



# GBU6A ~ GBU6M

## GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

**VOLTAGE** 50 to 1000 Volts **CURRENT** 6 Amperes

**GBU** Unit : inch(mm)

**Recongized File #E228882**

### FEATURES

- Plastic material has Underwriters Laboratory Flammability Classification 94V-0
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- Surge overload rating : 175 Amperes peak
- Lead free in comply with EU RoHS 2011/65/EU directives

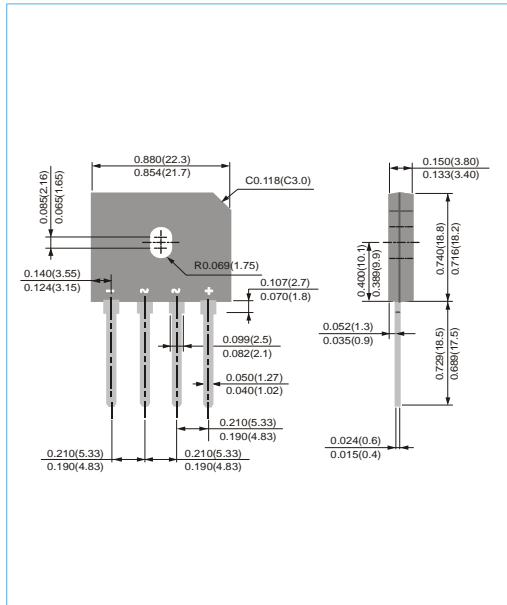
### MECHANICAL DATA

Case : Reliable low cost construction utilizing molded plastic technique

Terminals : Leads solderable per MIL-STD-750, Method 2026

Mounting torque : 5 in. lb. Max.

Weight : 0.15 ounce, 4 grams



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified. Resistive or inductive load, 60Hz.

For Capacitive load derate current by 20%.

PARAMETER	SYMBOL	GBU6A	GBU6B	GBU6D	GBU6G	GBU6J	GBU6K	GBU6M	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Bridge Input 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 $T_C=100^{\circ}C$ Rectified Output Current at $T_A=40^{\circ}C$	$I_{F(AV)}$	6							A
I <sup>2</sup> t Rating for fusing ( t<8.3ms)	I <sup>2</sup> t	127							A <sup>2</sup> sec
Peak Forward Surge Current single sine-wave superimposed on rated load	$I_{FSM}$	175							Apk
Maximum Instantaneous Forward Voltage Drop per element at 3A	$V_F$	1							Vpk
Maximum Reverse Leakage Current at Rated @ $T_A=25^{\circ}C$ Dc Blocking Voltage @ $T_A=100^{\circ}C$	$I_R$	5 500							$\mu A$
Typical Thermal Resistance per leg (Note 2) (Note 3)	$R_{\theta JA}$ $R_{\theta JC}$	22 5							$^{\circ}C/W$
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to + 150							$^{\circ}C$

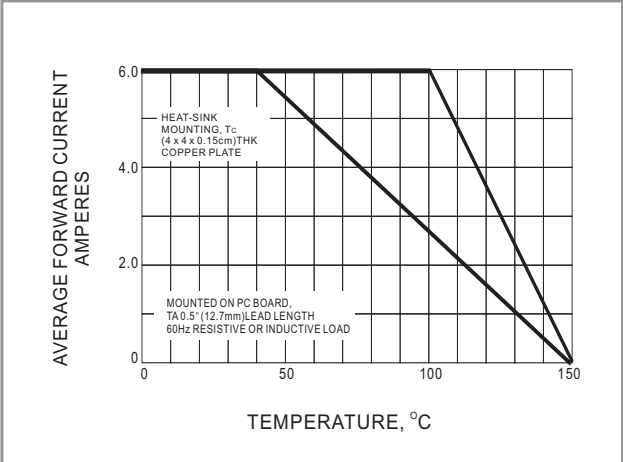
#### NOTES:

1. Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw.
2. 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.
3. Units Mounted on a 2.6 x 1.4" x 0.06" thick ( 6.5 x 3.5 x 0.15cm) AL plate.

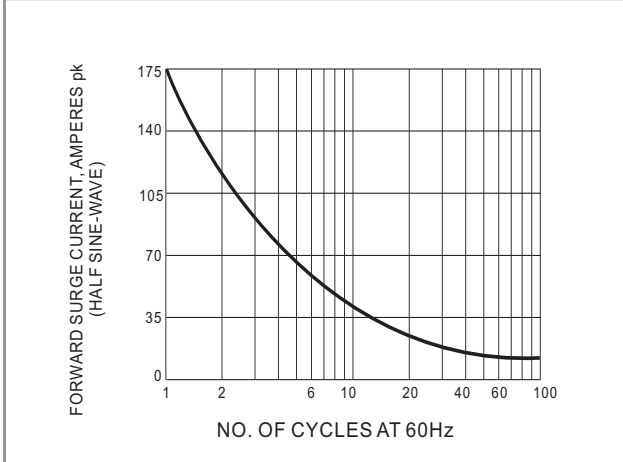


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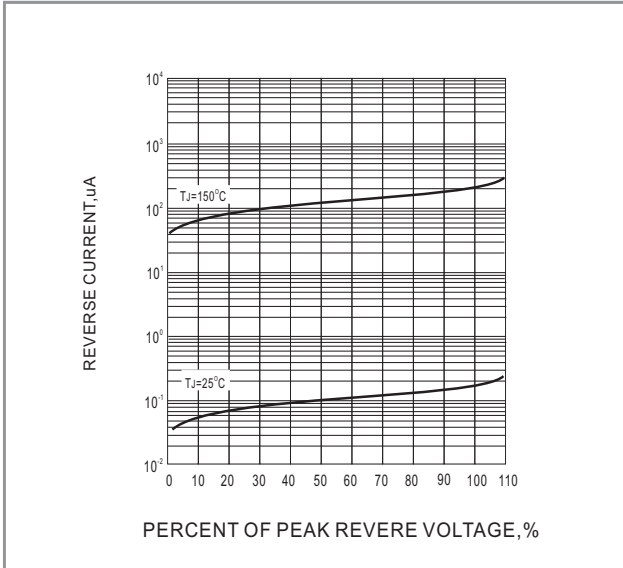
## RATING AND CHARACTERISTIC CURVES



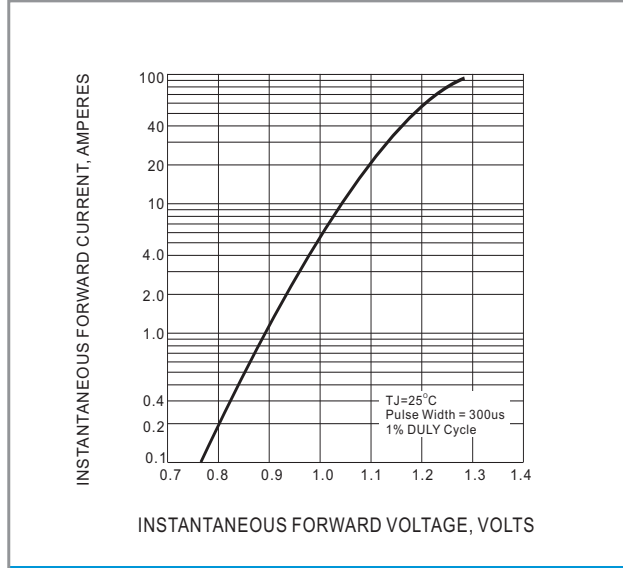
**Fig.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



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



**Fig.3 - TYPICAL REVERSE CHARACTERISTICS**



**Fig.4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER ELEMENT**



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### Part No\_packing code\_Version

GBU6A\_B0\_00001  
 GBU6A\_B0\_10001  
 GBU6A\_T0\_00001  
 GBU6A\_T0\_10001

For example :

**RB500V-40\_R2\_00001**



Packing Code <b>XX</b>				Version Code <b>XXXXX</b>		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



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