

Kingtronics®**GBU10005 THRU
GB1010****SINGLE-PHASE GLASS PASSIVATED BRIDGE RECTIFIERS****REVERSE VOLTAGE 50 to 1000 Volts FORWARD CURRENT 10 Ampere****FEATURES**

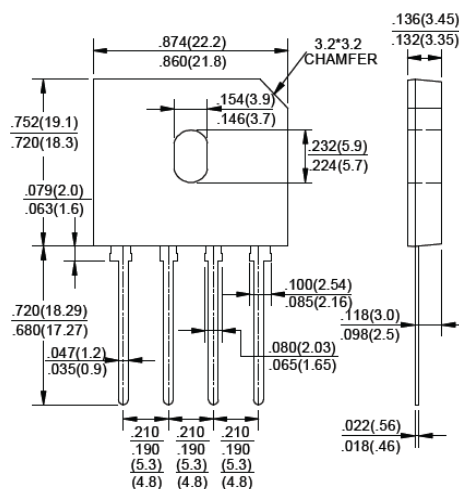
Rating to 1000V PRV
 Ideal for printed circuit board
 Reliable low cost construction utilizing molded plastic
 Technique
 The plastic material has UL flammability classification 94V-0
 Electrically isolated base-1500 Volts

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

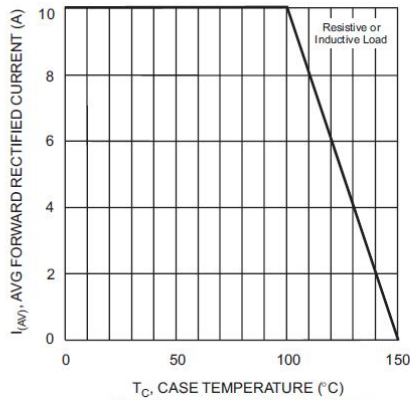


Fig. 1 Forward Current Derating Curve

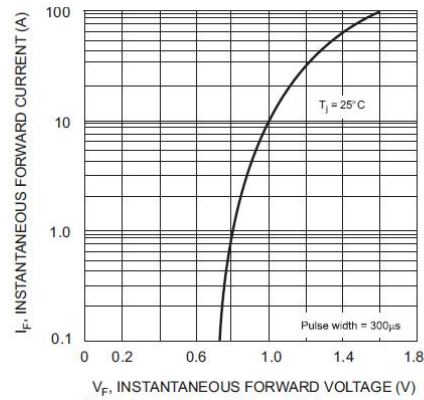


Fig. 2 Typical Forward Characteristics, per element

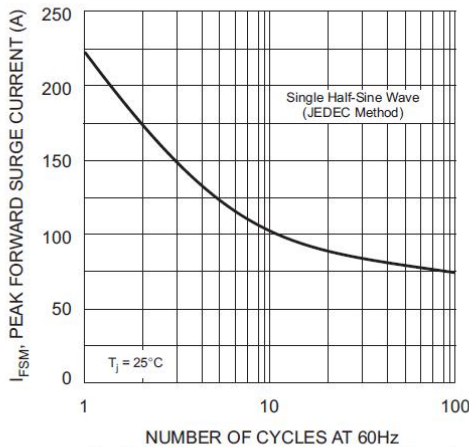


Fig. 3 Maximum Non-Repetitive Surge Current

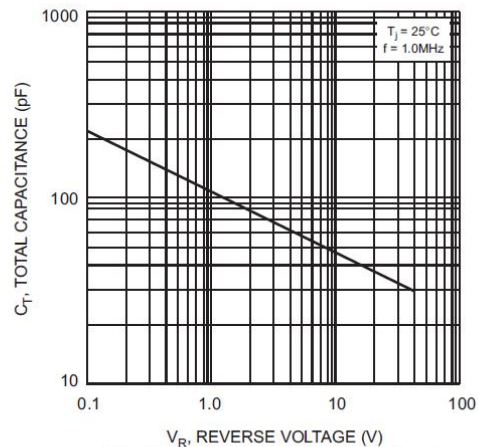
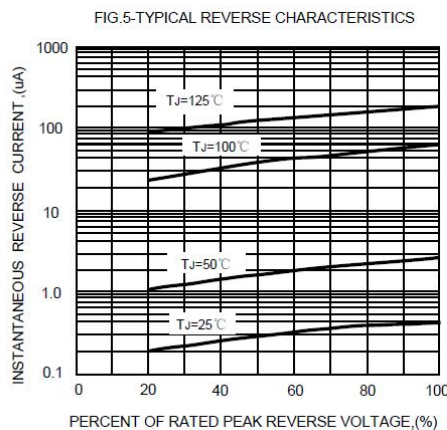


Fig. 4 Typical Total Capacitance, per element



Note: Specifications are subject to change without notice.

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