

# GBU10A THRU GBU10M

## SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIER

Voltage: 50 to 1000V

Current: 10.0A

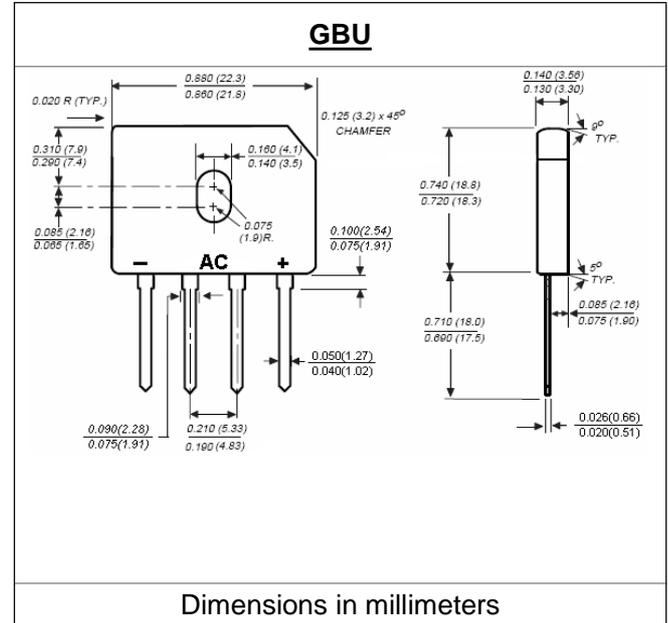


### Features

Ideal for printed circuit board  
Glass passivated chip junction  
High case dielectric strength  
High surge overload rating  
This series is UL listed under Recognized Component Index, file number E230084

### 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



### 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%)

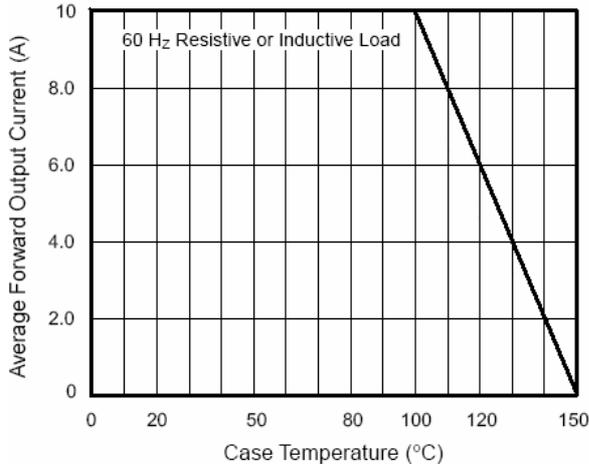
	Symbol	GBU 10A	GBU 10B	GBU 10D	GBU 10G	GBU 10J	GBU 10K	GBU 10M	units
Maximum repetitive peak reverse voltage	V <sub>rrm</sub>	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V <sub>rms</sub>	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V <sub>dc</sub>	50	100	200	400	600	800	1000	V
Maximum average forward rectified output current at T <sub>c</sub> = 100°C (Note 1)	I <sub>f(av)</sub>	10.0							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	I <sub>fsm</sub>	220							A
Maximum instantaneous forward voltage drop per leg at 5A	V <sub>f</sub>	1.0							V
Rating for fusing (t < 8.3ms)	I <sup>2</sup> t	200							A <sup>2</sup> Sec
Maximum DC reverse current at rated DC blocking voltage per leg	I <sub>r</sub>	5.0 500							μA
Typical junction capacitance per leg at 4V, 1MHz	C <sub>j</sub>	211				94			pF
Maximum thermal resistance per leg	R <sub>th(ja)</sub> R <sub>th(jc)</sub>	21 2.0							°C/W
Operating junction and storage temperature range	T <sub>j</sub> , T <sub>stg</sub>	-55 to +150							°C

Note:

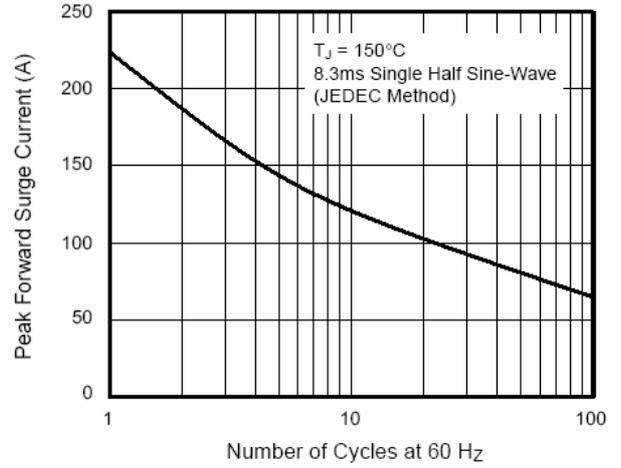
- Unit mounted in free air no heat sink on P.C.B. 0.5 x 0.5" (12 x 12 mm) copper pads, 0.375" (9.5mm) lead length
- Device mounted on 4 x 6 x 0.25" Al-plate heatsink

**RATINGS AND CHARACTERISTIC CURVES GBU10A THRU GBU10M**

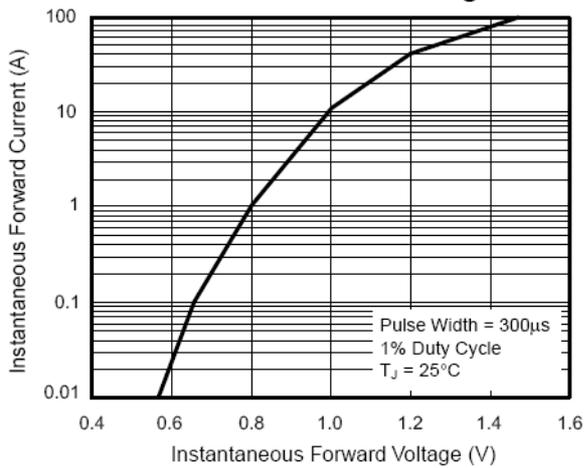
**Fig. 1 – Derating Curve Output Rectified Current**



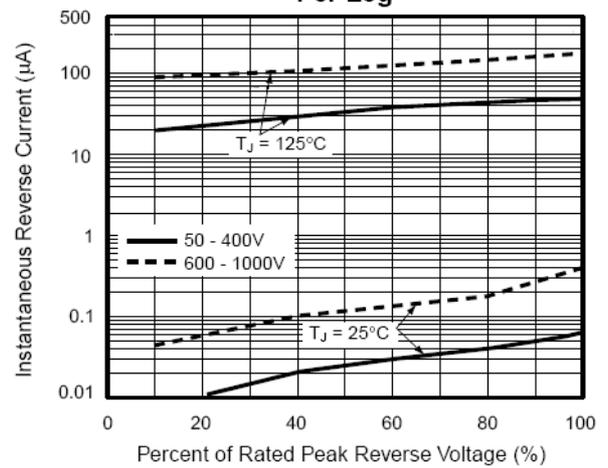
**Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current Per Leg**



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



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



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

