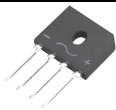




# GBU601 THRU GBU607

Single Phase 6.0 AMPS. Glass Passivated Bridge Rectifiers



Voltage Range  
50 to 1000 Volts  
Current  
6.0 Amperes

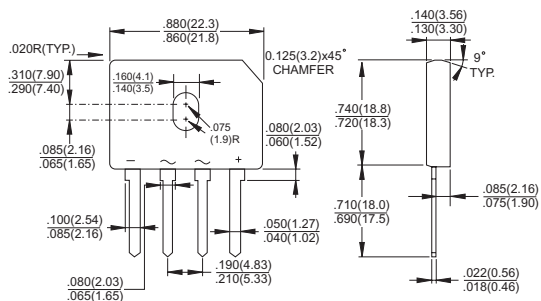
## GBU

### Features

- ✧ UL Recognized File # E-96005
- ✧ Ideal for printed circuit board
- ✧ Reliable low cost construction
- ✧ Plastic material has Underwriters Laboratory Flammability Classification 94V-0
- ✧ Surge overload rating to 175 amperes peak
- ✧ High temperature soldering guaranteed: 260°C / 10 seconds / .375", (9.5mm) lead lengths at 5 lbs., (2.3kg) tension

### Mechanical Data

- ✧ Case: Molded plastic body.
- ✧ Terminals: Plated leads solderable per MIL-STD-750, Method 2026.
- ✧ Weight: 0. 3 ounce, 8.0 grams
- ✧ Mounting torque: 5 in. lb. max.



Dimensions in inches and (millimeters)

### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Type Number	Symbol	GBU 601	GBU 602	GBU 603	GBU 604	GBU 605	GBU 606	GBU 607	Units
Maximum Recurrent 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 Current @ T <sub>C</sub> = 100°C	I <sub>(AV)</sub>	6.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method )	I <sub>FSM</sub>	175							A
Maximum Instantaneous Forward Voltage @ 6.0A	V <sub>F</sub>	1.0							V
Maximum DC Reverse Current @ T <sub>A</sub> =25°C at Rated DC Blocking Voltage @ T <sub>A</sub> =125°C	I <sub>R</sub>	5.0 500							uA uA
Typical Thermal Resistance (Note 1, 2)	R θ JA R θ JC	7.0 2.0							°C/W
Typical Junction Capacitance (Note 3)	C <sub>j</sub>	211				94			pF
Operating Temperature Range	T <sub>J</sub>	-55 to +150							°C
Storage Temperature Range	T <sub>STG</sub>	-55 to + 150							°C

Notes: 1. Mounted on Al. Plate Heatsink of 2.6 x 1.4 x 0.06" THK (6.5 x 3.5 x 0.15 cm).

2. Bolt on Heatsink with silicone Thermal Compound for Maximum Heat Transfer with #6 Screws.

3. Measured at 1.0 MHZ and Applied Reverse Voltage of 4.0 Volts.

## RATINGS AND CHARACTERISTIC CURVES (GBU601 THRU GBU607)

FIG.1- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMENT

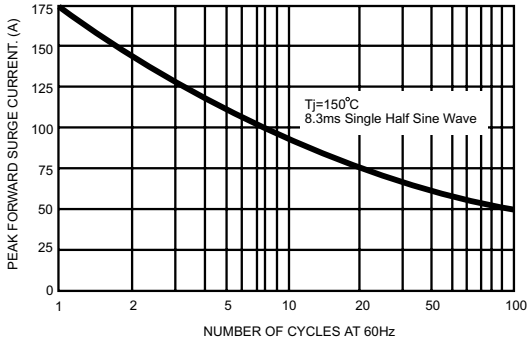


FIG.2-MAXIMUM FORWARD CURRENT DERATING CURVE

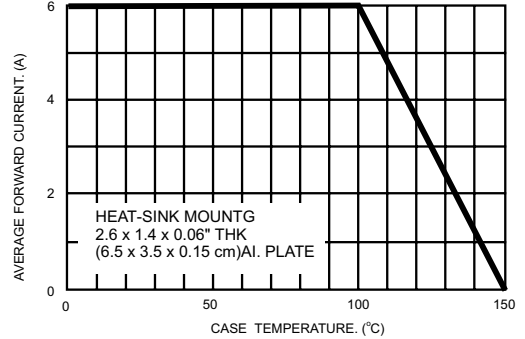


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

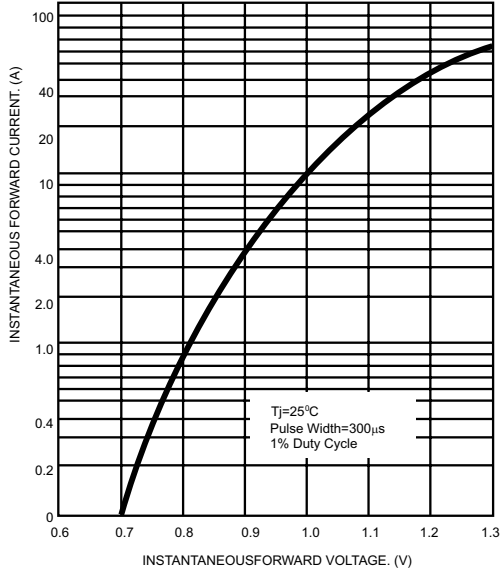


FIG.4- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

