

GBU401 THRU GBU407

Single Phase 4.0 AMPS. Glass Passivated Bridge Rectifiers



Voltage Range 50 to 1000 Volts Current

GBU

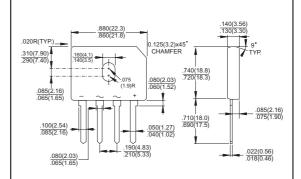
Features

- UL Recognized File # E-96005
- Ideal for printed circuit board
- Reliable low cost construction \diamond
- Plastic material has Underwriters Laboratory Flammability Classification 94V-0
- 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.

4.0 Amperes



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 401	GBU 402	GBU 403	GBU 404	GBU 405	GBU 406	GBU 407	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)	4.0							Α
Peak Forward Surge Current, 8.3 ms Single Half Sne-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	150							А
Maximum Instantaneous Forward Voltage @ 4.0A	V_{F}	1.0							٧
Maximum DC Reverse Current @ T_A =25 $^{\circ}$ C at Rated DC Blocking Voltage @ T_A =125 $^{\circ}$ C	I_R	5.0 500							uA uA
Typical Thermal Resistance (Note 1)	$R\theta_{JA}$	20							°C/W
(Note 2)	$R\theta_{JC}$	4.0							
Typical Junction Capacitance (Note 3)	Cj	100 45					рF		
Operating Temperature Range	T_J	-55 to +150							$\mathbb{O}_{}$
Storage Temperature Range	T _{STG}	-55 to + 150							$^{\circ}\mathbb{C}$

Notes: 1. Mounted on P.C.B. with 0.5 x 0.5" (12 x 12mm) Copper Pads and 0.375" 9.5mm) Lead Length.

- 2. Mounted on Al. Plate of 2" x 3" x 0.25"
- 3. Measured at 1.0MHZ and Applied Reverse Voltage of 4.0 Volts.



RATINGS AND CHARACTERISTIC CURVES (GBU401 THRU GBU407)

FIG.1- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMENT PEAK FORWARD SURGE CURRENT. (A) 150 Tj=150°C 125 8.3ms Single Half Sine Wave 100 75 50 2 100 1 5 10 20 50 NUMBER OF CYCLES AT 60Hz

FIG.2-MAXIMUM FORWARD CURRENT DERATING CURVE

5

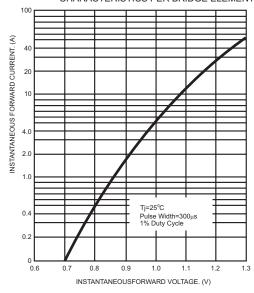
HEAT-SINK MOUNTG

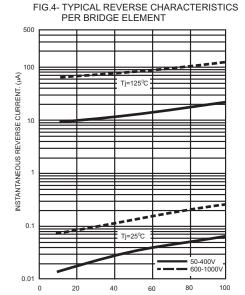
2" x 3" x 0.25" Al-PLATE

0

CASE TEMPERATURE. (°C)

FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT





PERCENT OF RATED PEAK REVERSE VOLTAGE. (%)