

# GBU4A THRU GBU4M

## SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIER

Voltage: 50 to 1000V

4.0A

Current:

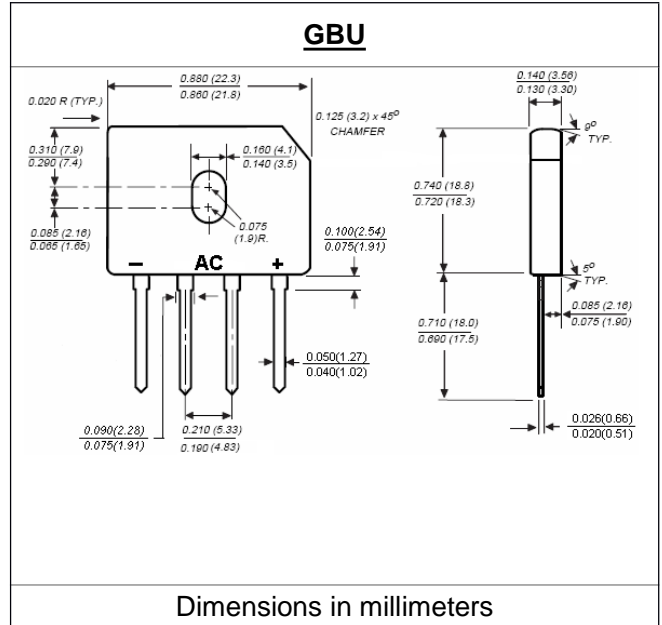


### Features

Ideal for printed circuit board  
Glass passivated chip junction  
High case dielectric strength  
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%)

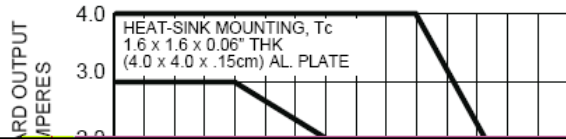
	Symbol	GB U4A	GBU 4B	GBU 4D	GBU 4G	GBU 4J	GBU 4K	GBU 4M	units
Maximum repetitive peak reverse voltage	V <sub>rrm</sub>	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V <sub>rms</sub>	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V <sub>dc</sub>	50	100	200	400	600	800	1000	V
Maximum average forward rectified output current at T <sub>c</sub> = 100°C (Note 1) T <sub>a</sub> = 40°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>	150							A
Maximum instantaneous forward voltage drop per leg at 4.0A	V <sub>f</sub>	1.0							V
Rating for fusing (t < 8.3ms)	I <sup>2</sup> t	93							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>	5.0 500							μA
Typical junction capacitance per leg (Note3)	C <sub>j</sub>	100					45		pF
Maximum thermal resistance per leg (Note2) (Note1)	R <sub>th(ja)</sub> R <sub>th(jc)</sub>	22.0 4.2							°C/W
Operating junction and storage temperature range	T <sub>j</sub> , T <sub>stg</sub>	-55 to +150							°C

Note:

- Unit case mounted on 1.6 x 1.6 x 0.06" thick (4.0 x 4.0 x 0.15cm) Al. Plate heatsink
- Units mounted on P.C.B. with 0.5 x 0.5" (12 x 12mm) copper pads, 0.375" (9.5mm) lead length
- Measured at 1.0MHz and applied reverse voltage of 4.0 Volts
- Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw

# RATINGS AND CHARACTERISTIC CURVES GBU4A THRU GBU4M

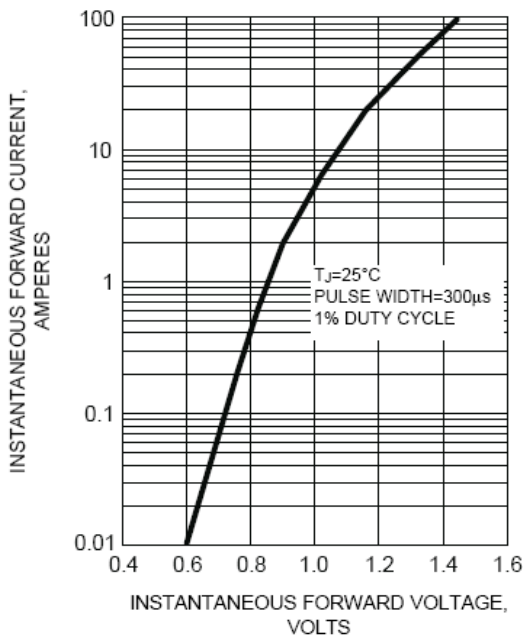
**FIG. 1 - DERATING CURVE OUTPUT RECTIFIED CURRENT**



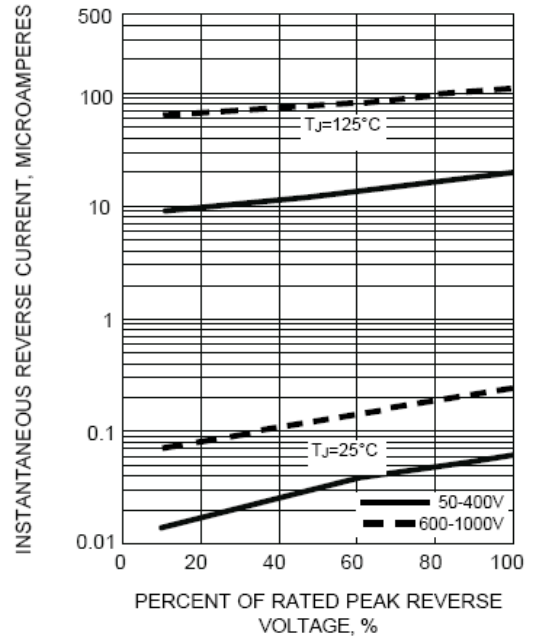
**FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG**



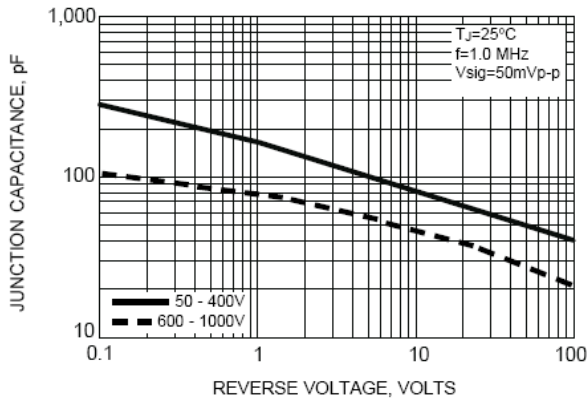
**FIG. 3 - TYPICAL FORWARD CHARACTERISTICS PER LEG**



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



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



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

