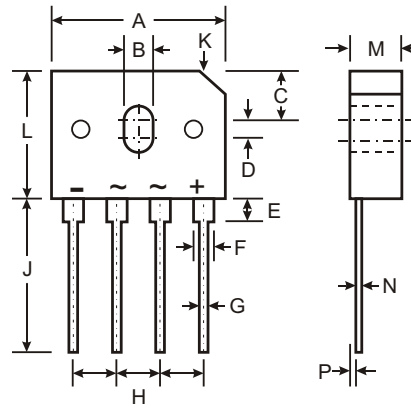


### Features

- Glass Passivated Die Construction
- High Case Dielectric Strength of 1500 VRMS
- Low Reverse Leakage Current
- Surge Overload Rating to 175A Peak
- Ideal for Printed Circuit Board Applications
- Plastic Material: UL Flammability Classification Rating 94V-0
- UL Listed Under Recognized Component Index, File Number E94661

### Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Marked on Body
- Mounting: Through Hole for #6 Screw
- Mounting Torque: 5.0 Inch-pounds Maximum
- Marking: Date Code and Type Number
- Weight: 6.6 grams (approx.)



| GBU                  |           |      |
|----------------------|-----------|------|
| Dim                  | Min       | Max  |
| A                    | 21.8      | 22.3 |
| B                    | 3.5       | 4.1  |
| C                    | 7.4       | 7.9  |
| D                    | 1.65      | 2.16 |
| E                    | 2.25      | 2.75 |
| G                    | 1.02      | 1.27 |
| H                    | 4.83      | 5.33 |
| J                    | 17.5      | 18.0 |
| K                    | 3.2 X 45° |      |
| L                    | 18.3      | 18.8 |
| M                    | 3.30      | 3.56 |
| N                    | 0.46      | 0.56 |
| P                    | 0.76      | 1.0  |
| All Dimensions in mm |           |      |

### Maximum Ratings and Electrical Characteristics @ T<sub>A</sub> = 25°C unless otherwise specified

Single phase, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

| Characteristic  | Symbol                            | GBU 6005    | GBU 601 | GBU 602 | GBU 604 | GBU 606 | GBU 608 | GBU 610 | Unit             |
|---|-----------------------------------|-------------|---------|---------|---------|---------|---------|---------|------------------|
| Peak Repetitive Reverse Voltage   | V <sub>RRM</sub>                  | 50          | 100     | 200     | 400     | 600     | 800     | 1000    | V                |
| Working Peak Reverse Voltage  | V <sub>RWM</sub>                  |             |         |         |         |         |         |         |                  |
| DC Blocking Voltage   | V <sub>R</sub>                    |             |         |         |         |         |         |         |                  |
| RMS Reverse Voltage   | V <sub>R(RMS)</sub>               | 35          | 70      | 140     | 280     | 420     | 560     | 700     | V                |
| Average Rectified Output Current (Note 1) @ T <sub>C</sub> = 100°C  | I <sub>O</sub>                    | 6.0         |         |         |         |         |         |         | A                |
| Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I <sub>FSM</sub>                  | 175         |         |         |         |         |         |         | A                |
| Forward Voltage (per element) @ I <sub>F</sub> = 3.0A   | V <sub>FM</sub>                   | 1.0         |         |         |         |         |         |         | V                |
| Peak Reverse Current @ T <sub>C</sub> = 25°C at Rated DC Blocking Voltage @ T <sub>C</sub> = 125°C              | I <sub>R</sub>                    | 5.0<br>500  |         |         |         |         |         |         | μA               |
| I <sup>2</sup> t Rating for Fusing (t < 8.3ms) (Note 2)   | I <sup>2</sup> t                  | 127         |         |         |         |         |         |         | A <sup>2</sup> s |
| Typical Junction Capacitance per Element (Note 3)   | C <sub>J</sub>                    | 100         |         |         |         |         |         |         | pF               |
| Typical Thermal Resistance Junction to Case (Note 1)  | R <sub>θJC</sub>                  | 2.2         |         |         |         |         |         |         | °C/W             |
| Operating and Storage Temperature Range   | T <sub>j</sub> , T <sub>STG</sub> | -55 to +150 |         |         |         |         |         |         | °C               |

- Notes:
1. Unit mounted on 50mm x 50mm x 1.6mm copper plate heatsink.
  2. Non-repetitive, for t > 1.0ms and < 8.3ms.
  3. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

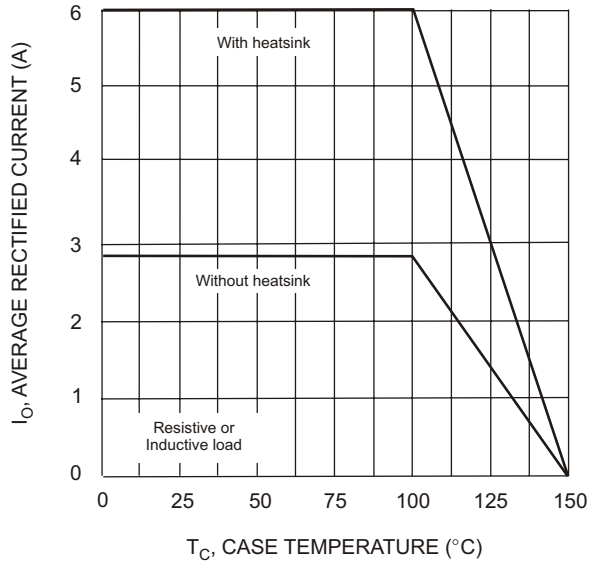


Fig. 1 Forward Current Derating Curve

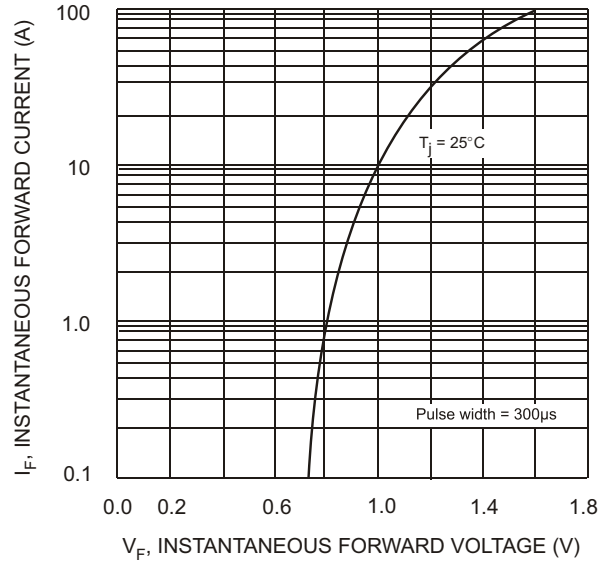


Fig. 2 Typical Forward Characteristics

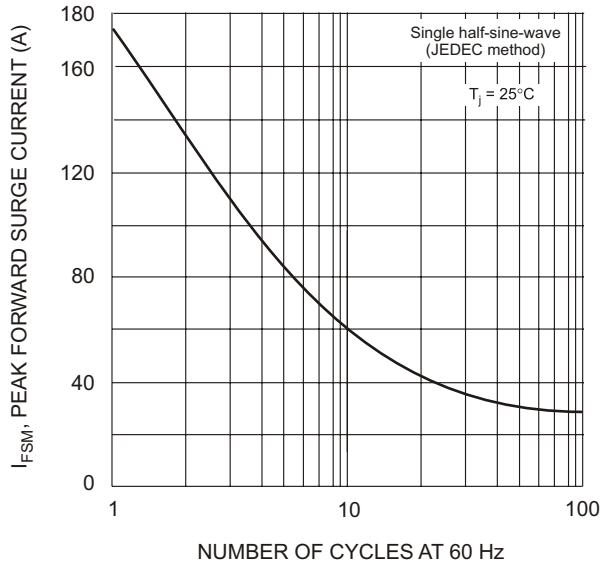


Fig. 3 Maximum Non-Repetitive Surge Current

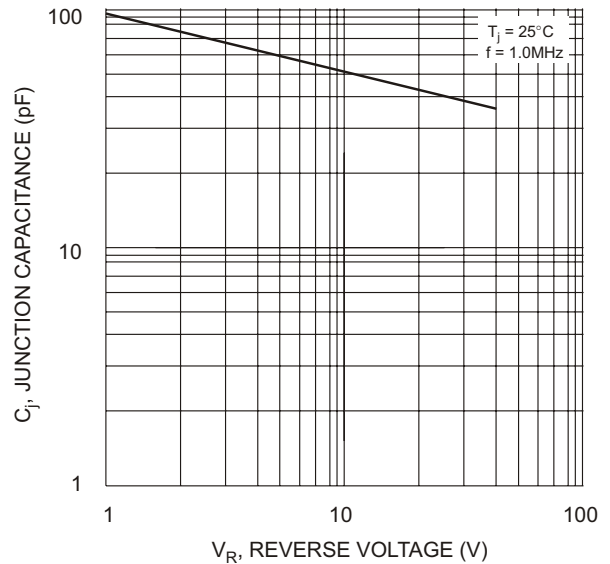


Fig. 4 Typical Junction Capacitance