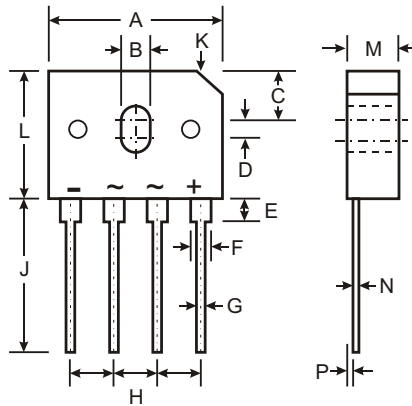


### Features

- Glass Passivated Die Construction
- High Case Dielectric Strength of 1500VRMS
- Low Reverse Leakage Current
- Surge Overload Rating to 220A 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 10005   | GBU 1001 | GBU 1002 | GBU 1004 | GBU 1006 | GBU 1008 | GBU 1010 | Unit             |
|--|--|-------------|----------|----------|----------|----------|----------|----------|------------------|
| Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage                             | V <sub>RRM</sub><br>V <sub>RWM</sub><br>V <sub>R</sub> | 50          | 100      | 200      | 400      | 600      | 800      | 1000     | V                |
| 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>   | 10          |          |          |          |          |          |          | A                |
| Non-Repetitive Peak Forward Surge Current<br>8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I <sub>FSM</sub>                                       | 220         |          |          |          |          |          |          | A                |
| Forward Voltage (per element) @ I <sub>F</sub> = 5.0A  | V <sub>FM</sub>  | 1.0         |          |          |          |          |          |          | V                |
| Peak Reverse Current @ T <sub>C</sub> = 25°C<br>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 (Note 2)  | I <sup>2</sup> t                                       | 200         |          |          |          |          |          |          | A <sup>2</sup> s |
| Typical Junction Capacitance per Element (Note 3)  | C <sub>J</sub>   | 60          |          |          |          |          |          |          | 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. United mounted on 100 x 100 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.

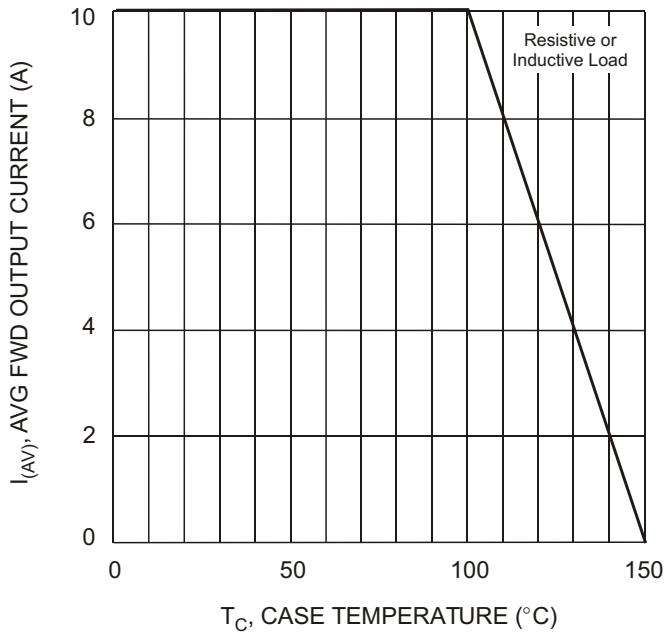


Fig. 1 Forward Current Derating Curve

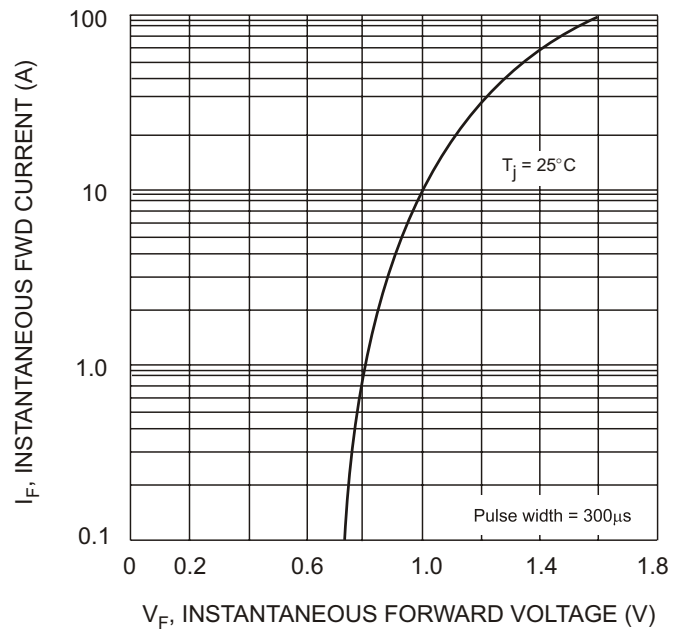


Fig. 2 Typical Forward Characteristics

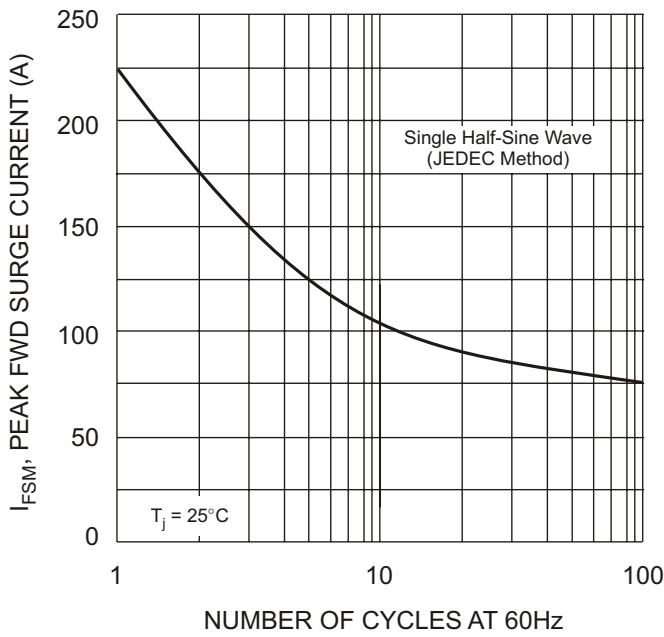


Fig. 3 Maximum Non-Repetitive Surge Current

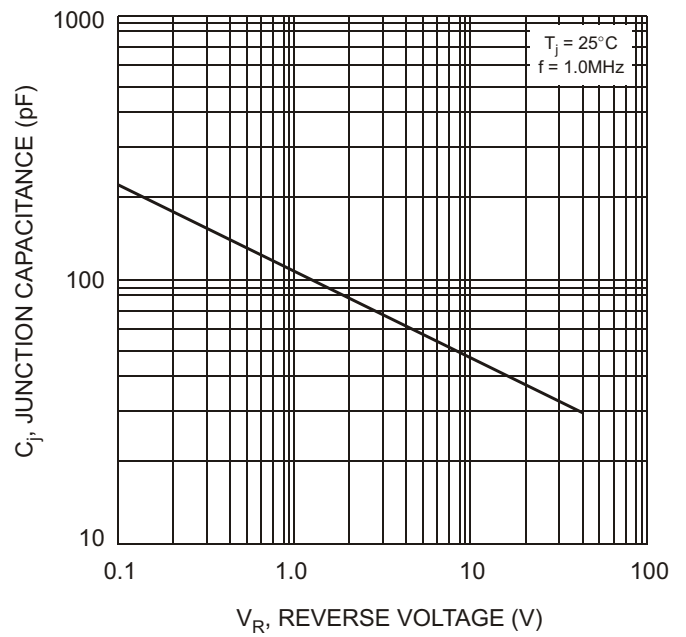


Fig. 4 Typical Junction Capacitance