

# Bridge Rectifier

## **GBU8G**

400V / 8A

# DATASHEET

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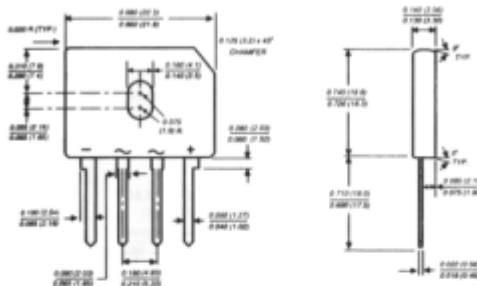
OEM – General Semiconductor

Source: General Semiconductor Databook 1998

# GBU8A THRU GBU8M

**GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER**  
 Reverse Voltage - 50 to 1000 Volts      Forward Current - 8.0 Amperes

**Case Style GBU**

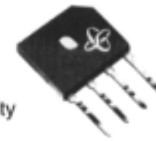


Polarity shown on front side of case, positive lead by beveled corner

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 IR less than 0.5µA
- 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 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	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 1)	IAV	8.0							Amps
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method) TJ=150°C	IFSM	200.0							Amps
Rating for fusing (t<8.3ms)	IFt	166.0							A²sec
Maximum instantaneous forward voltage drop per leg at 8.0A	VF	1.0							Volts
Maximum DC reverse current at rated DC blocking voltage per leg TA=25°C TA=125°C	IR	5.0 500.0							µA
Typical junction capacitance (NOTE 2)	CJ	211.0				94.0			pF
Typical thermal resistance per leg (NOTE 4) (NOTE 1)	REJA REJC	21.0 2.2							°C/W
Operating junction and storage temperature range	TJ, TSTG	-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**

