GBU8A SERIES

SINGLE PHASE 8.0 AMPS.
GLASS PASSIVATED
BRIDGE RECTIFIERS

Voltage Range
50 to 1000 Volts
Current 8.0 Amperes

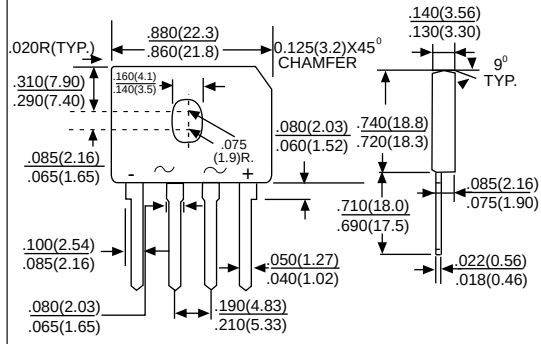
Features

*Ideal for printed circuit board
*Reliable low cost construction
*Plastic material has Underwriters Laboratory Flammability Classification 94V-0
*Surge overload rating to 150 amperes peak
*High temperature soldering guaranteed: 250°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.

GBU



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%

Type Number		GBU 8005	GBU 801	GBU 802	GBU 804	GBU 806	GBU 808	GBU 810	UNITS
Maximum Repetitive 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°C	$I_{F(AV)}$	8.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	150/175/200							A
Maximum Instantaneous Forward Voltage Drop Per Leg @4.0A/6.0A/8.0A	V_F	1.0							V
Maximun DC Reverse Current @ T_A = 25°C at Rated DC Blocking Voltage @ T_A = 125°C	I_R	5.0 500							uA uA
Typical Thermal Resistance (Note 1) (Note 2)	$R_{\theta JA}$ $R_{\theta JC}$	20/7.0/21.0 4.0							°C/W
Typical Junction Capacitance (Note 3)	C_J	100/211/211				45/94/94			pF
Operating Temperature Range	T_J	-55 to+150							°C
Storage Temperature Range	T_{STG}	-55 to+150							°C

NOTES:GBU8005 Thru GBU810: 1.Mounted on P.C.B. with 0.5 x 0.5" (12 x12mm) Copper Pads and 0.375"9.5mm) Lead Length.
2. Mounted on Al.Pate of 1.6 x1.6 x0.06"THK (4 x 4 x 0.15cm).
GBU8005 Thru GBU810: 1.Mounted on Al.Plate Heatsink of 2.6 x 1.4 x 0.06"THK (6.5 x 3.5 x 0.15cm).
2.Bolt on Heatsink with silicone Thermal Compound for Maximun Heat Transfer with #6 Screws.
GBU8005 Thru GBU810: 1.Units Mounted In Free Air No Heat Sink On PCB 0.5 x 0.5" (12 x 12mm) Copper Pads, 0.375" (9.5mm) Lead Length.
2.Units Case Mounted On 3.2 x 3.2 x 0.12" Thick (8.2x8.2x0.3cm) AL.Plate Heat Sink.
3.Measured at 1.0 MHz and Applied Reverse Voltage of 4.0 Volts.

RATING AND CHARACTERISTIC CURVES GBU8A SERIES

GBU8005 THRU GBU810

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

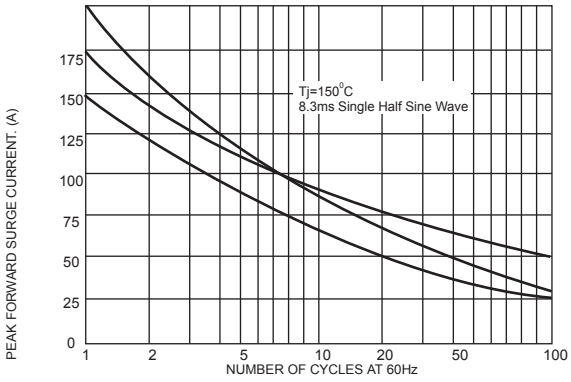


FIG.2-MAXIMUN FORWARD CURRENT DERATING CURVE

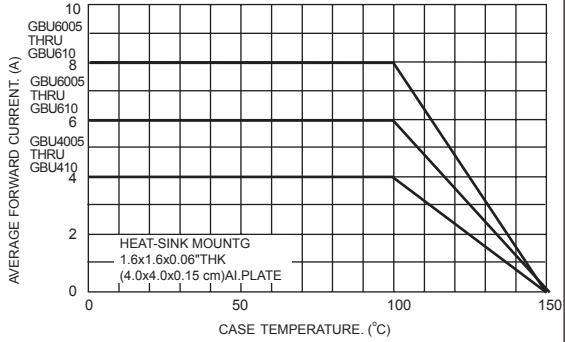


FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

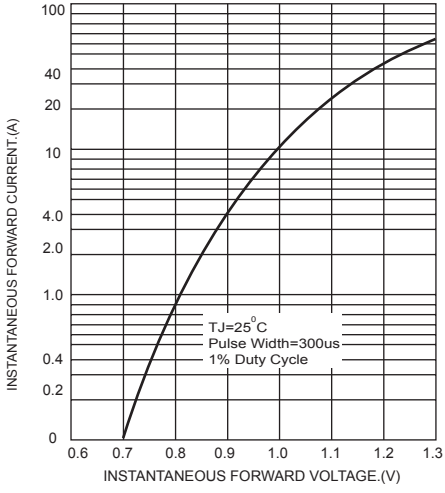


FIG.4-TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT(GBU6005 THRU GBU610)

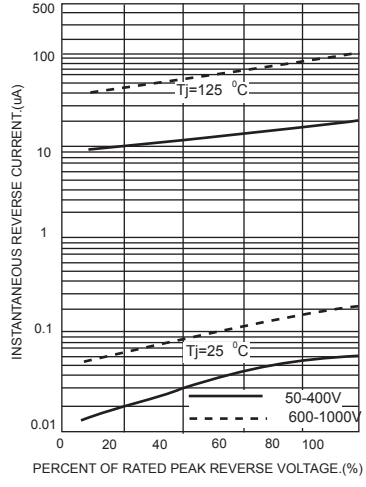


FIG.4-TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT(GBU4005 THRU GBU410)

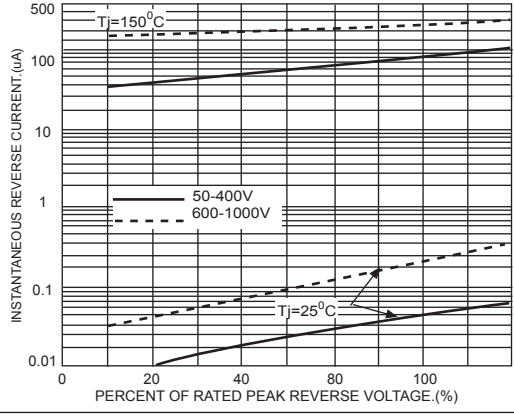


FIG.4-TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT(GBU6005 THRU GBU810)