



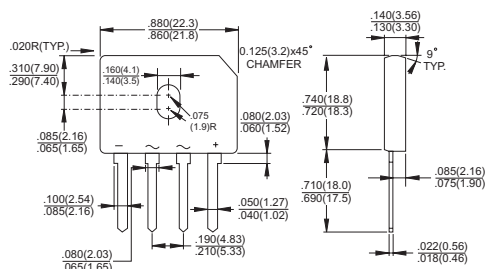
# GBU401 - GBU407

## Single Phase 4.0 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 150 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: Leads solderable per MIL-STD-750, Method 2026
- ✧ Weight: 0.3 ounce, 8.0 grams
- ✧ Mounting torque: 5 in. lbs. 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	GBU	GBU	GBU	GBU	GBU	GBU	Units
		401	402	403	404	405	406	407	
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 @ $T_C = 100^\circ\text{C}$	$I_{(AV)}$	4.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method )	$I_{FSM}$	150							A
Maximum Instantaneous Forward Voltage @ 2.0A @ 4.0A	$V_F$	1.0 1.1							V
Maximum DC Reverse Current @ $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A=125^\circ\text{C}$	$I_R$	5.0 500							$\mu\text{A}$ $\mu\text{A}$
Typical Junction Capacitance (Note 3)	$C_j$	100				45			pF
Typical Thermal Resistance (Note 1) (Note 2)	$R_{\theta JA}$ $R_{\theta JC}$	20 4.0							$^\circ\text{C}/\text{W}$
Operating Temperature Range	$T_J$	-55 to +150							$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to + 150							$^\circ\text{C}$

- Notes:
1. Mounted on P.C.B. with 0.5" x 0.5" (12mm x 12mm) Copper Pads and 0.375" 9.5mm) Lead Length.
  2. Mounted on Al. Plate of 2" x 3" x 0.25" Al-Plate Heatsink.
  3. Measured at 1.0MHZ and Applied Reverse Voltage of 4.0 Volts.

## RATINGS AND CHARACTERISTIC CURVES (GBU401 THRU GBU407)

FIG.1-MAXIMUM FORWARD CURRENT DERATING CURVE

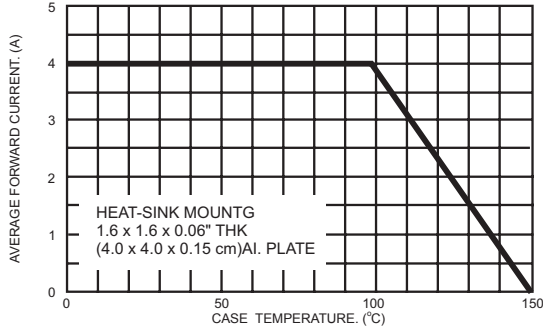


FIG.2- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

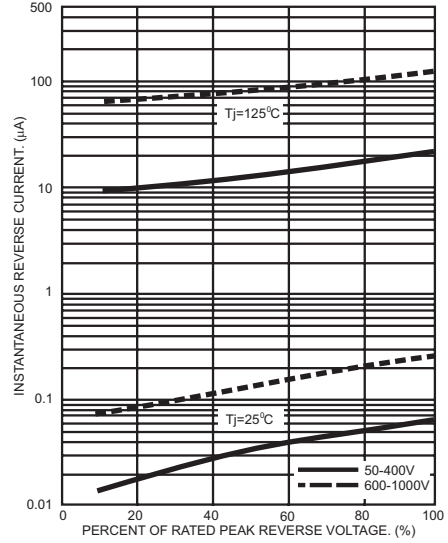


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMENT

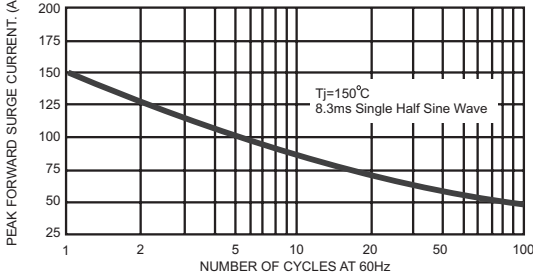


FIG.4- TYPICAL JUNCTION CAPACITANCE

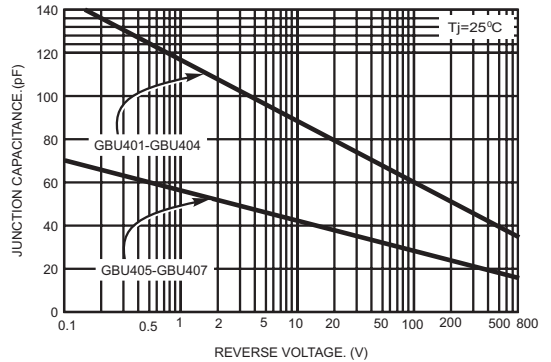


FIG.5- TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

