

Kingtronics®**GBU10005 THRU
GB1010**

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

FEATURES

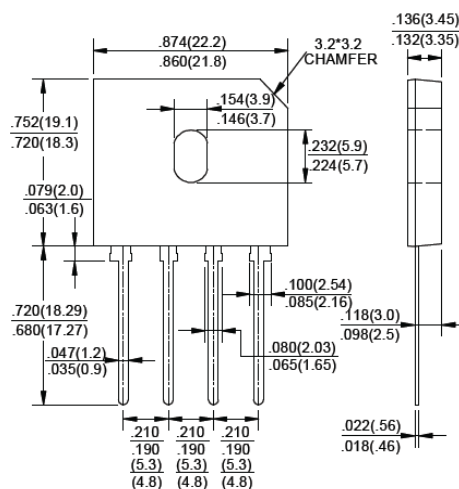
Rating to 1000V PRV
 Ideal for printed circuit board
 Reliable low cost construction utilizing molded plastic
 Technique
 The plastic material has UL flammability classification 94V-0
 Electrically isolated base-1500 Volts

MECHANICAL DATA

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

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified , Dimensions in inches and (millimeters)
 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							$^\circ\text{C}$

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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RATINGS AND CHARACTERISTIC CURVES

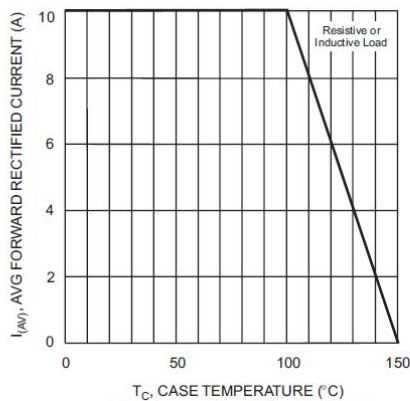


Fig. 1 Forward Current Derating Curve

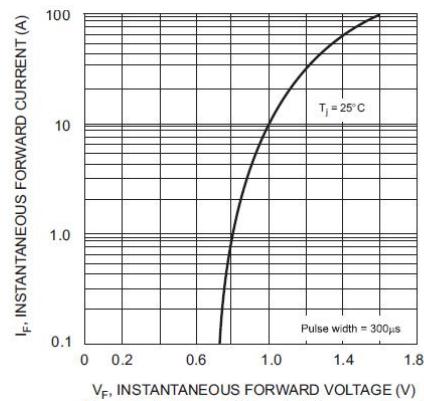


Fig. 2 Typical Forward Characteristics, per element

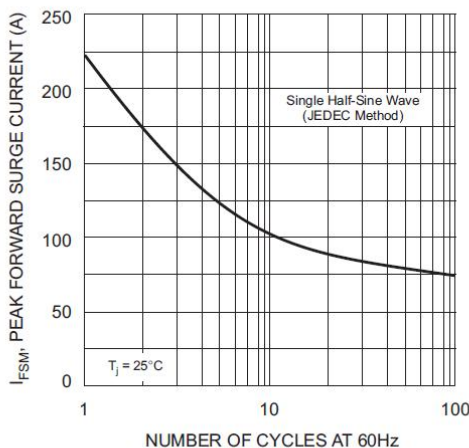


Fig. 3 Maximum Non-Repetitive Surge Current

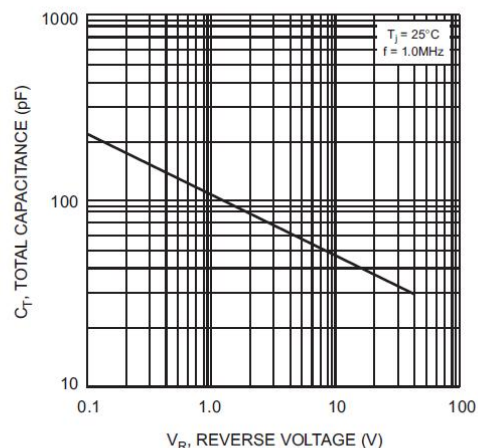
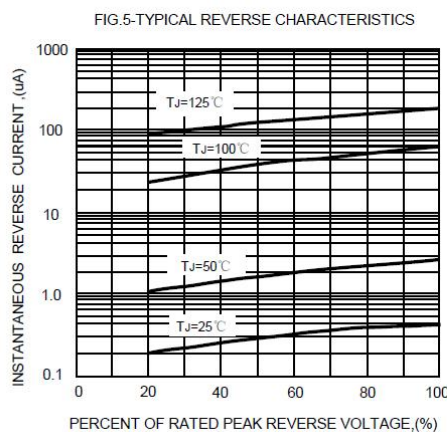


Fig. 4 Typical Total Capacitance, per element



Note: Specifications are subject to change without notice.