



SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIER

GBJ8005 THRU GBJ810

VOLTAGE RANGE
CURRENT

50 to 1000 Volts
8.0 Ampere

FEATURES

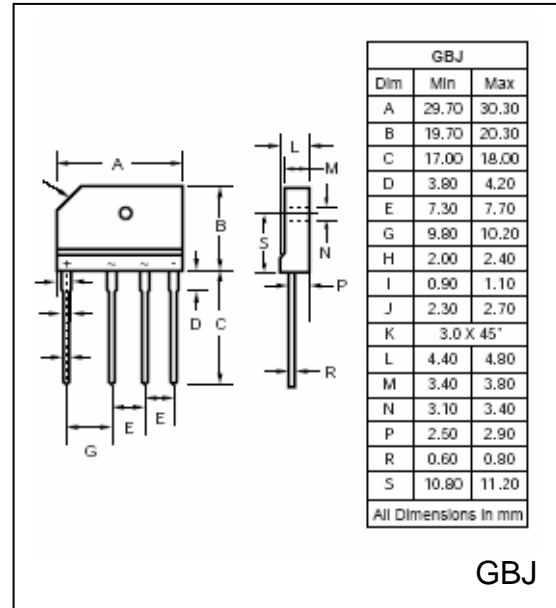
- Plastic package has UL flammability Classification 94V – 0
- Glass passivated chip junction
- High case dielectric strength of 1500 V_{RMS}
- High surge current capability
- High temperature soldering guaranteed: 260 °C /10 seconds, 0.375” (9.5mm) lead length

MECHANICAL DATA

- Case: Molded plastic body
- Terminals: Plated leads solderable per MIL-STD-750 Method 2026
- Mounting position: any, (Note 2)
- Mounting Torque: 6 in-lbs 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 Repetitive Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current, At T _C = 100°C (Note 1)	I _(AV)	8.0							Amps
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)	I _{FSM}	200							Amps
Rating for Fusing (t<8.3mS)	I ² t	166							A ² s
Maximum Instantaneous Forward Voltage drop per Bridge element 4.0A	V _F	1.0							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage per element	I _R	5.0							μA
		500							
Typical Junction Capacitance, per leg (Measured at 1.0MHz and applied reverse voltage of 4.0V)	C _J	211				94			pF
Typical Thermal Resistance (Note 3)	R _{θJA}	21							°C/W
Operating Junction Temperature Range	T _J	(-55 to +150)							°C
Storage Temperature Range	T _{STG}	(-55 to +150)							°C

Notes:

1. Unit mounted on 3.2” x 3.2” x 0.12” (8.2cm x 8.2cm x 0.3cm) AL Plate heat sink
2. Recommended mounting position is bolted to heat sink with #6 screws and using silicone thermal grease for maximum heat transfer.
3. Unit mounted in free air, no heat sink on pCB, 0.5” x 0.5” (12mm x 12mm) copper pads with 0.375” (9.5mm) lead length



RATINGS AND CHARACTERISTIC CURVES GBJ8005 THRU GBJ810

Fig. 1 – Derating Curve Output Rectified Current

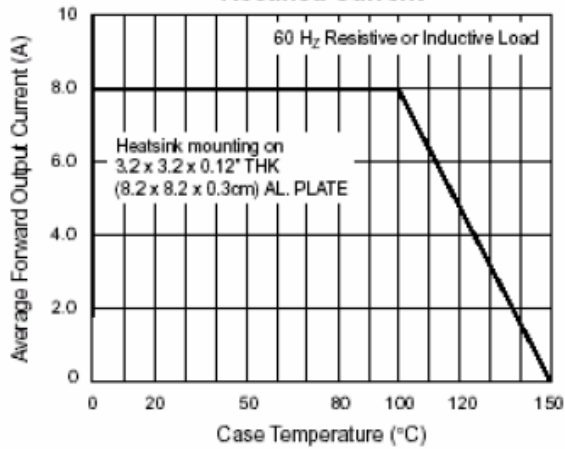


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current Per Leg

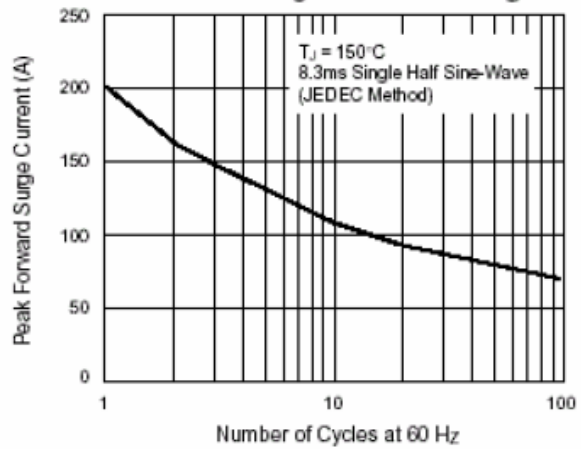


Fig. 3 – Typical Forward Characteristics Per Leg

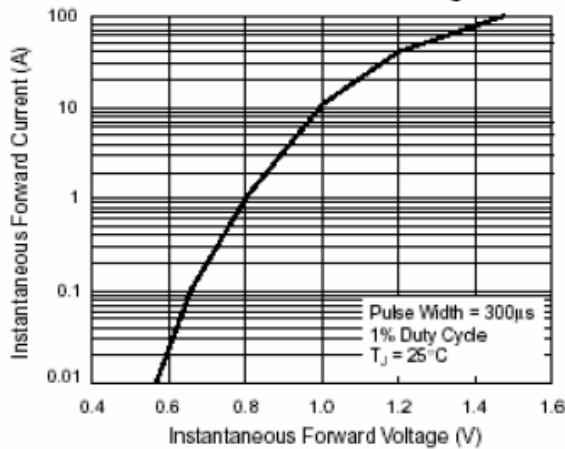


Fig. 4 – Typical Reverse Characteristics Per Leg

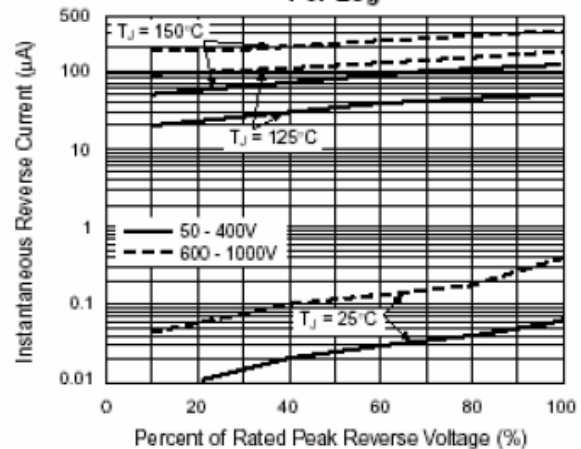


Fig. 5 – Typical Junction Capacitance Per Leg

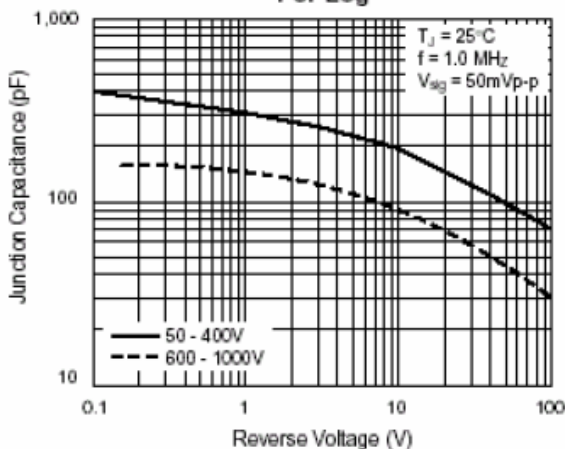


Fig. 6 – Typical Transient Thermal Impedance Per Leg

