

**Kingtronics**®**GBU8005 THRU  
GBU810****SINGLE-PHASE GLASS PASSIVATED BRIDGE RECTIFIERS****REVERSE VOLTAGE 50 to 1000 Volts    FORWARD CURRENT 8.0 Ampere****FEATURES**

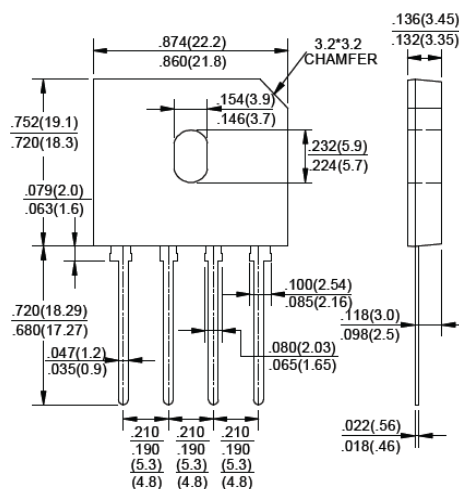
- Rating to 1000V PRV
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic Technique
- The plastic material has UL flammability classification 94V-0
- Electrically isolated base-1500 Volts

**MECHANICAL DATA**

- Polarity : Symbols molded 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 8005	GBU 801	GBU 802	GBU 804	GBU 806	GBU 808	GBU 810	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)	$I_{(AV)}$	8.0							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	200							A
Maximum Forward Voltage at 4.0A 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							$\mu\text{A}$
$I^2t$ Rating for fusing ( $t < 8.3\text{ms}$ )	$I^2t$	166							$\text{A}^2\text{S}$
Typical Junction Capacitance per element (Note 1)	$C_J$	60							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	2.2							$^\circ\text{C}/\text{W}$
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 100mm x 100mm x 1.6mm Cu Plate Heatsink.

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## RATINGS AND CHARACTERISTIC CURVES

FIG.1-FORWARD CURRENT DERATING CURVE

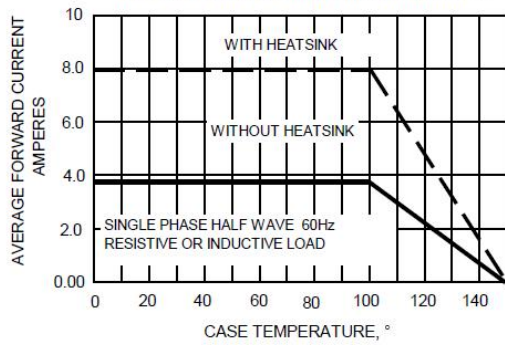


FIG.2-MAXIMUM NON-REPETITIVE SURGE CURRENT

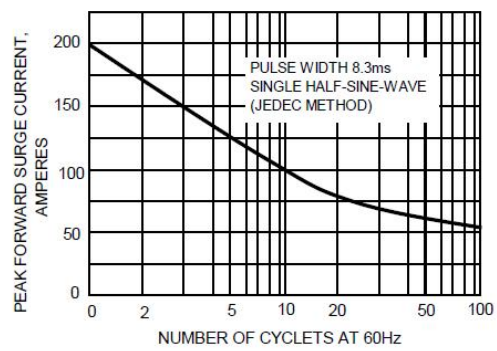


FIG.3-TYPICAL JUNCTION CAPACITANCE

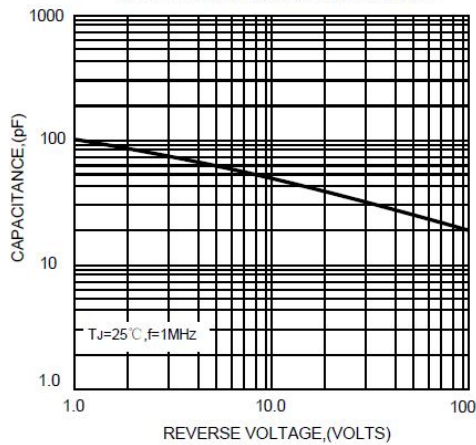


FIG.4-TYPICAL FORWARD CHARACTERISTICS

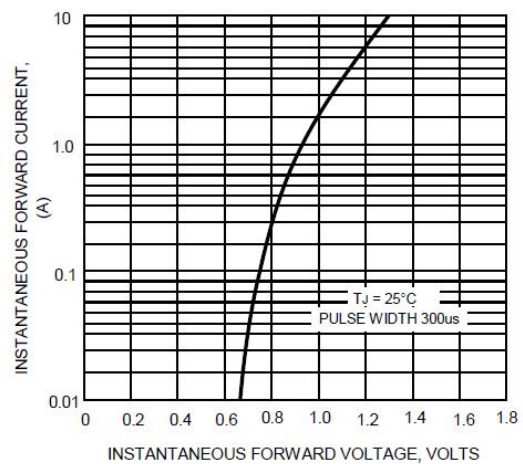
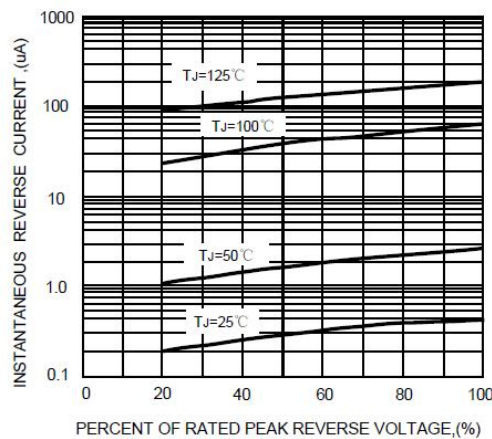


FIG.5-TYPICAL REVERSE CHARACTERISTICS



Note: Specifications are subject to change without notice.