

# GBJ1001 THRU GBJ1010

SINGLE-PHASE BRIDGE RECTIFIER GLASS PASSIVATED BRIDGE RECTIFIERS  
 REVERSE VOLTAGE 100 to 1000 Volts FORWARD CURRENT 10 Ampere

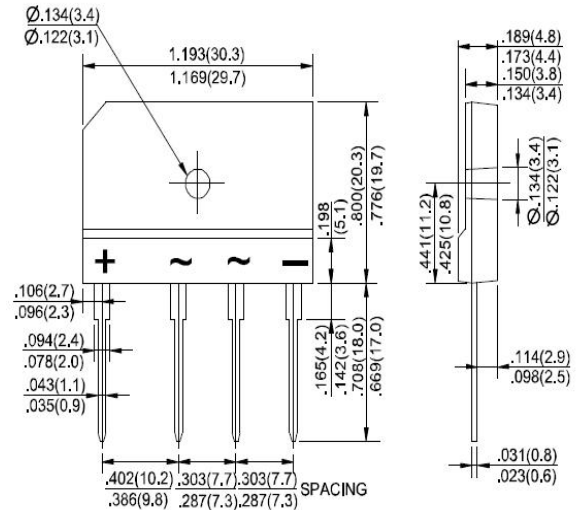
## FEATURES

- ◆ 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.
- ◆ The plastic material has UL flammability classification 94V-0.
- ◆ Electrically isolated base-1500 Volts

## Mechanical Data

- ◆ Polarity: Symbols molded on body.
- ◆ Weight: 0.26 ounces, 7.0 grams.
- ◆ Mounting position: Any.

## GBJ



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%

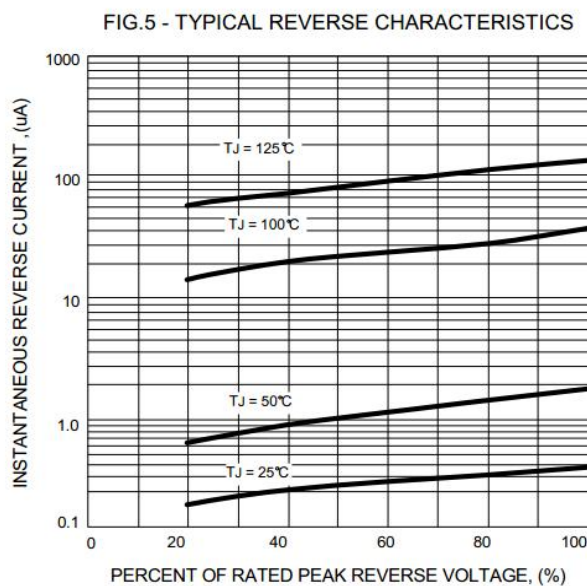
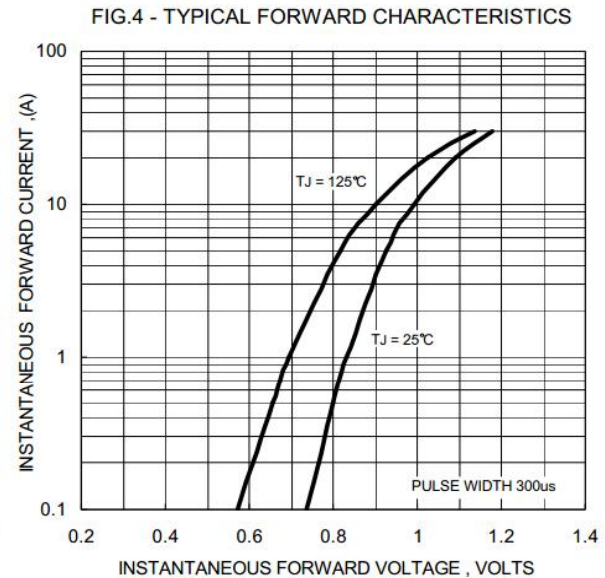
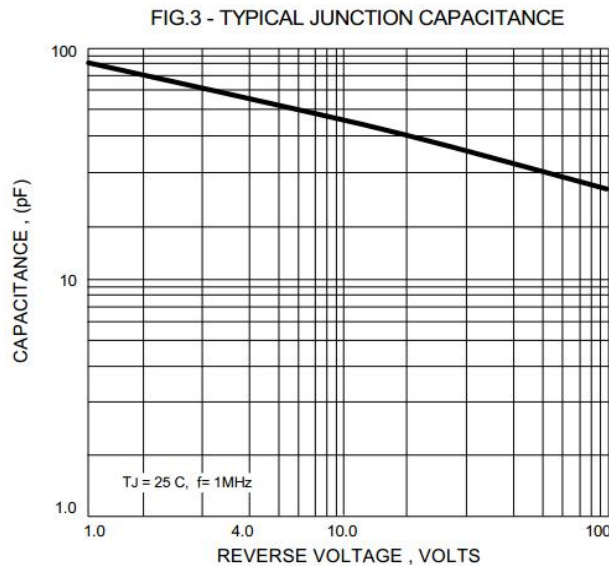
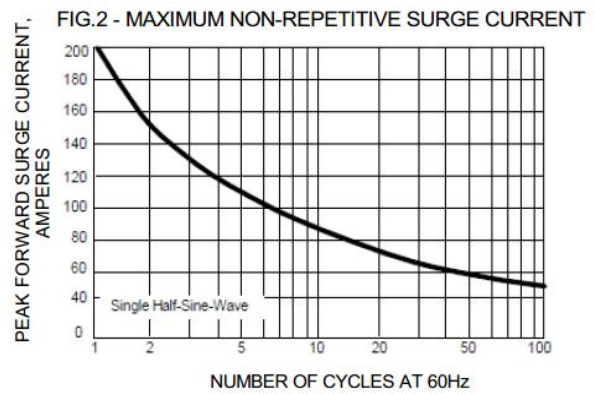
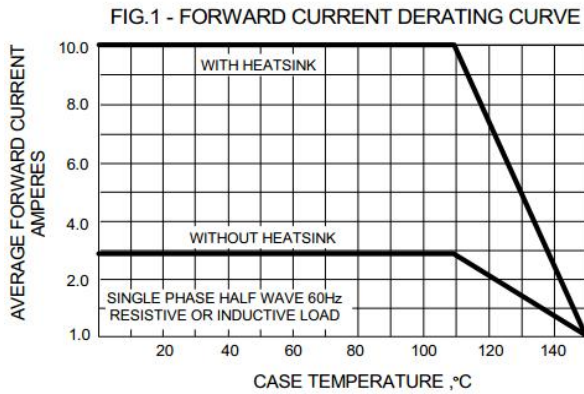
| PARAMETER   | SYMBOL          | GBJ1001     | GBJ1002 | GBJ1004 | GBJ1006 | GBJ1008 | GBJ1010 | UNIT                      |
|---|-----------------|-------------|---------|---------|---------|---------|---------|---------------------------|
| Maximum Recurrent Peak Reverse Voltage  | $V_{RRM}$       | 100         | 200     | 400     | 600     | 800     | 1000    | V                         |
| Maximum RMS Voltage   | $V_{RMS}$       | 70          | 140     | 280     | 420     | 560     | 700     | V                         |
| Maximum DC Blocking Voltage   | $V_{DC}$        | 100         | 200     | 400     | 600     | 800     | 1000    | V                         |
| Maximum Average Forward (with heatsink Note 2) Rectified Current @ $T_C=110^\circ\text{C}$ (without heatsink) | $I_{(AV)}$      | 10.0<br>3.0 |         |         |         |         |         | A                         |
| Peak Forward Surge Current<br>8.3ms single half sine-wave<br>superimposed on rated load (JEDEC METHOD)        | $I_{FSM}$       | 200         |         |         |         |         |         | A                         |
| Maximum forward Voltage at 5.0A DC  | $V_F$           | 1.0         |         |         |         |         |         | V                         |
| Maximum DC Reverse Current @ $T_J=25^\circ\text{C}$<br>at Rated DC Blocking voltage @ $T_J=125^\circ\text{C}$ | $I_R$           | 5.0<br>500  |         |         |         |         |         | $\mu\text{A}$             |
| $I^2t$ Rating for fusing ( $t < 8.3\text{ms}$ )   | $I^2t$          | 166         |         |         |         |         |         | $\text{A}^2\text{S}$      |
| Typical Junction Capacitance per element (Note 1)   | $C_J$           | 55          |         |         |         |         |         | pF                        |
| Typical Thermal Resistance (Note 2)   | $R_{\theta JC}$ | 1.4         |         |         |         |         |         | $^\circ\text{C}/\text{W}$ |
| Operating Temperature Range   | $T_J$           | -55 to +150 |         |         |         |         |         | $^\circ\text{C}$          |
| Storage Temperature Range   | $T_{STG}$       | -55 to +150 |         |         |         |         |         | $^\circ\text{C}$          |

Note: 1. Measured at 1.0M Hz and applied reversed voltage of 4.0 VDC.  
 2. Device mounted on 150mm x 150mm x 1.6mm Cu Plate Heatsink.

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## RATING AND CHARACTERISTIC CURVES GBJ1001 THRU GBJ1010



Note: Specifications are subject to change without notice. For more detail and update, please visit our website.