



GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

GBU4A THRU GBU4M

VOLTAGE RANGE

50 to 1000 Volts

CURRENT

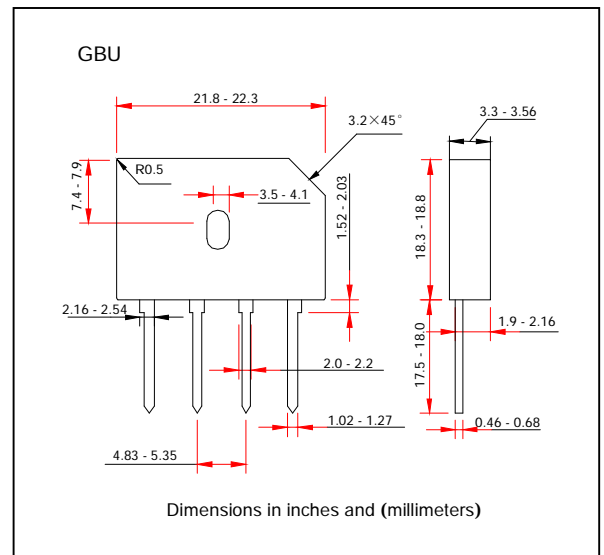
4.0 Amperes

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Ideal for printed circuit boards
- Glass passivated chip junctions
- High surge current capability
- High temperature soldering guaranteed
260°C/10 seconds, 0.375"(9.5mm) lead length at 5 lbs. (2.3kg) tension

MECHANICAL DATA

- Case: molded plastic body over passivated junctions
- Terminal: Plated leads solderable per MIL-STD-750 Method 2026
- Mounting position: Any (Note 3)
- 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	GBU 4A	GBU 4B	GBU 4D	GBU 4G	GBU 4J	GBU 4K	GBU 4M	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 Output Current, At $T_C=50^\circ\text{C}$ (Note 1) At $T_A=40^\circ\text{C}$ (Note 2)	$I_{(AV)}$					4.0			Amps
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC Method)	I_{FSM}					150			Amps
Rating for Fusing ($t < 8.3\text{ms}$)	I^2t					93			A^2s
Maximum Instantaneous Forward Voltage drop Per leg at 4.0A	V_F					1.0			Volts
Maximum Reverse Current at rated DC blocking voltage per element	$T_A=25^\circ\text{C}$					5.0			μA
	$T_A=125^\circ\text{C}$					500			
Typical Junction Capacitance (Note 4)	C_J	100				45			pF
Typical Thermal Resistance (Note 1)	R_{JA}					22			$^\circ\text{C}/\text{W}$
Typical Thermal Resistance (Note 2)	R_{JL}					4.2			$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	T_J, T_{STG}					(-55 to +150)			$^\circ\text{C}$

- Notes:**
1. Unit mounted on 1.6×1.6×0.06" thick (4.0×4.0×0.15cm) AL. plate
 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
 4. Measured at 1.0 MHz and applied reverse voltage of 4.0 V



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VOLTAGE RANGE

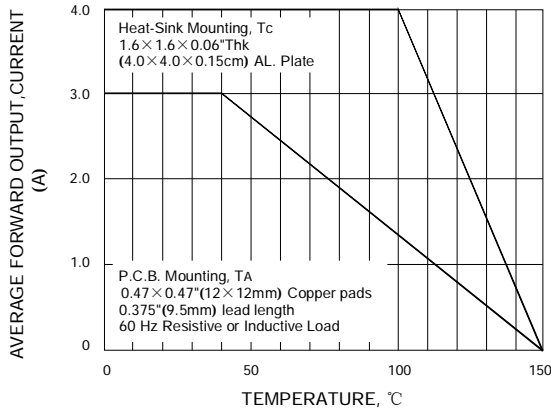
50 to 1000Volts

CURRENT

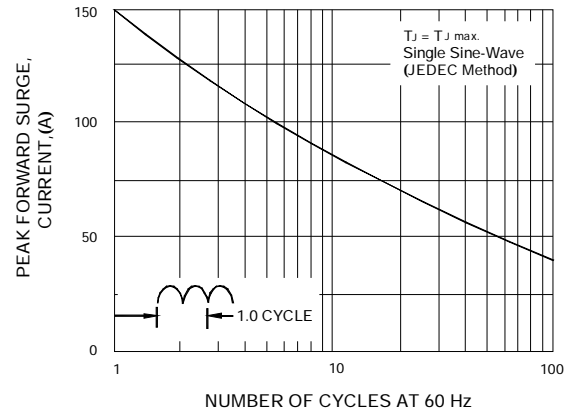
4.0 Ampere

RATINGS AND CHARACTERISTIC CURVES GBU4A THRU GBU4M

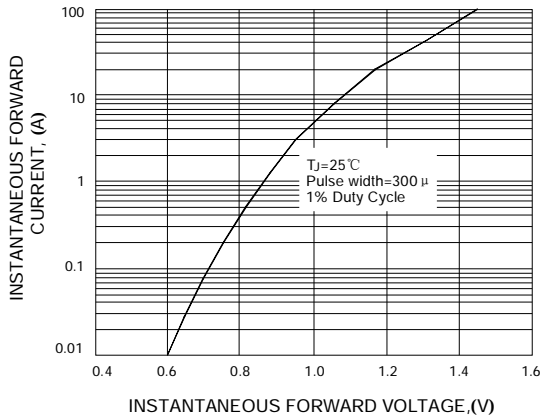
**FIG. 1- DERATING CURVE
OUTPUT RECTIFIED CURRENT**



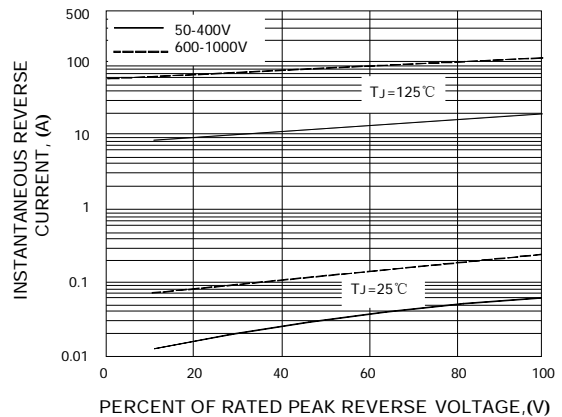
**FIG. 2- MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT PER LEG**



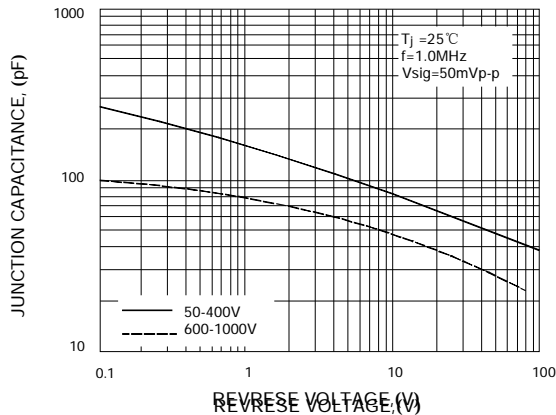
**FIG. 3- TYPICAL FORWARD CHARACTERISTICS
PER LGE**



**FIG. 4- TYPICAL REVERSE LEAKAGE
CHARACTERISTICS PER LEG**



**FIG. 5- TYPICAL JUNCTION CAPACITANCE
PER LEG**



**FIG. 6- TYPICAL TRANSIENT THERMAL
IMPEDANCE**

