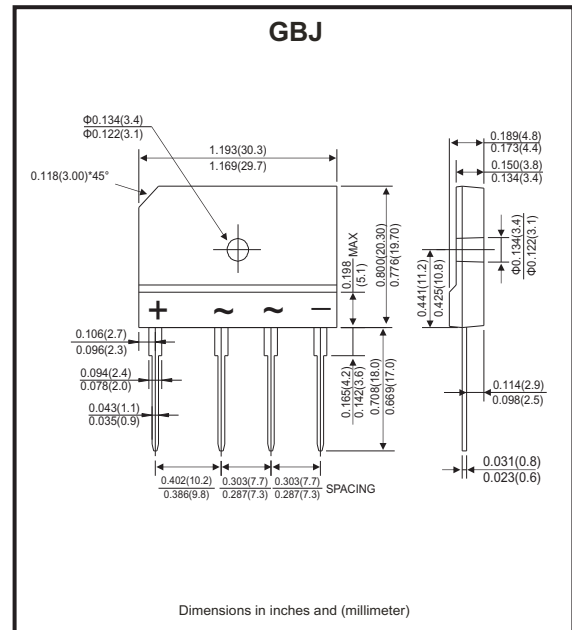


### Features

- 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 @Tc=100°C (without heatsink)       | $I_{(AV)}$      | 25.0<br>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 @Tj=25°C At Rate DC Blocking Voltage @Tj=125°C                           | $I_R$           | 10.0<br>500 |            |            |            |            |            |            | $\mu A$          |
| $I^2 T$ Rating for Fusing (t<8.3ms)                                                                 | $I^2 t$         | 508         |            |            |            |            |            |            | A <sup>2</sup> s |
| Typical Junction Capacitance Per Element (Note 1)                                                   | $C_J$           | 85          |            |            |            |            |            |            | pF               |
| Typical Thermal Resistance                                                                          | $R_{\theta JC}$ | 0.6         |            |            |            |            |            |            | °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 300mm\*300mm\*1.6mm Cu plate heatsink.

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

REV: F

Fig.1 - Forward Current Derating Curve

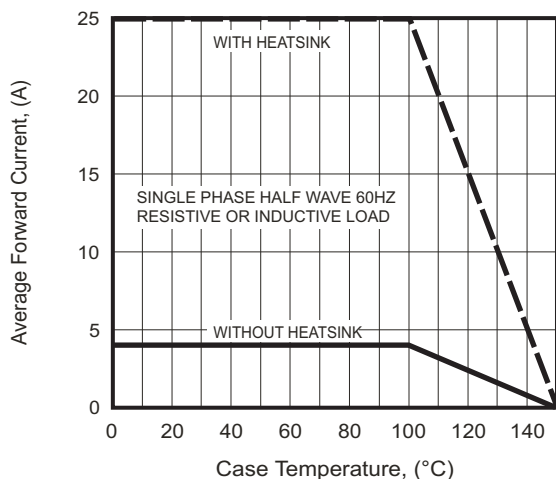


Fig.2 - Maximum Non-Repetitive Surge Current

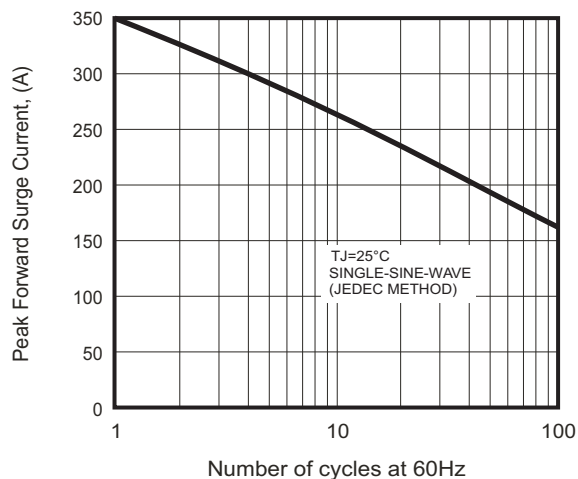


Fig.3 - Typical Junction Capacitance

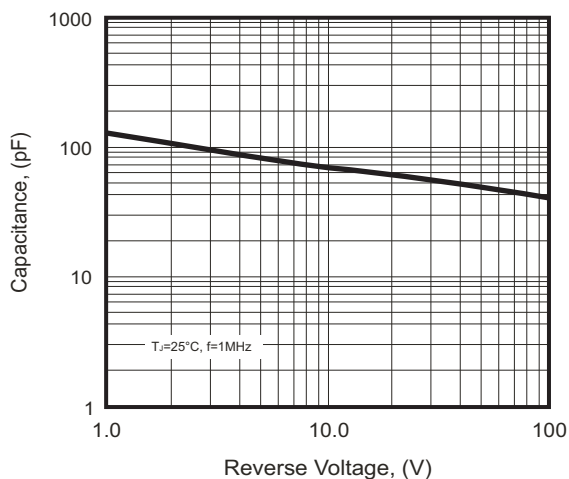


Fig.4 - Typical Forward Characteristics

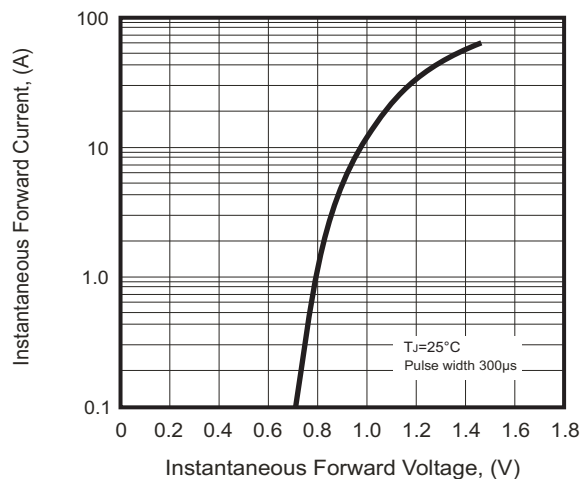
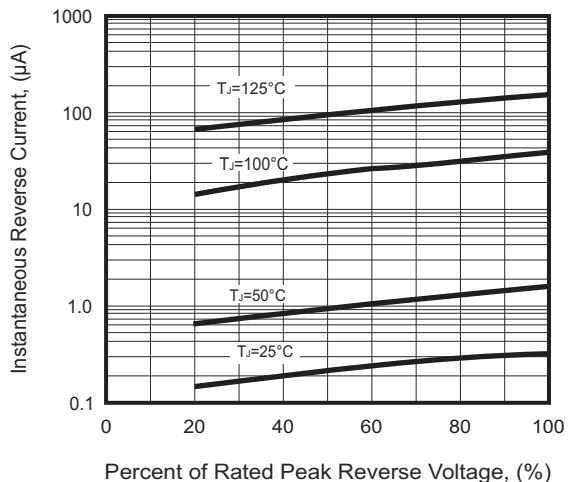
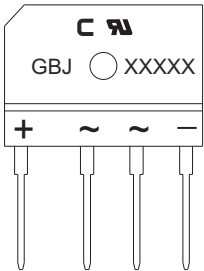


Fig.5 - Typical Reverse Characteristics



## 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      |



XXXXXX / XXXX = Product type marking code

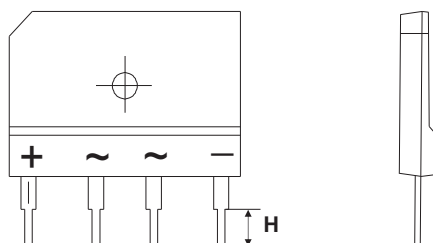
C = Compchip Logo

## Standard Packaging

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

## GBJ25005-03-G Thru. GBJ2510-06-G

### Package outline(Cuts the foot)

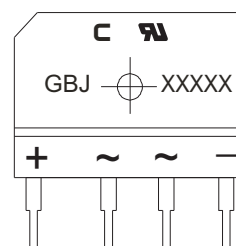


| H           | 4.5±0.5<br>(mm) | 4.0±0.5<br>(mm) | 10.0±0.5<br>(mm) | 5.0±0.5<br>(mm) |
|-------------|-----------------|-----------------|------------------|-----------------|
| Part Number |                 |                 |                  |                 |
| GBJ25005-G  | GBJ25005-03-G   | GBJ25005-04-G   | GBJ25005-05-G    | GBJ25005-06-G   |
| GBJ2501-G   | GBJ2501-03-G    | GBJ2501-04-G    | GBJ2501-05-G     | GBJ2501-06-G    |
| GBJ2502-G   | GBJ2502-03-G    | GBJ2502-04-G    | GBJ2502-05-G     | GBJ2502-06-G    |
| GBJ2504-G   | GBJ2504-03-G    | GBJ2504-04-G    | GBJ2504-05-G     | GBJ2504-06-G    |
| GBJ2506-G   | GBJ2506-03-G    | GBJ2506-04-G    | GBJ2506-05-G     | GBJ2506-06-G    |
| GBJ2508-G   | GBJ2508-03-G    | GBJ2508-04-G    | GBJ2508-05-G     | GBJ2508-06-G    |
| GBJ2510-G   | GBJ2510-03-G    | GBJ2510-04-G    | GBJ2510-05-G     | GBJ2510-06-G    |

Dimensions in inches and (millimeter)

### Marking Code

| 4.5±0.5<br>(mm) | 4.0±0.5<br>(mm) | 10.0±0.5<br>(mm) | 5.0±0.5<br>(mm) | Marking code |
|-----------------|-----------------|------------------|-----------------|--------------|
| GBJ25005-03-G   | GBJ25005-04-G   | GBJ25005-05-G    | GBJ25005-06-G   | GBJ25005     |
| GBJ2501-03-G    | GBJ2501-04-G    | GBJ2501-05-G     | GBJ2501-06-G    | GBJ2501      |
| GBJ2502-03-G    | GBJ2502-04-G    | GBJ2502-05-G     | GBJ2502-06-G    | GBJ2502      |
| GBJ2504-03-G    | GBJ2504-04-G    | GBJ2504-05-G     | GBJ2504-06-G    | GBJ2504      |
| GBJ2506-03-G    | GBJ2506-04-G    | GBJ2506-05-G     | GBJ2506-06-G    | GBJ2506      |
| GBJ2508-03-G    | GBJ2508-04-G    | GBJ2508-05-G     | GBJ2508-06-G    | GBJ2508      |
| GBJ2510-03-G    | GBJ2510-04-G    | GBJ2510-05-G     | GBJ2510-06-G    | GBJ2510      |



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