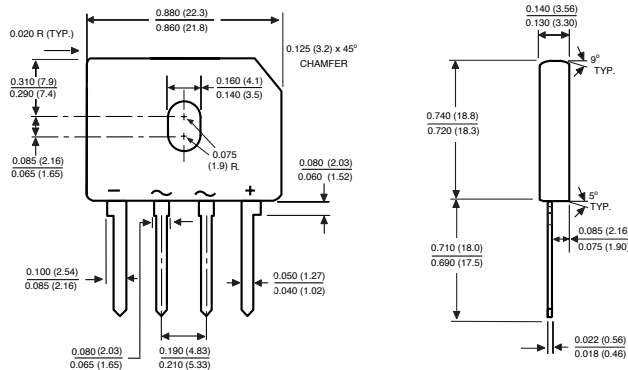


# G5SBA20 AND G5SBA60

## GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

Reverse Voltage - 200 and 600 Volts Forward Current - 6.0 Amperes

### Case Style GBU



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

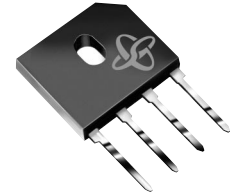
If preferred, marking may be on reverse side of case.

Lead forming option with 10mm-7.5mm-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	G5SBA20	G5SBA60	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>		6.0 2.8	Amps
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>		150	Amps
Rating for fusing (t<8.3ms)	I <sup>2</sup> t		60	A <sup>2</sup> sec
Maximum instantaneous forward voltage drop per leg at 3.0A	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>		5.0 500	μA
Typical thermal resistance per leg (NOTE 2) (NOTE 1)	R <sub>θJA</sub> R <sub>θJC</sub>		22 3.4	°C/W
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>		-55 to +150	°C

#### NOTES:

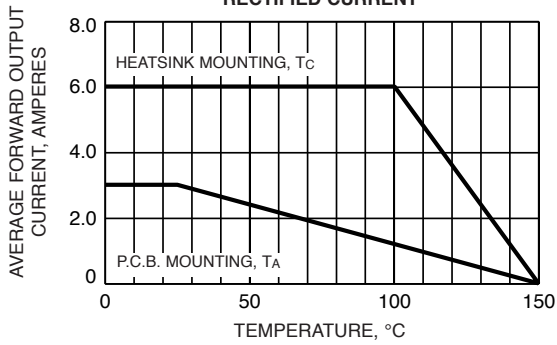
(1) Unit case mounted on Al plate heatsink.

(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

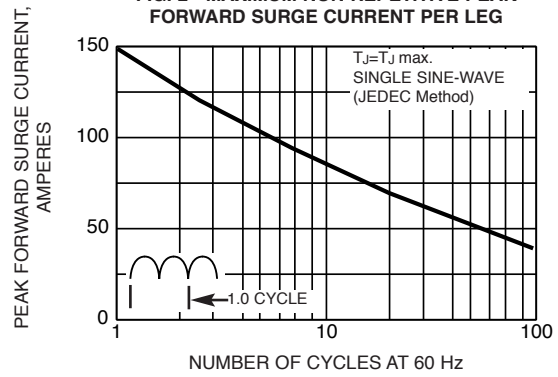
(3) Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw

# RATINGS AND CHARACTERISTICS CURVES G5SBA20 THRU G5SBA60

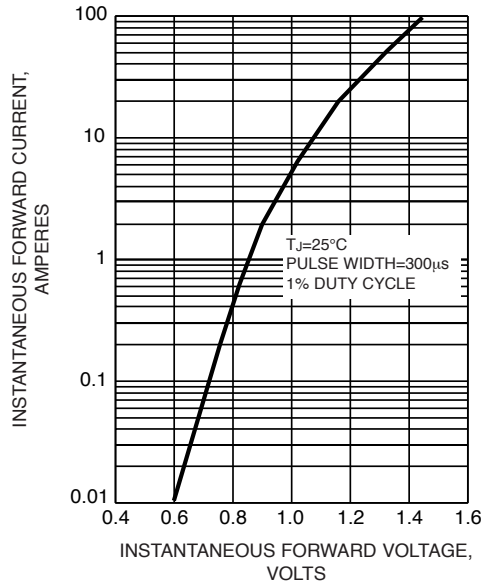
**FIG. 1 - DERATING CURVE OUTPUT RECTIFIED CURRENT**



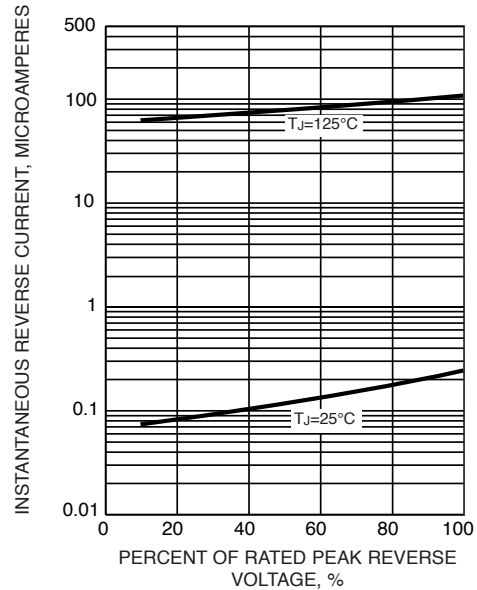
**FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG**



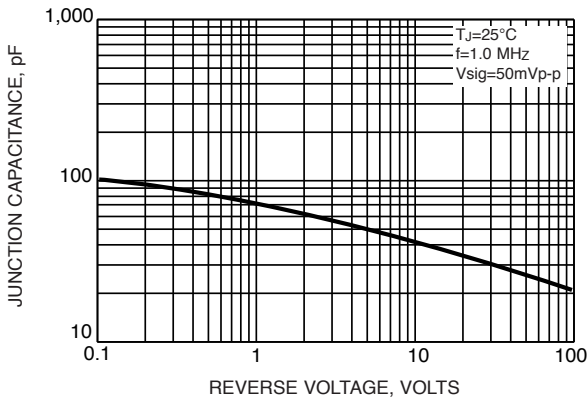
**FIG. 3 - TYPICAL FORWARD CHARACTERISTICS PER LEG**



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



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



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

