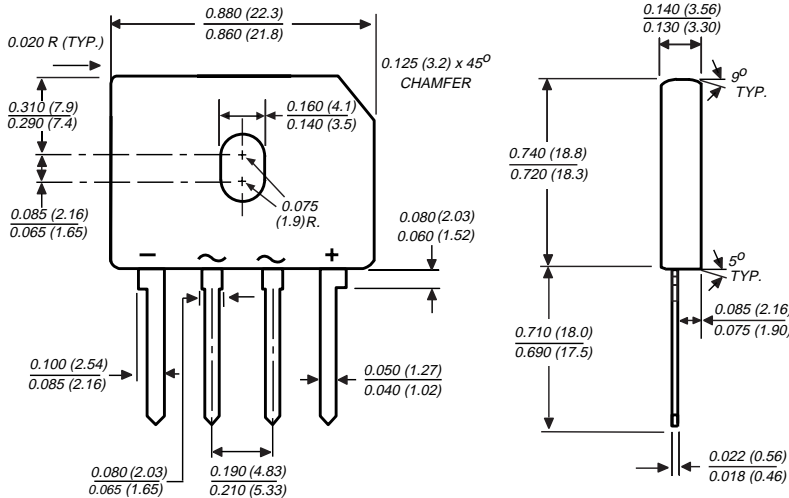


## Glass Passivated Single-Phase Bridge Rectifier

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 VRMS
- 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:** 0.15 oz., 4.0 g

**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	I <sub>F(AV)</sub>		4.0 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		27		A <sup>2</sup> sec
Typical thermal resistance per leg	R <sub>θJA</sub> R <sub>θJC</sub>		26 <sup>(1)</sup> 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	I <sub>R</sub>		5.0 400		μA

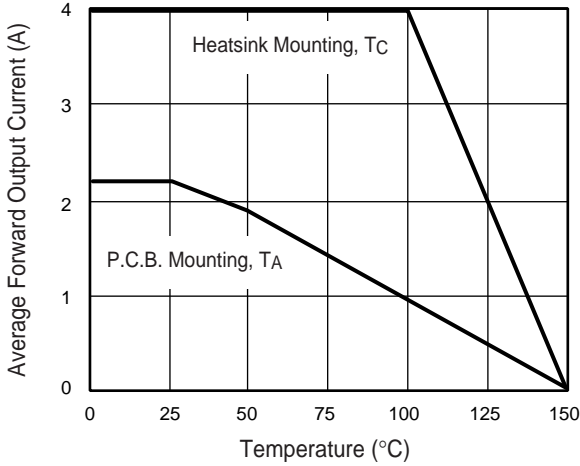
**Notes:** (1) Unit case mounted on Al plate heatsink

(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

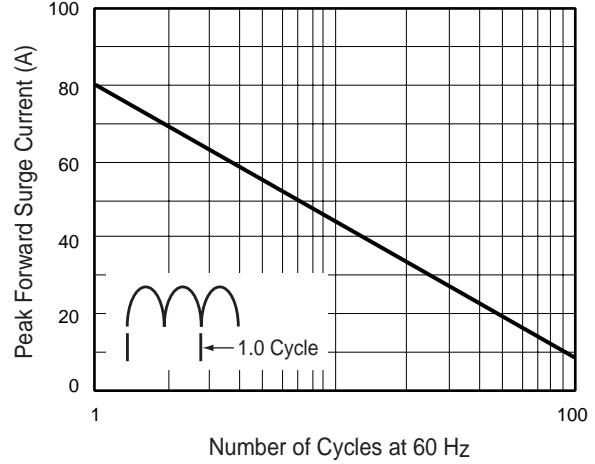
(3) Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw

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

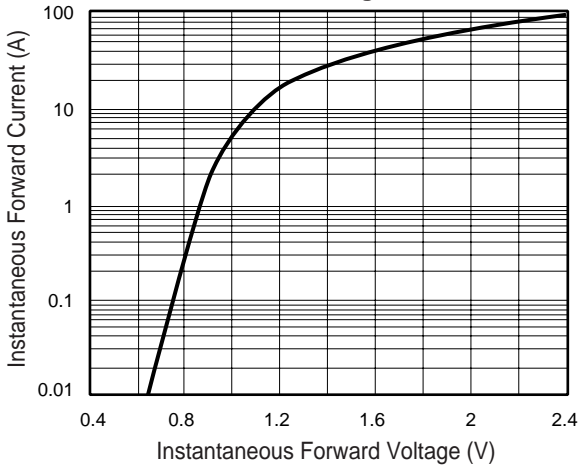
**Fig. 1 - Derating Curve Output Rectified Current**



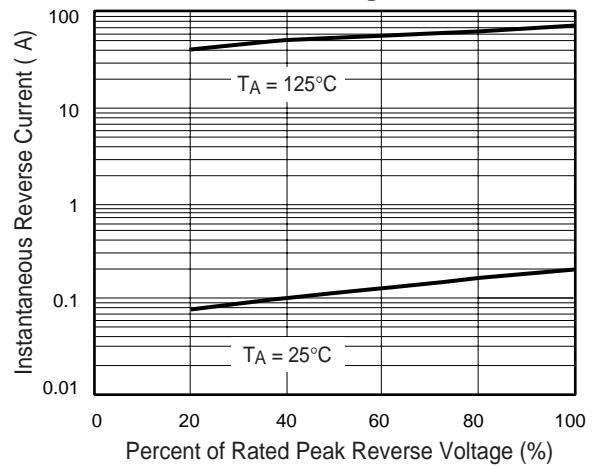
**Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Leg**



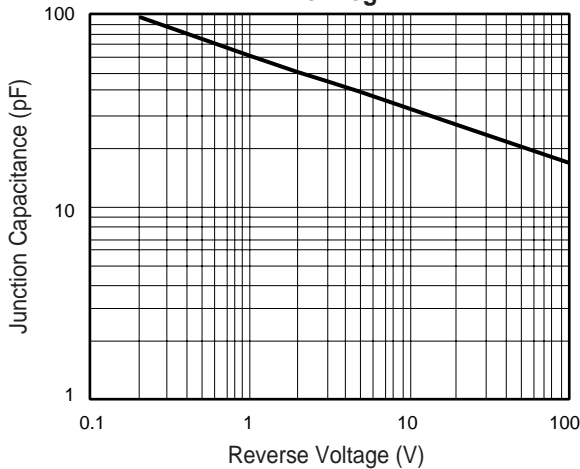
**Fig. 3 - Typical Forward Characteristics Per Leg**



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



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



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

