



# DATA SHEET

SEMICONDUCTOR

GBU4A THRU GBU4M

## GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

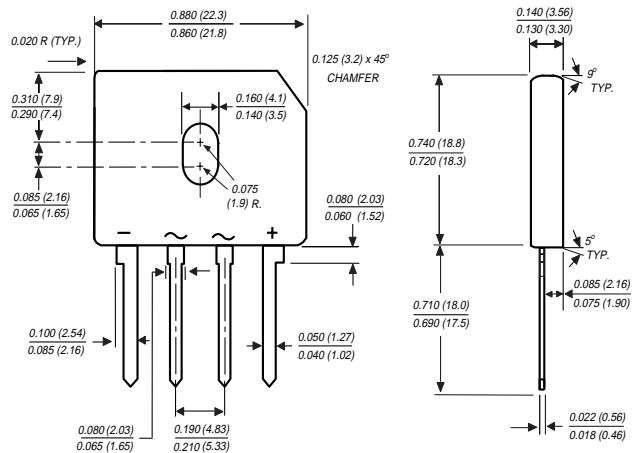


Reverse Voltage - 50 to 1000 Volts Forward Current - 4.0 Amperes

### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- This series is UL listed under the Recognized Component Index, file number E314039
- 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
- High temperature soldering : 260°C / 10 seconds at terminals
- Pb free product at available : 99% Sn above meet RoHS environment substance directive request

GBU Unit:inch(mm)



Dimensions in inches and (millimeters)

### MECHANICAL DATA

- Case: Molded plastic body over passivated junctions
- Terminals: Plated leads solderable per MIL-STD-750, Method 2026
- Mounting Position: Any (NOTE 2)
- Mounting Torque: 5 in. - lb. max.
- Weight: 0.15 ounce, 4.0 grams

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 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	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 TC=100°C (NOTE 1) output current at TA=40°C (NOTE 2)	I(AV)				4.0				Amps
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)TJ=150°C	IFSM				150				Amps
Rating for fusing (t<8.3ms)	I2t				93.0				A2sec
Maximum instantaneous forward voltage drop per leg at 4.0A	VF				1.0				Volts
Maximum DC reverse current at TA=25°C rated DC blocking voltage per leg TA=125°C	IR				5.0				uA
Typical junction capacitance per leg (NOTE 3)	Cj	100.0			45				pF
Typical thermal resistance per leg (NOTE 2) (NOTE 1)	RQJA RQJC				22.0				/W
Operating junction and storage temperature range	TJ, TSTG				-55 to +150				

#### NOTES:

- Unit case mounted on 1.6 x 1.6 x 0.06" thick (4.0 x 4.0 x 0.15cm) Al. Plate
- Units mounted on P.C.B. with 0.5 x 0.5" (12 x 12mm) copper pads and 0.375" (9.5mm) lead length
- Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
- Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw

# DEVICE CHARACTERISTICS

## GBU4A THRU GBU4M

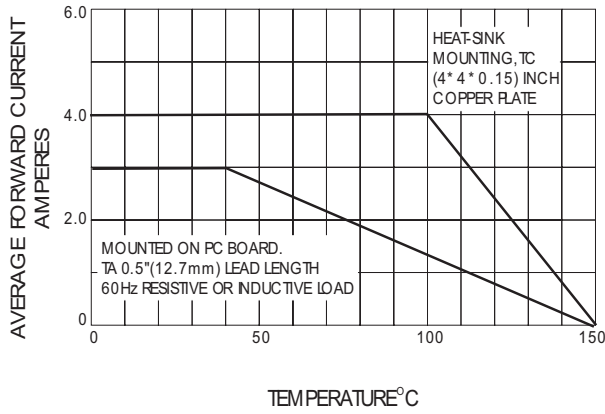


Fig. 1- DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

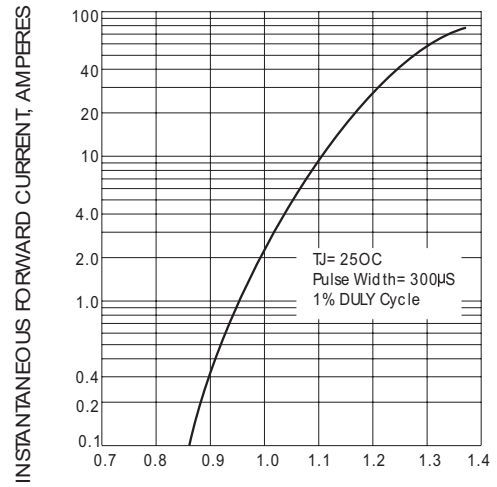


Fig. 2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER ELEMENT

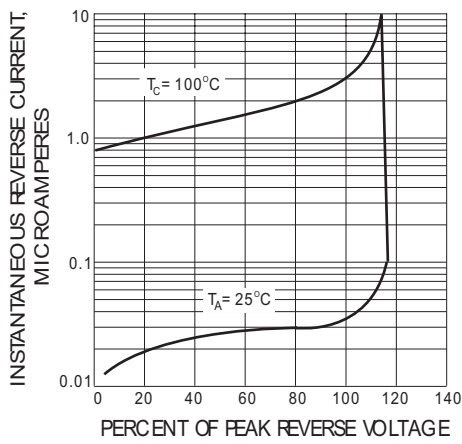


Fig. 3- TYPICAL PEAK REVERSE CHARACTERISTICS

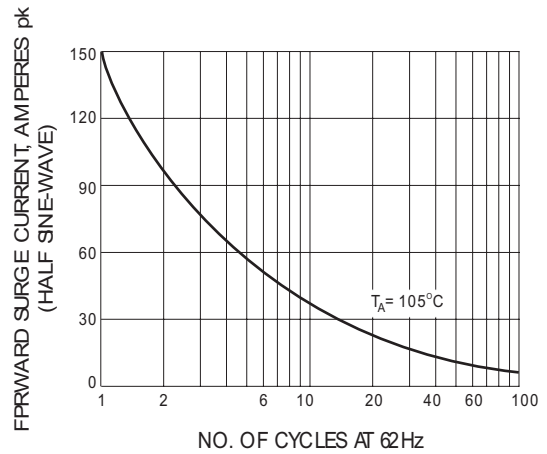


Fig. 4- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

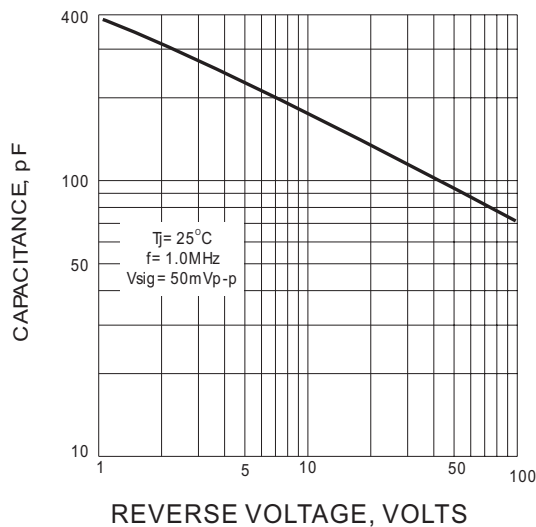


Fig. 5- TYPICAL JUNCTION CAPACITANCE PER ELEMENT