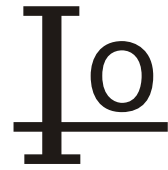


# GBU6005 THRU GBU610



SINGLE PHASE 6.0 AMPS GLASS PASSIVATED BRIDGE RECTIFIERS

## 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
- High temperature soldering guaranteed: 260°C/10 seconds/.375"(9.5mm) lead length at 5 lbs. (2.3kg) tension

## MECHANICAL DATA

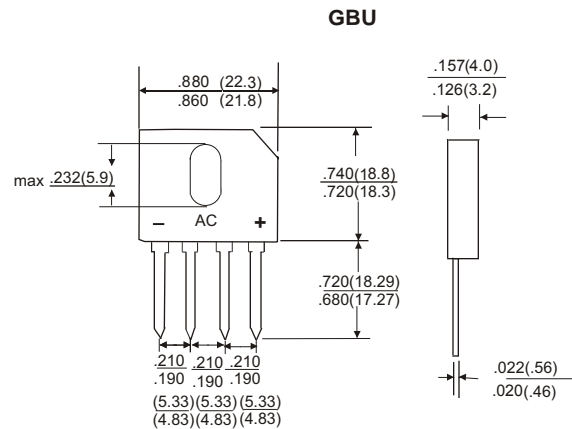
- Case: Reliable low cost construction utilizing molded plastic technique
- Terminals: Leads solderable per MIL-STD-202, Method 208
- Mounting position: Any
- Mounting torque: 5 in. lb. Max.
- Weight: 0.15 ounce, 4.0 grams
- Lead Free Finish/RoHS Compliant

## VOLTAGE RANGE

50 to 1000 Volts

## CURRENT

6.0 Ampere



Dimensions in inches and (millimeters)

## 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>	30	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>	6.0 3.0						A	
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>	175						A	
Maximum Forward Voltage at 3.0A DC	V <sub>F</sub>	1.0						V	
Maximum DC Reverse Current at Rated DC Blocking Voltage @ T <sub>J</sub> =25°C @ T <sub>J</sub> =125°C	I <sub>R</sub>	5.0 500						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 65 mm\*35mm\*1.5mm cuplate heatsink.

# RATING AND CHARACTERISTIC CURVES (GBU6005 THRU GBU610)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

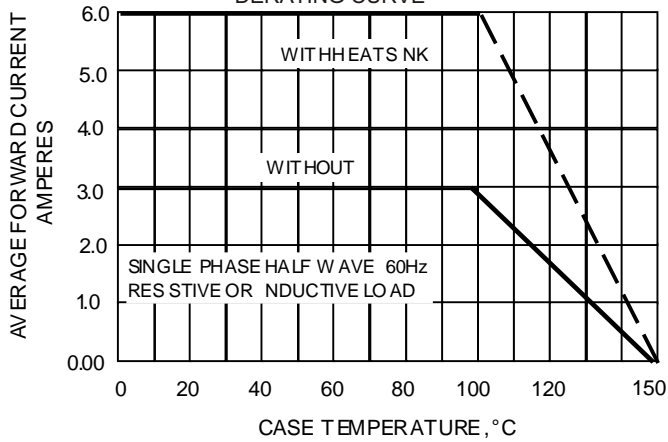


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

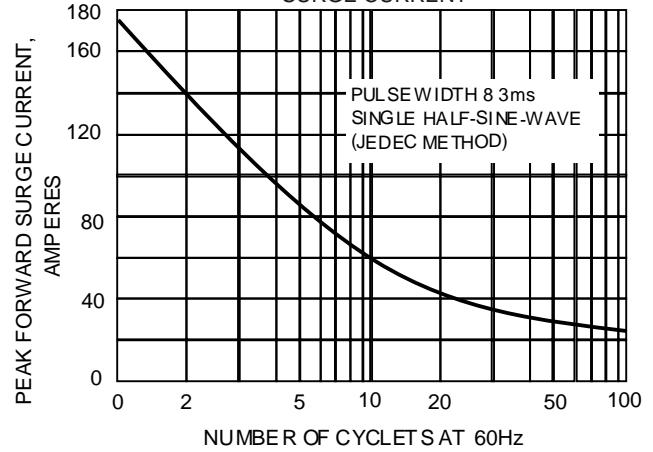


FIG.3-TYPICAL JUNCTION CAPACITANCE

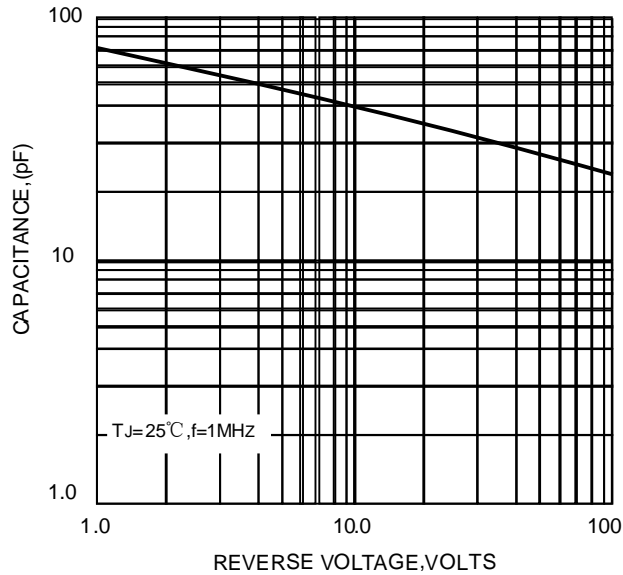


FIG.4-TYPICAL FORWARD CHARACTERISTICS

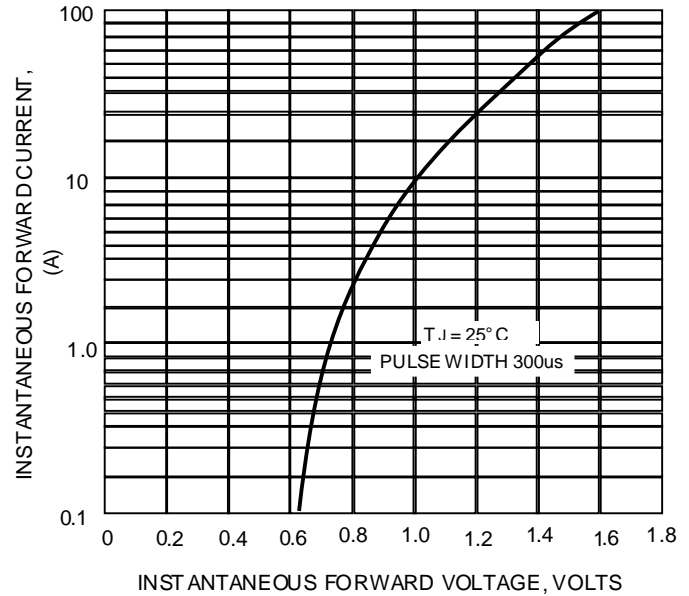


FIG.5-TYPICAL REVERSE CHARACTERISTICS

