



# GBU4AG THRU GBU4MG

Glass Passivated Single-Phase Bridge Rectifiers

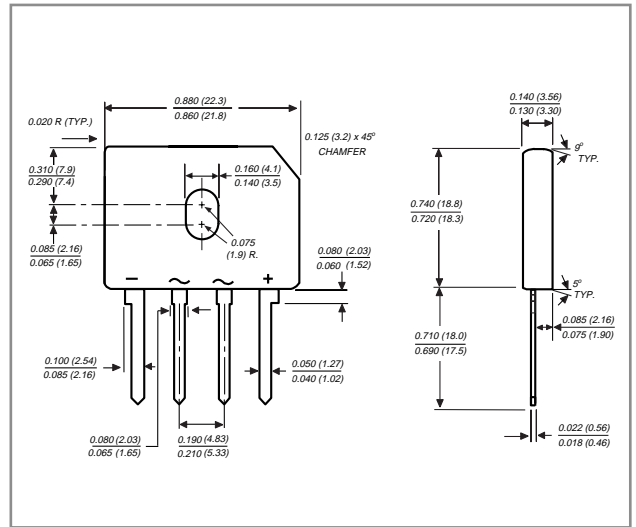
**Reverse Voltage - 50 to 1000 Volts**

**Forward Current - 4.0 Amperes**

## Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- This series is UL listed under the Recognized Component Index, file number E54214
- High case dielectric strength of 1500 VRMS
- Ideal for printed circuit boards
- Glass passivated chip junction
- High surge current capability
- High temperature soldering guaranteed:  
260°C/10 seconds, 0.375 (9.5mm) lead length, 5lbs. (2.3kg) tension

## GBU



Dimensions in inches and (millimeters)

## Mechanical Data

- **Case:** Molded plastic body over passivated junctions
- **Terminals:** Plated leads solderable per MIL-STD-750, Method 2026
- **Mounting Position:** Any (NOTE 4)
- **Mounting Torque:** 5 in. - lb. max.
- **Weight:** 0.15 ounce, 4.0 grams

## Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	GBU 4A	GBU 4B	GBU 4D	GBU 4G	GBU 4J	GBU 4K	GBU 4M	UNITS
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified output current at $T_C=100^\circ\text{C}$ $T_A=40^\circ\text{C}$	$I_{(AV)}$	4.0				3.0			Amps
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method) $T_J=150^\circ\text{C}$	$I_{FSM}$	150.0							Amps
Rating for fusing ( $t < 8.3\text{ms}$ )	$I^2t$	93.0							A <sup>2</sup> sec
Maximum instantaneous forward voltage drop per leg at 4.0A	$V_F$	1.0							Volts
Maximum DC reverse current at rated DC blocking voltage per leg $T_A=25^\circ\text{C}$ $T_A=125^\circ\text{C}$	$I_R$	5.0				500.0			$\mu\text{A}$
Typical junction capacitance per leg	$C_J$	100.0				45.0			pF
Typical thermal resistance per leg	$R_{\theta JA}$ $R_{\theta JC}$	22.0				4.2			$^\circ\text{C/W}$
Operating junction and storage temperature range	$T_J, T_{STG}$	-55 to +150							$^\circ\text{C}$

### NOTES:

- (1) Unit case mounted on 1.6 x 1.6 x 0.06" thick (4.0 x 4.0 x 0.15cm) Al. Plate
- (2) Units mounted on P.C.B. with 0.5 x 0.5" (12 x 12mm) copper pads and 0.375" (9.5mm) lead length
- (3) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
- (4) Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw

## Rating and characteristic curves

FIG.1 – DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

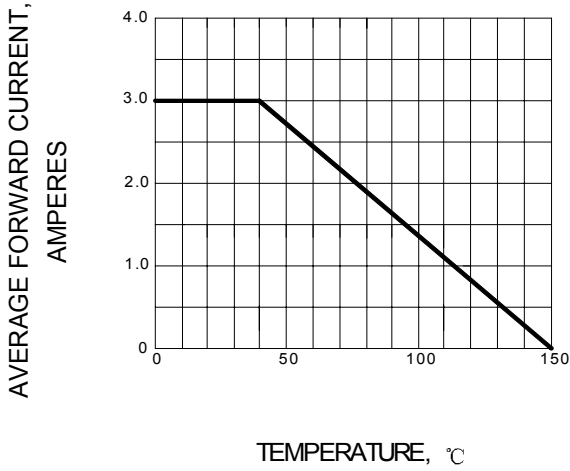


FIG.2 – TYPICAL FORWARD CHARACTERISTIC

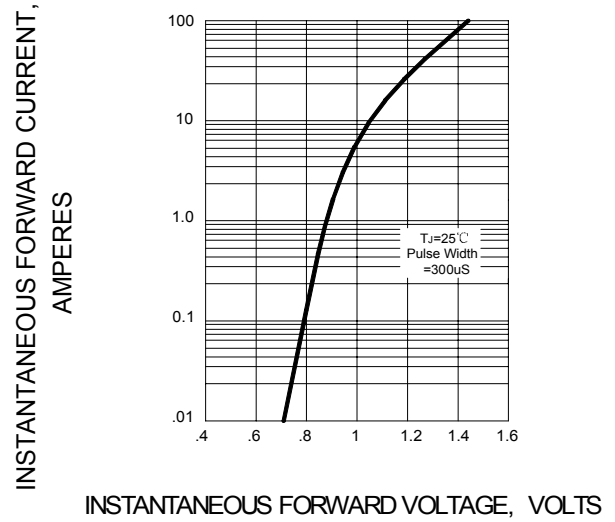


FIG.3 – MAXIMUM NON-REPETITIVE PEAK FORWARD

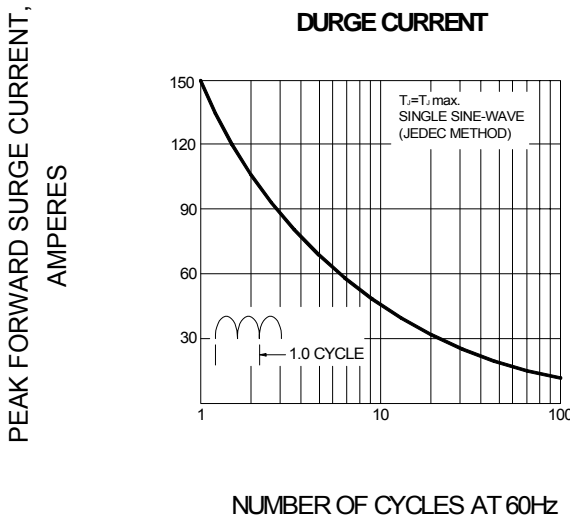


FIG.4 – TYPICAL REVERSE CHARACTERISTIC

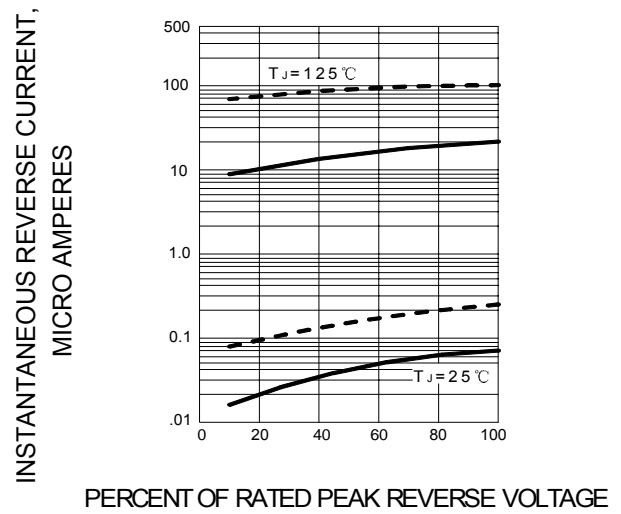


FIG.5 – TYPICAL JUNCTION CAPACITANCE PER LEG

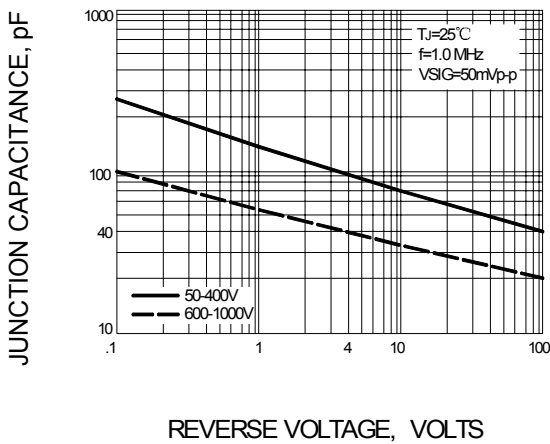


FIG.6 – TYPICAL TRANSIENT THERMAL IMPEDANCE

