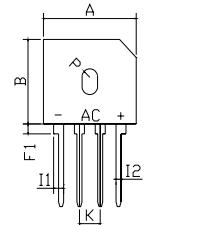


## FEATURES

- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- Plastic material has U/L flammability classification 94V-O
- Mounting position: Any
- Glass passivated chip junctions



| GBU |             |       |
|-----|-------------|-------|
| Dim | Min         | Max   |
| A   | 22.00       | 22.40 |
| B   | 18.40       | 18.80 |
| C   | 3.40        | 3.95  |
| C1  | 2.50        | 3.00  |
| E   | 0.40        | 0.60  |
| F   | 17.00min    |       |
| F1  | 1.70        | 2.30  |
| I1  | 2.30        | 2.60  |
| I2  | 0.95        | 1.25  |
| K   | 4.70        | 5.30  |
| P   | R1.9typical |       |

All Dimensions in mm

## Maximum Ratings (@TA = 25°C unless otherwise specified)

| Characteristic  | Symbol             | GBU4A | GBU4B | GBU4D | GBU4G | GBU4J | GBU4K | GBU4M            | UNITS |
|---|--------------------|-------|-------|-------|-------|-------|-------|------------------|-------|
| 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 Output current @T <sub>c</sub> =100°C (note1)             | I <sub>F(AV)</sub> | 4.0   |       |       |       |       |       | A                |       |
| Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load | I <sub>FSM</sub>   | 150.0 |       |       |       |       |       | A                |       |
| I <sup>2</sup> t Rating for fusing @T <sub>j</sub> =25°C                          | I <sup>2</sup> t   | 93    |       |       |       |       |       | A <sup>2</sup> S |       |

## Thermal Characteristics

| Characteristic                                    | Symbol                               | GBU4A          | GBU4B | GBU4D | GBU4G | GBU4J | GBU4K | GBU4M | UNITS |  |  |  |
|---|--------------------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|--|--|--|
| Typical junction capacitance per element (note 3) | C <sub>J</sub>                       | 100            |       |       | 45    |       |       | p F   |       |  |  |  |
| Typical thermal resistance (note2) (note1)        | R <sub>θJA</sub><br>R <sub>θJC</sub> | 22.0<br>4.0    |       |       |       |       |       | °C/W  |       |  |  |  |
| Operating junction temperature range              | T <sub>J</sub>                       | -55 ---- + 150 |       |       |       |       |       | °C    |       |  |  |  |
| Storage temperature range                         | T <sub>STG</sub>                     | -55 ---- + 150 |       |       |       |       |       | °C    |       |  |  |  |

## Electrical Characteristics (@TA = 25°C unless otherwise specified)

| Characteristic  | Symbol         | GBU4A      | GBU4B | GBU4D | GBU4G | GBU4J | GBU4K | GBU4M | UNITS |
|---|----------------|------------|-------|-------|-------|-------|-------|-------|-------|
| Maximum instantaneous forward voltage @2.0A<br>@4.0A  | V <sub>F</sub> | 1.0<br>1.1 |       |       |       |       |       | V     |       |
| Maximum reverse current @T <sub>A</sub> =25 °C<br>at rated DC blocking voltage @T <sub>A</sub> =125°C | I <sub>R</sub> | 5.0<br>50  |       |       |       |       |       | μ A   |       |

NOTE: 1. Unit case mounted on 1.6x1.6x0.06" thick (4.0x4.0x0.15cm) Al. Plate.

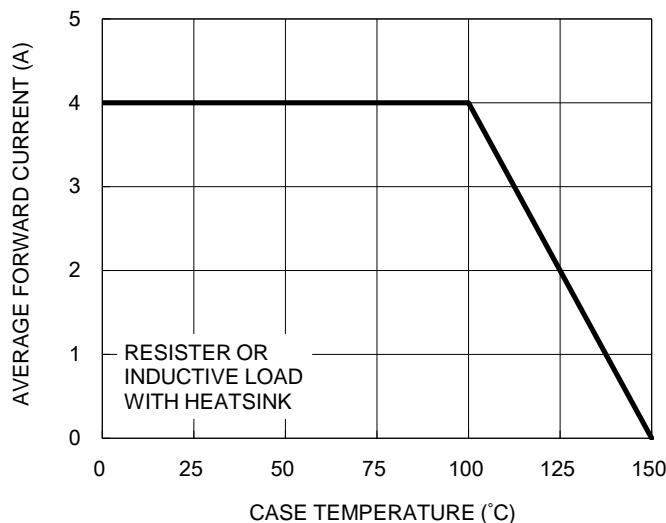
2. Units mounted on P.C.B. with 0.5x0.5" (12x12mm) copper pads and 0.375" (9.5mm) lead length.

3. Measured at 1.0 MHz and applied reverse voltage of 4.0 volts.

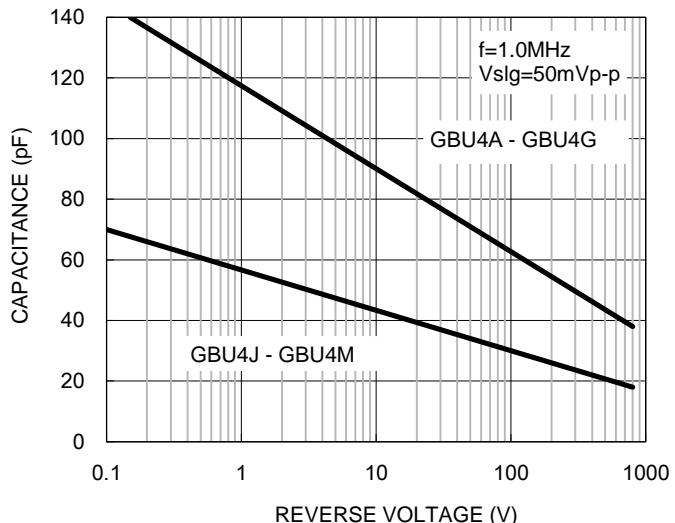
## CHARACTERISTICS CURVES

( $T_A = 25^\circ\text{C}$  unless otherwise noted)

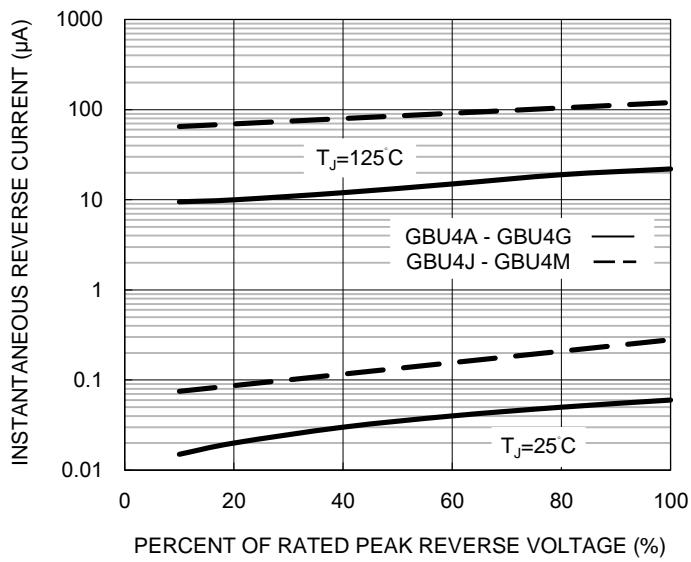
**Fig.1 Forward Current Derating Curve**



**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Forward Characteristics**

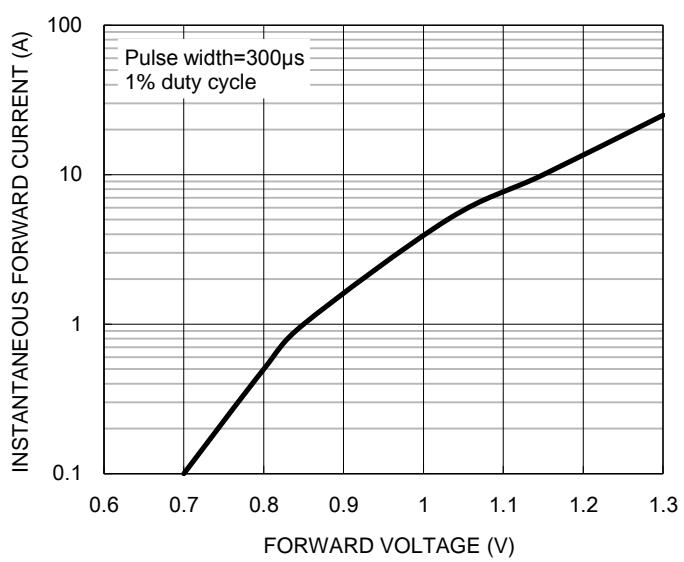
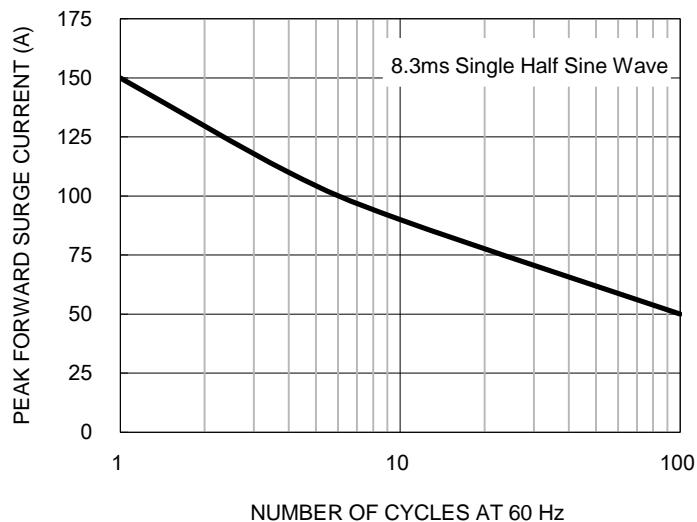


Fig.5 Maximum Non-repetitive Forward Surge Current



| Device       | Package | Shipping      |
|--------------|---------|---------------|
| GBU4A--GBU4M | GBU     | 500 Units/Box |