



# GBU1001 THRU GBU1007

Single Phase 10.0 AMPS. Glass Passivated Bridge Rectifiers



Voltage Range  
50 to 1000 Volts  
Current  
10.0 Amperes

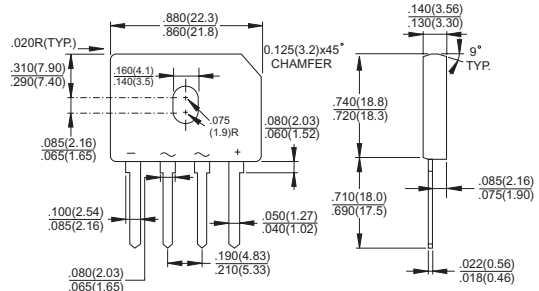
## Features

- ✧ 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 200 amperes peak
- ✧ High temperature soldering guaranteed: 260°C / 10 seconds / .375", (9.5mm) lead lengths.

## 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.

## GBU



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 1001	GBU 1002	GBU 1003	GBU 1004	GBU 1005	GBU 1006	GBU 1007	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 @ $T_C = 100^\circ\text{C}$	$I_{(AV)}$	10.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	220							A
Maximum Instantaneous Forward Voltage @ 10.0A	$V_F$	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 Thermal Resistance Per Leg (Note 1) (Note 2)	$R_{\theta JA}$ $R_{\theta JC}$	21.0 2.0							$^\circ\text{C}/\text{W}$
Typical Junction Capacitance (Note 3)	$C_j$	211					94		pF
Operating Temperature Range	$T_J$	-55 to +150							$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150							$^\circ\text{C}$

Notes 1: Units Mounted In Free Air No Heat Sink On PCB 0.5x0.5" (12x12mm) Copper Pads, 0.375"(9.5mm) Lead Length.

2: Device Mounted on 4" x 6" x 0.25" Al-Plate Heatsink.

3. Measured at 1.0 MHZ and applied Reverse Voltage of 4.0V.



## RATINGS AND CHARACTERISTIC CURVES (GBU1001 THRU GBU1007)

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

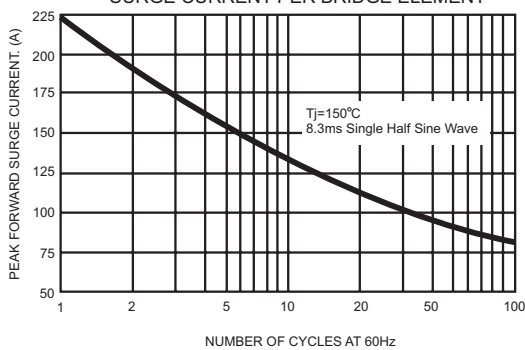


FIG.2-MAXIMUM FORWARD CURRENT DERATING CURVE

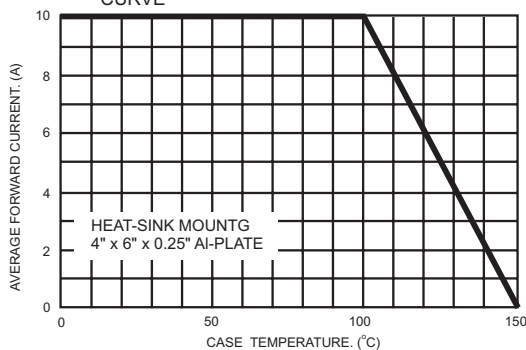


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

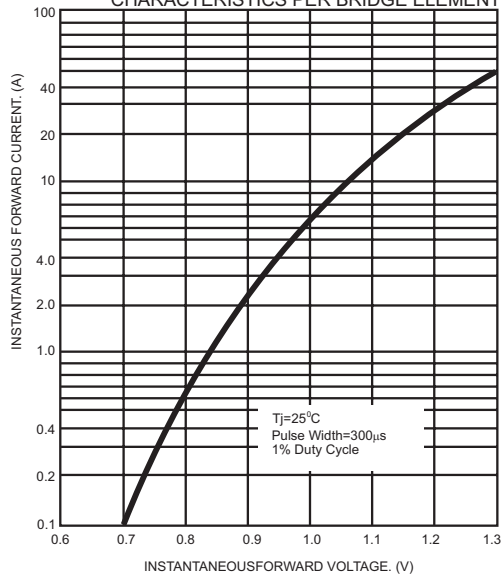
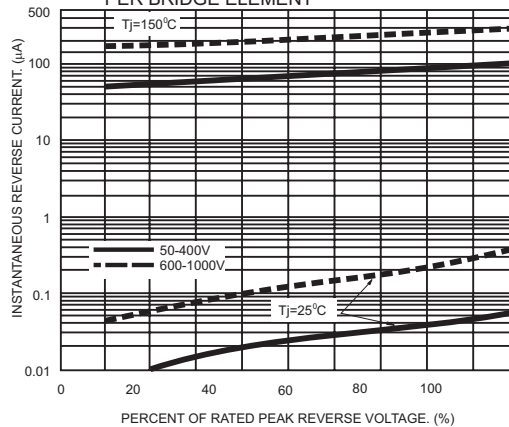


FIG.4- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT





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