



# GBU6A THRU GBU6M

## GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

Reverse Voltage - 50 to 1000 Volts

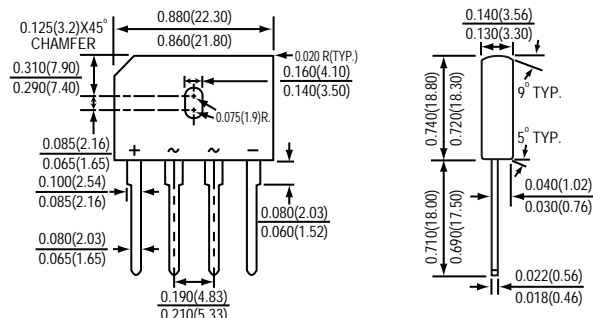
Forward Current - 6.0 Amperes

**GBU**



### FEATURES

- \* Glass passivated chip junctions
- \* High case dielectric strength of 1500V<sub>RMS</sub>
- \* High surge overload rating
- \* Ideal for printed circuit boards
- \* Plastic package has underwriters laboratory flammability classification 94V-0
- \* This series is UL listed under recognized component index, file number E54214
- \* High temperature soldering guaranteed: 260°C/10 seconds  
0.375" (9.5mm) lead length, 5lbs. (2.3kg) tension



\*Dimensions in inches and (millimeters)

### MECHANICAL DATA

**Case :** Molded plastic body over passivated chip  
**Terminals :** Plated Leads, solderable per MIL-STD-750, Method 2026  
**Mounting Position :** Any (NOTE 2)  
**Mounting torque :** 5.0 in-lbs maximum  
**Weight :** 0.15 ounce, 4.0 grams

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.	SYMBOLS	GBU6A	GBU6B	GBU6D	GBU6G	GBU6J	GBU6K	GBU6M	UNITS
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	VRMS	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified output current at Tc=100°C (NOTE 2,3)	I (AV)	6.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) Tj=150°C	IFSM	175							Amps
Maximum instantaneous forward voltage at 6.0 A	VF	1.0							Volts
Maximum DC reverse current @Tc=25°C at rated DC blocking voltage @Tc=125°C	IR	5.0							uA
Rating for fusing ( t < 8.3ms )	I <sup>2</sup> t	127							A <sup>2</sup> s
Typical junction capacitance per element (NOTE 1)	CJ	211				94			pF
Typical thermal resistance (NOTE 2,3)	R θ JA R θ JC	7.4 2.2							°C / W
Operating junction and storage temperature range	Tj,TSTG	-55 to +150							°C

NOTES : (1) Measured at 1.0 MHz and applied reverse voltage of 4.0 V DC.  
 (2) Units case mounted on 2.6 x 1.4 x 0.06" thick (6.5 x 3.5 x 0.15 cm) Al. Plate heatsink  
 (3) Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screws

# RATINGS AND CHARACTERISTIC CURVES GBU6A THRU GBU6M

FIG.1 - FORWARD CURRENT DERATING CURVE

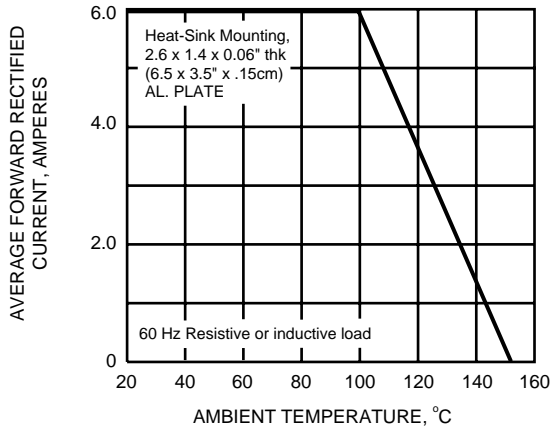


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

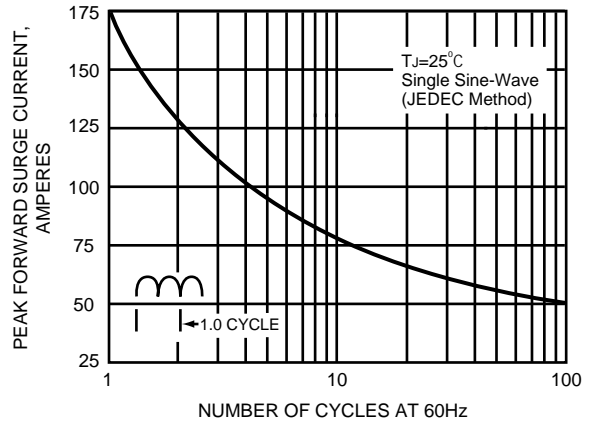


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

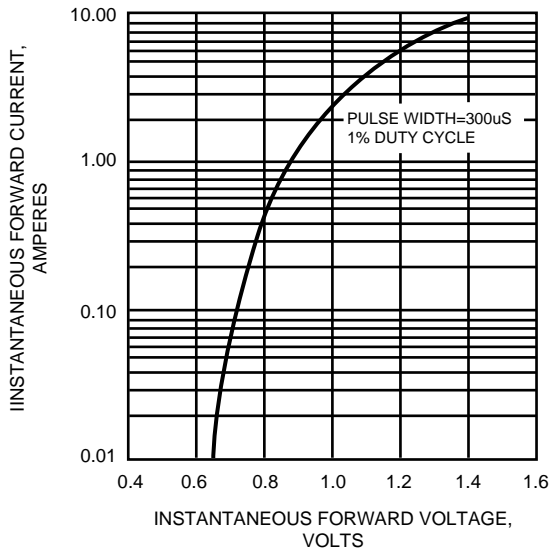


FIG.4 - TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

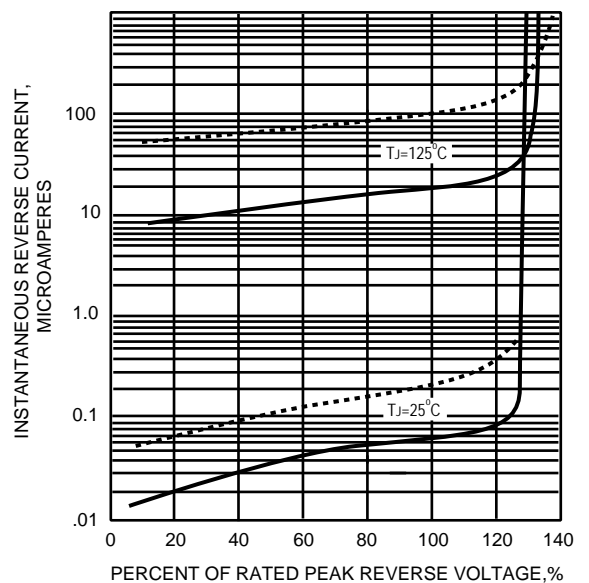


FIG.5 - TYPICAL JUNCTION CAPACITANCE

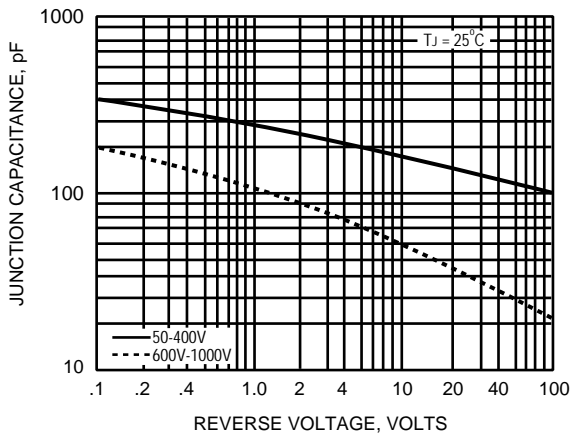


FIG.6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

