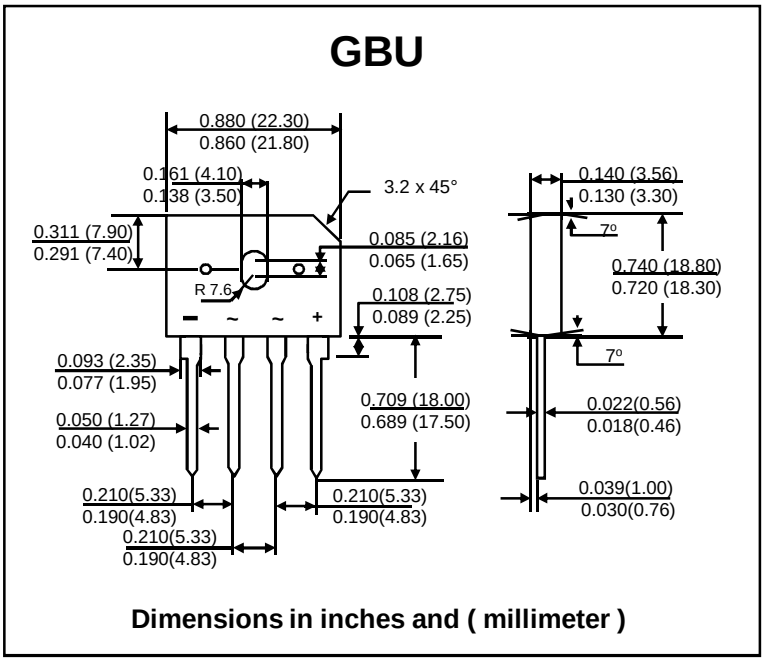
GBU8A ~ GBU8M

Glass Passivated Single-Phase Bridge Rectifiers

PRV : 50 - 1000 Volts
Io : 8.0 Amperes



Dimensions in inches and (millimeter)

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 8A	GBU 8B	GBU 8D	GBU 8G	GBU 8J	GBU 8K	GBU 8M	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 Tc=100 °C (1)	$I_{F(AV)}$	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 A	V_F	1.1							V
Maximum DC Reverse Current Ta = 25 °C	I_R	5.0							μA
at Rated DC Blocking Voltage Ta = 125 °C	$I_{R(H)}$	500							μA
Typical Junction capacitance per element (Note3)	C_J	225				125			pF
Typical Thermal Resistance (Note 4)	$R_{\theta JA}$	21							°C/W
Typical Thermal Resistance (Note 4)	$R_{\theta JC}$	2.2							°C/W
Operating Junction and Storage Temperature Range	T_J, T_{STG}	- 55 to + 150							°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 (GBU8A - GBU8M)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

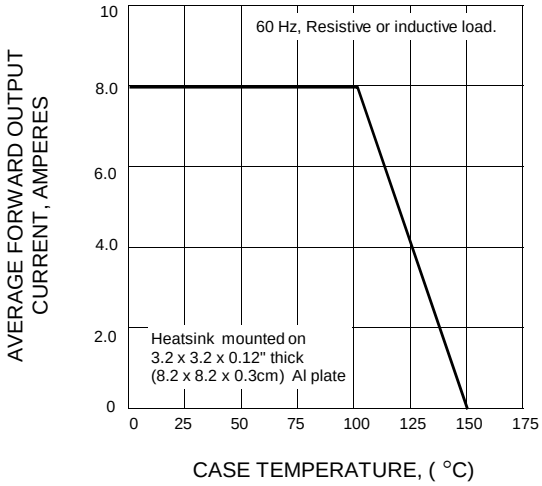


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

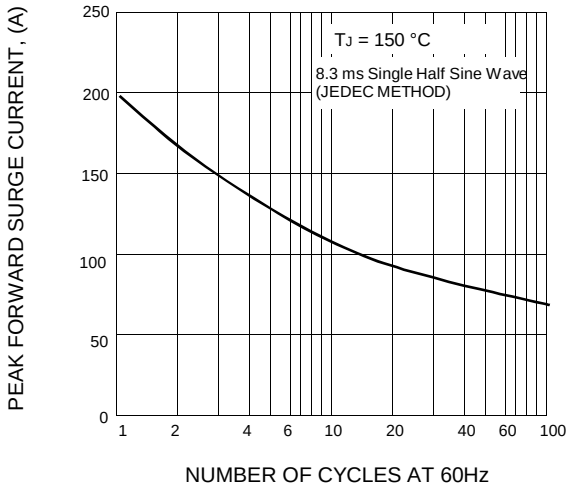


FIG.3 - TYPICAL FORWARD CHARACTERISTICS PER LEG

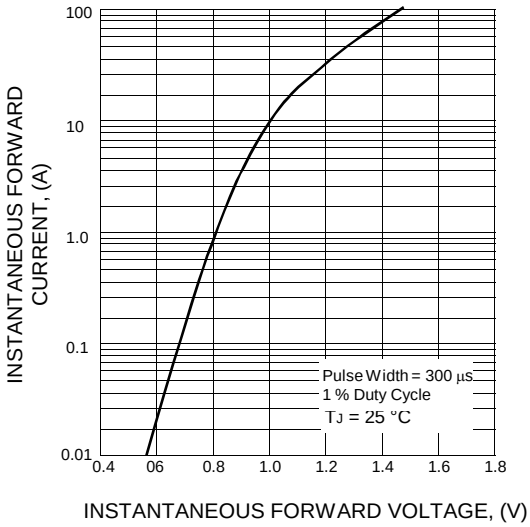


FIG.4 - TYPICAL REVERSE CHARACTERISTICS PER LEG

