



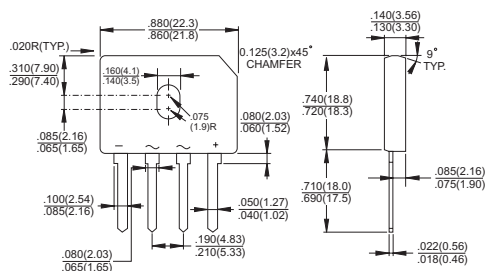
# GBU601 - GBU607

## Single Phase 6.0 AMPS. Glass Passivated Bridge Rectifiers

### 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
- ✦ High case dielectric strength of 1500VRMS
- ✦ 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	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @ $T_C = 100^\circ C$	$I_{(AV)}$	6.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method )	$I_{FSM}$	175							A
Maximum Instantaneous Forward Voltage @ 3.0A @ 6.0A	$V_F$	1.0 1.1							V
Maximum DC Reverse Current @ $T_A=25^\circ C$ at Rated DC Blocking Voltage @ $T_A=125^\circ C$	$I_R$	5.0 500							$\mu A$ $\mu A$
Typical Junction Capacitance (Note 3)	$C_j$	211					94		pF
Typical Thermal Resistance (Note 1, 2)	$R_{\theta JA}$ $R_{\theta JC}$	7.0 2.0							$^\circ C/W$
Operating Temperature Range	$T_J$	-55 to +150							$^\circ C$
Storage Temperature Range	$T_{STG}$	-55 to +150							$^\circ C$

- Notes:
1. Mounted on Al. Plate Heatsink of 2" x 3" x 0.25".
  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 FORWARD CURRENT DERATING CURVE

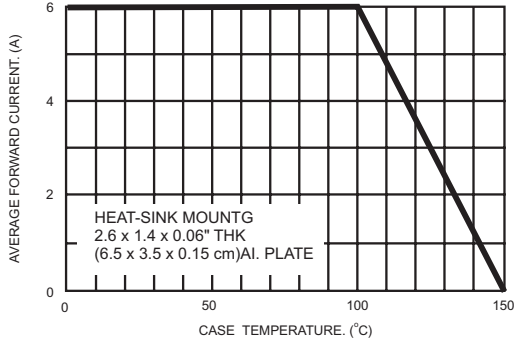


FIG.2- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

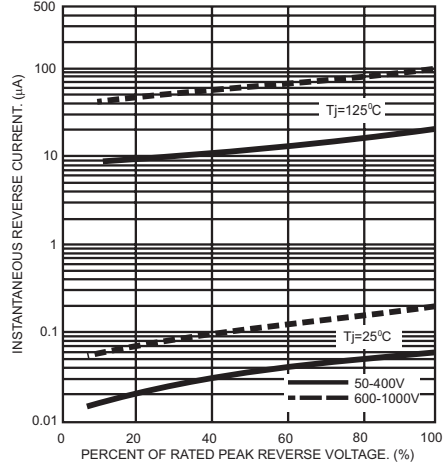


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMENT

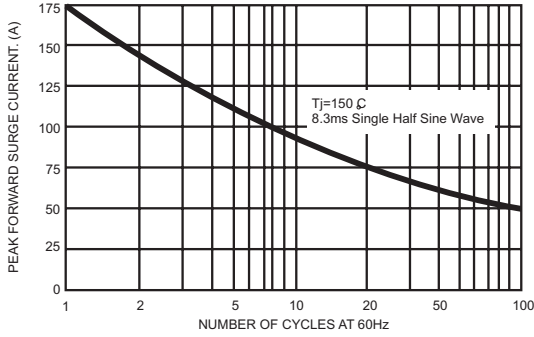


FIG.4- TYPICAL JUNCTION CAPACITANCE

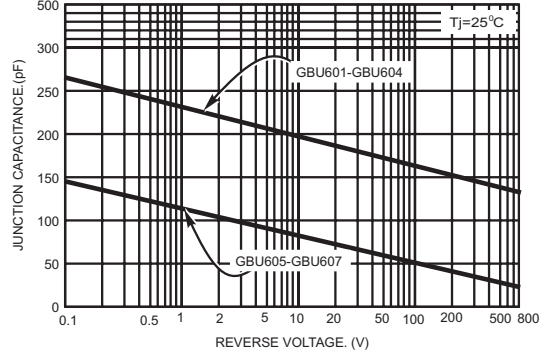


FIG.5- TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

