

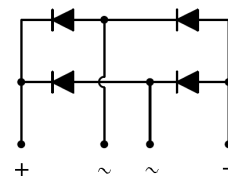
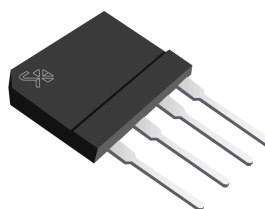


# GBJ20AG THRU GBJ20MG

## GLASS PASSIVATED BRIDGE RECTIFIERS

REVERSE VOLTAGE - **50 to 1000** Volts

FORWARD CURRENT - **20.0** Amperes



**GBJ**

## 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

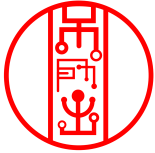
## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

| CHARACTERISTICS                                                                                         | SYMBOL            | GBJ20AG     | GBJ20BG | GBJ20DG | GBJ20GG | GBJ20JG | GBJ20KG | GBJ20MG | 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> | 20          |         |         |         |         |         |         | A                |
| Peak Forward Surge Current<br>8.3ms Single Half Sine-Wave<br>Super Imposed on Rated Load (JEDEC Method) | I <sub>FSM</sub>  | 270         |         |         |         |         |         |         | A                |
| Maximum Forward Voltage at 10 A DC                                                                      | V <sub>F</sub>    | 1.0         |         |         |         |         |         |         | V                |
| Maximum DC Reverse Current<br>at Rated DC Blocking Voltage                                              | I <sub>R</sub>    | 5.0<br>500  |         |         |         |         |         |         | uA               |
| I <sup>2</sup> t Rating for Fusing (t<8.3ms)                                                            | I <sup>2</sup> t  | 300         |         |         |         |         |         |         | A <sup>2</sup> s |
| Typical Junction Capacitance Per Element (Note1)                                                        | C <sub>J</sub>    | 70          |         |         |         |         |         |         | pF               |
| Typical Thermal Resistance (Note2)                                                                      | R <sub>θJC</sub>  | 1.2         |         |         |         |         |         |         | °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.



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FIG.1-FORWARD CURRENT DERATING CURVE

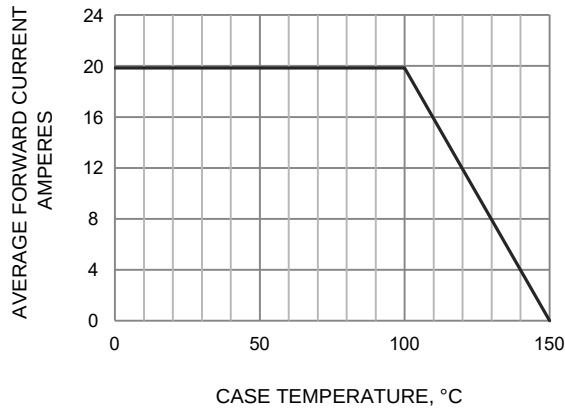


FIG.2-MAXIMUM FOWARD SURGE CURRENT

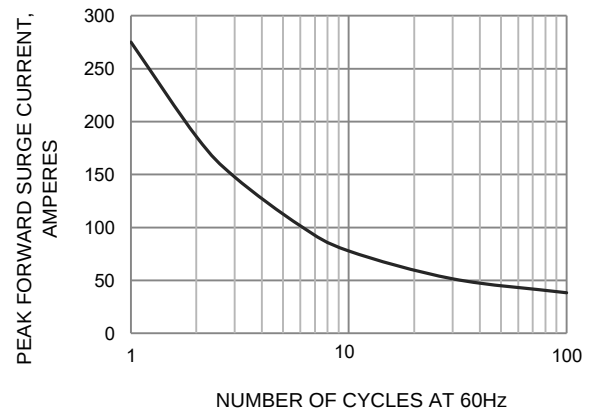


FIG.3-TYPICAL JUNCTION CAPACITANCE

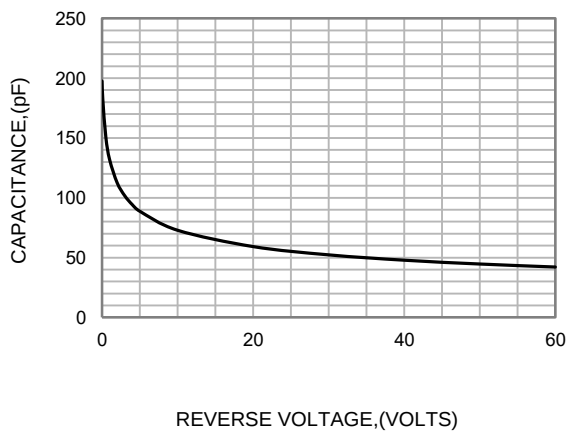


FIG.4-TYPICAL FORWARD CHARACTERISTICS

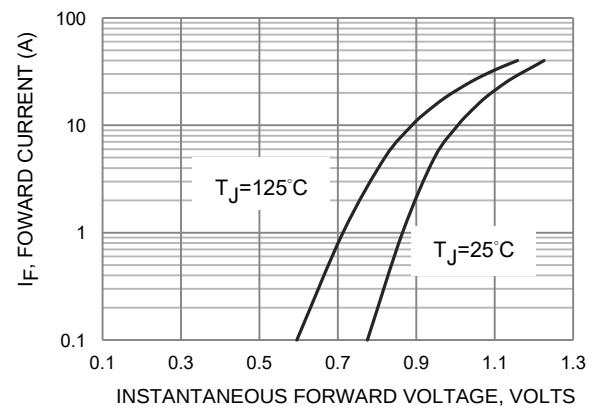
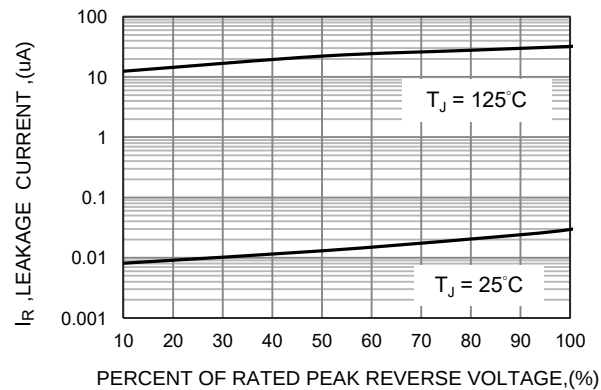
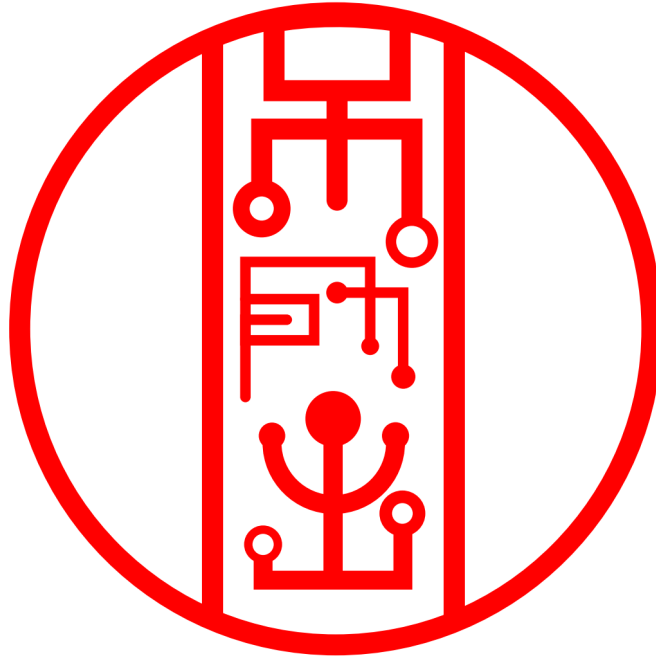
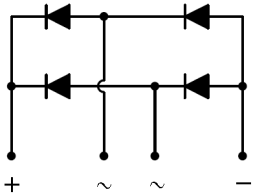


FIG.5-TYPICAL REVERSE CHARACTERISTICS





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 |