

# G3SBA05 THRU G3BA100

## SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIER

Voltage: 50 to 1000V

Current: 4.0A

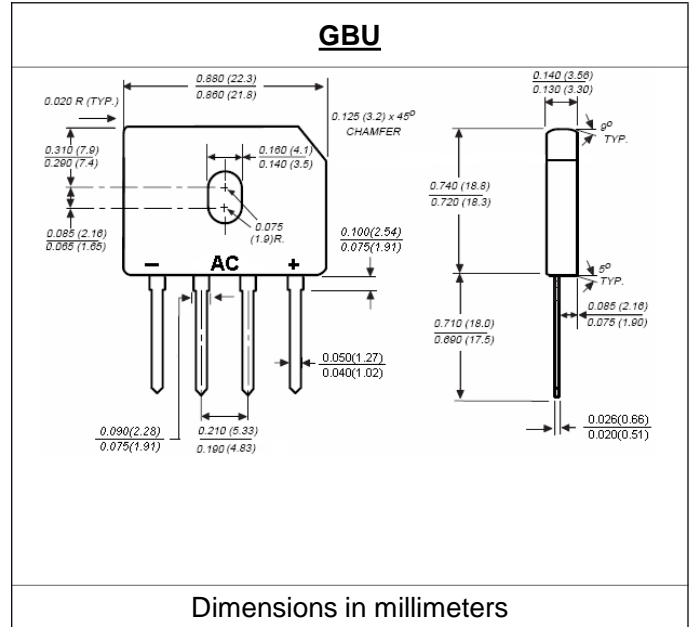


### Features

Ideal for printed circuit board  
Glass passivated chip junction  
High surge current capability  
This series is UL listed under Recognized Component Index, file number E185029

### Mechanical Data

Terminal: Plated leads solderable per MIL-STD 202E, Method 208C  
Case: UL-94 Class V-0 recognized Flame Retardant Epoxy  
Polarity: Polarity symbol marked on body  
Mounting position: Thru hole for #6 screw



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

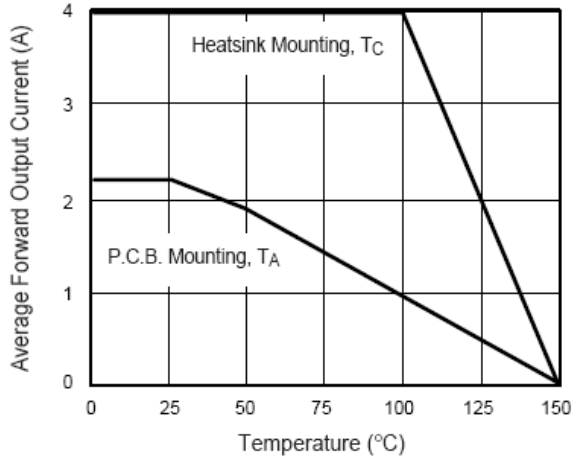
(single-phase, half -wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated, for capacitive load, derate current by 20%)

	Symbol	G3SB A05	G3SB A10	G3SB A20	G3SB A40	G3SB A60	G3SB A80	G3SB A100	units	
Maximum repetitive 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 rectified output current at T <sub>c</sub> = 100°C (Note 1) T <sub>a</sub> = 25°C (Note 2)	I <sub>f(av)</sub>					4.0				A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	I <sub>fsm</sub>					80				A
Maximum instantaneous forward voltage drop per leg at 2.0A	V <sub>f</sub>					1.0				V
Rating for fusing (t < 8.3ms)	I <sup>2</sup> t					27				A <sup>2</sup> Sec
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
Maximum thermal resistance per leg (Note2) (Note1)	R <sub>th(ja)</sub> R <sub>th(jc)</sub>					26.0 5.0				°C/W
Operating junction and storage temperature range	T <sub>j</sub> , T <sub>stg</sub>					-55 to +150			°C	

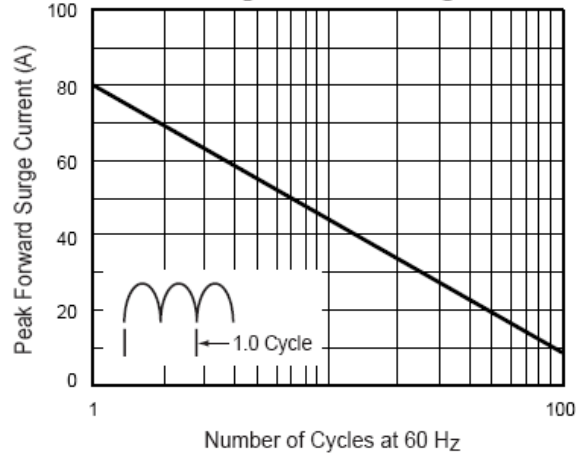
- Note:
1. Unit case mounted on Al. Plate heatsink
  2. Units mounted on P.C.B. with 0.5 x 0.5" (12 x 12mm) copper pads, 0.375" (9.5mm) lead length
  3. Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw

**RATINGS AND CHARACTERISTIC CURVES G3SBA05 THRU G3SBA100**

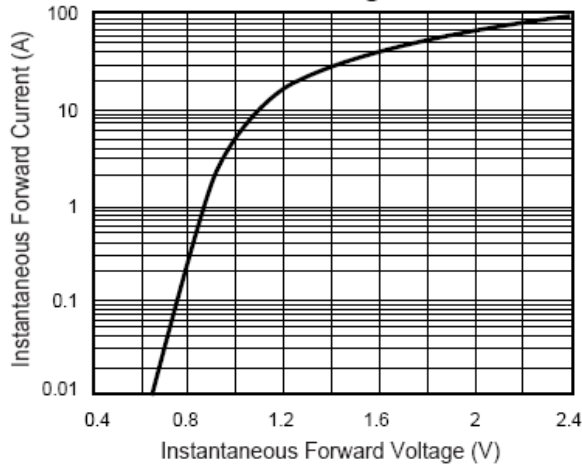
**Fig. 1 - Derating Curve Output Rectified Current**



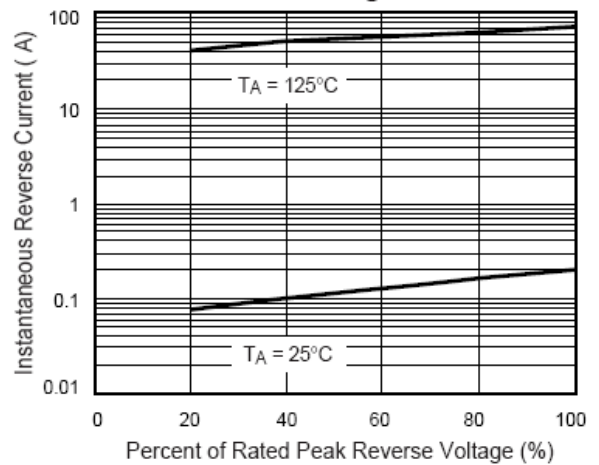
**Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Leg**



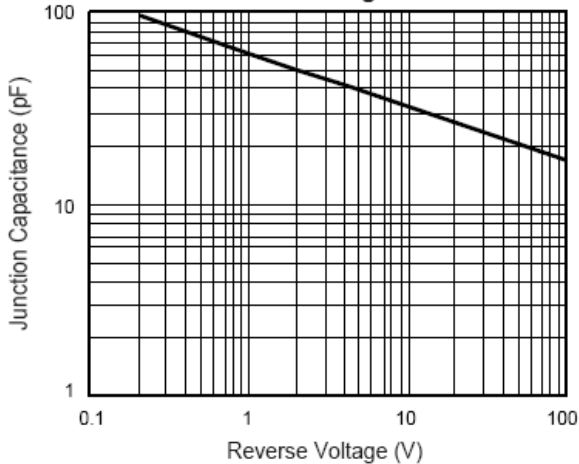
**Fig. 3 - Typical Forward Characteristics Per Leg**



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



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



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

