



## SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIER

**GBJ8005 THRU GBJ810**

**VOLTAGE RANGE**

**50 to 1000 Volts**

**CURRENT**

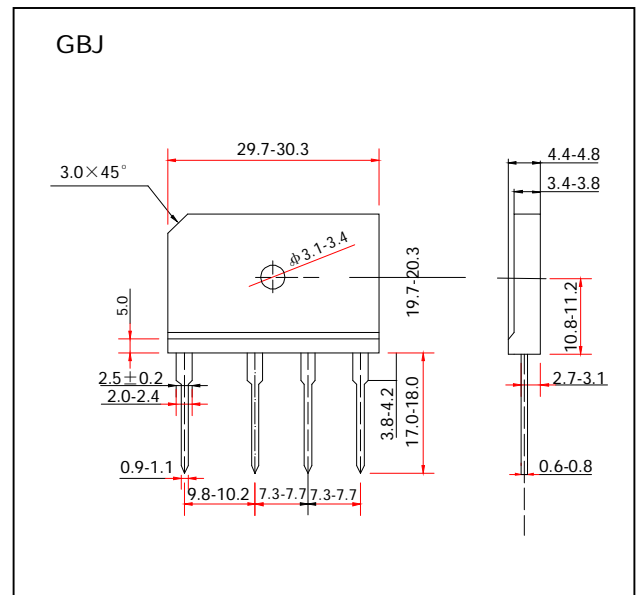
**8.0 Amperes**

### FEATURES

- Plastic package has UL Flammability Classification 94V-0
- Glass passivated chip junctions
- High case dielectric strength of 1500 V<sub>RMS</sub>
- High surge current capability
- High temperature soldering guaranteed  
260°C/10 seconds, 0.375”(9.5mm) lead length

### MECHANICAL DATA

- Case: molded plastic body
- Terminal: Plated leads solderable per MIL-STD-750 Method 2026
- Mounting position: Any (Note 3)
- Mounting Torque: 6 in – 1bs max.
- Weight: 0.26 ounce, 7.4 gram



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	SYMBOLS	GBJ 8005	GBJ 801	GBJ 802	GBJ 804	GBJ 806	GBJ 808	GBJ 810	UNIT
Maximum Reverse Peak Repetitive Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	100	Volts
Maximum Average Forward Rectified Current, At T <sub>C</sub> =100°C (Note 1)	I <sub>(AV)</sub>	8.0							Amps
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	170							Amps
Rating for Fusing (t < 8.3ms)	I <sup>2</sup> t	166							A <sup>2</sup> s
Maximum Instantaneous Forward Voltage drop Per bridge element 4.0A	V <sub>F</sub>	1.0							Volts
Maximum DC Reverse Current at rated DC blocking voltage per element	T <sub>A</sub> =25°C	5.0							μ A
	T <sub>A</sub> =125°C	500							
Typical Junction Capacitance, per let (Note 2)	C <sub>J</sub>	211.0			94.0				pF
Typical Thermal Resistance (Note 4)	R <sub>JA</sub>	3.5							°C/W
Operating Junction Temperature Range	T <sub>J</sub>	(-55 to +150)							°C
Storage Temperature Range	T <sub>STG</sub>	(-55 to +150)							°C

- Notes:**
1. Unit case mounted on 3.2×3.2×0.12” thick (8.2×8.2×0.3cm) Al. Plate heatdink
  2. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts
  3. Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat Transfer with #6 screws
  4. Unit mounted in free air, no heat sink on P.C.B. 0.5×0.5”(12×12mm) copper pads 0.375”(9.5mm) lead length



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## RATINGS AND CHARACTERISTIC CURVES GBJ8005 THRU GBJ810

FIG. 1- DERATING CURVE  
OUTPUT RECTIFIED CURRENT

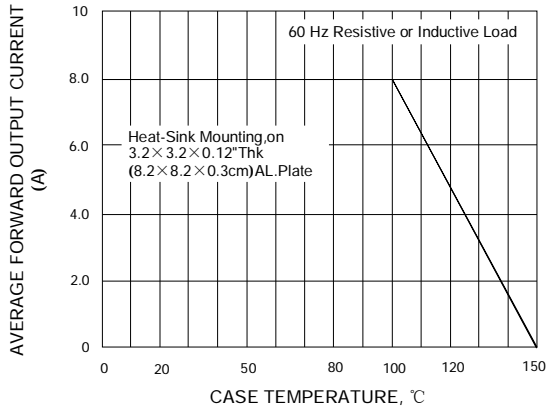


FIG. 2- MAXIMUM NON-REPETITIVE PEAK  
FORWARD SURGE CURRENT PER LEG

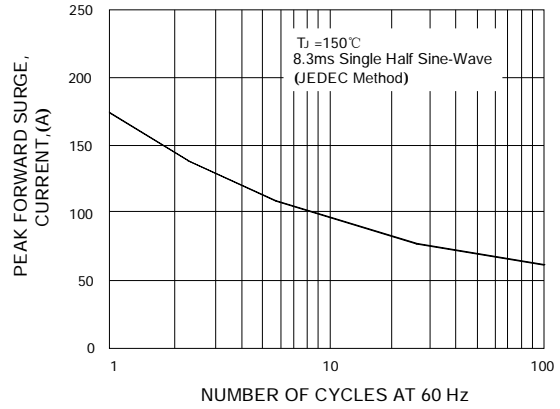


FIG. 3- TYPICAL FORWARD  
CHARACTERISTICS PER LGE

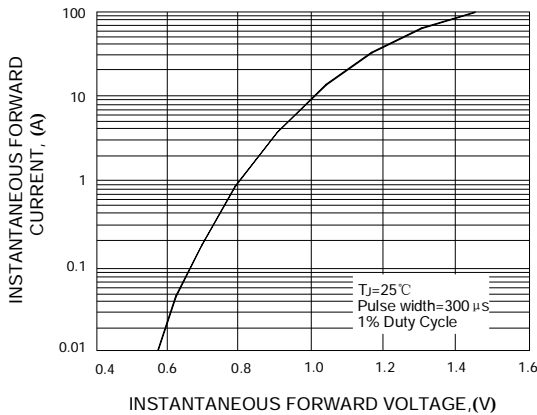


FIG. 4- TYPICAL REVERSE CHARACTERISTICS  
PER LEG

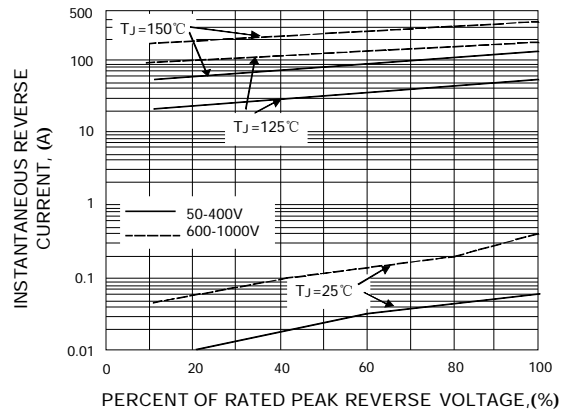


FIG. 5- TYPICAL JUNCTION CAPACITANCE  
PER LEG

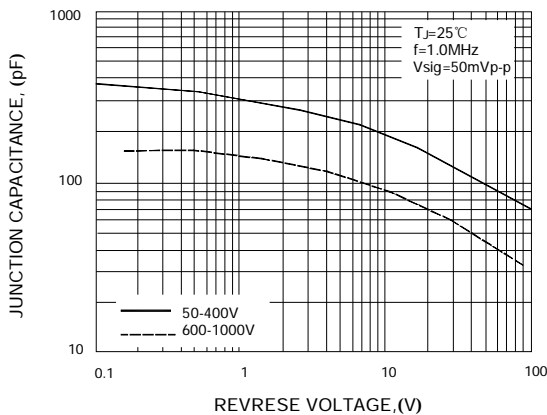


FIG. 6- TYPICAL TRANSIENT THERMAL  
IMPEDANCE PER LEG

