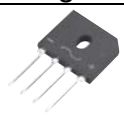
GBU601 THRU GBU607

Single Phase 6.0 AMPS. Glass Passivated Bridge Rectifiers



Voltage Range
50 to 1000 Volts
Current
6.0 Amperes

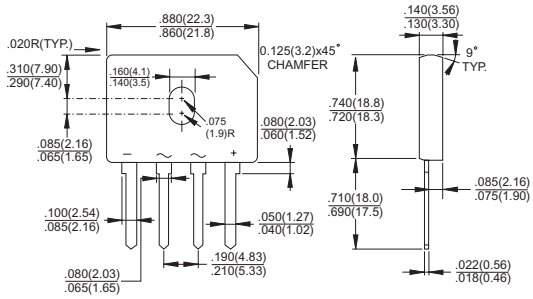
Features

- ✧ 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 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, 4.0 grams
- ✧ Mounting torque: 5 in. lb. max.

GBU



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25℃ 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℃	$I_{(AV)}$	6.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sne-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	175							A
Maximum Instantaneous Forward Voltage @ 6.0A	V_F	1.0							V
Maximum DC Reverse Current @ T_A=25℃ at Rated DC Blocking Voltage @ T_A=125℃	I_R	5.0 500							uA uA
Typical Thermal Resistance (Note 1, 2)	$R\theta_{JA}$ $R\theta_{JC}$	7.0 2.0							℃/W
Typical Junction Capacitance (Note 3)	Cj	211				94			pF
Operating Temperature Range	T_J	-55 to +150							℃
Storage Temperature Range	T_{STG}	-55 to + 150							℃

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 NON-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMENT

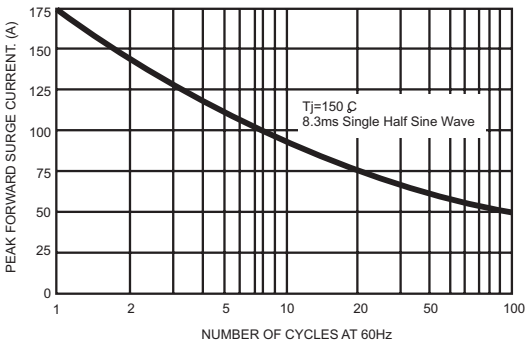


FIG.2-MAXIMUM FORWARD CURRENT DERATING CURVE

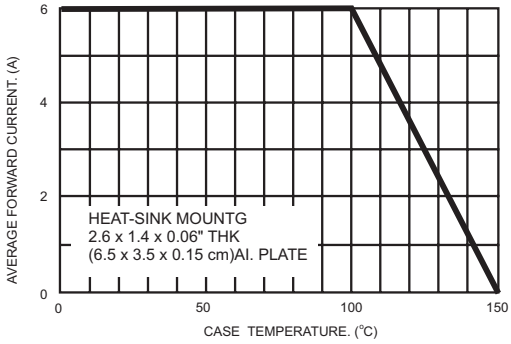


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

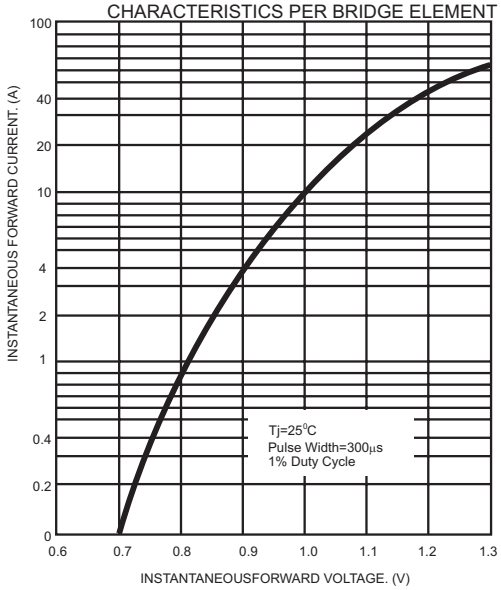


FIG.4- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT