

# GBU10005 thru GBU1010

Glass Passivated Bridge Rectifiers  
 Reverse Voltage 50 to 1000Volts Forward Current 10.0Amperes

## Features

- Surge overload rating -220 amperes peak  
 Ideal for printed circuit board
- Reliable low cost construction utilizing  
 molded plastic technique
- Plastic material has U/L  
 flammability classification 94V-0
- Mounting position:Any



Package: GBU

## Maximum Ratings and Electrical Characteristics ( $T_A=25^{\circ}\text{C}$ unless otherwise noted)

Single phase, half wave ,60Hz, resistive or inductive load. For capacitive load, derate current by 20%

Parameter	Symbol	GBU 10005	GBU 1001	GBU 1002	GBU 1004	GBU 1006	GBU 1008	GBU 1010	Unit
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @ T <sub>c</sub> =100°C (with heatsink Note 2) @ T <sub>c</sub> =100°C (without heatsink)	I <sub>(AV)</sub>	10.0 3.0						A	
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>	220						A	
Maximum Forward Voltage at 5.0A DC	V <sub>F</sub>	1.1						V	
Maximum DC Reverse Current @ T <sub>J</sub> =25°C at Rated DC Blocking Voltage @ T <sub>J</sub> =125°C	I <sub>R</sub>	10.0 500						μA	
I <sup>2</sup> t Rating for Fusing (t<8.3ms)	I <sup>2</sup> t	200						A <sup>2</sup> s	
Typical Junction Capacitance Per Element (Note1)	C <sub>J</sub>	70						pF	
Typical Thermal Resistance	R <sub>θJC</sub>	2.2						°C/W	
Operating Temperature Range	T <sub>J</sub>	-55 to +150						°C	
Storage Temperature Range	T <sub>STG</sub>	-55 to +150						°C	

NOTES:

1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
2. Device mounted on 100mm\*100mm\*1.6mm Cu plate heatsink.

## Typical Characteristic Curves

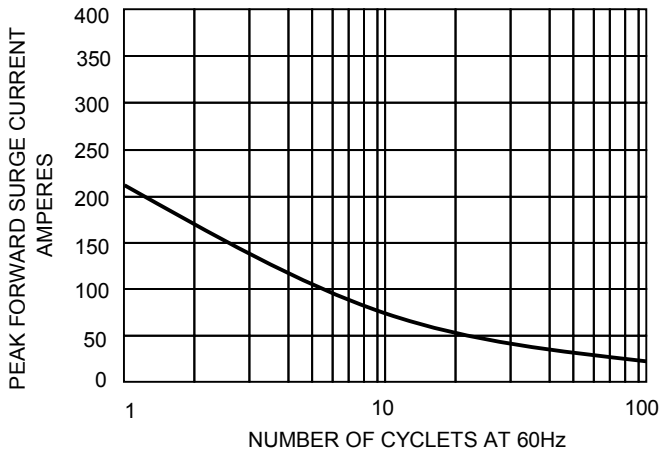


FIG.1-MAXIMUM FORWARD SURGE CURRENT

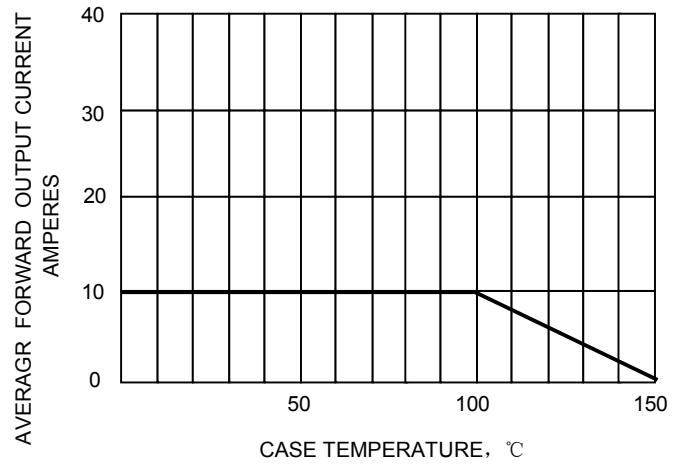


FIG.2- DERATING CURVE  
 OUTPUT RECTIFIED CURRENT

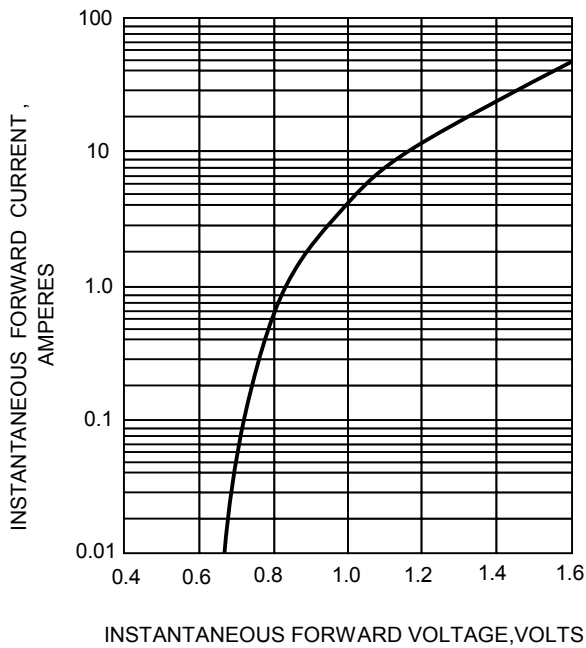


FIG.3-TYPICAL FORWARD  
 CHARACTERISTICS

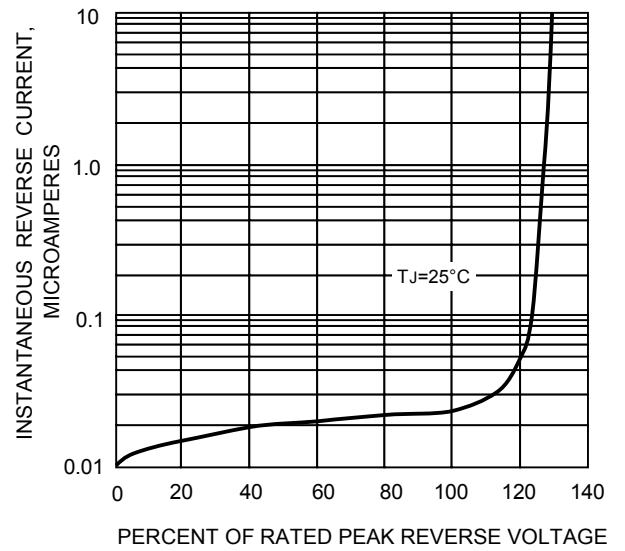
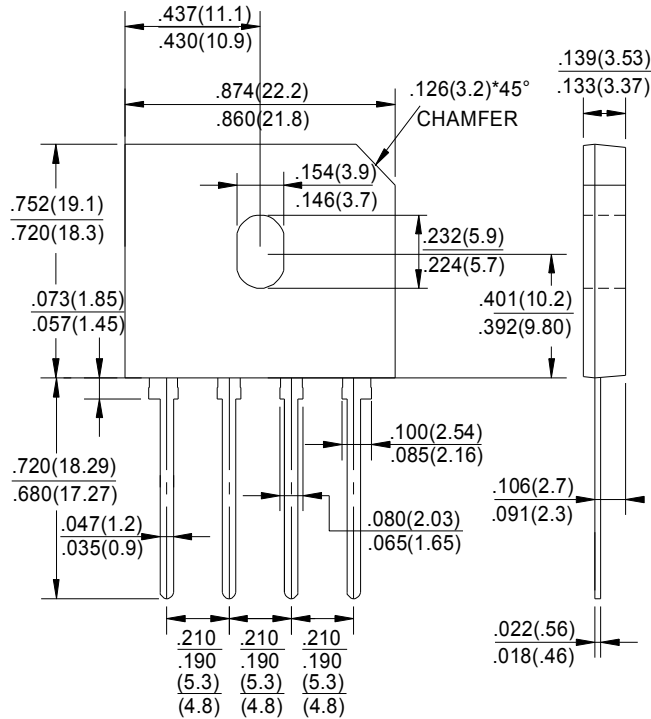


FIG.4-TYPICAL REVERSE  
 CHARACTERISTICS

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## Product Outline Dimensions **GBU**



Dimensions in inches and (millimeters)