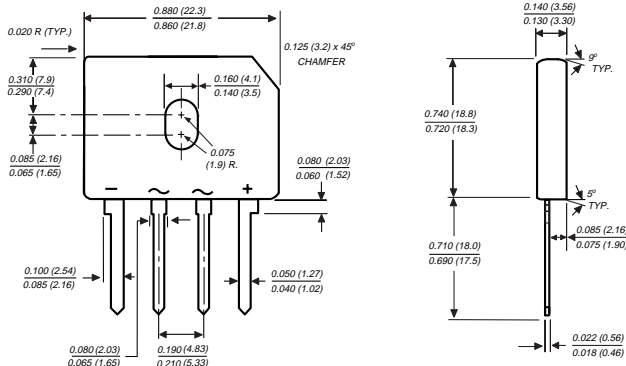


GBU8A THRU GBU8M

GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

Reverse Voltage - 50 to 1000 Volts Forward Current - 8.0 Amperes

Case Style GBU

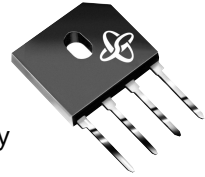


Polarity shown on front side of case, positive lead by beveled corner

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 forward surge current capability
- ◆ Typical I_R less than $0.5\mu A$
- ◆ High temperature soldering guaranteed: $260^\circ C/10$ 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 3)

Mounting Torque: 5 in. - lbs. max.

Weight: 0.15 ounce, 4.0 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at $25^\circ C$ ambient temperature unless otherwise specified.

	SYMBOLS	GBU 8A	GBU 8B	GBU 8D	GBU 8G	GBU 8J	GBU 8K	GBU 8M	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 $T_C=100^\circ C$ (NOTE 1)	$I_{(AV)}$	8.0							Amps	
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method) $T_J=150^\circ C$	I_{FSM}	200.0							Amps	
Rating for fusing ($t < 8.3ms$)	I^2t	166.0							A^2sec	
Maximum instantaneous forward voltage drop per leg at 8.0A	V_F	1.0							Volts	
Maximum DC reverse current at rated DC blocking voltage per leg $T_A=25^\circ C$ $T_A=125^\circ C$	I_R	5.0 500.0							μA	
Typical junction capacitance (NOTE 2)	C_J	211.0				94.0			pF	
Typical thermal resistance per leg (NOTE 4) (NOTE 1)	$R_{\theta JA}$ $R_{\theta JC}$	21.0 2.2								$^\circ C/W$
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150							$^\circ C$	

NOTES:

- (1) Units case mounted on 3.2 x 3.2 x 0.12" thick (8.2 x 8.2 x 0.3cm.) Al. Plate heatsink
- (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
- (3) Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screws
- (4) Units mounted in free air, no heat sink on P.C.B., 0.5 x 0.5" (12 x 12mm) copper pads, 0.375" (9.5mm) lead length

RATINGS AND CHARACTERISTICS CURVES GBU8A THRU GBU8M

FIG. 1 - DERATING CURVE OUTPUT RECTIFIED CURRENT

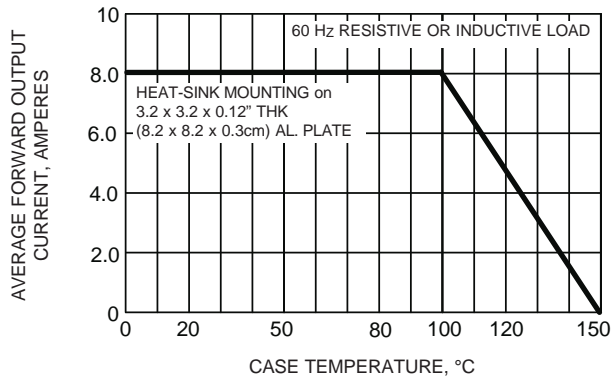


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

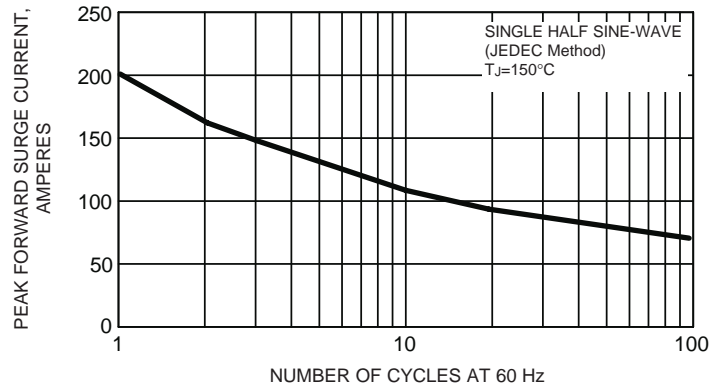


FIG. 3 - TYPICAL FORWARD CHARACTERISTICS PER LEG

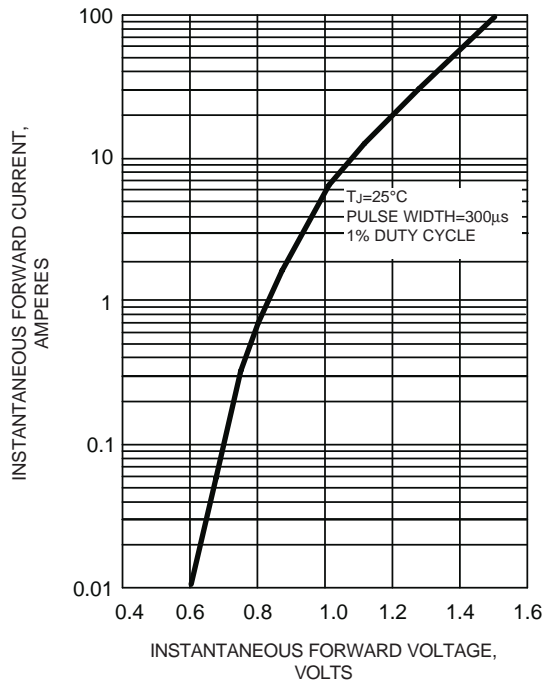


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS PER LEG

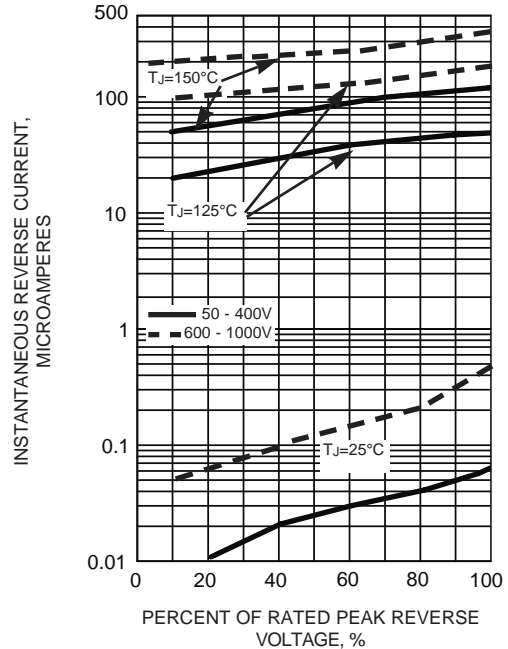


FIG. 5 - TYPICAL JUNCTION CAPACITANCE PER LEG

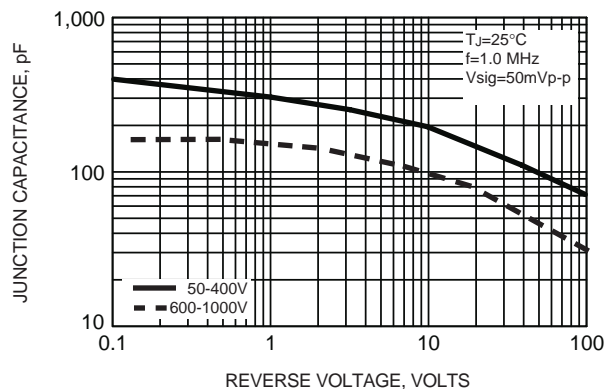


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

