



# DATA SHEET

## GBU8A thru GBU8K

### GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

**VOLTAGE** 50 to 800 Volts **POWER** 8.0 Amperes

**GBU** Unit: inch (mm)

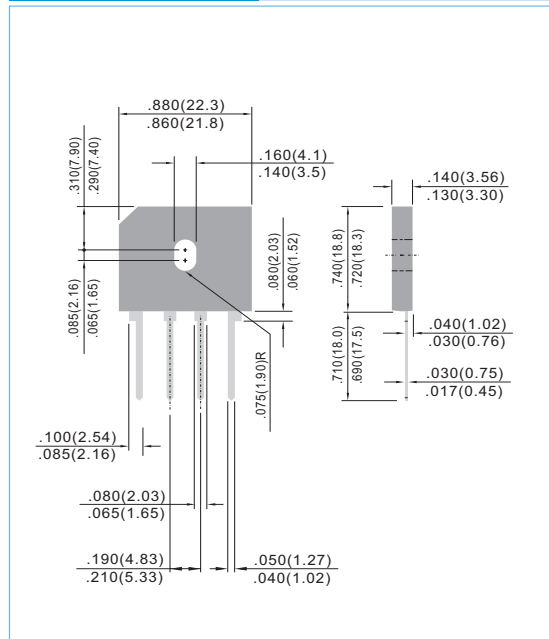
**Recongized File #E111753**

#### FEATURES

- Plastic material has Underwriters Laboratory Flammability Classification 94V-O
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- Pb free product are available : 99% Sn above can meet Rohs environment substance directive request

#### MECHANICAL DATA

Case: Reliable low cost construction utilizing molded plastic technique  
 Terminals: Leads solderable per MIL-STD-202G,  
 Method 208  
 Mounting position: Any  
 Mounting torque: 5 in. lb. Max.  
 Weight: 0.15 ounce, 4.0 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%.

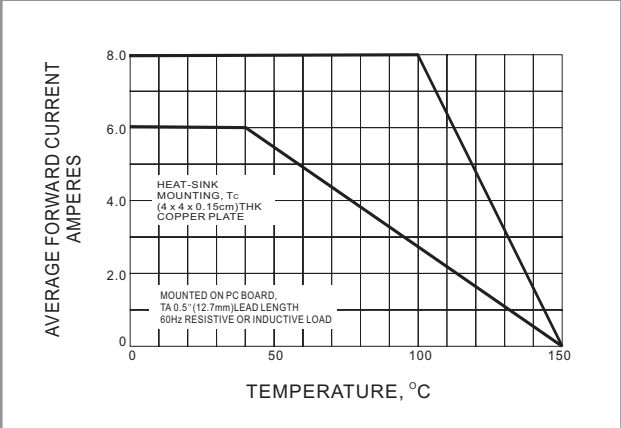
PARAMETER	SYMBOL	GBU8A	GBU8B	GBU8D	GBU8G	GBU8J	GBU8K	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	V
Maximum RMS Bridge Input Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	V
Maximum Average Forward Rectified Output Current at T <sub>C</sub> =100 °C	I <sub>AV</sub>	8.0						A
Rectified Output Current at T <sub>A</sub> =40 °C		6.0						
ft Rating for fusing (t < 8.3ms)	I <sup>2</sup> t	16.6						A <sup>2</sup> sec
Peak Forward Surge Current single sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	200						Apk
Maximum Instantaneous Forward Voltage Drop per element at 4.0A	V <sub>F</sub>	1.0						Vpk
Maximum Reverse Leakage Current at Rated @ T <sub>A</sub> =25°C	I <sub>R</sub>	5.0						uA
Dc Blocking Voltage @ T <sub>A</sub> =100°C		500						
Typical Thermal Resistance per leg (Note 2)	R <sub>θJA</sub>	18.0						°C/W
(Note 3)	R <sub>θJC</sub>	3.0						
Operating Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to + 150						°C

#### NOTES:

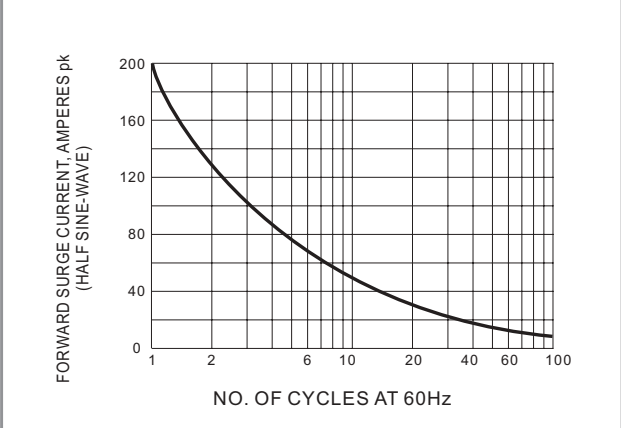
1. Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw.
2. Units Mounted in free air, no heatsink, P.C.B at 0.375"(9.5mm) lead length with 0.5 x 0.5"(12 x 12mm)copper pads.
3. Units Mounted on a 2.6 x 1.4" x 0.06" thick ( 6.5 x 3.5 x 0.15cm) AL plate.



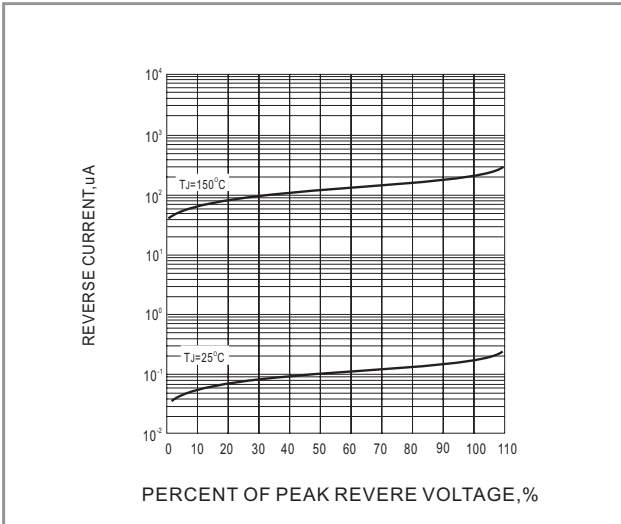
**RATING AND CHARACTERISTIC CURVES**



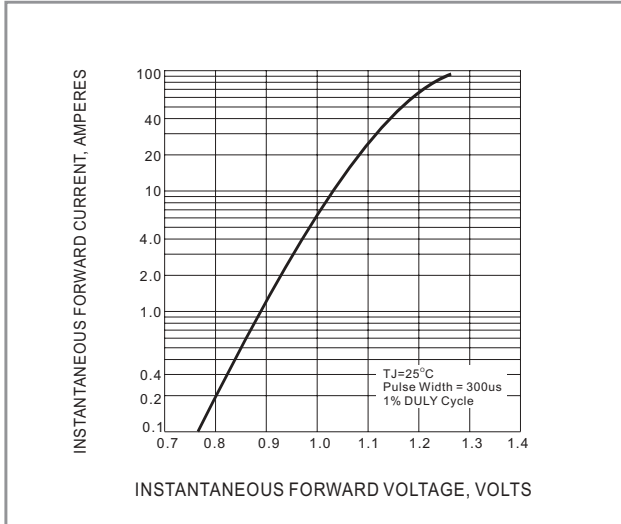
**Fig. 1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



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



**Fig. 3 - TYPICAL REVERSE CHARACTERISTICS**



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