



SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIER

GBJ6005 THRU GBJ610

VOLTAGE RANGE

50 to 1000 Volts

CURRENT

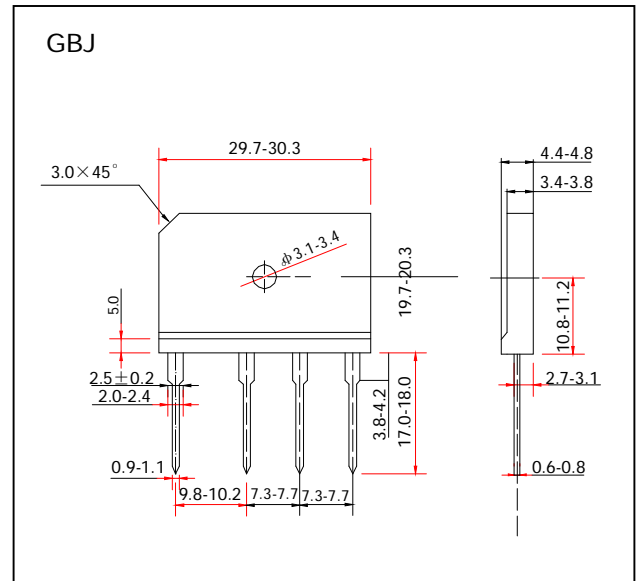
6.0 Amperes

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
- 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 6005	GBJ 601	GBJ 602	GBJ 604	GBJ 606	GBJ 608	GBJ 610	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	100	Volts	
Maximum Average Forward Rectified Current, At T _C =110°C (Note 1)	I _(AV)	6.0							Amps	
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC Method)	I _{FSM}	150							Amps	
Rating for Fusing (t<8.3ms)	I ² t	127							A ² s	
Maximum Instantaneous Forward Voltage drop Per leg at 3.0A	V _F	1.0							Volts	
Maximum DC Reverse Current at rated DC blocking voltage per element	T _A =25°C	5.0							μ A	
	T _A =125°C	500								
Typical Junction Capacitance, per let (Note 4)	C _J	211.0				94.0				pF
Typical Thermal Resistance (Note 2)	R _{JA}	35.0							°C/W	
Operating Junction Temperature Range	T _J	(-55 to +150)							°C/W	
Storage Temperature Range	T _{STG}	(-55 to +150)							°C	

- Notes:**
1. Unit mounted on AL Plate heatsink (100mm × 100mm × 1.6mm)
 2. Unit mounted on P.C.B With 0.5” × 0.5” × (12 × 12mm) copper pads on 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 screws
 4. Measured at 1.0 MHz and applied reverse voltage of 4.0 V



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RATINGS AND CHARACTERISTIC CURVES GBJ6005 THRU GBJ610

FIG. 1- DERATING CURVE
OUTPUT RECTIFIED CURRENT

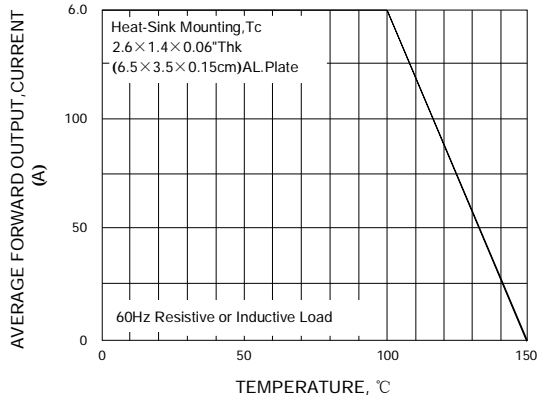


FIG. 2- MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT PER LEG

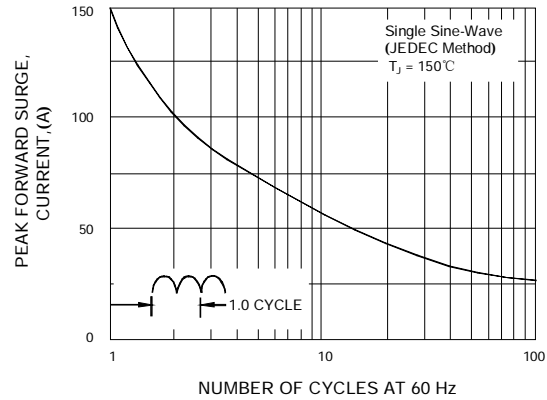


FIG. 3- TYPICAL FORWARD CHARACTERISTICS
PER LEG

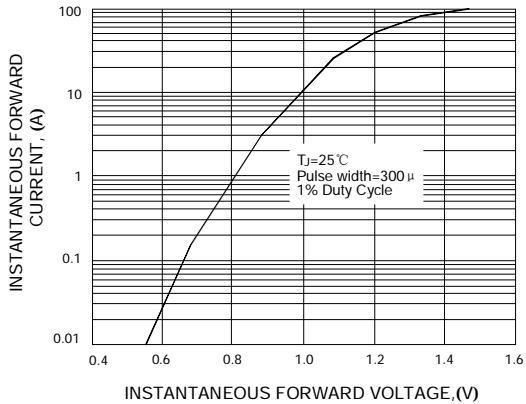


FIG. 4- TYPICAL REVERSE LEAKAGE
CHARACTERISTICS PER LEG

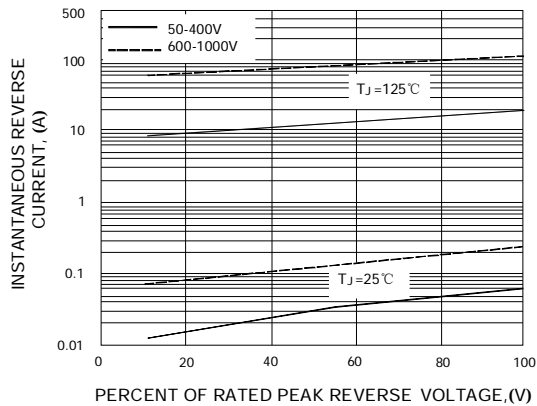


FIG. 5- TYPICAL JUNCTION CAPACITANCE
PER LEG

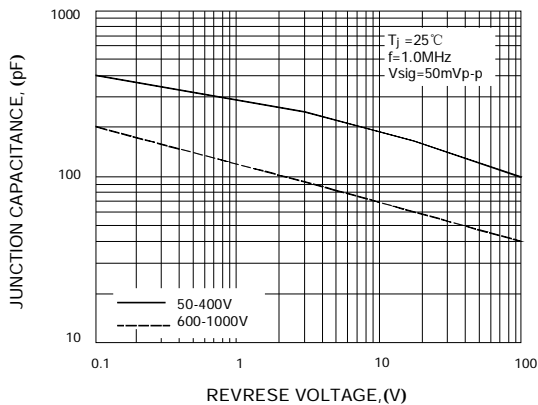


FIG. 6- TYPICAL TRANSIENT THERMAL
IMPEDANCE

