

# GBU8A ~ GBU8M

**PRV : 50 - 1000 Volts**

**Io : 8.0 Amperes**

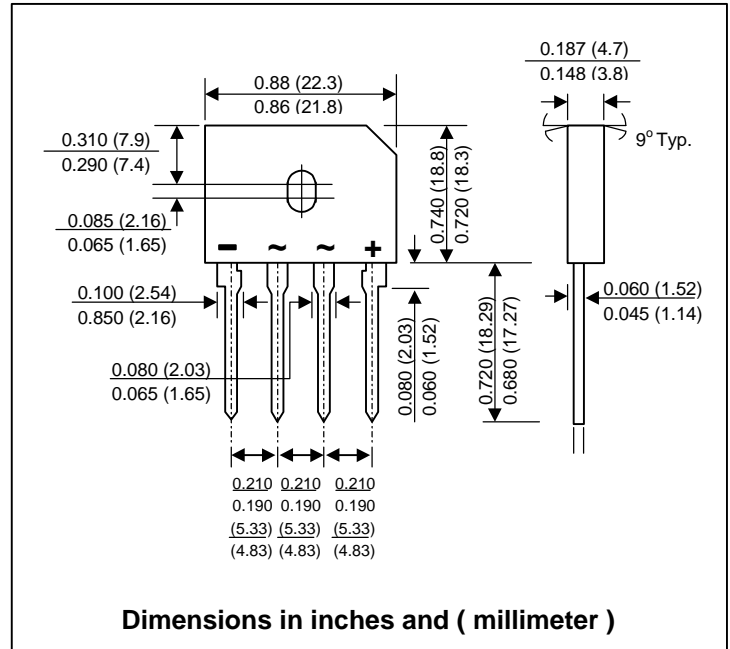
### FEATURES :

- \* Ideal for printed circuit boards
- \* Reliable low cost construction utilizing molded plastic technique
- \* Plastic material has Underwriters Laboratory Flammability Classification 94V-0
- \* **Pb / RoHS Free**

### MECHANICAL DATA :

- \* Case : Molded plastic
- \* Polarity : Polarity symbols marked on case
- \* Mounting position : Any
- \* Weight : 4 grams

## Glass Passivated Single-Phase Bridge Rectifiers



### 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%.

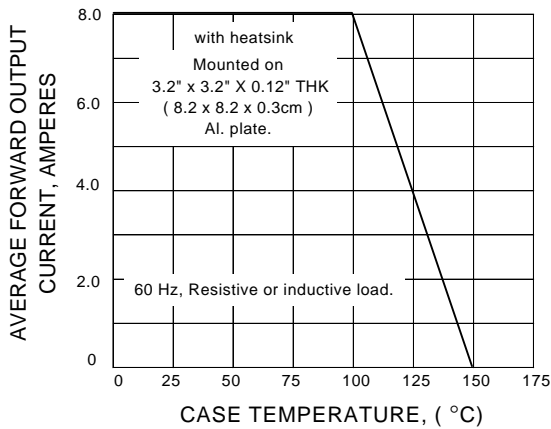
RATING	SYMBOL	GBU 8A	GBU 8B	GBU 8D	GBU 8G	GBU 8J	GBU 8K	GBU 8M	UNIT	
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V	
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V	
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V	
Maximum Average Forward Rectified Output Current $T_c=100^\circ\text{C}$ (Note2)	$I_{F(AV)}$	8.0							A	
Peak Forward Surge Current, 8.3ms Single half sine-wave Superimposed on rated load (JEDEC Method)	$I_{FSM}$	200							A	
Rating for fusing ( $t < 8.3$ ms. )	$I^2t$	166							$A^2S$	
Maximum Instantaneous Forward Voltage per leg at $I_F = 8$ A	$V_F$	1.0							V	
Maximum DC Reverse Current $T_J = 25^\circ\text{C}$ at Rated DC Blocking Voltage per leg $T_J = 100^\circ\text{C}$	$I_R$	5.0							$\mu\text{A}$	
	$I_{R(H)}$	500								
Typical Junction capacitance per element (Note1)	$C_J$	211				94				pF
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	2.2							$^\circ\text{C/W}$	
Operating Junction Temperature Range	$T_J$	- 50 to + 150							$^\circ\text{C}$	
Storage Temperature Range	$T_{STG}$	- 50 to + 150							$^\circ\text{C}$	

### Notes :

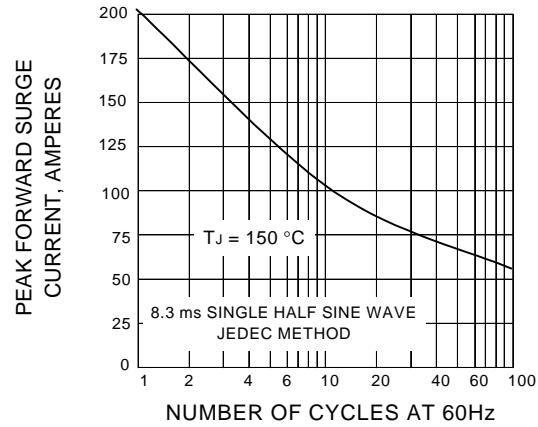
- (1) Measured at 1.0 MHz and applied reverse voltage of 4.0 V DC
- (2) Units case mounted on 3.2" x 3.2" x 0.12" THK (8.2 x 8.2 x 0.3cm Al. Plate heatsink).

## RATING AND CHARACTERISTIC CURVES ( GBU8A - GBU8M )

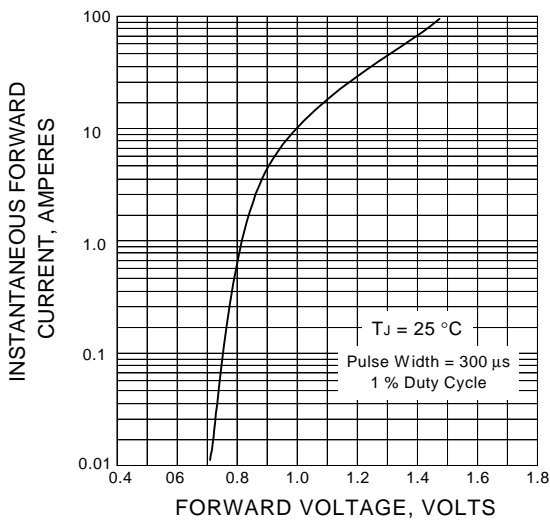
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



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



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS PER DIODE**



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS**

