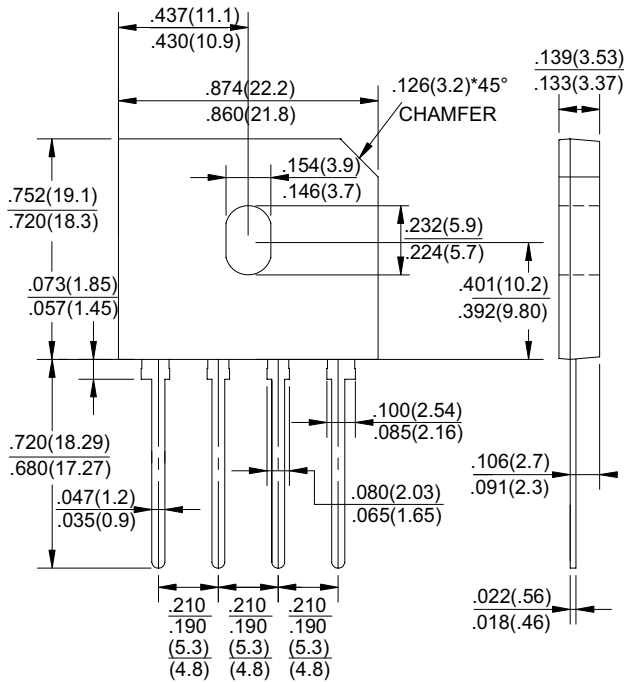


# GBU6005 thru GBU610 SERIES

**GLASS PASSIVATED BRIDGE RECTIFIERS**  
**REVERSE VOLTAGE - 50 to 1000Volts FORWARD CURRENT - 6.0Amperes**



Dimensions in inches and (millimeters)

**Package: GBU**

## FEATURES

- Surge overload rating -175 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
- Weight: 0.134 ounces , 3.79 grams

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	GBU6005	GBU601	GBU602	GBU604	GBU606	GBU608	GBU610	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 (with heatsink Note 2) Rectified Current @ T <sub>c</sub> =100°C (without heatsink)	I <sub>(AV)</sub>	6.0						2.8		A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>	175								A
Maximum Forward Voltage at 3.0A 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		uA
I <sup>2</sup> t Rating for Fusing (t<8.3ms)	I <sup>2</sup> t	127								A <sup>2</sup> s
Typical Junction Capacitance Per Element (Note1)	C <sub>J</sub>	50								pF
Typical Thermal Resistance (Note2)	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 75mm\*75mm\*1.6mm cu plate heatsink.

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FIG.1-FORWARD CURRENT DERATING CURVE

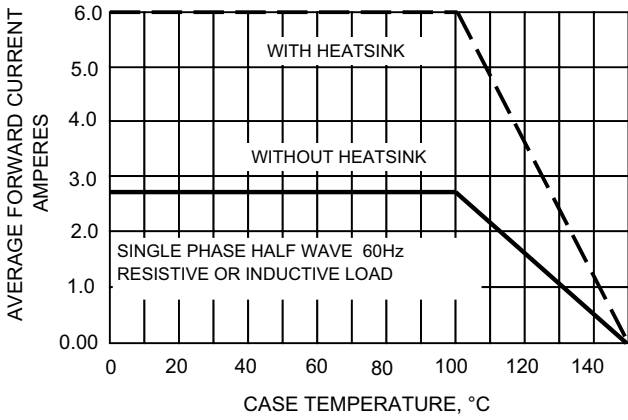


FIG.2-MAXIMUM NON-REPETITIVE SURGE CURRENT

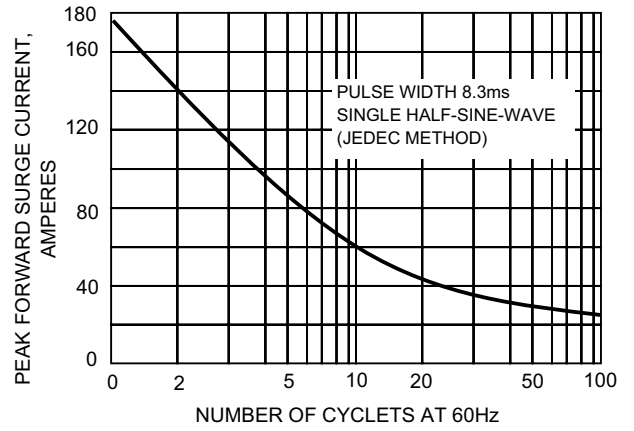


FIG.3-TYPICAL JUNCTION CAPACITANCE

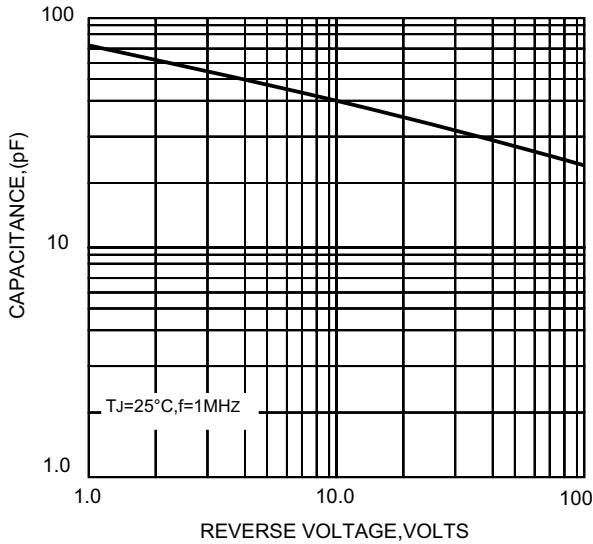


FIG.4-TYPICAL FORWARD CHARACTERISTICS

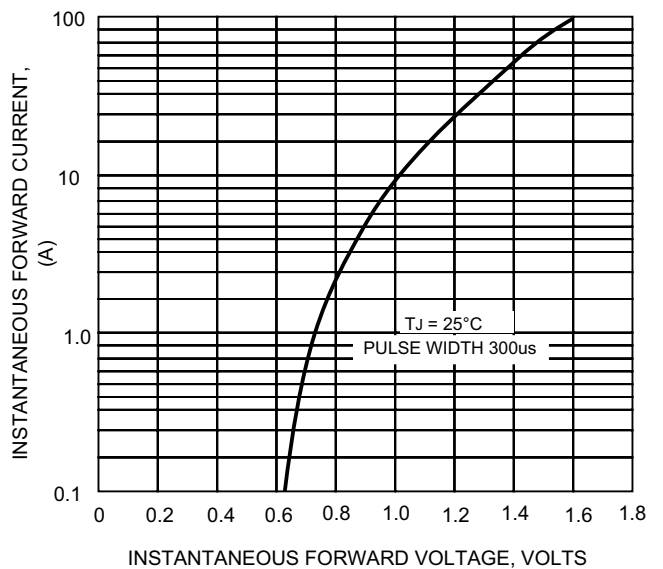


FIG.5-TYPICAL REVERSE CHARACTERISTICS

