

50A GLASS PASSIVATED BRIDGE RECTIFIER Reverse

Voltage - 100 to 1000 V

Forward Current – 50A



FEATURES

- ◆ Surge overload rating-400 amperes peak
- ◆ Polarity:As marked on body
- ◆ Ideal for printed circuit board
- ◆ Plastic material has U/L

The flammability classification 94V-0

- ◆ Reliable low cost construction utilizing molded plastic technique

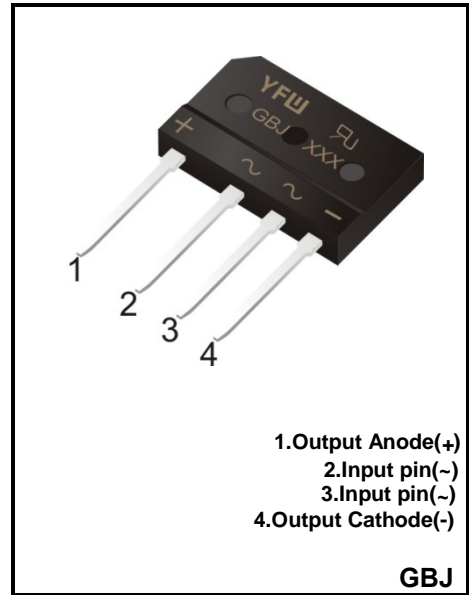
MECHANICAL DATA

- ◆ Case: GBJ
- ◆ Terminals: Solderable per MIL-STD-202, Method 208
- ◆ Approx. Weight: 6.79g /0.24oz

Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.



| Parameter | Symbols | GBJ5001 | GBJ5002 | GBJ5004 | GBJ5006 | GBJ5008 | GBJ5010 | Units |
|---|-----------------|------------|---------|---------|---------|---------|---------|---------------|
| Maximum Repetitive 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 Rectified Current @ $T_a = 85^{\circ}C$ | $I_{(AV)}$ | 50 | | | | | | A |
| Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC method) | I_{FSM} | 500 | | | | | | A |
| Forward Voltage per element @ $I_F = 25A$ DC | V_F | 1.1 | | | | | | V |
| Maximum DC Reverse Current at Rated DC Blocking Voltage @ $T_J = 25^{\circ}C$ @ $T_J = 125^{\circ}C$ | I_R | 5 500 | | | | | | μA |
| I^2t Rating for Fusing($3ms \leq t \leq 8.3ms$) | I^2t | 664 | | | | | | A^2S |
| Typical Junction Capacitance ^(Note1) | C_j | 140 | | | | | | pF |
| Typical Thermal Resistance ^(Note2) | $R_{\theta JC}$ | 1.0 | | | | | | $^{\circ}C/W$ |
| Operating and Storage Temperature Range | T_j, T_{stg} | -55 ~ +150 | | | | | | $^{\circ}C$ |

(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C

(2) Device mounted on 75mm*75mm*1.6mm cu plate heatsink

FIG.1-FORWARD CURRENT DERATING CURVE

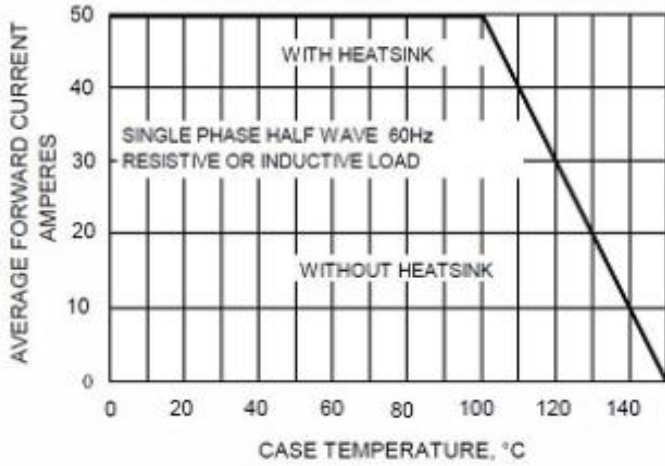


FIG.2-MAXMUN NON-REPETITIVE SURGE CURRENT

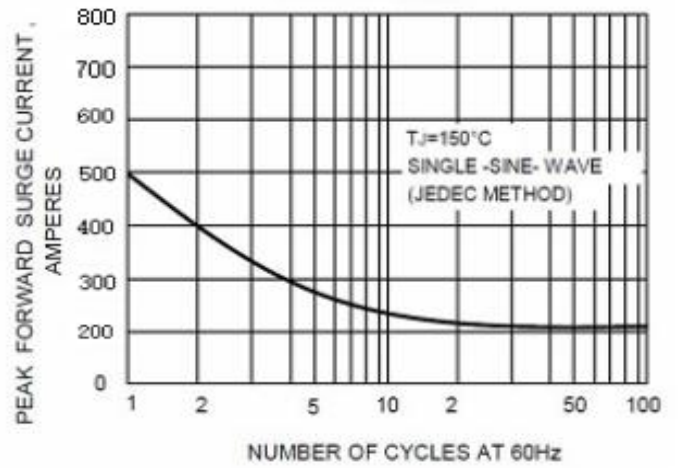


FIG.3-TYPICAL FORWARD CHARACTERISTICS

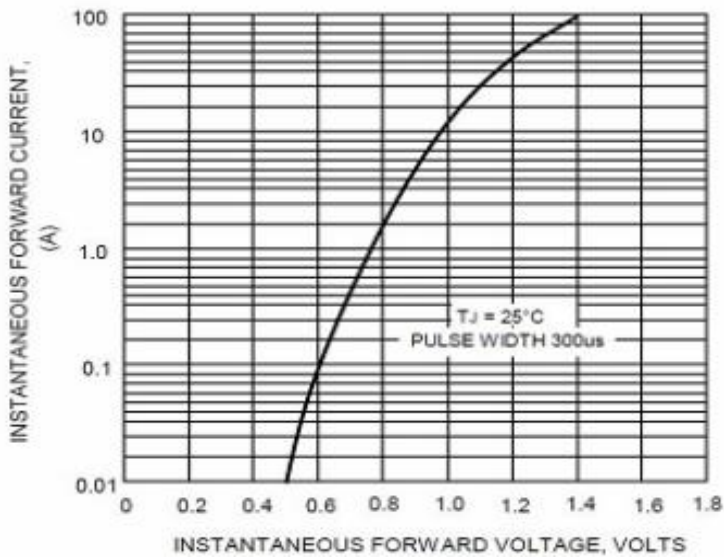
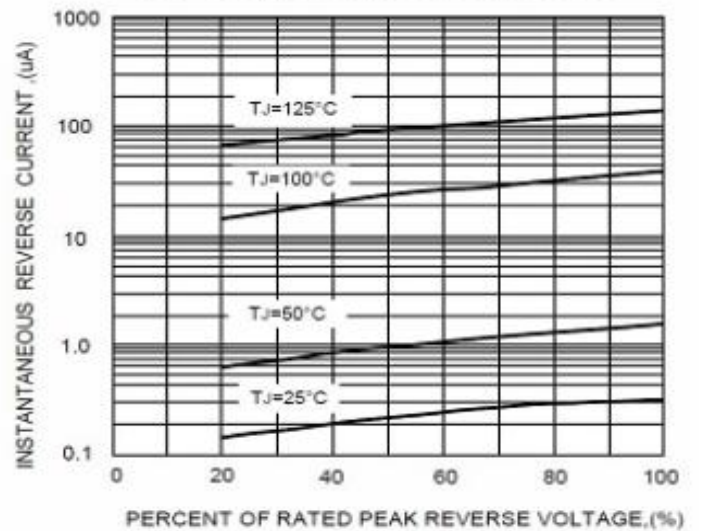
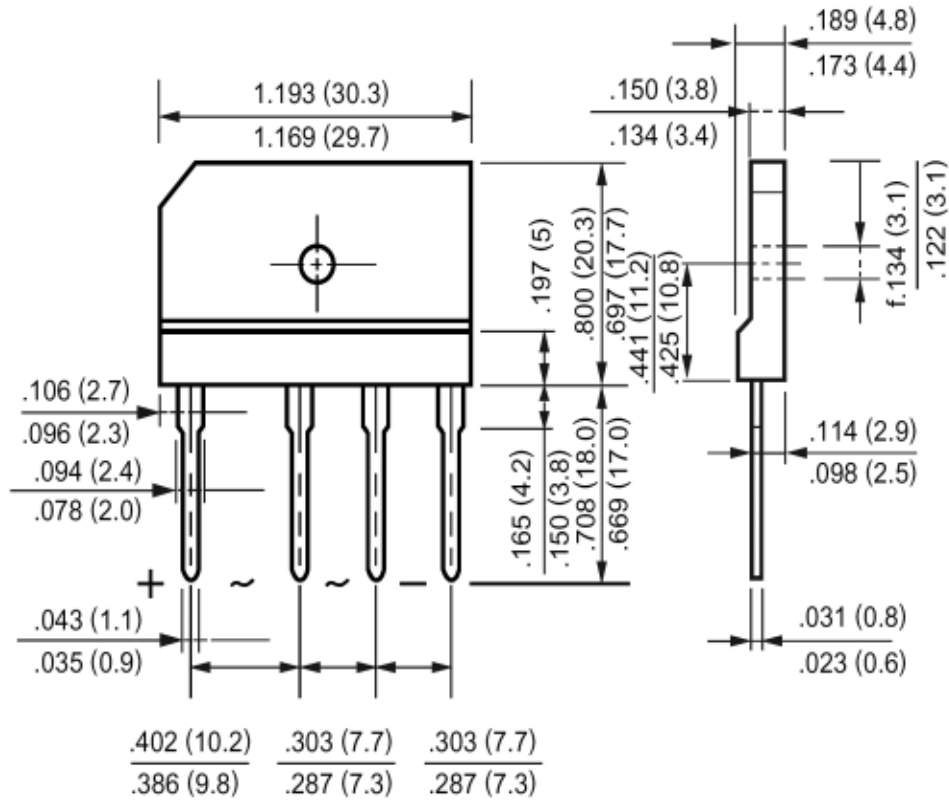


FIG.4-TYPICAL REVERSE CHARACTERISTICS



Package Outline

GBJ



Summary of Packing Options

| Package | Packing Description | Packing Quantity | Industry Standard |
|---------|---------------------|------------------|-------------------|
| GBJ | BOX | 250 | EIA-481-1 |