



SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIER

GBJ10005 THRU GBJ1010

VOLTAGE RANGE

50 to 1000 Volts

CURRENT

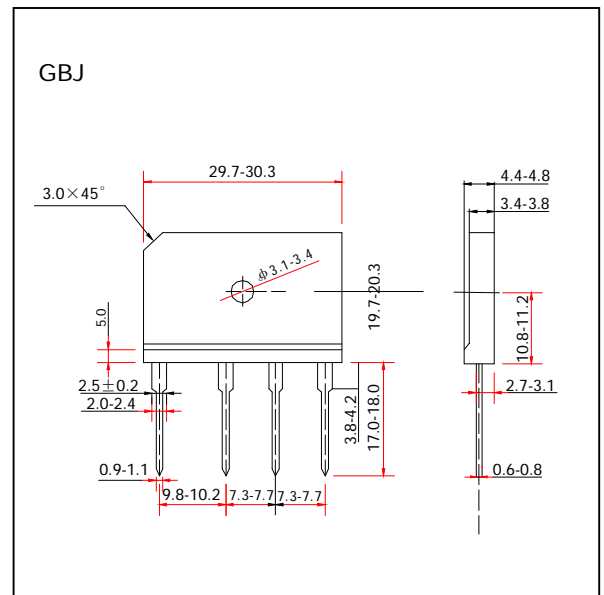
10.0 Amperes

FEATURES

- Plastic package has UL Flammability Classification 94V-0
- Glass passivated chip junctions
- High case dielectric strength of 1500 V_{RMS}
- High surge current capability
- Ideal for printed circuit boards
- 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: 0.15 ounce, 4.0 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 10005	GBJ 1001	GBJ 1002	GBJ 1004	GBJ 1006	GBJ 1008	GBJ 1010	UNIT
Maximum Reverse Peak Repetitive 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)	10							Amps
At T _A =40°C (Note 2)		5.0							
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC Method)	I _{FSM}	170							Amps
Rating for Fusing (t < 8.3ms)	I ² t	142							A ² s
Maximum Instantaneous Forward Voltage drop Per bridge element 5.0A	V _F	1.0							Volts
Maximum DC Reverse Current at rated DC blocking voltage per element	I _R	5.0							μ A
		250							
Typical Junction Capacitance, per let (Measured at 1.0MHz and applied reverse voltage of 4.0V)	C _J	60							pF
Typical Thermal Resistance (Note 2 and 3)	R _{JC}	2.2							°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 150mm×150mm×1.6mm Al. Plate heatsink
 2. Unit mounted on P.C.B. With 0.5×0.5”(1.2×1.2mm) copper pads and 0.375”(9.5mm) lead length
 3. Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum Heat transfer with #6 screw



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RATINGS AND CHARACTERISTIC CURVES GBJ10005 THRU GBJ1010

FIG. 1- DERATING CURVE
OUTPUT RECTIFIED CURRENT

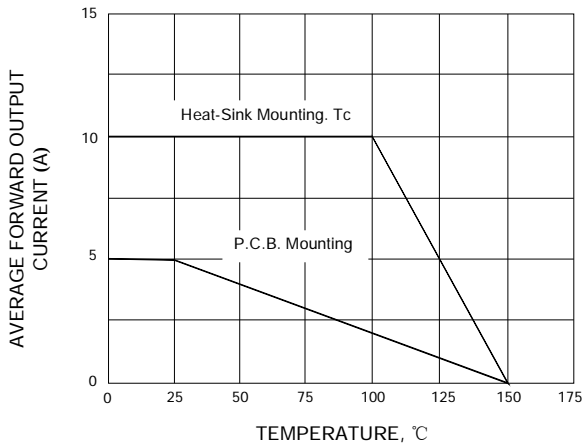


FIG. 2- MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT PER LEG

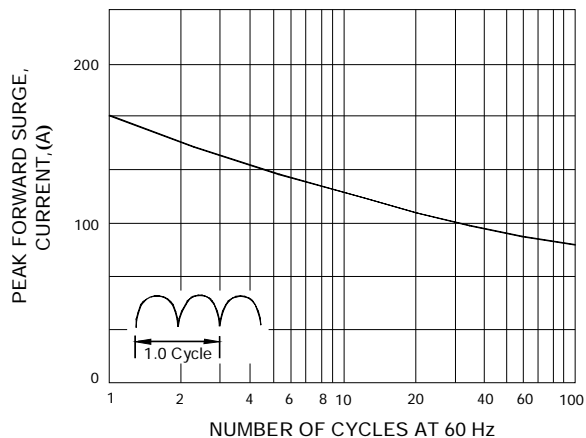


FIG. 3- TYPICAL FORWARD
CHARACTERISTICS PER LGE

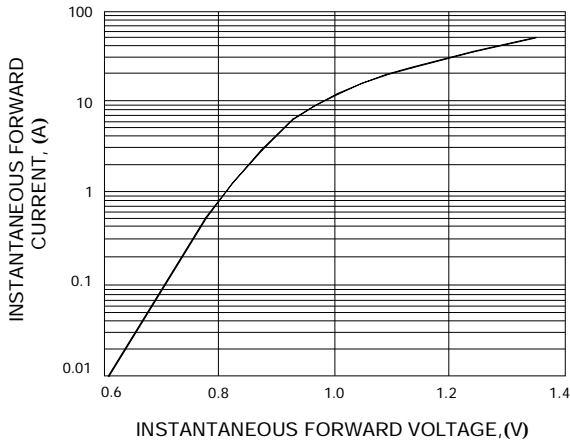


FIG. 4- TYPICAL REVERSE CHARACTERISTICS
PER LEG

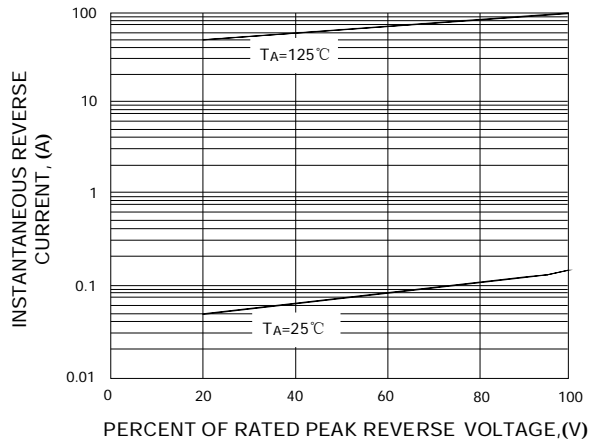


FIG. 5- TYPICAL JUNCTION CAPACITANCE
PER LEG

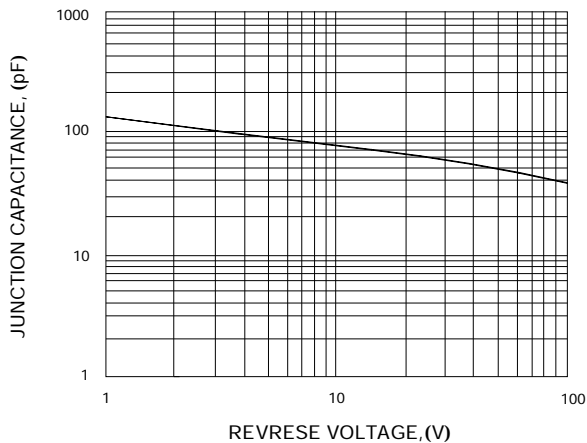


FIG. 6- TYPICAL TRANSIENT THERMAL
IMPEDANCE

