Kingtronics®

# GBU8005 THRU GBU810

SINGLE-PHASE GLASS PASSIVATED BRIDGE RECTIFIERS

**REVERSE VOLTAGE** 50 to 1000 Volts **FORWARD CURRENT** 8.0 Ampere

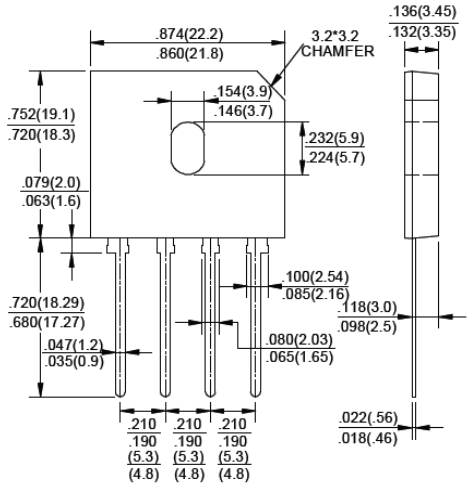
## FEATURES

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

## GBU




Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

**Ratings at 25℃ ambient temperature unless otherwise specified , 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℃(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℃ | $I_R$ | 5.0 | | | | | | | uA |
| at Rated DC blocking voltage @ $T_J$ = 125℃ | | 500 | | | | | | | |
| $I^2t$ Rating for fusing (t < 8.3ms) | $I^2t$ | 166 | | | | | | | $A^2S$ |
| Typical Junction Capacitance per element (Note 1) | $C_J$ | 60 | | | | | | | pF |
| Typical Thermal Resistance (Note 2) | $R_{\theta JC}$ | 2.2 | | | | | | | ℃/W |
| Operating Temperature Range | $T_J$ | -55 to +150 | | | | | | | ℃ |
| Storage Temperature Range | $T_{STG}$ | -55 to +150 | | | | | | | ℃ |

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

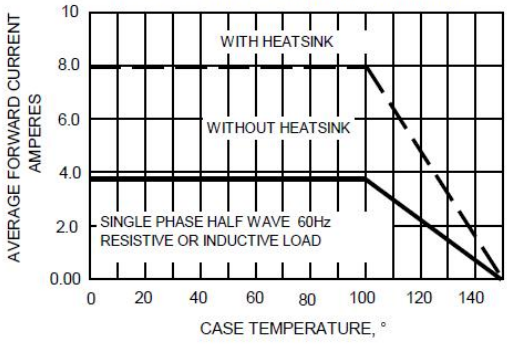



FIG.2-MAXIMUM NON-REPETITIVE SURGE CURRENT

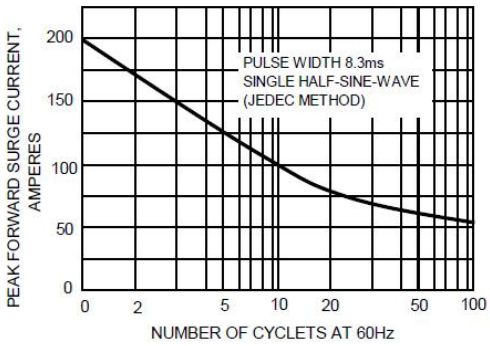



FIG.3-TYPICAL JUNCTION CAPACITANCE

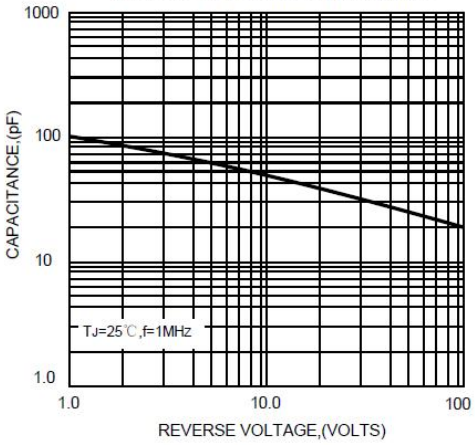



FIG.4-TYPICAL FORWARD CHARACTERISTICS

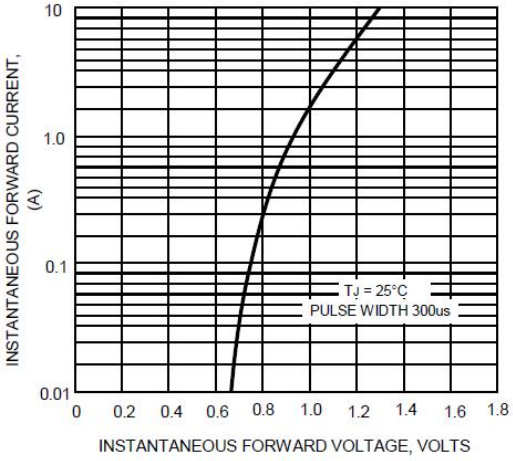
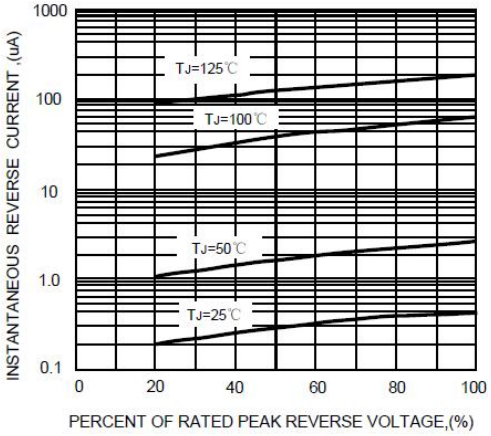



FIG.5-TYPICAL REVERSE CHARACTERISTICS




Note: Specifications are subject to change without notice.