



# GBJ6005~GBJ608

GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

Voltage Range 50 to 800 Volts

Current 6.0 Amperes

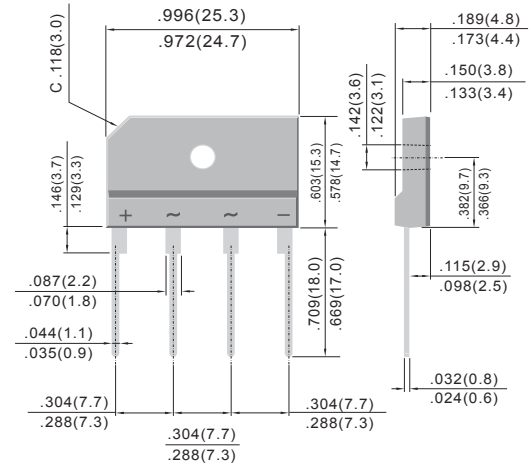
## Features

- \* Plastic material has Underwriters Laboratory Flammability Classification 94V-0
- \* Ideal for printed circuit board
- \* Reliable low cost construction utilizing molded plastic technique
- \* High temperature soldering guaranteed:  
260°C/10 seconds/.375"(9.5mm) lead length at 5 lbs. (2.3kg) tension
- \* Pb free product are available : 99% Sn above can meet Rohs environment substance directive request

## Mechanical Data

Case: Reliable low cost construction utilizing molded plastic technique  
 Terminals: Leads solderable per MIL-STD-202G, Method 208  
 Mounting position: Any  
 Mounting torque: 5 in. lb. Max.  
 Weight: 0.15 ounce, 4.0 grams

GBJ



Dimensions in millimeters

## Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified. Resistive or inductive load, 60Hz.  
 For Capacitive load derate current by 20%.

PARAMETER	SYMBOL	GBJ6005	GBJ601	GBJ602	GBJ604	GBJ606	GBJ608	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	V
Maximum RMS Bridge Input Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	V
Maximum Average Forward Rectified Output Current at TC=100 °C	I <sub>AV</sub>	6.0						A
I <sup>2</sup> t Rating for fusing ( t<8.3ms)	I <sup>2</sup> t	127						A <sup>2</sup> sec
Peak Forward Surge Current single sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	175						Apk
Maximum Instantaneous Forward Voltage Drop per element at 3.0A	V <sub>F</sub>	1.0						Vpk
Maximum Reverse Leakage Current at Rated @ TA=25°C Dc Blocking Voltage @ TA=100°C	I <sub>R</sub>	5.0 500						uA
Typical Thermal Resistance per leg (Note 2) (Note 3)	R <sub>θJA</sub> R <sub>θJC</sub>	8.6 3.1						°C/W
Operating Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to + 150						°C

### NOTES:

1. Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw.
2. Units Mounted in free air, no heatsink, P.C.B at 0.375"(9.5mm) lead length with 0.5 x 0.5"(12 x 12mm)copper pads.
3. Units Mounted on a 2.6 x 1.4" x 0.06" thick ( 6.5 x 3.5 x 0.15cm) AL plate.

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## Rating and Characteristic Curves

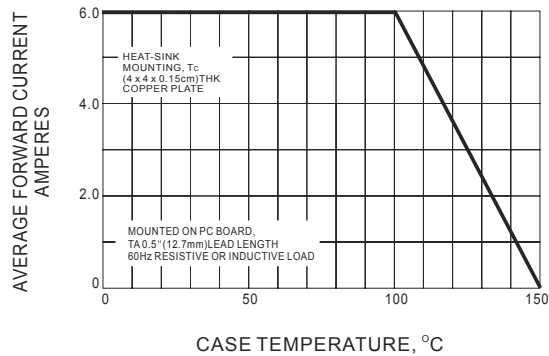


Fig. 1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

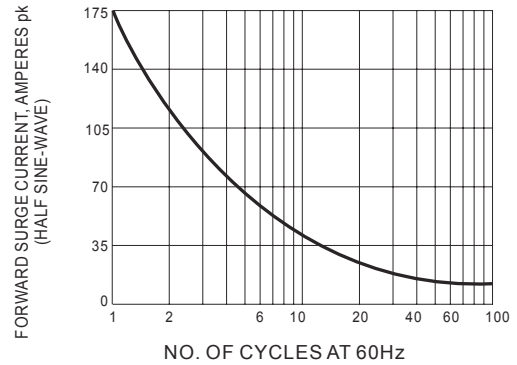


Fig. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

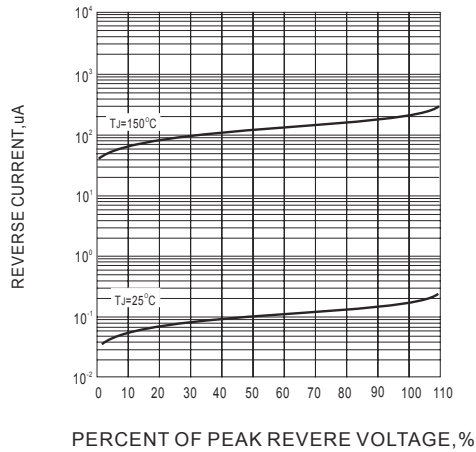


Fig. 3 - TYPICAL REVERSE CHARACTERISTICS

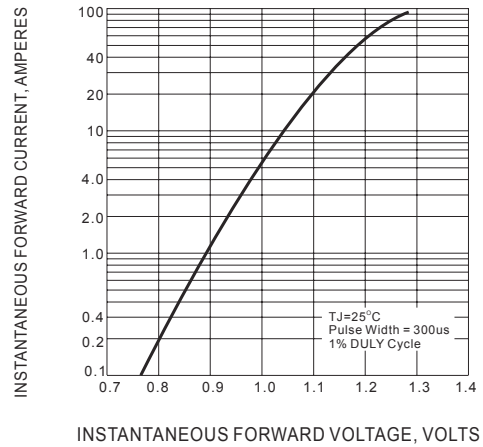


Fig. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER ELEMENT