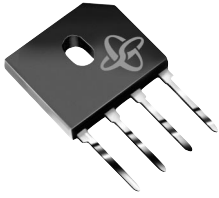
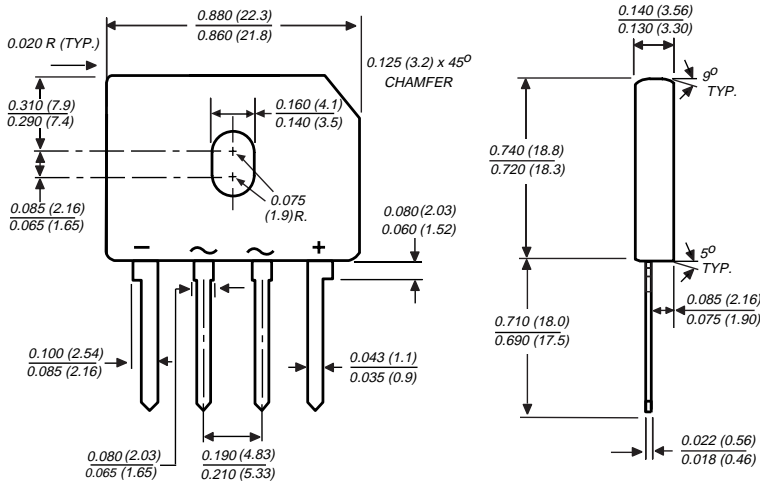


## Glass Passivated Single-Phase Bridge Rectifier

Reverse Voltage 200 and 800 V  
Forward Current 4.0 A



### Case Type GBU



Polarity shown on front side of case, positive lead by beveled corner

Lead forming option with 10mm-7.5mm spacing is available.  
Dimensions in inches and (millimeters)

### Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- High case dielectric strength of 1500 V<sub>RMS</sub>
- Ideal for printed circuit boards
- Glass passivated chip junction
- High surge current capability

### Mechanical Data

**Case:** Molded plastic body over passivated junctions

**Terminals:** Plated leads solderable per MIL-STD-750, Method 2026

High temperature soldering guaranteed:  
260°C/10 seconds, 0.375 (9.5mm) lead length,  
5lbs. (2.3kg) tension

**Mounting Position:** Any<sup>(3)</sup>

**Mounting Torque:** 5 in-lbs max.

**Weight:** 0.15oz., 4.0g

**Packaging codes/options:**  
1/400 ea. per Bulk Tray Stack

## Maximum Ratings & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

| Parameter   | Symbol  | G3SBA20            | G3SBA60                                 | G3SBA80 | Unit               |
|---|---|--------------------|---|---------|--------------------|
| Maximum repetitive peak reverse voltage   | V <sub>RRM</sub>  | 200                | 600                                     | 800     | V                  |
| Maximum RMS voltage   | V <sub>RMS</sub>  | 140                | 420                                     | 560     | V                  |
| Maximum DC blocking voltage   | V <sub>DC</sub>   | 200                | 600                                     | 800     | V                  |
| Maximum average forward rectified output current at                                   | T <sub>C</sub> = 100°C <sup>(1)</sup><br>T <sub>A</sub> = 25°C <sup>(2)</sup> | I <sub>F(AV)</sub> | 4.0<br>2.3                              |         | A                  |
| Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method) | I <sub>FSM</sub>  |                    | 80                                      |         | A                  |
| Rating for fusing (t < 8.3ms)   | I <sup>2</sup> t  |                    | 32                                      |         | A <sup>2</sup> sec |
| Typical thermal resistance per leg  | R <sub>θJA</sub><br>R <sub>θJC</sub>  |                    | 26 <sup>(1)</sup><br>5.0 <sup>(2)</sup> |         | °C/W               |
| Operating junction storage and temperature range                                      | T <sub>J</sub> , T <sub>STG</sub>   |                    | -55 to +150                             |         | °C                 |

## Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

| Parameter   | Symbol  | G3SBA20        | G3SBA60    | G3SBA80 | Unit |
|---|---|----------------|------------|---------|------|
| Maximum instantaneous forward voltage drop per leg at 2.0 A     | V <sub>F</sub>                                  |                | 1.00       |         | V    |
| Maximum DC reverse current at rated DC blocking voltage per leg | T <sub>A</sub> = 25°C<br>T <sub>A</sub> = 125°C | I <sub>R</sub> | 5.0<br>400 |         | μA   |

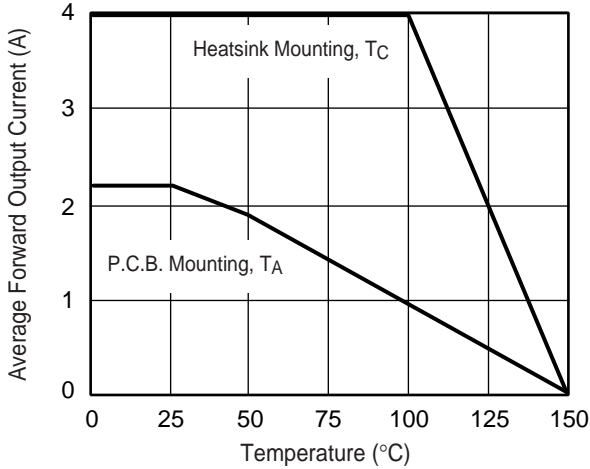
**Notes:** (1) Unit case mounted on Al plate heatsink

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

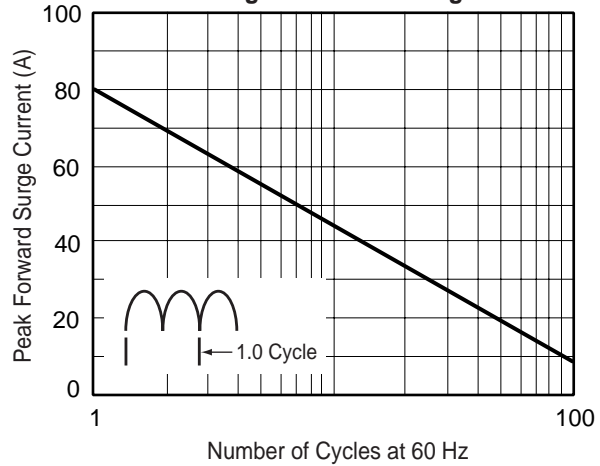
(3) Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw

### Ratings and Characteristic Curves ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

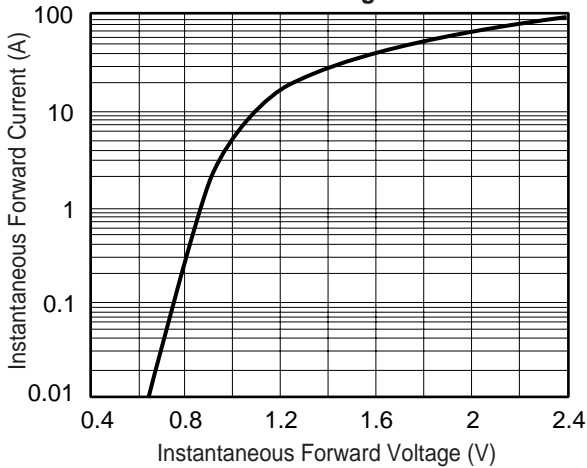
**Fig. 1 - Derating Curve Output Rectified Current**



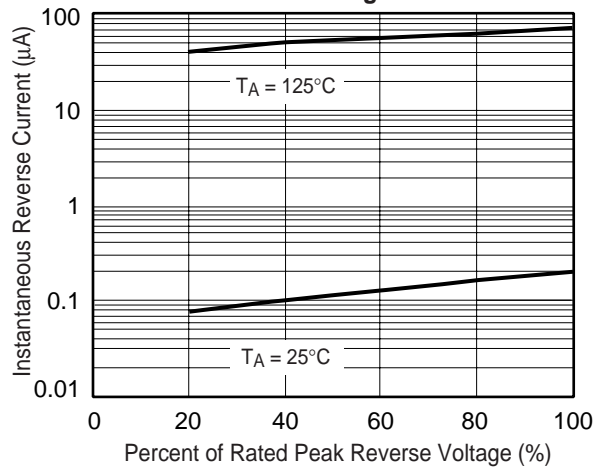
**Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Leg**



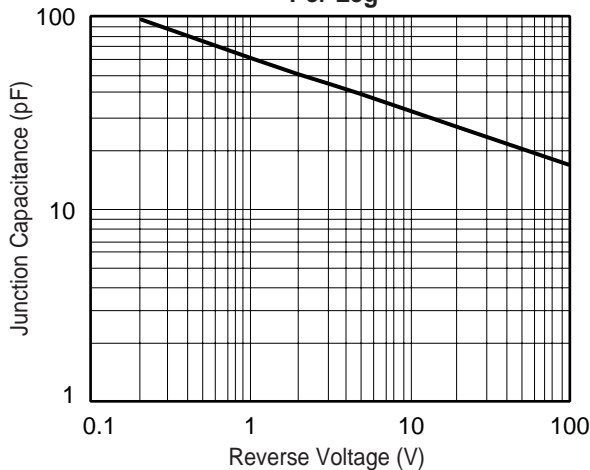
**Fig. 3 - Typical Forward Characteristics Per Leg**



**Fig. 4 - Typical Reverse Characteristics Per Leg**



**Fig. 5 - Typical Junction Capacitance Per Leg**



**Fig. 6 - Typical Transient Thermal Impedance**

