

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

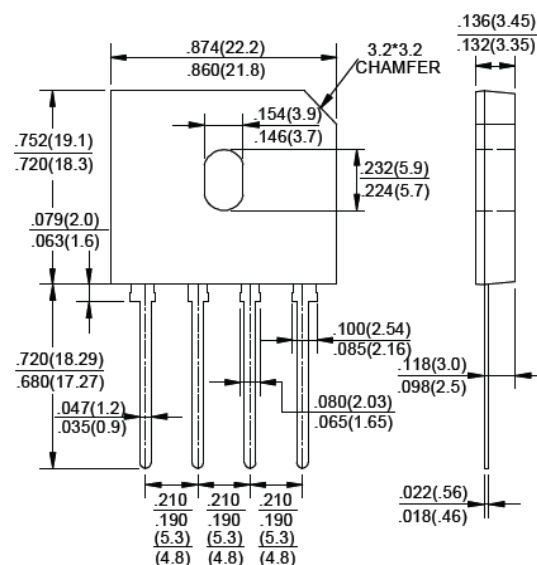
classification 94V-0

- ◆ 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_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward (with heatsink Note 2) Rectified Current, @ $T_c=100^{\circ}\text{C}$ (without heatsink)	$I_{(AV)}$	10							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	220							A
Maximum Forward Voltage at 5.0A DC	V_F	1.0							V
Maximum DC Reverse Current @ $T_J = 25^{\circ}\text{C}$ at Rated DC blocking voltage @ $T_J = 125^{\circ}\text{C}$	I_R	5.0 500							μA
I^2t Rating for fusing ($t < 8.3\text{ms}$)	I^2t	200							A^2S
Typical Junction Capacitance per element (Note 1)	C_J	60							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	2.0							$^{\circ}\text{C}/\text{W}$
Operating Temperature Range	T_J	-55 to +150							$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150							$^{\circ}\text{C}$

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

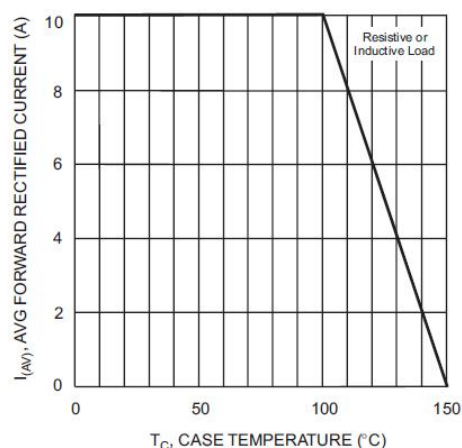


Fig. 1 Forward Current Derating Curve

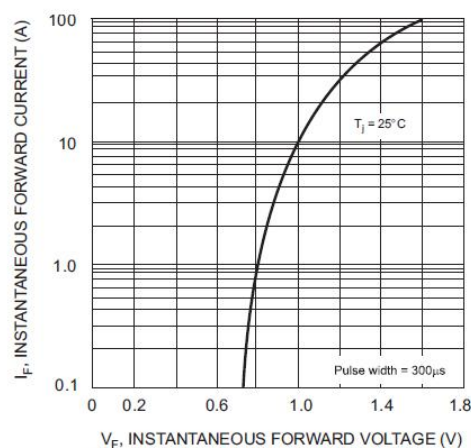


Fig. 2 Typical Forward Characteristics, per element

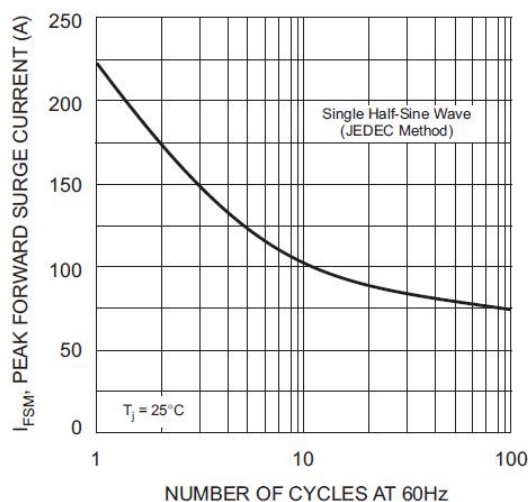


Fig. 3 Maximum Non-Repetitive Surge Current

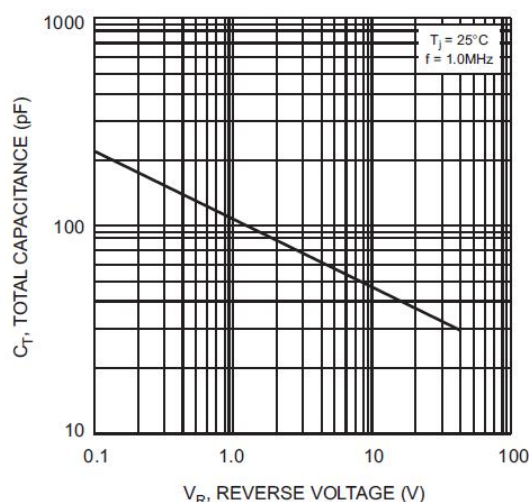
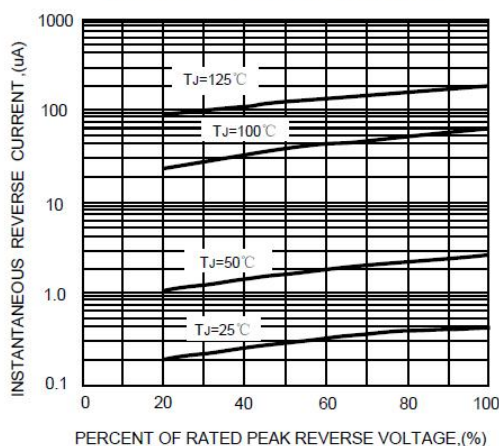


Fig. 4 Typical Total Capacitance, per element

FIG.5-TYPICAL REVERSE CHARACTERISTICS



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