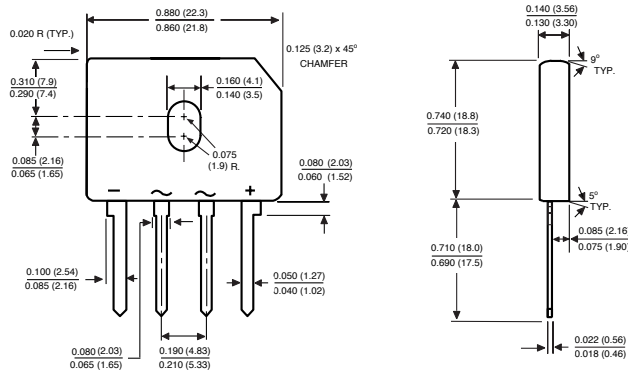


# G3SBA20 AND G3SBA60

## GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

Reverse Voltage - 200 and 600 Volts Forward Current - 4.0 Amperes

### Case Style GBU



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

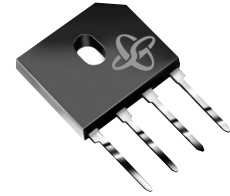
If preferred, marking may be on reverse side of case.

Lead forming option with 7.5mm spacing is available.

Dimensions in inches and (millimeters)

### FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ This series is UL listed under the Recognized Component Index, file number E54214
- ◆ High case dielectric strength of 1500 VRMS
- ◆ Ideal for printed circuit boards
- ◆ Glass passivated chip junction
- ◆ High surge current capability
- ◆ High temperature soldering guaranteed:  
260°C/10 seconds, 0.375 (9.5mm) lead length, 5lbs. (2.3kg) tension



### MECHANICAL DATA

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

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

**Mounting Position:** Any (NOTE 3)

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

**Weight:** 0.15 ounce, 4.0 grams

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	G3SBA20	G3SBA60	UNITS
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	200	600	Volts
Maximum RMS voltage	V <sub>RMS</sub>	140	420	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	200	600	Volts
Maximum average forward rectified output current at T <sub>C</sub> =100°C (NOTE 1) T <sub>A</sub> =25°C (NOTE 2)	I <sub>(AV)</sub>	4.0 2.3		Amps
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	80		Amps
Rating for fusing (t<8.3ms)	I <sup>2</sup> t	32		A <sup>2</sup> sec
Maximum instantaneous forward voltage drop per leg at 2.0A	V <sub>F</sub>	1.05		Volts
Maximum DC reverse current at rated DC blocking voltage per leg T <sub>A</sub> =25°C T <sub>A</sub> =125°C	I <sub>R</sub>	5.0 400		μA
Typical thermal resistance per leg (NOTE 2) (NOTE 1)	R <sub>θJA</sub> R <sub>θJC</sub>	26 5.0		°C/W
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150		°C

#### NOTES:

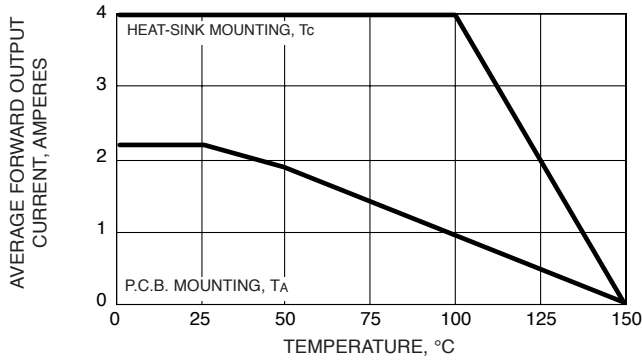
(1) Unit case mounted on Al plate heatsink.

(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

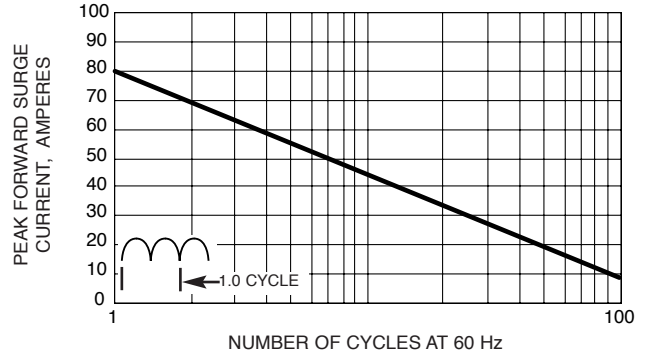
(3) Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw

# RATINGS AND CHARACTERISTICS CURVES G3SBA20 THRU G3SBA60

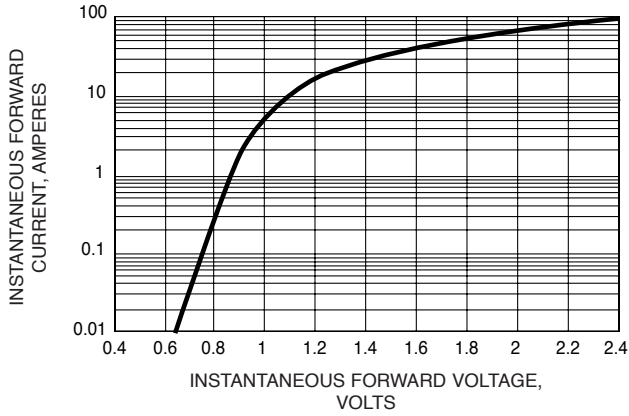
**FIG. 1 - DERATING CURVE OUTPUT RECTIFIED CURRENT**



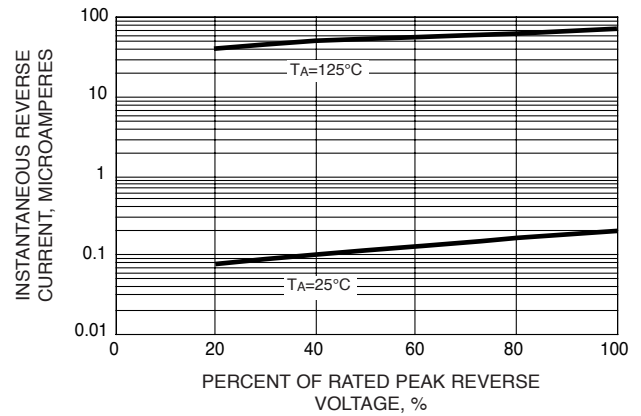
**FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG**



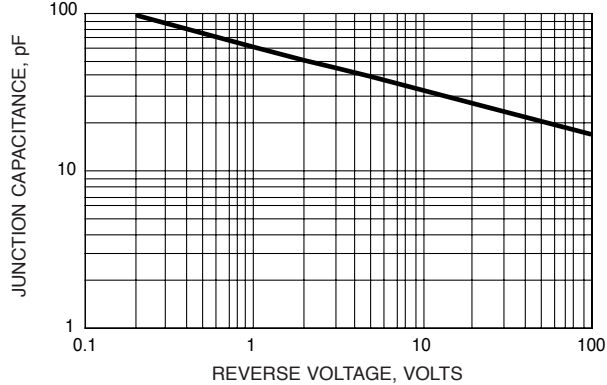
**FIG. 3 - TYPICAL FORWARD CHARACTERISTICS PER LEG**



**FIG. 4 - TYPICAL REVERSE CHARACTERISTICS PER LEG**



**FIG. 5 - TYPICAL JUNCTION CAPACITANCE PER LEG**



**FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE**

