

GBJ10005 thru GBJ1010

GLASS PASSIVATED BRIDGE RECTIFIERS

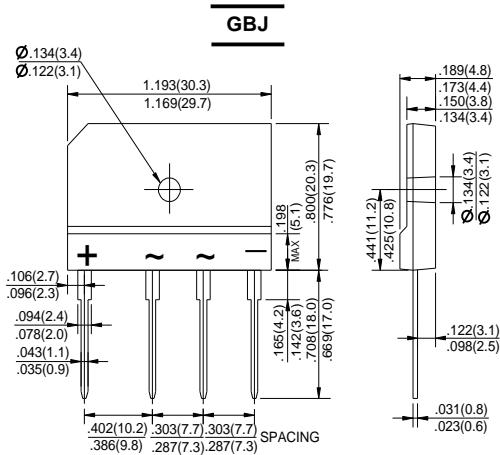
Reverse Voltage - 50 to 1000 Volts Forward Current - 10 Amperes

FEATURES

- ◆ Rating to 1000V PRV
- ◆ Ideal for printed circuit board
- ◆ Low forward voltage drop, high current capability
- ◆ Reliable low cost construction utilizing molded plastic technique results in inexpensive product

MECHANICAL DATA

Case: Molded plastic body
Lead: Solder plated
Polarity: As marked



Dimensions in inches and (millimeters)

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%

| CHARACTERISTICS | SYMBOL | GBJ 10005 | GBJ 1001 | GBJ 1002 | GBJ 1004 | GBJ 1006 | GBJ 1008 | GBJ 1010 | UNIT | |
|---|-------------------|-----------|----------|----------|----------|-------------|----------|----------|------|------------------|
| Maximum Recurrent Peak Reverse Voltage | V _{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V | |
| Maximum RMS Voltage | V _{RMS} | 30 | 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 =110 °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 | | | | | 1.1 | | | | V |
| Maximum DC Reverse Current @ T _J =25 °C at Rated DC Blocking Voltage @ T _J =125 °C | I _R | | | | | 10.0 | | | | uA |
| I ² t Rating for Fusing (t<8.3ms) | I ² t | | | | | 120 | | | | A ² s |
| Typical Junction Capacitance Per Element (Note1) | C _J | | | | | 55 | | | | pF |
| Typical Thermal Resistance (Note2) | R _{θJC} | | | | | 1.4 | | | | °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 150mm*150mm*1.6mm cu plate heatsink.

RATINGS AND CHARACTERISTIC CURVES GBJ10005 THRU GBJ1010

FIG.1-FORWARD CURRENT DERATING CURVE

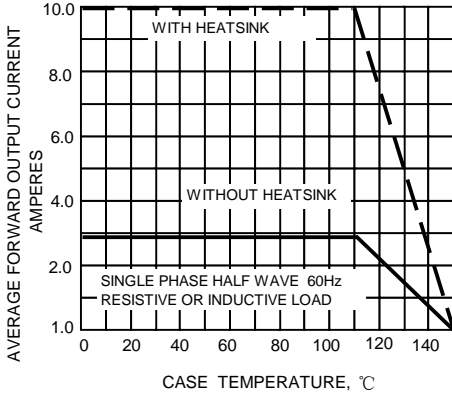


FIG.2-MAXMUN NON-REPETITIVE SURGE CURRENT

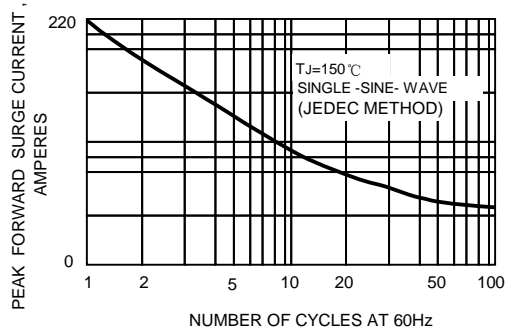


FIG.3-TYPICAL JUNCTION CAPACITANCE

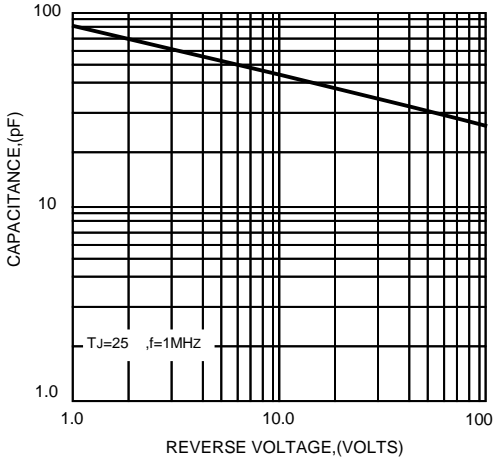


FIG.4-TYPICAL FORWARD CHARACTERISTICS

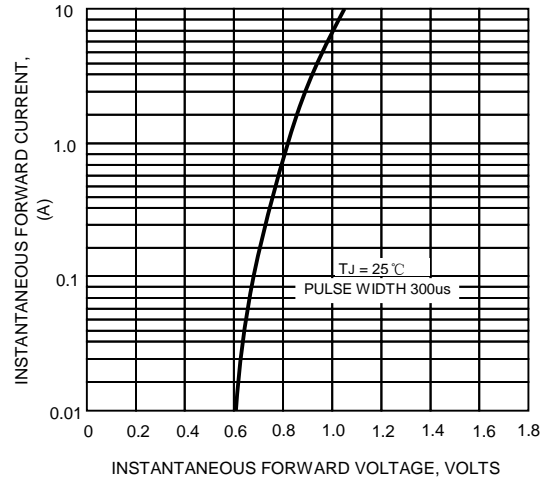


FIG.5-TYPICAL REVERSE CHARACTERISTICS

