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GBU15005 ~ GBU1510

Glass Passivated Single-Phase Bridge Rectifiers

PRV : 50 - 1000 Volts

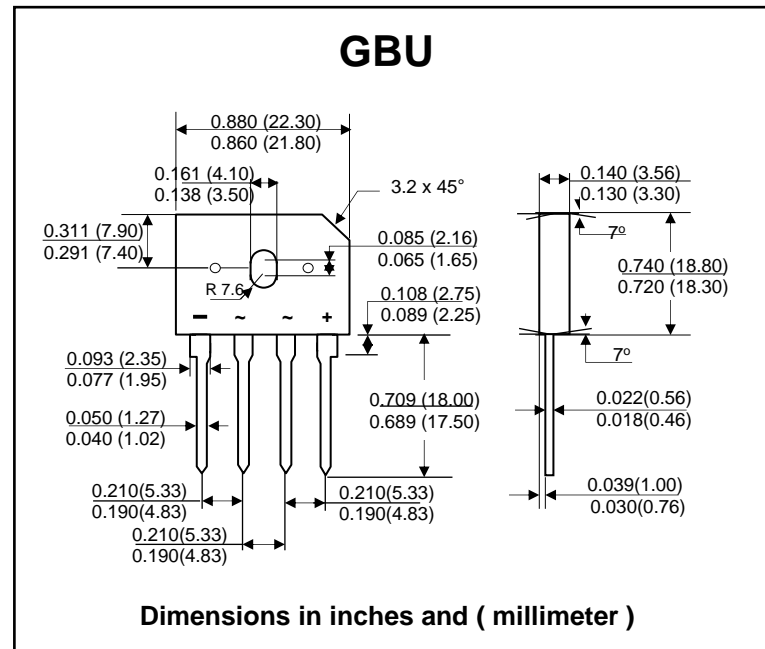
Io : 15 Amperes

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-0 rate flame retardant
- * Terminals: Leads solderable per MIL-STD-202, method 208 guaranteed
- * Mounting position: Any



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 15005	GBU 1501	GBU 1502	GBU 1504	GBU 1506	GBU 1508	GBU 1510	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
Average Rectifier Output Current 60 Hz sine wave $T_c=100\text{ }^\circ\text{C}$ $T_a=25\text{ }^\circ\text{C}$	I_o	15							A
		3.2							
Surge(Non-repetitive) Forward Current 60Hz sine wave,1 cycle, $T_j=25\text{ }^\circ\text{C}$	I_{FSM}	200							A
Current Squared Time $1\text{ms} \leq t < 8.3\text{ms}$ $T_a=25\text{ }^\circ\text{C}$	I^2t	166							A^2S
Maximum Forward Voltage at $I_F = 7.5\text{ A}$	V_F	1.1							V
Peak Reverse Current Pulse measurement, Rating of per diode $V_{RM}=V_{RRM}$	I_R	10							μA
Typical Thermal Resistance (Note 4)	$R_{\theta JA}$	23							$^\circ\text{C/W}$
Typical Thermal Resistance (Note 4)	$R_{\theta JC}$	1.8							$^\circ\text{C/W}$
Operating Junction and Storage Temperature Range	T_J, T_{STG}	- 55 to + 150							$^\circ\text{C}$



RATING AND CHARACTERISTIC CURVES (GBU10005 - GBU1010)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

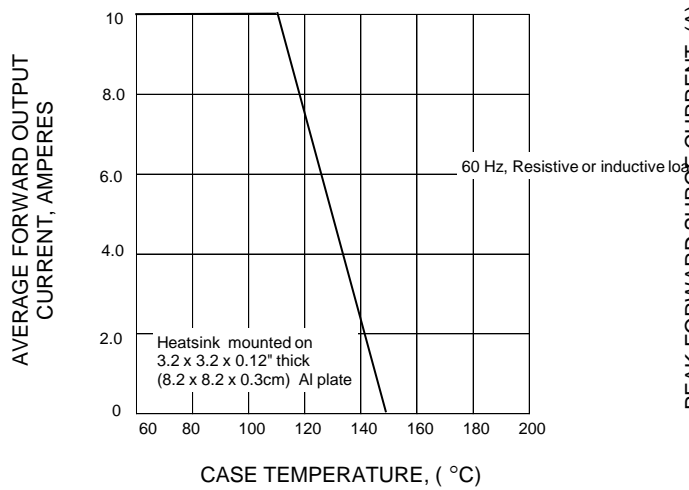


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

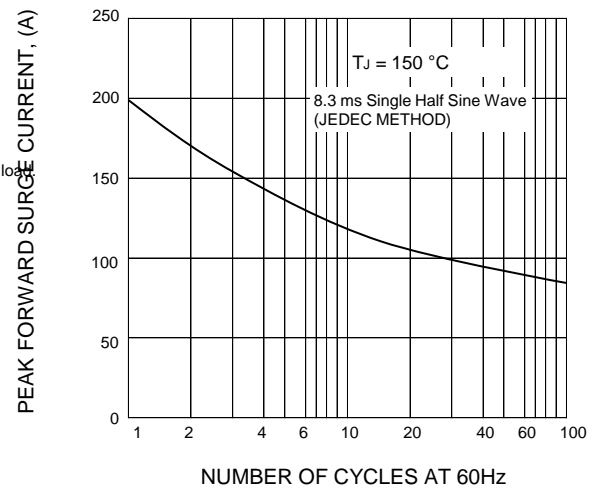


FIG.3 - TYPICAL FORWARD CHARACTERISTICS PER LEG

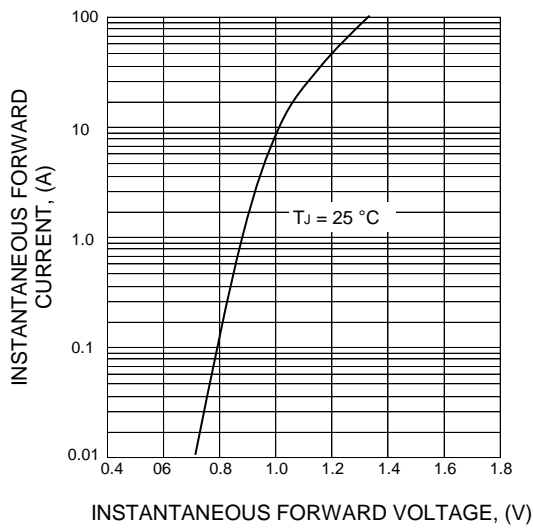


FIG.4 - TYPICAL REVERSE CHARACTERISTICS PER LEG

