

# GBU4A-E THRU GBU4M-E

## SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIER

Voltage: 50 to 1000V

Current: 4.0A



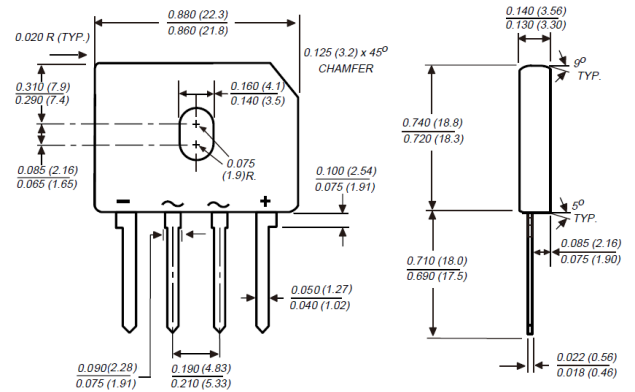
### Features

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 E330278  
Halogen Free

### Mechanical Data

Terminal: Plated leads solderable per J-STD-002  
Case: UL-94 Class V-0 recognized Halogen Free Epoxy  
Polarity: Polarity symbol marked on body  
Mounting position: Thru hole for #6 screw

### GBU



Dimensions in millimeters

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half -wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated)

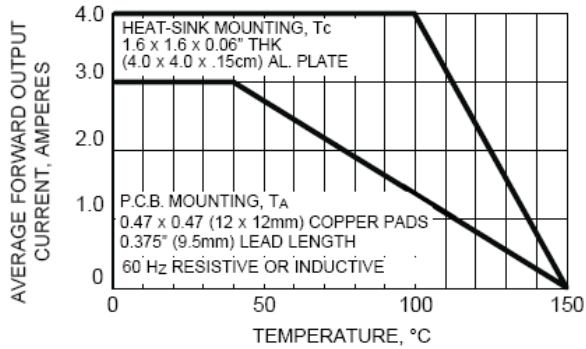
	Symbol	GBU 4A-E	GBU 4B-E	GBU 4D-E	GBU 4G-E	GBU 4J-E	GBU 4K-E	GBU 4M-E	units	
Maximum repetitive peak reverse voltage	V <sub>rrm</sub>	50	100	200	400	600	800	1000	V	
Maximum RMS voltage	V <sub>rms</sub>	35	70	140	280	420	560	700	V	
Maximum DC blocking voltage	V <sub>dc</sub>	50	100	200	400	600	800	1000	V	
Maximum average forward rectified output current at T <sub>c</sub> = 100°C (Note 1) Ta = 40°C (Note 2)	I <sub>f(av)</sub>	4.0				3.0				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 Ta = 25°C Ta = 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:

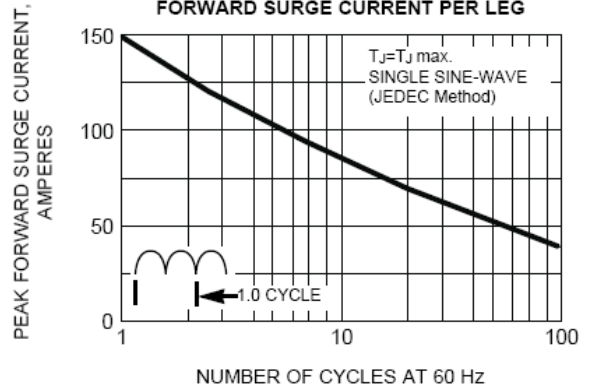
- Unit case mounted on 1.6 x 1.6 x 0.06" thick (4.0 x 4.0 x 0.15cm) Al. Plate heatsink
- Units mounted on P.C.B. with 0.5 x 0.5" (12 x 12mm) copper pads, 0.375" (9.5mm) lead length
- Measured at 1.0MHz and applied reverse voltage of 4.0 Volts
- Recommended mounting position is to bolt down on heatsink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

# RATINGS AND CHARACTERISTIC CURVES GBU4A-E THRU GBU4M-E

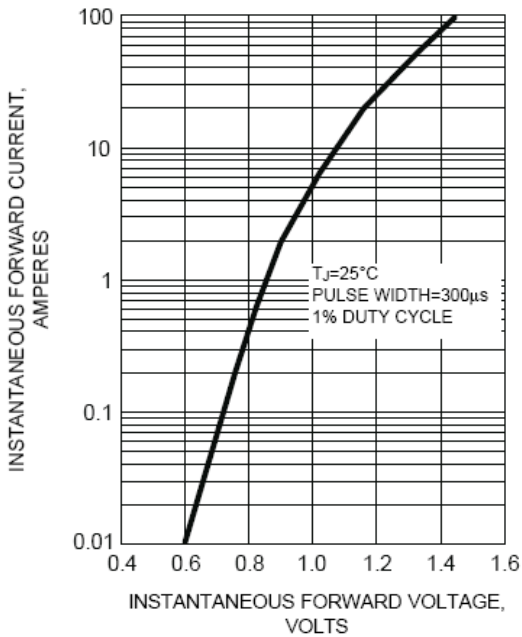
**FIG. 1 - DERATING CURVE OUTPUT RECTIFIED CURRENT**



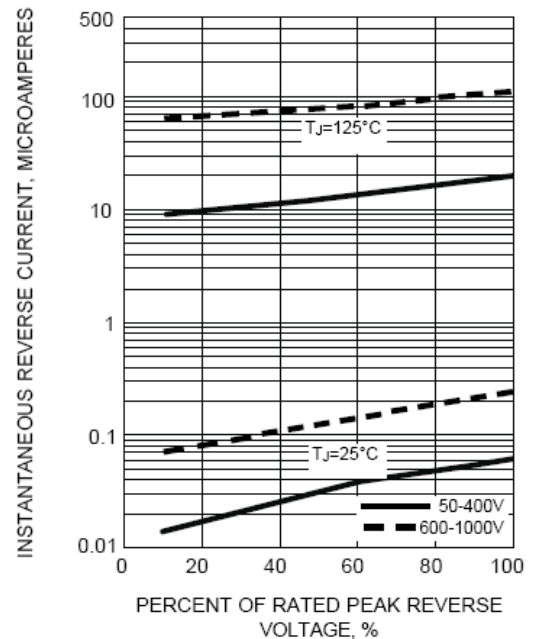
**FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG**



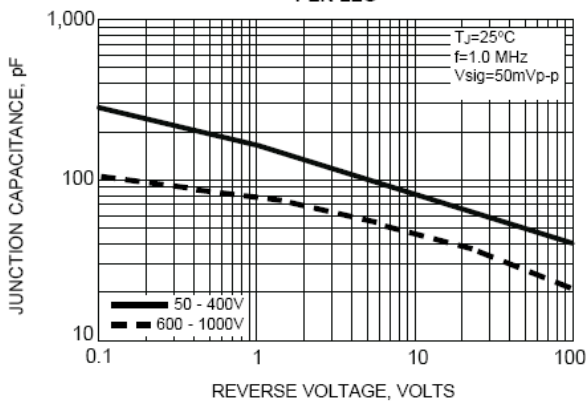
**FIG. 3 - TYPICAL FORWARD CHARACTERISTICS PER LEG**



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



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



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

