

GBU100X SERIES

GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

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GBU10005 THRU GBU1010

GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

REVERSE VOLTAGE: 50 to 1000 VOLTS
FORWARD CURRENT: 10.0 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

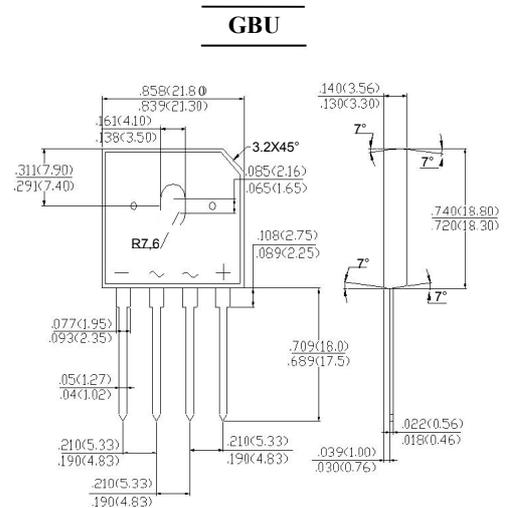
Case: Molded plastic, GBU

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



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	GBU10005	GBU1001	GBU1002	GBU1004	GBU1006	GBU1008	GBU1010	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°C	I _(AV)	10.0							Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	200							Amp
Maximum Forward Voltage at 10.0A DC and 25°C	V _F	1.0							Volts
Maximum Reverse Current at T _A =25°C at Rated DC Blocking Voltage T _A =125°C	I _R	5.0 500							uAmp
Typical Junction Capacitance (Note 3)	C _J	255				125			pF
Typical Thermal Resistance (Note 1)	R _{θJA}	8.6							°C/W
Typical Thermal Resistance (Note 2)	R _{θJC}	3.1							°C/W
Operating and Storage Temperature Range	T _J , T _{stg}	-55 to +150							°C

NOTES: 1- Units Mounted in free air, no heatsink, P.C.B at 0.375"(9.5mm) lead length with 0.5 x 0.5"(12 x 12mm)copper pads.

2- Units Mounted on a 2.6 x 1.4" x 0.06" thick (6.5 x 3.5 x 0.15cm) AL plate.

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 screws

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RATINGS AND CHARACTERISTIC CURVES

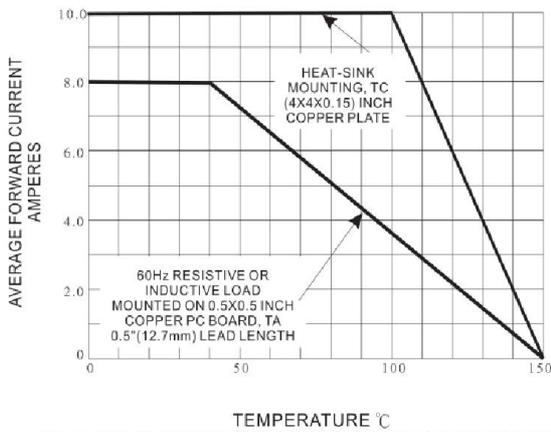


Fig. 1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

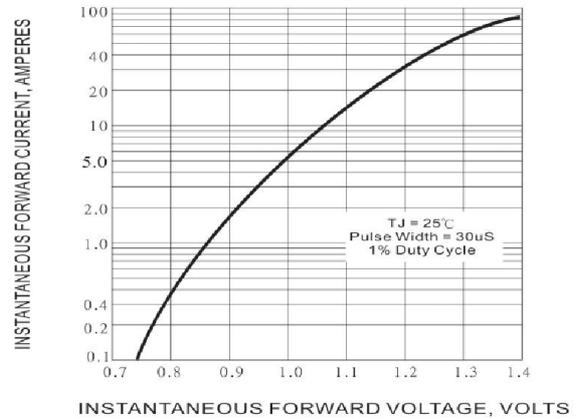


Fig. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER ELEMENT

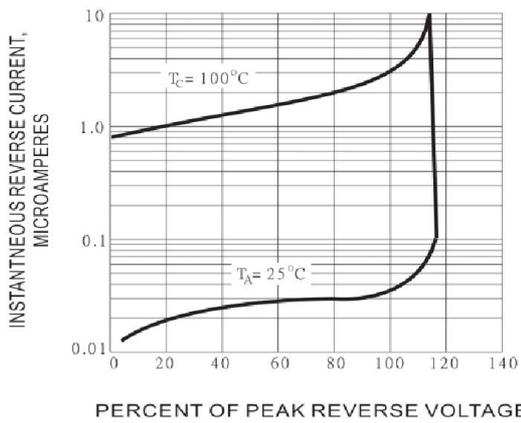


Fig. 3 - TYPICAL REVERSE CHARACTERISTICS

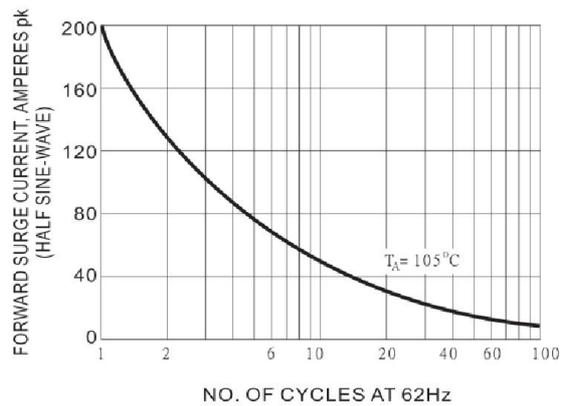


Fig. 4 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

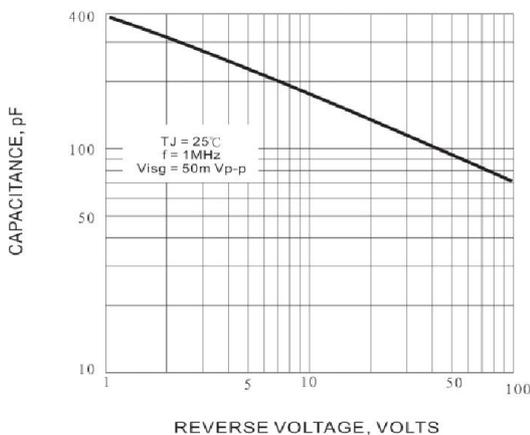


Fig. 5 - TYPICAL JUNCTION CAPACITANCE PER ELEMENT