

GBU4005 THRU GBU410

GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

REVERSE VOLTAGE: 50 to 1000 VOLTS

FORWARD CURRENT: 4.0 AMPERE

FEATURES

- Glass passivated chip junction
- Reliable low cost construction utilizing molded plastic technique
- Ideal for printed circuit board
- Low forward voltage drop
- Low reverse leakage current
- High surge current capability

MECHANICAL DATA

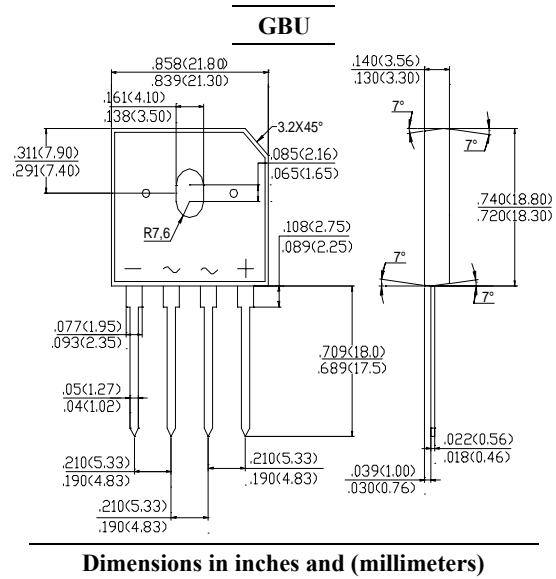
Case: Molded plastic, GBU

Epoxy: UL 94V-O rate flame retardant

Terminals: Leads solderable per MIL-STD-202, method 208 guaranteed

Mounting position: Any

Weight: 0.15ounce, 4.0gram



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	GBU4005	GBU401	GBU402	GBU404	GBU406	GBU408	GBU410	Units
Maximum Recurrent 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 $T_C=100$ (Note 1) $T_A=40$ (Note 2)	$I_{(AV)}$					4.0			Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}					150			Amp
Maximum Forward Voltage at 4.0A DC and 25 °C	V_F					1.0			Volts
Maximum Reverse Current at Rated DC Blocking Voltage at $T_A=25$ $T_A=125$	I_R					5.0			uAmp
Typical Junction Capacitance (Note 3)	C_J					100	45		pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$					22			/W
Typical Thermal Resistance (Note 1)	$R_{\theta JC}$					4.2			/W
Operating and Storage Temperature Range	T_J, T_{stg}					-55 to +150			

NOTES: 1- Unit case mounted on 1.6 x 1.6 x 0.06" thick (4.0 x 4.0 x 0.15cm) Al. Plate

2- Units mounted on P.C.B. with 0.5 x 0.5" (12 x 12mm) copper pads and 0.375" (9.5mm) lead length

3- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

4- Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw

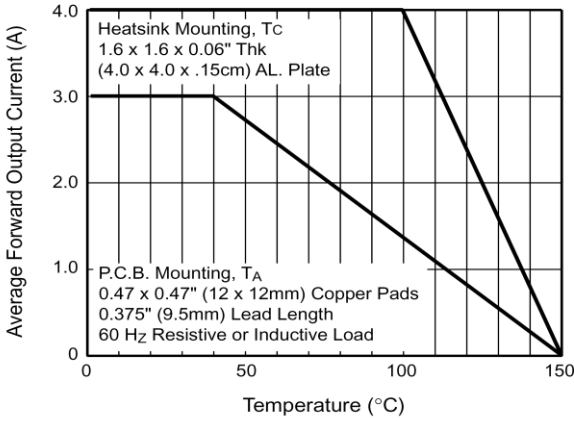
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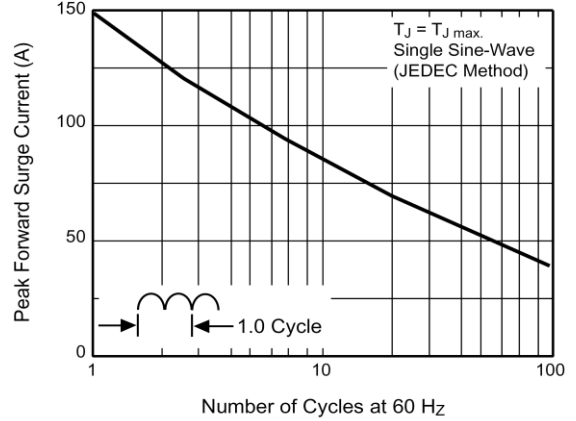


RATINGS AND CHARACTERISTIC CURVES

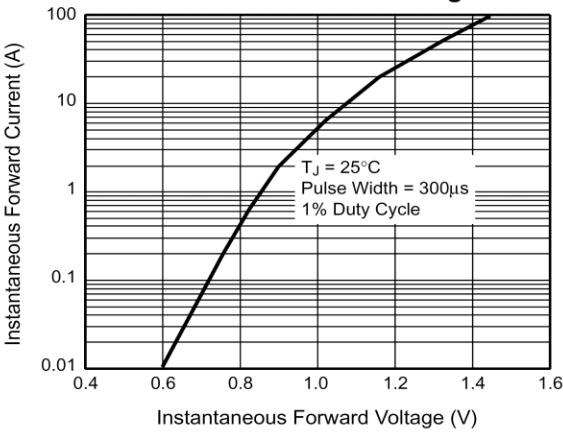
**Fig. 1 — Derating Curve
Output Rectified Current**



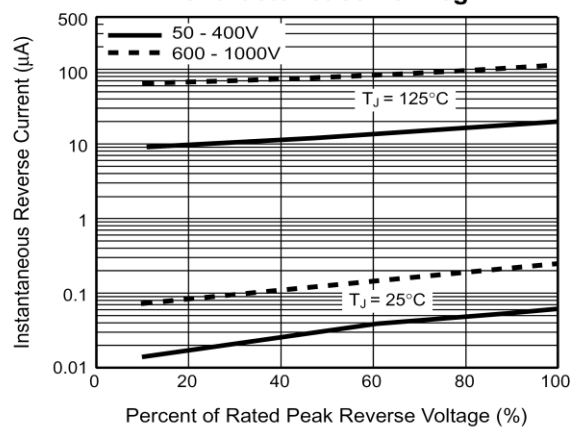
**Fig. 2 — Maximum Non-Repetitive
Peak Forward Surge Current Per Leg**



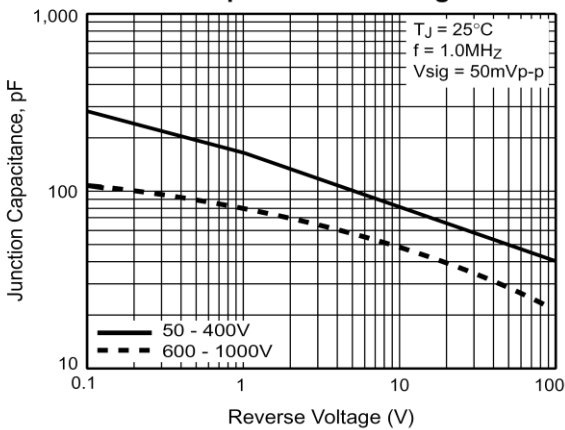
**Fig. 3 — Typical Forward
Characteristics Per Leg**



**Fig. 4 — Typical Reverse Leakage
Characteristics Per Leg**



**Fig. 5 — Typical Junction
Capacitance Per Leg**



**Fig. 6 — Typical Transient
Thermal Impedance**

