

GBU8A THRU GBU8M

GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

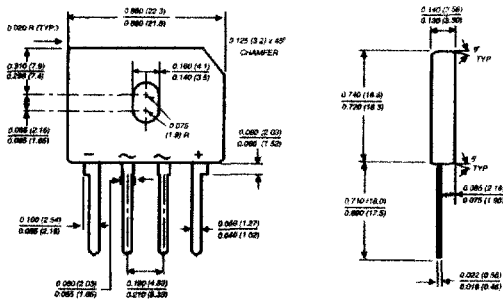
Reverse Voltage - 50 to 1000 Volts Forward Current - 8.0 Amperes

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 μ A
- ◆ High temperature soldering guaranteed: 260°C/10 seconds, 0.375 (9.5mm) lead length, 5lbs. (2.3kg) tension



Case Style GBU



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

Dimensions in inches and (millimeters)

MECHANICAL DATA

Case: Moulded 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°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°C (NOTE 1)	I _(AV)	8.0							Amps
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method) T _J =150°C	I _{FSM}	200.0							Amps
Rating for fusing (t<8.3ms)	I ² t	166.0							A ² sec
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°C T _A =125°C	I _R	5.0 500.0							μ A
Typical junction capacitance (NOTE 2)	C _J	211.0					94.0		pF
Typical thermal resistance per leg (NOTE 4) (NOTE 1)	R _{θJA} R _{θJC}	21.0 2.2							°C/W
Operating junction and storage temperature range	T _J , T _{STG}	-55 to +150							°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

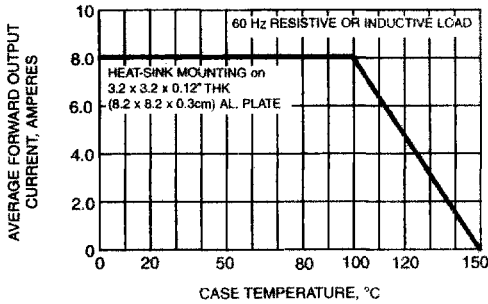


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

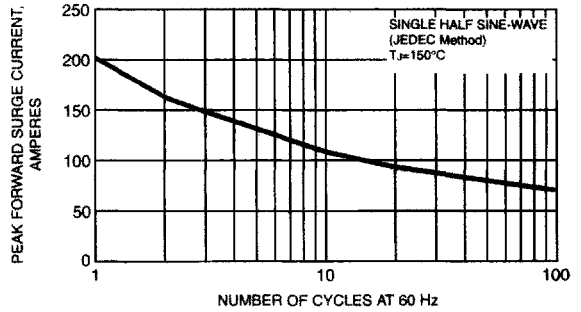


FIG. 3 - TYPICAL FORWARD CHARACTERISTICS PER LEG

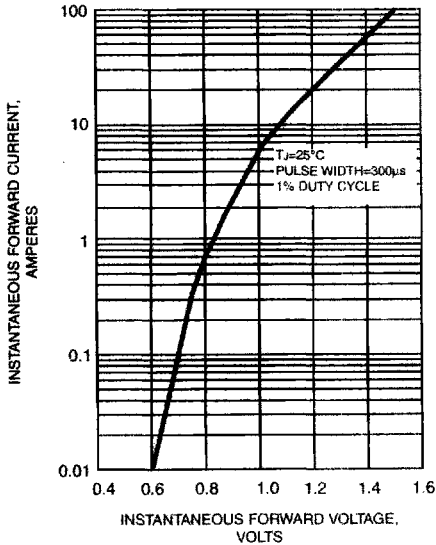


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS PER LEG

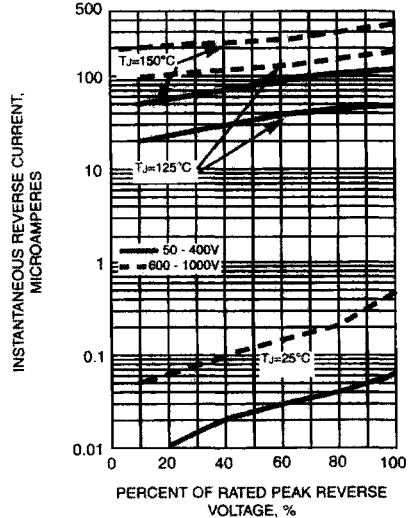


FIG. 5 - TYPICAL JUNCTION CAPACITANCE PER LEG

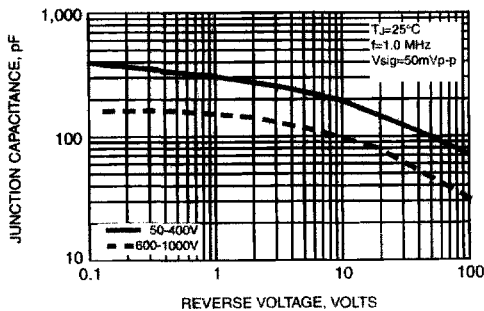


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

