

**GLASS PASSIVATED BRIDGE RECTIFIERS**

REVERSE VOLTAGE - **400 to 600** Volts  
FORWARD CURRENT - **4.0** Amperes

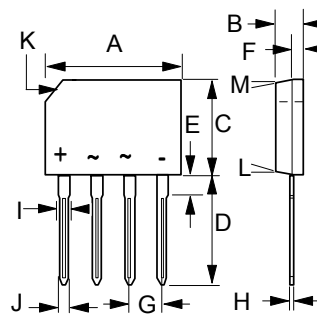
**FEATURES**

- Rating to 600V PRV
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- The plastic material has UL flammability classification 94V-0
- UL Recognition File # E95060

**MECHANICAL DATA**

- Polarity : As marked on body
- Weight : 0.09 ounces, 2.52 grams
- Mounting position : Any

**GBL**



| GBL                          |          |       |
|------------------------------|----------|-------|
| DIM.                         | MIN.     | MAX.  |
| A                            | 20.2     | 20.8  |
| B                            | 3.30     | 3.70  |
| C                            | 10.70    | 11.30 |
| D                            | 17.50    | 18.00 |
| E                            | 2.30     | 2.70  |
| F                            | 0.80     | 1.20  |
| G                            | 4.83     | 5.33  |
| H                            | 0.40     | 0.60  |
| I                            | 1.95     | 2.35  |
| J                            | 1.02     | 1.27  |
| K                            | 3.5 Typ. |       |
| L                            | -        | 5°    |
| M                            | -        | 5°    |
| All Dimensions in millimeter |          |       |

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.

| CHARACTERISTICS                                                                                         | SYMBOL                                                   | GBL404             | GBL406 | UNIT             |
|---------------------------------------------------------------------------------------------------------|----------------------------------------------------------|--------------------|--------|------------------|
| Maximum Recurrent Peak Reverse Voltage                                                                  | V <sub>RRM</sub>                                         | 400                | 600    | V                |
| Maximum RMS Voltage                                                                                     | V <sub>RMS</sub>                                         | 280                | 420    | V                |
| Maximum DC Blocking Voltage                                                                             | V <sub>DC</sub>                                          | 400                | 600    | V                |
| Maximum Average Forward Rectified Current @T <sub>C</sub> = 100°C with Heatsink without                 | I <sub>(AV)</sub>                                        | 4.0                | 2.4    | A                |
| Peak Forward Surge Current 8.3ms single half sine-wave @T <sub>J</sub> = 25 °C @T <sub>J</sub> = 125°C  | I <sub>FSM</sub>                                         | 150                | 135    | A                |
| Peak Forward Surge Current 1.0ms single half sine-wave @T <sub>J</sub> = 25 °C @T <sub>J</sub> = 125°C  | I <sub>FSM</sub>                                         | 360                | 330    | A                |
| Maximum forward Voltage at 2.0A DC                                                                      | V <sub>F</sub>                                           | 1                  |        | V                |
| Maximum DC Reverse Current at Rated DC Blocking Voltage @T <sub>J</sub> = 25 °C @T <sub>J</sub> = 125°C | I <sub>R</sub>                                           | 5                  | 500    | uA               |
| I <sup>2</sup> t Rating for fusing (3ms ≤ t ≤ 8.3ms)                                                    | I <sup>2</sup> t                                         | 93                 |        | A <sup>2</sup> S |
| Typical Junction Capacitance per element (Note 1)                                                       | C <sub>J</sub>                                           | 35                 |        | pF               |
| Typical Thermal Resistance (Note 2)                                                                     | R <sub>θJC</sub><br>R <sub>θJL</sub><br>R <sub>θJA</sub> | 4.2<br>4.0<br>10.0 |        | °C/W             |
| Operating Temperature Range                                                                             | T <sub>J</sub>                                           | -55 to +150        |        | °C               |
| Storage Temperature Range                                                                               | T <sub>STG</sub>                                         | -55 to +150        |        | °C               |

NOTE : 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.  
2. Unit Mounted on 50 x 50 x 1.6 mm Cu Plate Heatsink.

REV.12, Sep-2012, KBDQ03

FIG.1 - FORWARD CURRENT DERATING CURVE

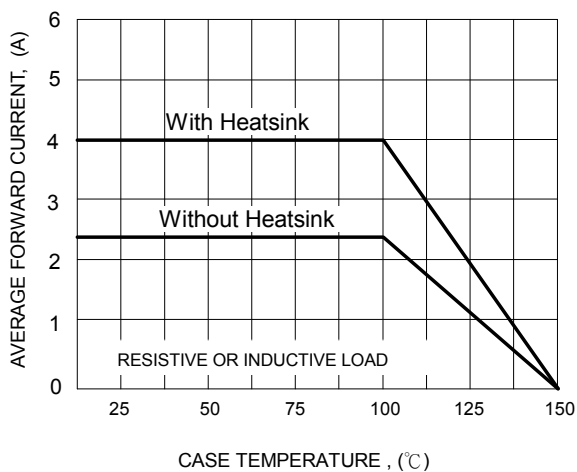


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

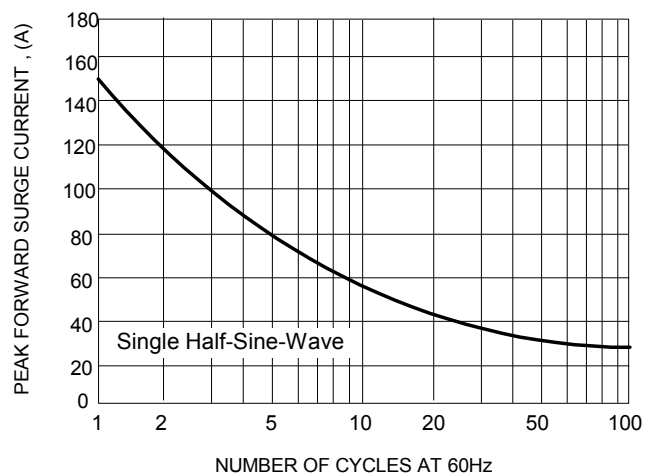


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

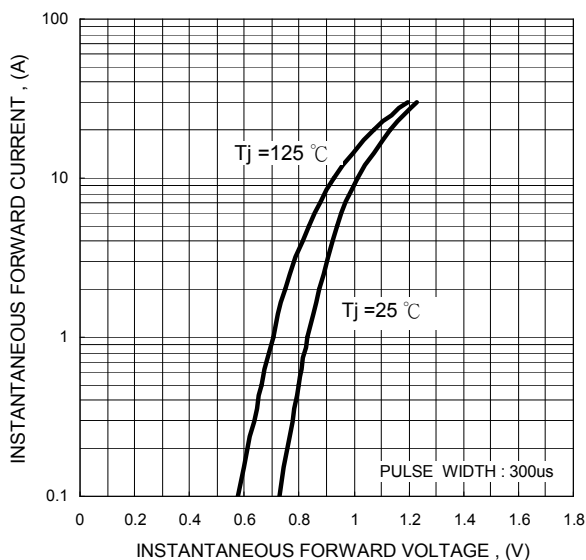


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

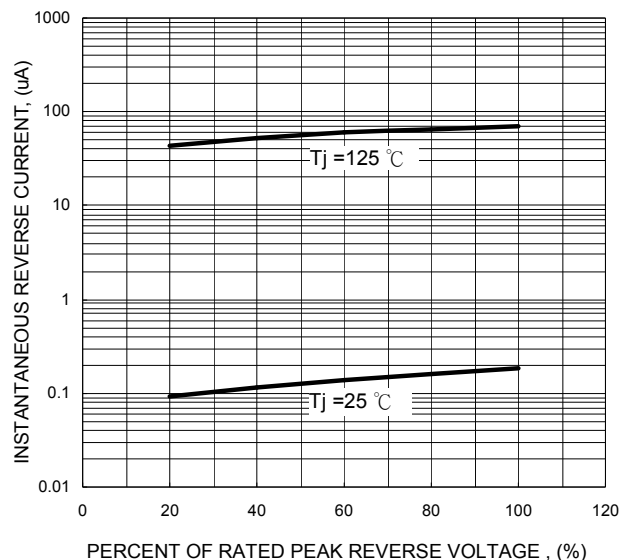


FIG.5 - TYPICAL JUNCTION CAPACITANCE

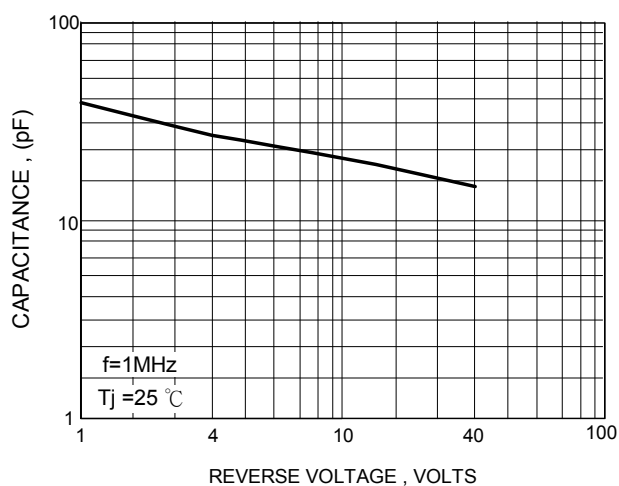
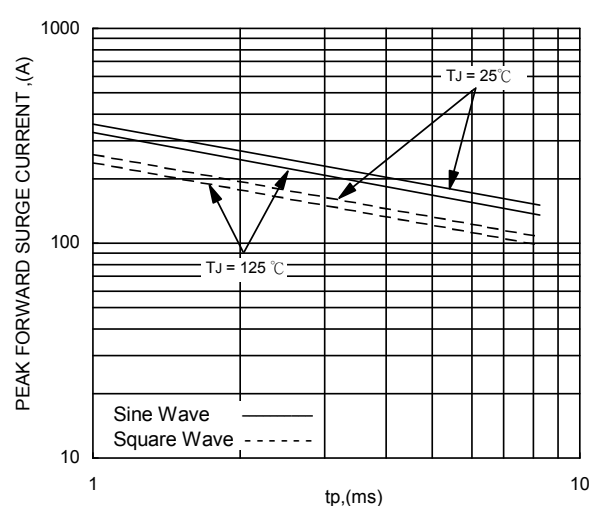


FIG.6 - NON-REPETITIVE SURGE CURRENT



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