

GBU8005 ~ GBU810

Glass Passivated Single-Phase Bridge Rectifiers

PRV : 50 - 1000 Volts

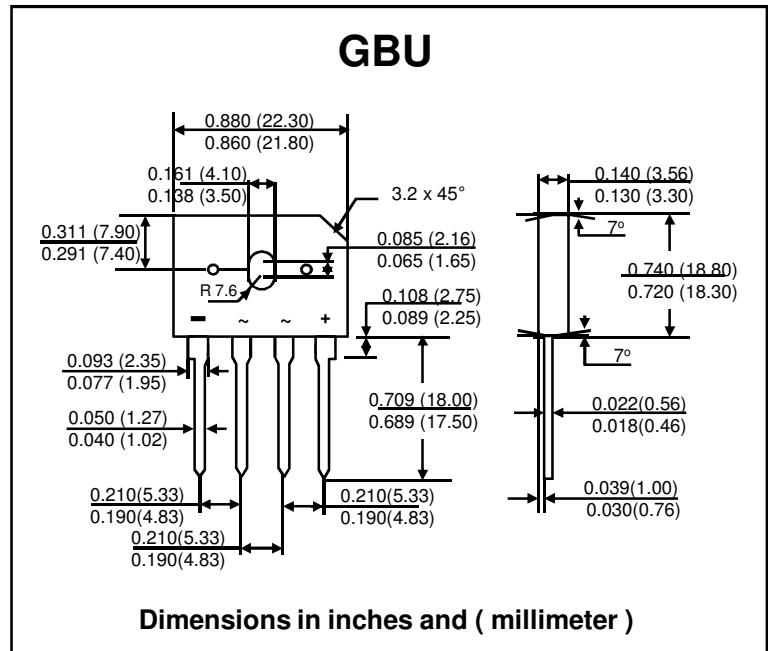
Io : 8.0 Amperes

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
- * **Pb / RoHS Free**

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

Rating at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

RATING	SYMBOL	GBU 8005	GBU 801	GBU 802	GBU 804	GBU 806	GBU 808	GBU 810	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Output Current $T_c=100\text{ }^\circ\text{C}$	$I_{F(AV)}$				8.0				A
Peak Forward Surge Current, 8.3ms Single half sine-wave Superimposed on rated load (JEDEC Method)	I_{FSM}				200				A
Maximum Forward Voltage at $I_F = 8\text{ A}$	V_F				1.0				V
Maximum DC Reverse Current $T_a = 25\text{ }^\circ\text{C}$ at Rated DC Blocking Voltage $T_a = 125\text{ }^\circ\text{C}$	I_R				5.0				μA
	$I_{R(H)}$				500				
Typical Junction capacitance per element (Note3)	C_J	225			125				pF
Typical Thermal Resistance (Note 4)	$R_{\theta JA}$				21				$^\circ\text{C/W}$
Typical Thermal Resistance (Note 4)	$R_{\theta JC}$				2.2				$^\circ\text{C/W}$
Operating Junction and Storage Temperature Range	T_J, T_{STG}				- 55 to + 150				$^\circ\text{C}$

Notes :

- (1) Units case mounted on 3.2 x 3.2 x 0.12" thick (8.2 x 8.2 x 0.3cm) Al plate heatsink
- (2) Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screws
- (3) Measured at 1 MHz and applied reverse voltage of 4.0 VDC
- (4) Units mounted in free air, no heatsink on P.C.B., 0.5 x 0.5" (12 x 12mm) copper pads, 0.375" lead length

RATING AND CHARACTERISTIC CURVES (GBU8005 - GBU810)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

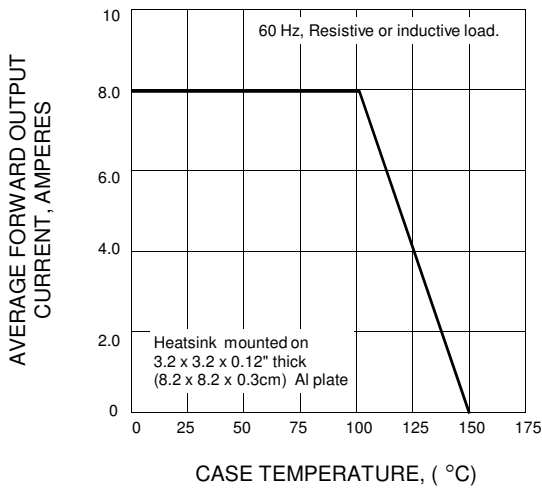


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

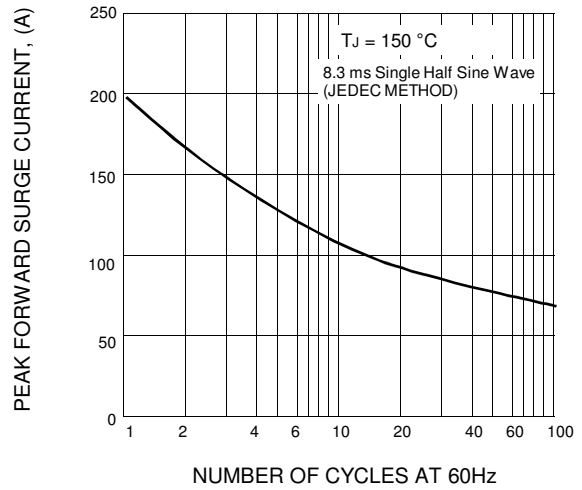


FIG.3 - TYPICAL FORWARD CHARACTERISTICS PER LEG

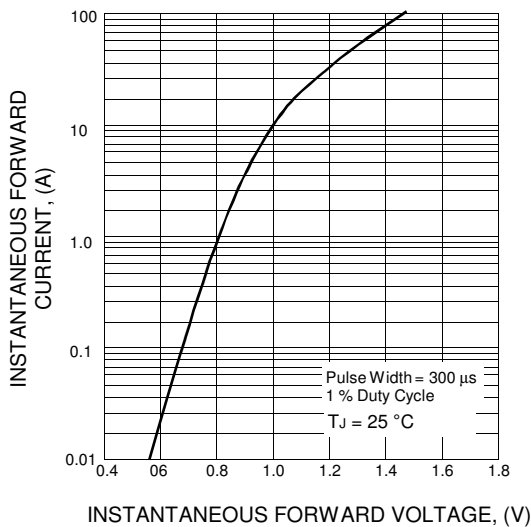


FIG.4 - TYPICAL REVERSE CHARACTERISTICS PER LEG

