



SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIER

GBJ6005 THRU GBJ610

VOLTAGE RANGE

50 to 1000 Volts

CURRENT

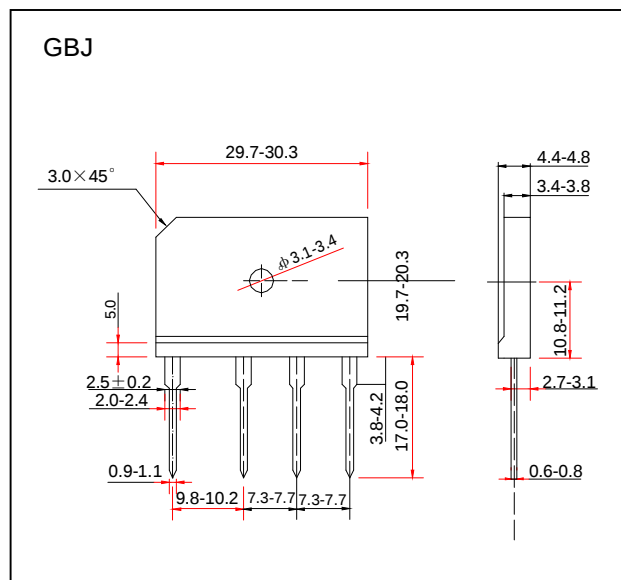
6.0 Amperes

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℃ (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℃	I _R	5.0							μ A
	T _A =125℃		500							
Typical Junction Capacitance, per let (Note 4)		C _J	211.0				94.0			pF
Typical Thermal Resistance (Note 2)		R _{JA}	35.0							℃/W
Operating Junction Temperature Range		T _J	(-55 to +150)							℃/W
Storage Temperature Range		T _{STG}	(-55 to +150)							℃

- 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

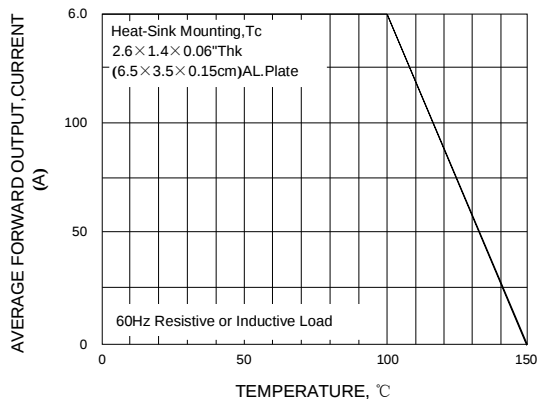


FIG. 2- MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT PER LEG

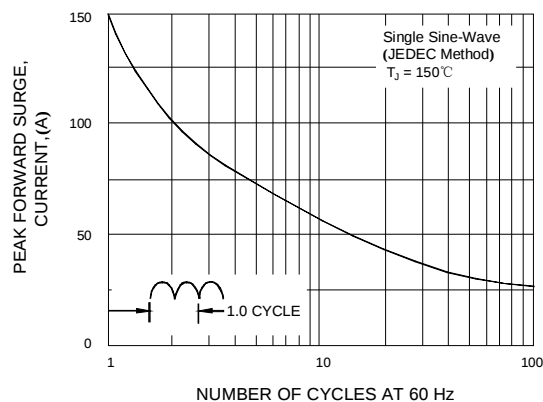


FIG. 3- TYPICAL FORWARD CHARACTERISTICS
PER LEG

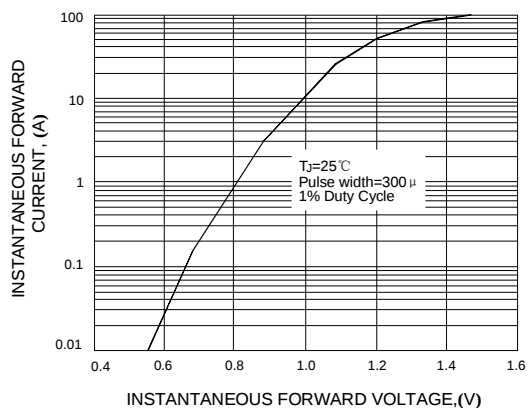


FIG. 4- TYPICAL REVERSE LEAKAGE
CHARACTERISTICS PER LEG

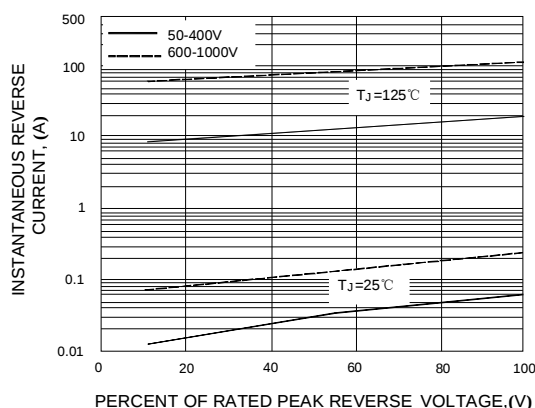


FIG. 5- TYPICAL JUNCTION CAPACITANCE
PER LEG

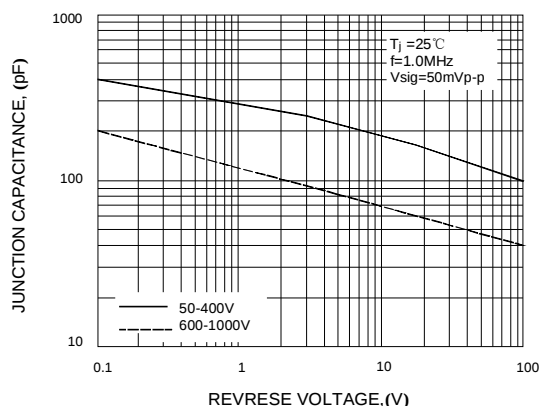


FIG. 6- TYPICAL TRANSIENT THERMAL
IMPEDANCE

