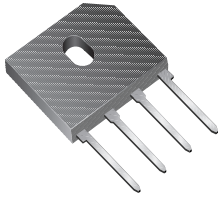




GBU4A thru GBU4M

Vishay Semiconductors
formerly General Semiconductor



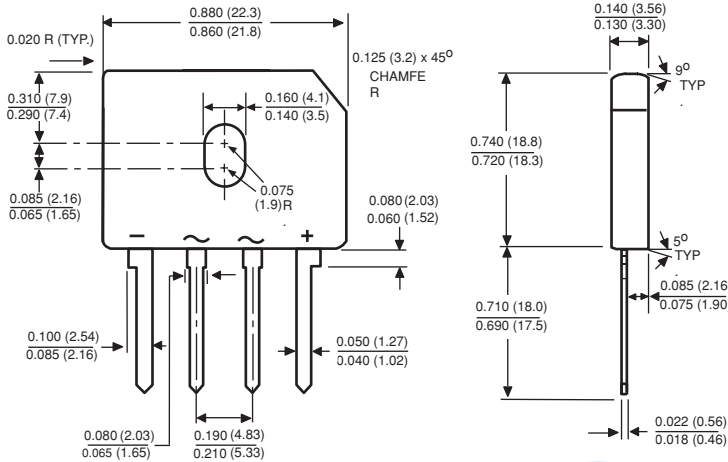
Glass Passivated Single-Phase Bridge Rectifier

Reverse Voltage 50 and 1000V
Forward Current 4.0A

Case Style GBU

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



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

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 4)
- Weight:** 0.15 oz., 4.0 g
- Packaging codes/options:** 1/250 EA. per Bulk Tray Stack

Maximum Ratings & Thermal 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	V
Maximum RMS voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified output current at T _C =100°C ⁽¹⁾ T _A =40°C ⁽²⁾	I _{F(AV)}					4.0			A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method) T _J =150°C	I _{FSM}					150			A
Rating for fusing (t<8.3ms)	I _t					93			A ² sec
Typical thermal resistance per leg ⁽²⁾ ⁽¹⁾	R _{θJA} R _{θJC}					22 4.2			°C/W
Operating junction and storage temperature range	T _J , T _{STG}					-55 to +150			°C

Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Maximum instantaneous forward drop per leg at 4.0 Amperes	V _F					1.0			V
Maximum DC reverse current at rated DC blocking voltage per leg T _A = 25°C T _A =125°C	I _R					5.0 500			μA
Typical junction capacitance per leg at 4.0V, 1MHz	C _J					100	45		pF

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) Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw

Ratings and Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Fig. 1 — Derating Curve Output Rectified Current

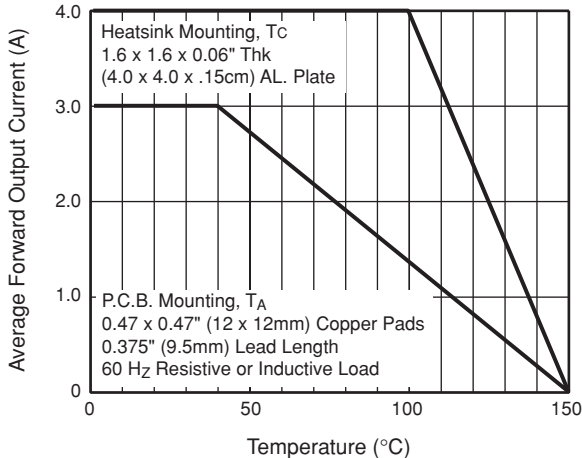


Fig. 2 — Maximum Non-Repetitive Peak Forward Surge Current Per Leg

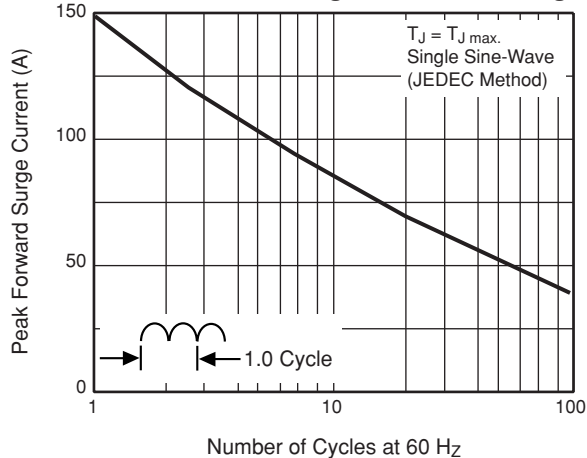


Fig. 3 — Typical Forward Characteristics Per Leg

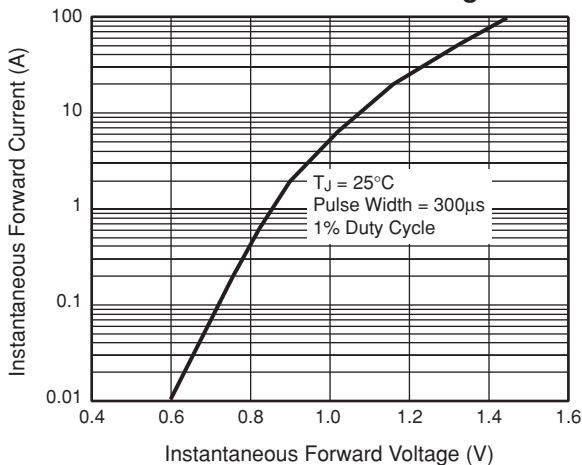


Fig. 4 — Typical Reverse Leakage Characteristics Per Leg

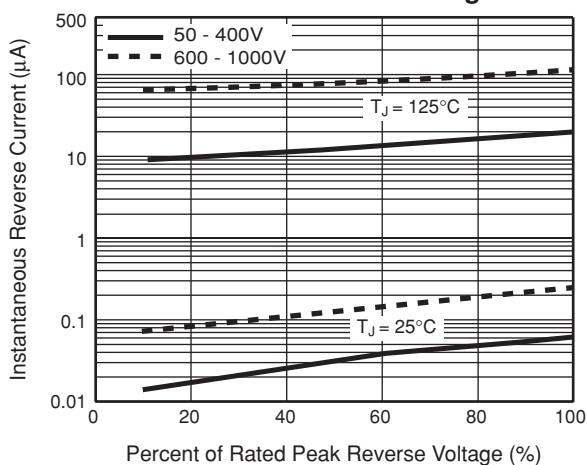


Fig. 5 — Typical Junction Capacitance Per Leg

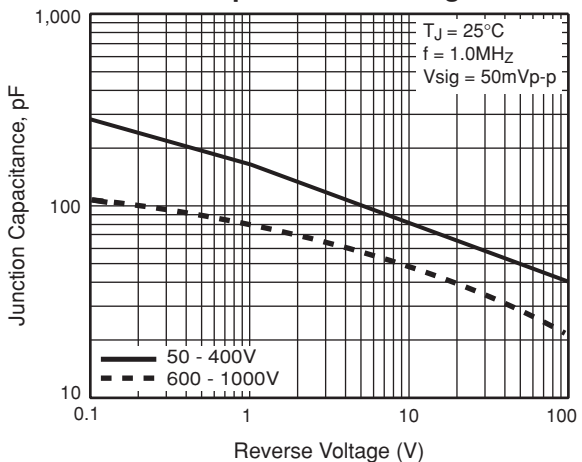


Fig. 6 — Typical Transient Thermal Impedance

