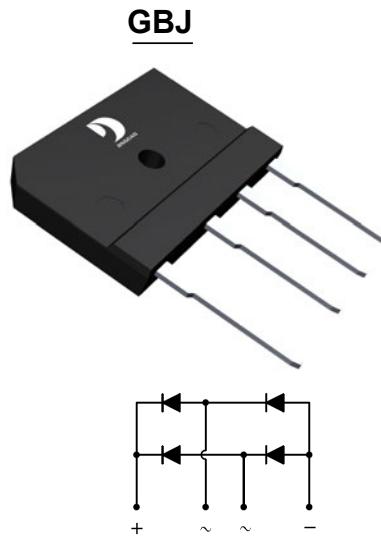


## GLASS PASSIVATED BRIDGE RECTIFIERS

REVERSE VOLTAGE - 50 to 1000 Volts  
FORWARD CURRENT - 25.0 Amperes

### FEATURES

- Polarity: As marked on body
- Rating to 1000V PRV
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- Plastic material has U/L  
The flammability classification 94V-0
- Mounting position: Any
- Weight: 0.24 ounces , 6.79 grams



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

| CHARACTERISTICS   | SYMBOL            | GBJ 25005G | GBJ 2501G | GBJ 2502G | GBJ 2504G   | GBJ 2506G | GBJ 2508G | GBJ 2510G | UNIT             |
|---|-------------------|------------|-----------|-----------|-------------|-----------|-----------|-----------|------------------|
| Maximum Recurrent Peak Reverse Voltage  | V <sub>RRM</sub>  | 50         | 100       | 200       | 400         | 600       | 800       | 1000      | V                |
| Maximum RMS Voltage   | V <sub>RMS</sub>  | 35         | 70        | 140       | 280         | 420       | 560       | 700       | V                |
| Maximum DC Blocking Voltage   | V <sub>DC</sub>   | 50         | 100       | 200       | 400         | 600       | 800       | 1000      | V                |
| Maximum Average Forward Rectified Current<br>(with heatsink Note 2)                                     | I <sub>(AV)</sub> |            |           |           | 25          |           |           |           | A                |
| Peak Forward Surge Current<br>8.3ms Single Half Sine-Wave<br>Super Imposed on Rated Load (JEDEC Method) | I <sub>FSM</sub>  |            |           |           | 300         |           |           |           | A                |
| Maximum Forward Voltage at 12.5 A DC  | V <sub>F</sub>    |            |           |           | 1.0         |           |           |           | V                |
| Maximum DC Reverse Current<br>J=25°C<br>at Rated DC Blocking Voltage<br>J=125°C                         | I <sub>R</sub>    |            |           |           | 5.0         |           |           |           | uA               |
| I <sup>2</sup> t Rating for Fusing (t<8.3ms)  | I <sup>2</sup> t  |            |           |           | 374         |           |           |           | A <sup>2</sup> s |
| Typical Junction Capacitance Per Element (Note1)  | C <sub>J</sub>    |            |           |           | 94          |           |           |           | pF               |
| Typical Thermal Resistance (Note2)  | R <sub>θJC</sub>  |            |           |           | 1.1         |           |           |           | °C/W             |
| Operating Temperature Range   | T <sub>J</sub>    |            |           |           | -55 to +150 |           |           |           | °C               |
| Storage Temperature Range   | T <sub>STG</sub>  |            |           |           | -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.

FIG.1-FORWARD CURRENT DERATING CURVE

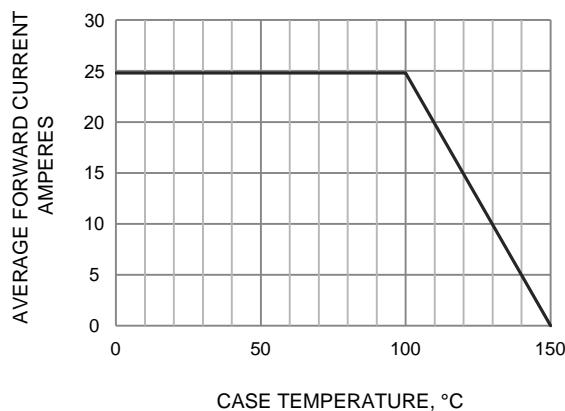


FIG.2-MAXIMUM FORWARD SURGE CURRENT

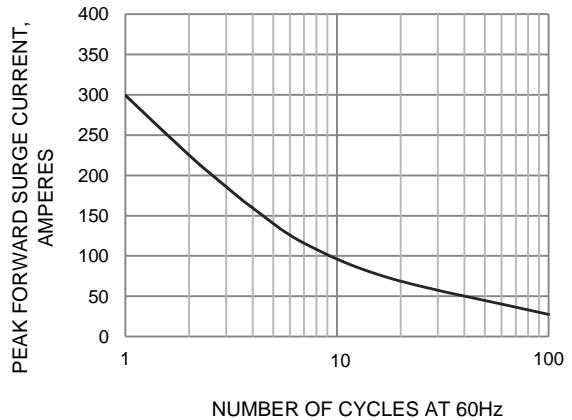


FIG.3-TYPICAL JUNCTION CAPACITANCE

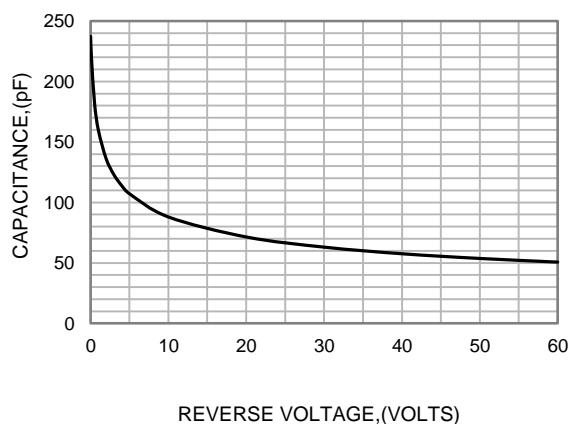


FIG.4-TYPICAL FORWARD CHARACTERISTICS

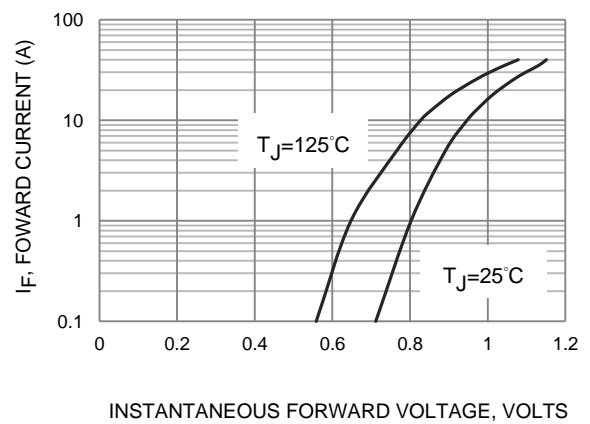
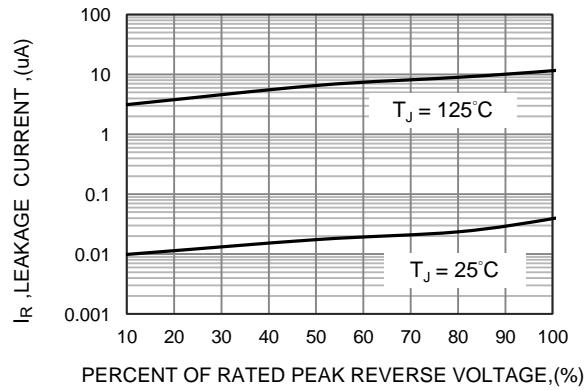
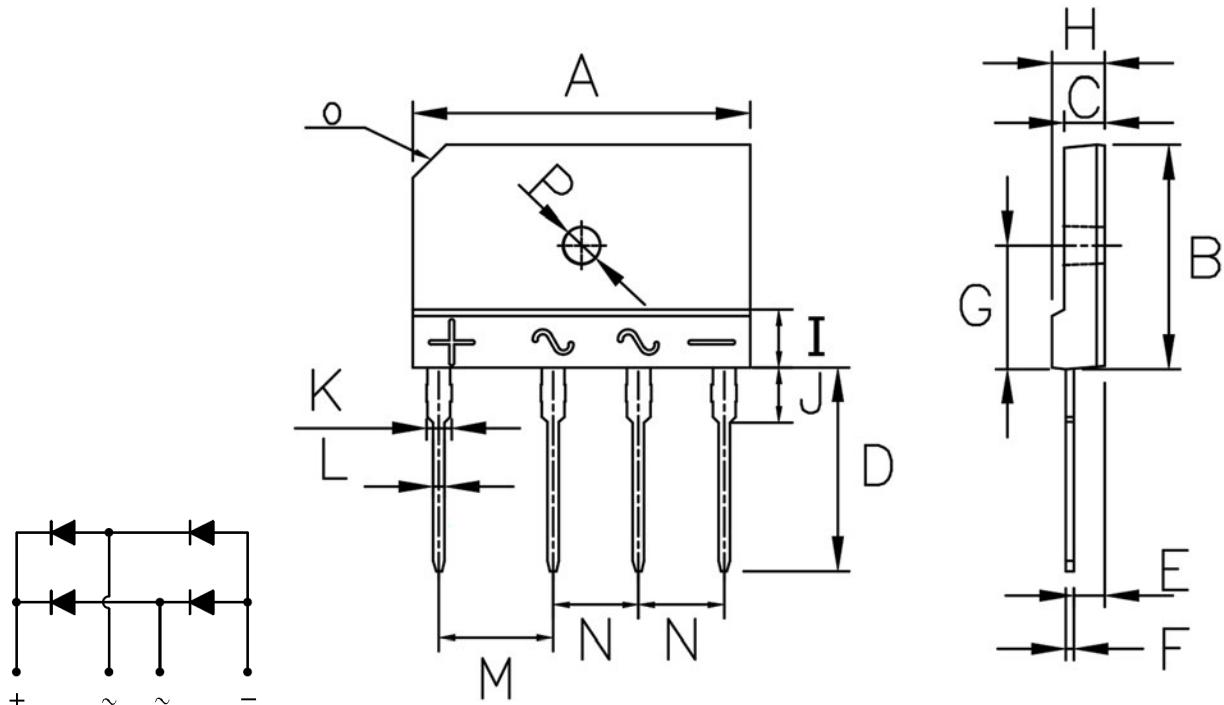


FIG.5-TYPICAL REVERSE CHARACTERISTICS



GBJ Package Outline Dimensions



GBJ mechanical data

| UNIT |     | A     | B     | C    | D     | E    | F    | G    | H    | I    | J    | K    | L    | M     | N    | O    | P    |
|------|-----|-------|-------|------|-------|------|------|------|------|------|------|------|------|-------|------|------|------|
| mm   | max | 30.30 | 20.30 | 3.80 | 18.00 | 2.90 | 0.80 | 11.2 | 4.80 | 5.80 | 4.20 | 2.40 | 1.15 | 10.20 | 7.70 | C3.0 | φ3.6 |
|      | min | 29.70 | 19.70 | 3.40 | 17.00 | 2.50 | 0.55 | 10.8 | 4.40 | 4.80 | 3.80 | 2.00 | 0.90 | 9.80  | 7.30 |      | φ3.0 |
| mil  | max | 1193  | 799   | 150  | 709   | 114  | 31   | 441  | 189  | 228  | 165  | 94   | 45   | 402   | 303  | C118 | φ142 |
|      | min | 1169  | 776   | 134  | 669   | 98   | 22   | 425  | 173  | 189  | 150  | 79   | 35   | 386   | 287  |      | φ118 |

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