Pb Free Plating Product

# GBJ25005 thru GBJ2510

25.0 AMPERE GLASS PASSIVATED FLAT BRIDGE RECTIFIERS

## Features

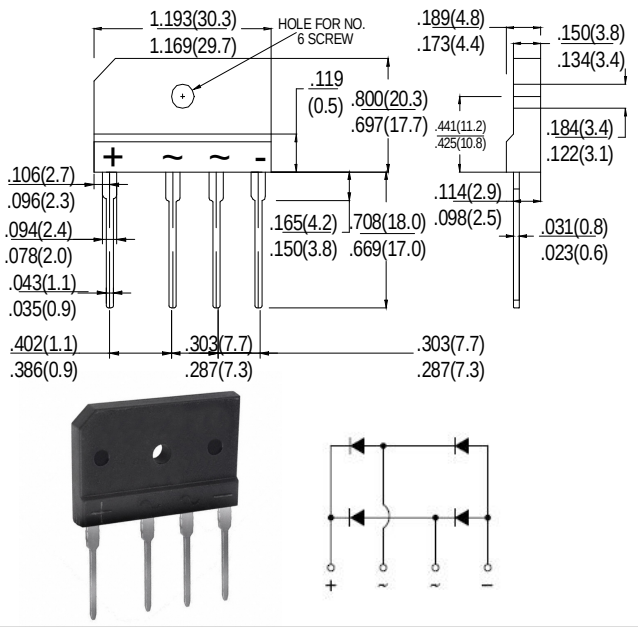
- Glass passivated chip junction
- Low forward voltage drop
- High surge overload rating of 320 A peak
- Ideal for printed circuit board

## Mechanical Data

- Case: Molded plastic,GBJ(5S/6KBJ)
- Epoxy: UL 94V-0 rate flame retardant
- Terminals: Leads solderable per JESD22-B102, Meet JESD 201 class 2 whisker test
- Mounting position: Any

***GBJ***

Dimensions in inches and (millimeters)




**Absolute Maximum Ratings and Characteristics**

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

| MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS ($T_A$=25°C unless otherwise noted) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PARAMETER | SYMBOL | GBJ25005 | GBJ2501 | GBJ2502 | GBJ2504 | GBJ2506 | GBJ2508 | GBJ2510 | UNIT |
| Maximum repetitive 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 rectified current | $I_{F(AV)}$ | 25 | | | | | | | A |
| Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load | $I_{FSM}$ | 320 | | | | | | | A |
| Rating for fusing (t<8.3ms) | $I^2t$ | 508 | | | | | | | $A^2s$ |
| Maximum instantaneous forward voltage (Note 1)<br>@ 12.5 A<br>@ 25 A | $V_F$ | 1.0<br>1.1 | | | | | | | V |
| Maximum reverse current @ rated $V_R$ $T_J$=25°C<br>$T_J$=125°C | $I_R$ | 10<br>500 | | | | | | | μA |
| Typical thermal resistance | $R_{\theta JC}$ | 0.6 | | | | | | | °C/W |
| Operating junction temperature range | $T_J$ | - 55 to +150 | | | | | | | °C |
| Storage temperature range | $T_{STG}$ | - 55 to +150 | | | | | | | °C |

Note 1: Pulse test with PW=300μs, 1% duty cycle

## RATINGS AND CHARACTERISTICS CURVES

($T_A$=25°C unless otherwise noted)

FIG.1 FORWARD CURRENT DERATING CURVE

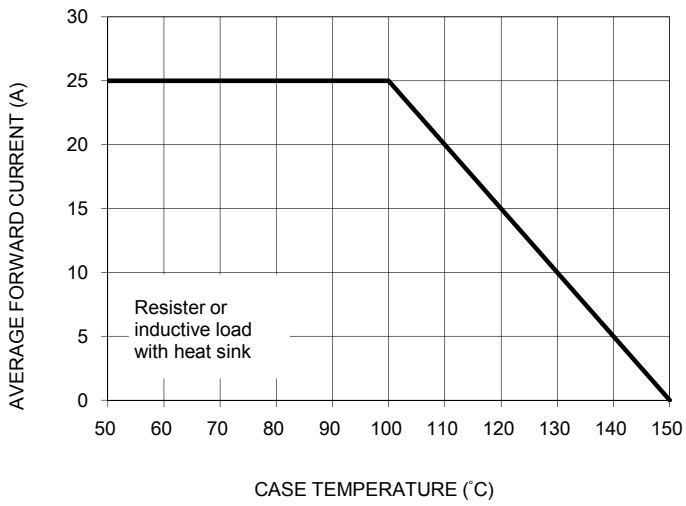



FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

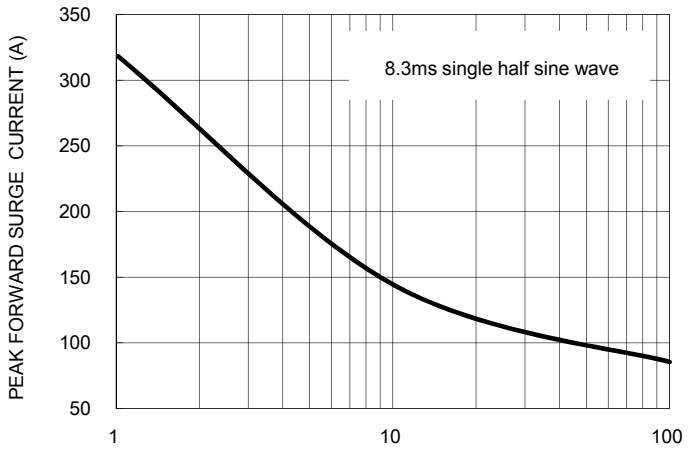



FIG. 3 TYPICAL REVERSE CHARACTERISTICS

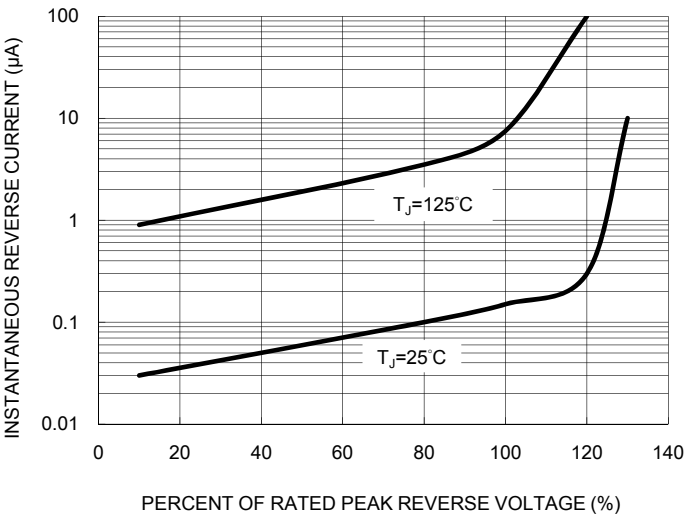



FIG. 4 TYPICAL FORWARD CHARACTERISTICS

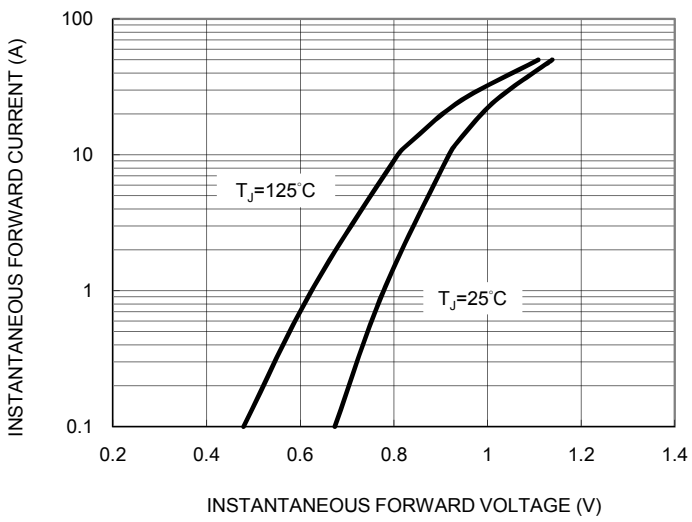



FIG. 5 TYPICAL JUNCTION CAPACITANCE