

# GBU10005 THRU GB1010

SINGLE-PHASE BRIDGE RECTIFIER GLASS PASSIVATED BRIDGE RECTIFIERS  
 REVERSE VOLTAGE 50 to 1000 Volts FORWARD CURRENT 10 Ampere

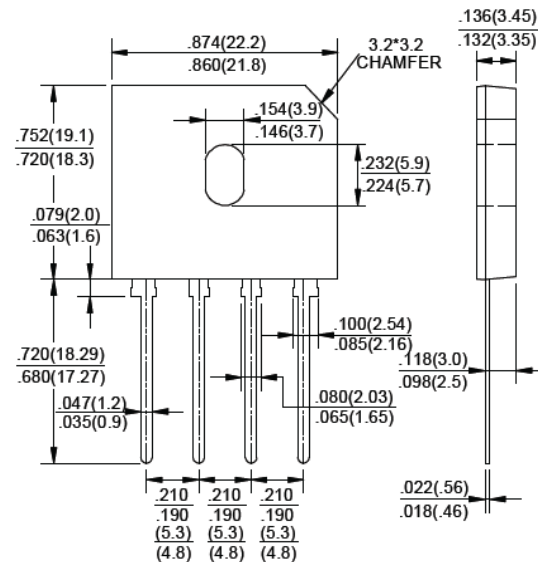
## FEATURES

- ◆ Rating to 1000V PRV
- ◆ Ideal for printed circuit board
- ◆ Reliable low cost construction utilizing molded plastic Technique
- ◆ The plastic material has UL flammability classification 94V-0
- ◆ Electrically isolated base-1500 Volts

## Mechanical Data

- ◆ Polarity : As marked on Body
- ◆ Weight : 0.15 ounces, 4.0 grams
- ◆ Mounting position : Any

## GBU



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%

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 (with heatsink Note 2) Rectified Current, @ T <sub>c</sub> =100°C(without heatsink)	I <sub>(AV)</sub>	10							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	220							A
Maximum Forward Voltage at 5.0A DC	V <sub>F</sub>	1.0							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>	5.0							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 (Note 1)	C <sub>J</sub>	60							pF
Typical Thermal Resistance (Note 2)	R <sub>θJC</sub>	2.0							°C/W
Operating Temperature Range	T <sub>J</sub>	-55 to +150							°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150							°C

Note: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

2. Device mounted on 150mm x 150mm x 1.6mm Cu Plate Heatsink.

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## RATING AND CHARACTERISTIC CURVES GBU10005 THRU GB1010

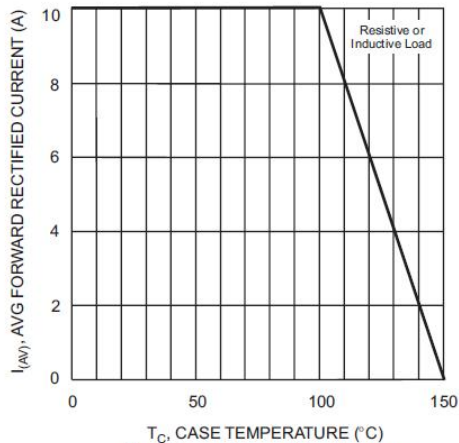


Fig. 1 Forward Current Derating Curve

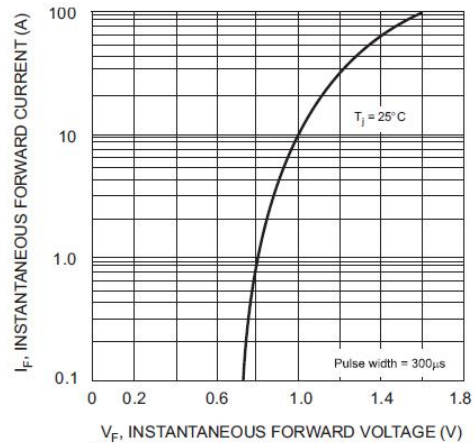


Fig. 2 Typical Forward Characteristics, per element

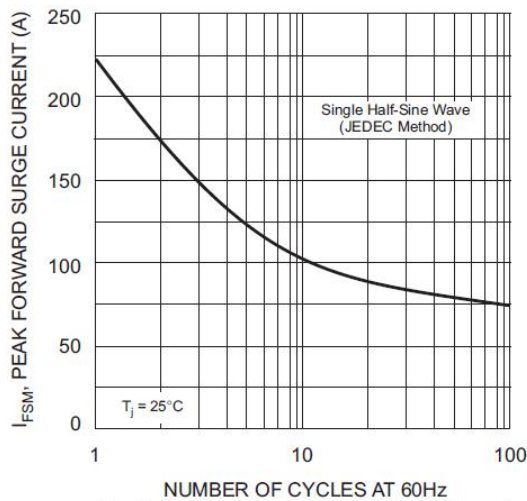


Fig. 3 Maximum Non-Repetitive Surge Current

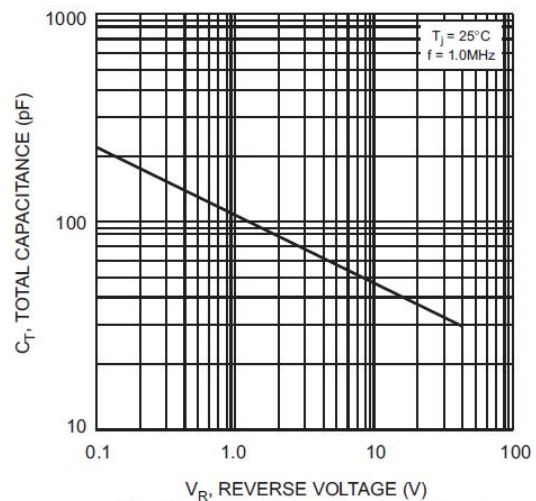
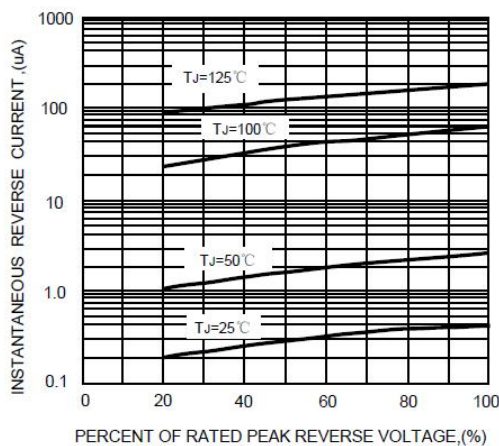


Fig. 4 Typical Total Capacitance, per element

FIG.5-TYPICAL REVERSE CHARACTERISTICS



Note: Specifications are subject to change without notice. For more detail and update, please visit our website.