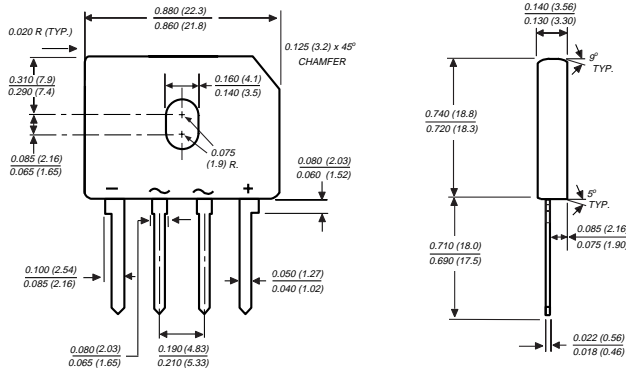


GBU4A THRU GBU4M

GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

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

Case Style GBU

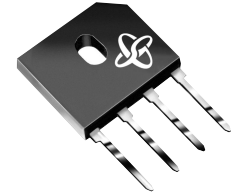


Polarity shown on front side of case, positive lead by beveled corner

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 $T_C=100^\circ\text{C}$ (NOTE 1) $T_A=40^\circ\text{C}$ (NOTE 2)	$I_{(AV)}$	4.0				3.0			Amps
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method) $T_J=150^\circ\text{C}$	I_{FSM}	150.0							Amps
Rating for fusing ($t < 8.3\text{ms}$)	I^2t	93.0							A^2sec
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			μA
Typical junction capacitance per leg (NOTE 3)	C_J	100.0				45.0			pF
Typical thermal resistance per leg (NOTE 2) (NOTE 1)	$R_{\theta JA}$ $R_{\theta JC}$	22.0				4.2			$^\circ\text{C}/\text{W}$
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

RATINGS AND CHARACTERISTICS CURVES GBU4A THRU GBU4M

FIG. 1 - DERATING CURVE OUTPUT RECTIFIED CURRENT

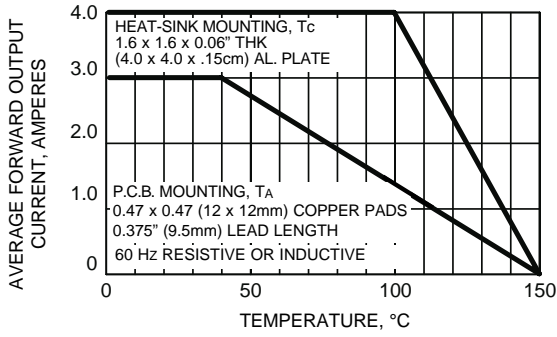


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

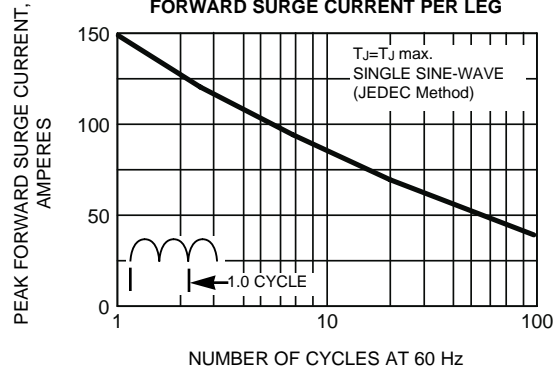


FIG. 3 - TYPICAL FORWARD CHARACTERISTICS PER LEG

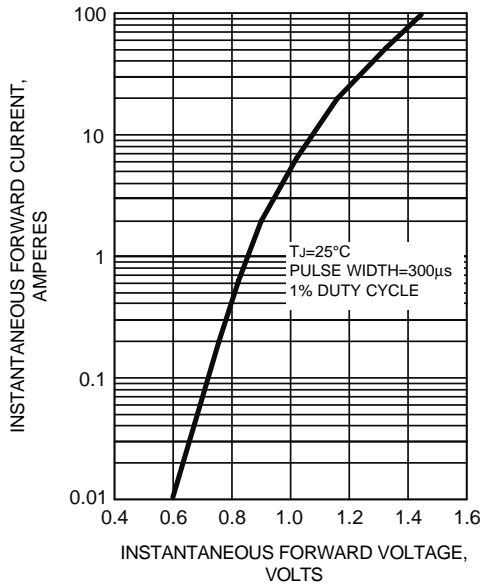


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS PER LEG

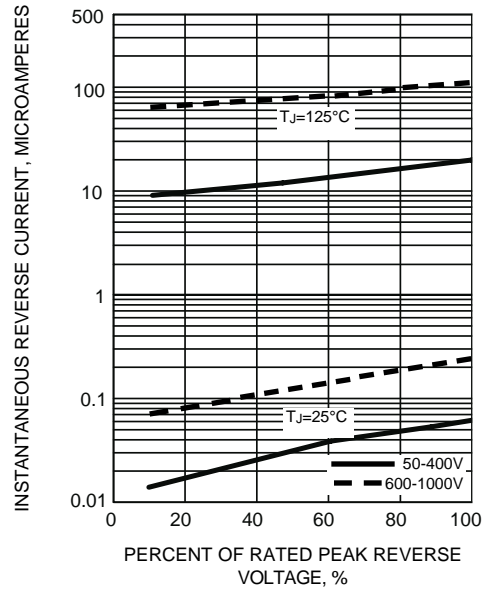


FIG. 5 - TYPICAL JUNCTION CAPACITANCE PER LEG

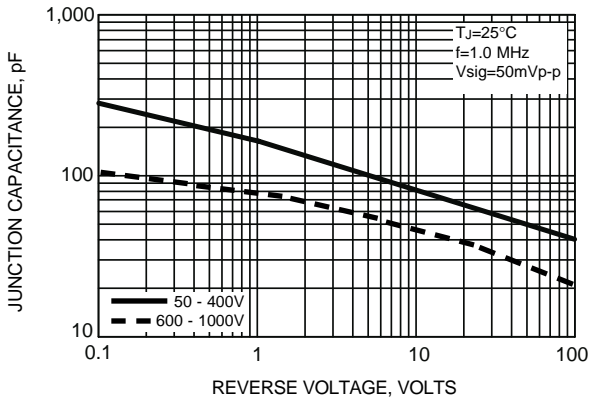
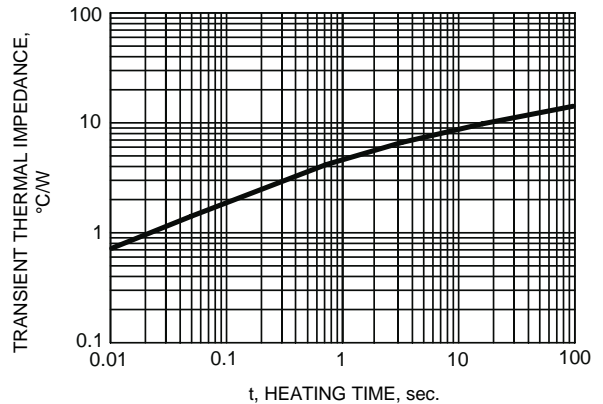


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE



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