



# GBU402 THRU GBU410

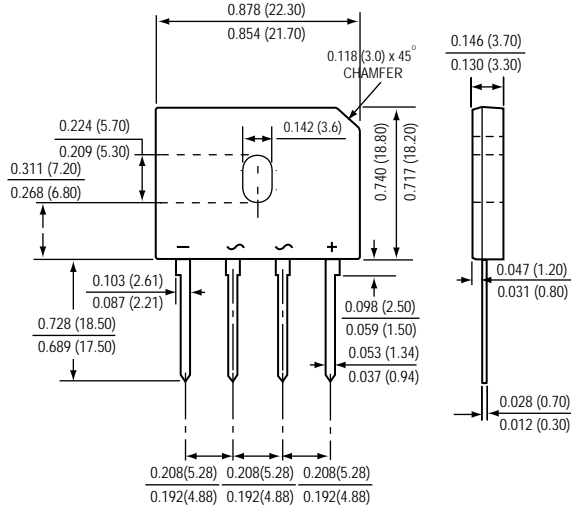
## GLASS PASSIVATED BRIDGE RECTIFIER

Reverse Voltage - 200 to 1000 Volts

Forward Current - 4.0 Amperes



**GBU**



Polarity shown on front side of case, positive lead by beveled corner

\*Dimensions in inches and (millimeters)

### FEATURES

- \* Glass passivated chip junctions
- \* Compliance to RoHS product
- \* Plastic Material has Underwriters Laboratory Flammability Classification 94V-0
- \* High surge current capability
- \* Ideal for Printed Circuit Boards
- \* High temperature soldering guaranteed : 260°C/10 seconds

### MECHANICAL DATA

Case : Molded Plastic  
 Terminals : Tin Plated, solderable per MIL-STD-750, Method 2026  
 Polarity : As marked on Body  
 Weight : 4.0 grams (approx)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.	SYMBOLS	GBU402	GBU404	GBU406	GBU408	GBU410	UNITS
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	200	400	600	800	1000	Volts
Maximum RMS voltage	V <sub>RMS</sub>	140	280	420	560	700	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	200	400	600	800	1000	Volts
Maximum average forward rectified current T <sub>c</sub> =100°C (NOTE 1,2)	I <sub>(AV)</sub>	4.0					Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	150					Amps
Maximum instantaneous forward voltage at 2.0 A	V <sub>F</sub>	1.0					Volts
Maximum DC reverse current @T <sub>A</sub> =25°C at rated DC blocking voltage @T <sub>A</sub> =125°C	I <sub>R</sub>	5 500					uA
Typical Junction Capacitance per element (NOTE 4)	C <sub>J</sub>	45					pF
Typical thermal resistance per leg (NOTE 3)	R <sub>θJA</sub> R <sub>θJC</sub>	22.0 4.2					°C / W
Operating junctionStorage temperature range	T <sub>J</sub> ,T <sub>STG</sub>	-55 to +150					°C

- NOTES : (1) Unit case mounted on Al plate heat-sink  
 (2) Unit mounted on P.C.B. without heat-sink  
 (3) Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw heat-sink size : 6.35 x 3.5 x 0.15cm)  
 (4) Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

# RATINGS AND CHARACTERISTIC CURVES GBU402 THRU GBU410

FIG.1 - FORWARD CURRENT DERATING CURVE

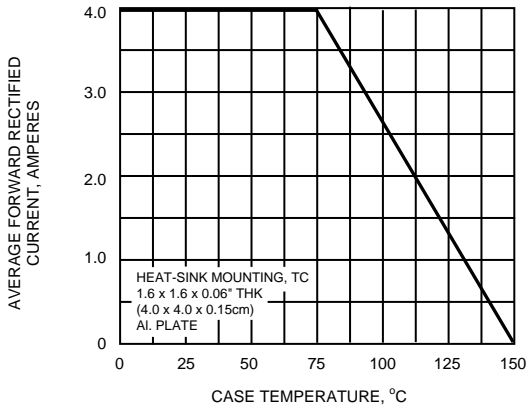


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

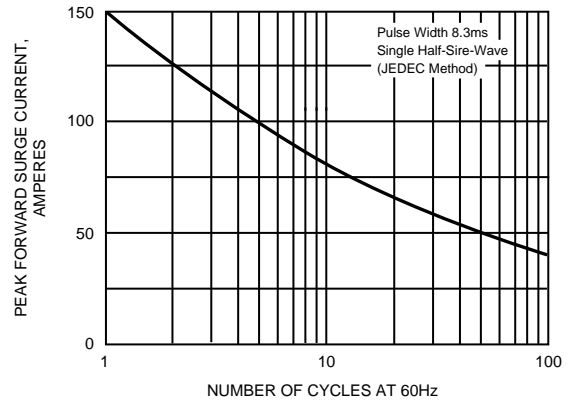


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

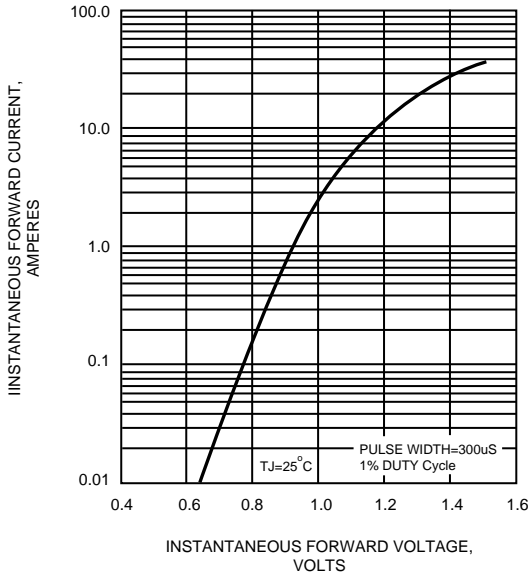


FIG.4 - TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

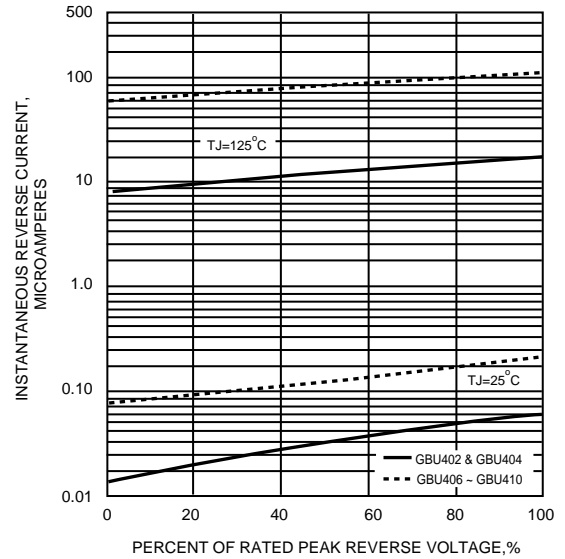


FIG.5 - TYPICAL JUNCTION CAPACITANCE

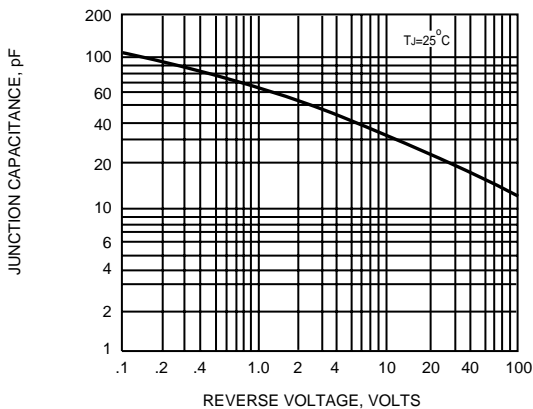


FIG.6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

