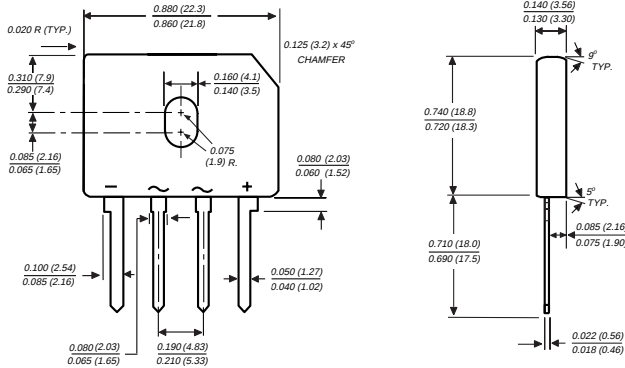


GBU4A THRU GBU4M

GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

Reverse Voltage - 50 to 1000 Volts Forward Current - 4.0 Amperes

Case Style GBU

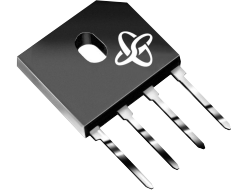


Polarity shown on front side of case, positive lead by beveled corner

Dimensions in inches and (millimeters)

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



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°C (NOTE 1) T _A =40°C (NOTE 2)	I _(AV)	4.0 3.0							Amps
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)T _J =150°C	I _{FSM}	150.0							Amps
Rating for fusing (t<8.3ms)	I²t	93.0							A²sec
Maximum instantaneous forward voltage drop per leg at 4.0A	V _F	1.0							Volts
Maximum DC reverse current at T _A =25°C rated DC blocking voltage per leg T _A =125°C	I _R	5.0 500.0							µA
Typical junction capacitance per leg (NOTE 3)	C _J	100.0				45.0			pF
Typical thermal resistance per leg (NOTE 2) (NOTE 1)	R _{θJA} R _{θJC}	22.0 4.2							°C/W
Operating junction and storage temperature range	T _J , T _{STG}	-55 to +150							°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

RATINGS AND CHARACTERISTICS CURVES GBU4A THRU GBU4M

FIG. 1 - DERATING CURVE OUTPUT RECTIFIED CURRENT

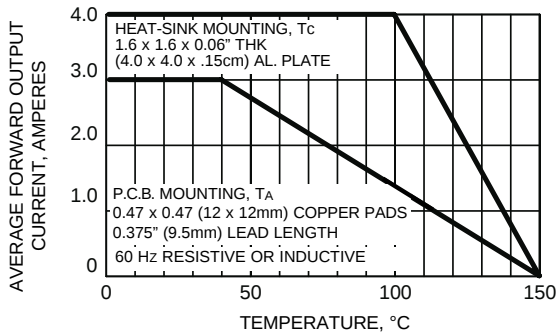


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

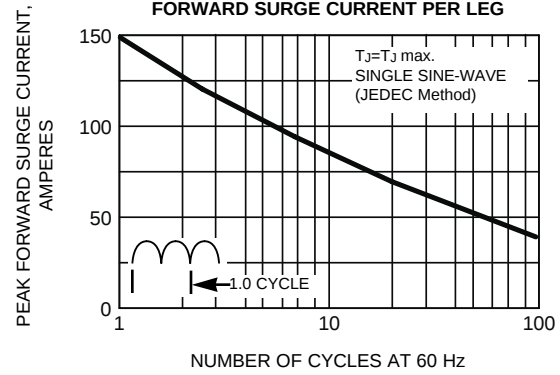


FIG. 3 - TYPICAL FORWARD CHARACTERISTICS PER LEG

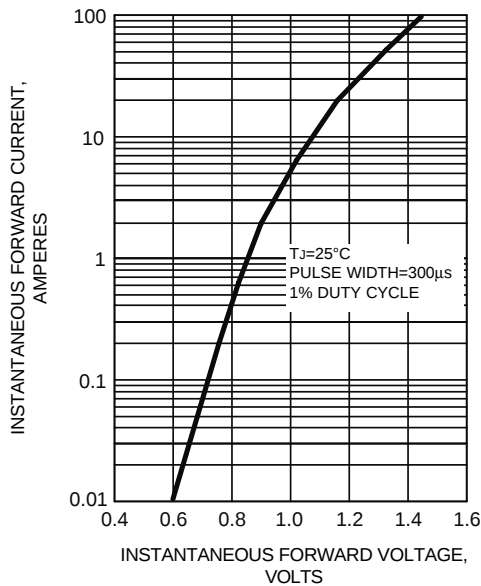


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS PER LEG

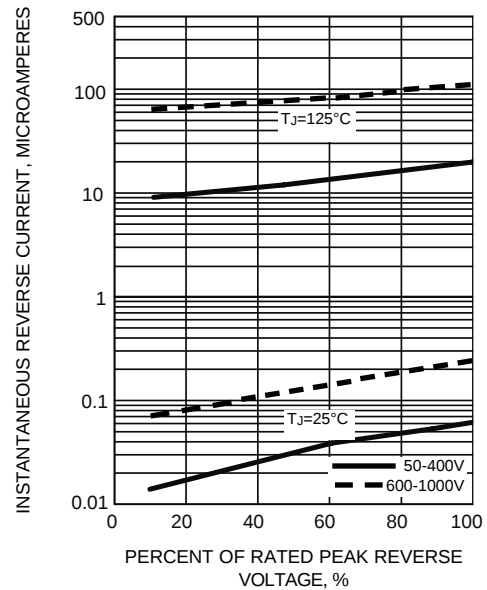


FIG. 5 - TYPICAL JUNCTION CAPACITANCE PER LEG

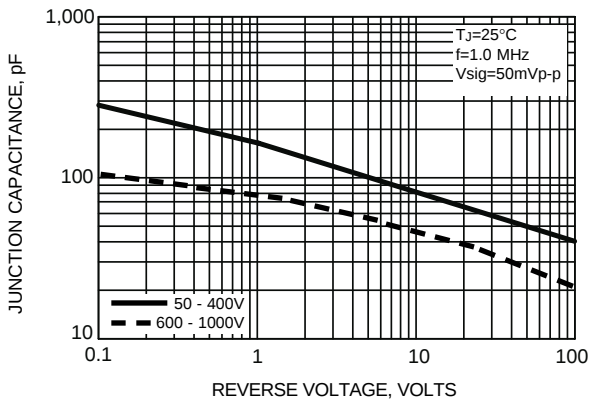


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

