

GBU4005 THRU GBU410

GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER



康 比 電 子
HORNBY ELECTRONIC

REVERSE VOLTAGE: 50 to 1000 VOLTS

FORWARD CURRENT: 4.0 AMPERE

FEATURES

- Glass passivated chip junction
- Ideal for printed circuit board
- Plastic material has Underwriters Laboratory Flammability Classification 94V-0
- Reliable low cost construction utilizing molded plastic technique

MECHANICAL DATA

Case: Molded plastic, GBU

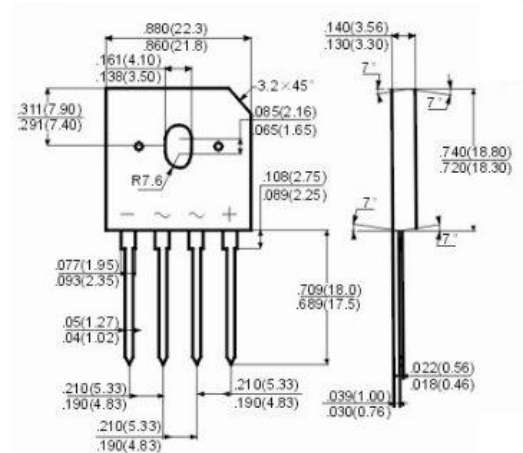
Epoxy: UL 94V-0 rate flame retardant

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

Mounting position: Any

Weight: 0.15ounce, 4.0gram

GBU



Dimensions in inches and (millimeters)

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 3.0						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℃		V _F	1.0						Volts
Maximum Reverse Current at Rated DC Blocking Voltage	at T _A =25℃ T _A =125℃	I _R	5.0 500						uAmp
Typical Junction Capacitance (Note 3)		C _J	100			45			pF
Typical Thermal Resistance (Note 2)		R _{θJA}	22						℃/W
Typical Thermal Resistance (Note 1)		R _{θJC}	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

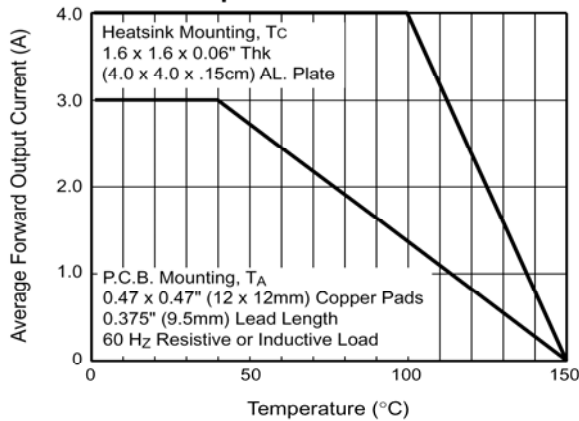
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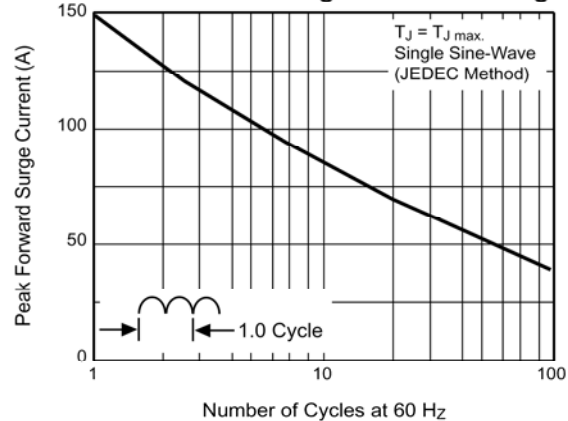


RATINGS AND CHARACTERISTIC CURVES

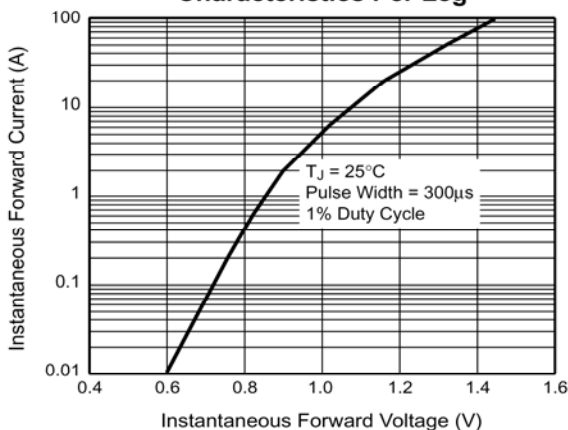
**Fig. 1 — Derating Curve
Output Rectified Current**



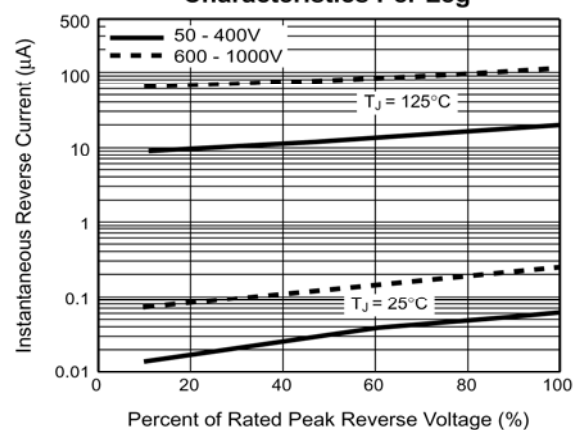
**Fig. 2 — Maximum Non-Repetitive
Peak Forward Surge Current Per Leg**



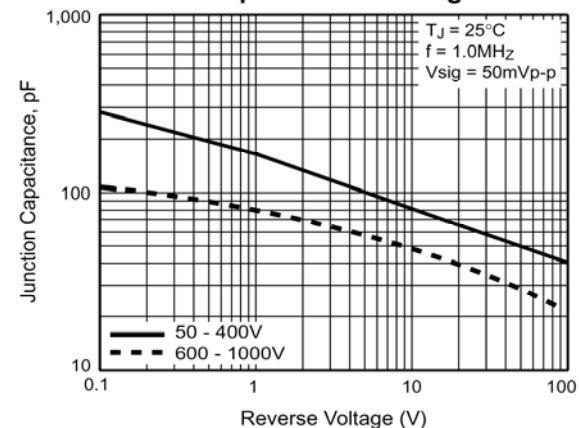
**Fig. 3 — Typical Forward
Characteristics Per Leg**



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



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



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

