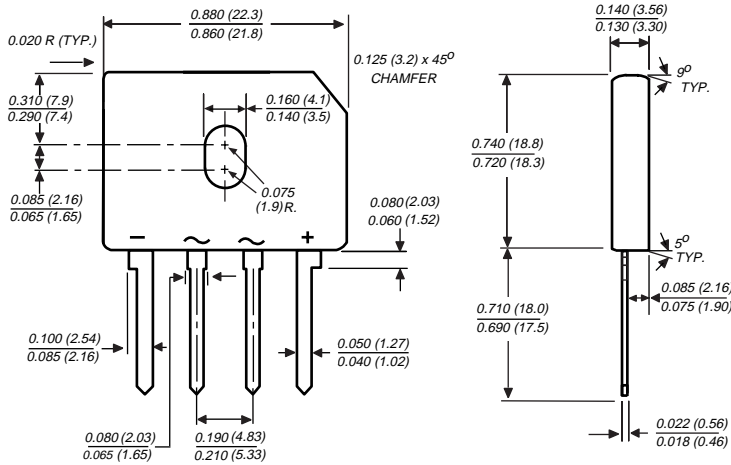


Case Style GBU

Glass Passivated Single-Phase Bridge Rectifier

Reverse Voltage 50 and 1000 V
Forward Current 6.0 A



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 surge overload rating
- 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 2)

Mounting Torque: 5 in. - lb. max.

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 6A	GBU 6B	GBU 6D	GBU 6G	GBU 6J	GBU 6K	GBU 6M	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⁾ ⁽²⁾	I _{F(AV)}	6.0							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method) T _J =150°C	I _{FSM}	175							A
Rating for fusing (t<8.3ms)	I ² t	127							A ² sec
Typical thermal resistance per leg ⁽¹⁾ ⁽²⁾	R _{θJA} R _{θJC}	7.4 2.2							°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 voltage drop per leg at 6.0 A	V _F	1.0							V
Maximum DC reverse current at rated DC blocking voltage per leg	I _R	5.0 500							μA
Typical junction capacitance per leg at 4.0V, 1MHz	C _J	211						94	pF

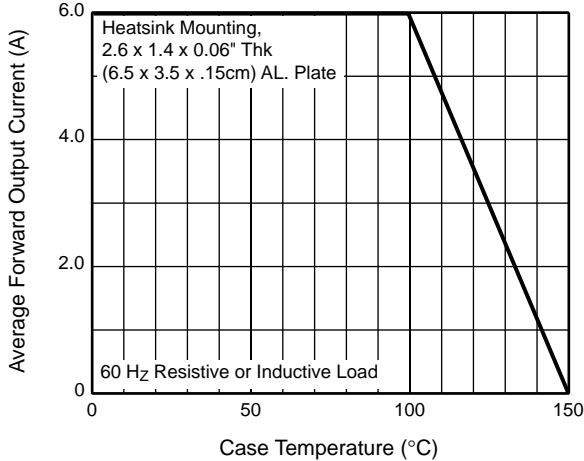
Notes:

(1) Units case mounted on 2.6 x 1.4 x 0.06" thick (6.5 x 3.5 x 0.15 cm) Al. Plate heatsink

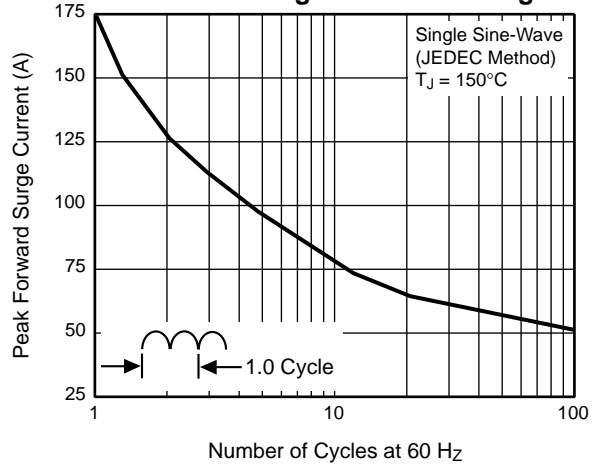
(2) Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screws

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

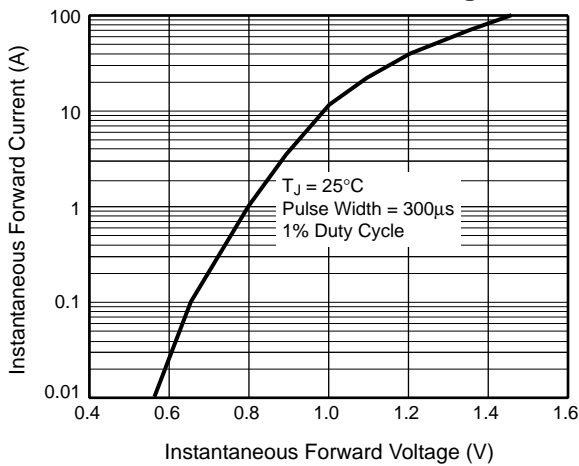
**Fig. 1 – Derating Curve
Output Rectified Current**



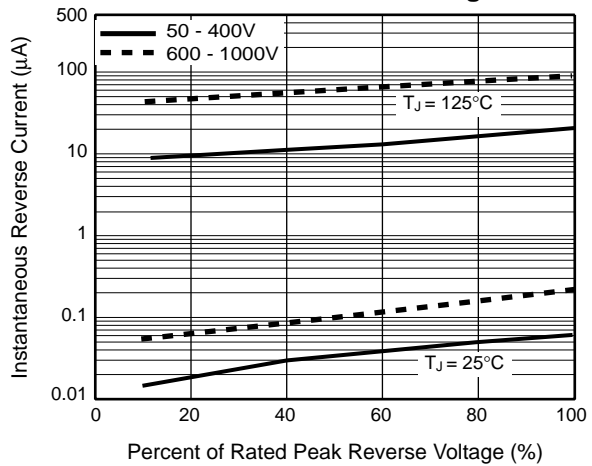
**Fig. 2 – Maximum Non-Repetitive Peak
Forward Surge Current Per Leg**



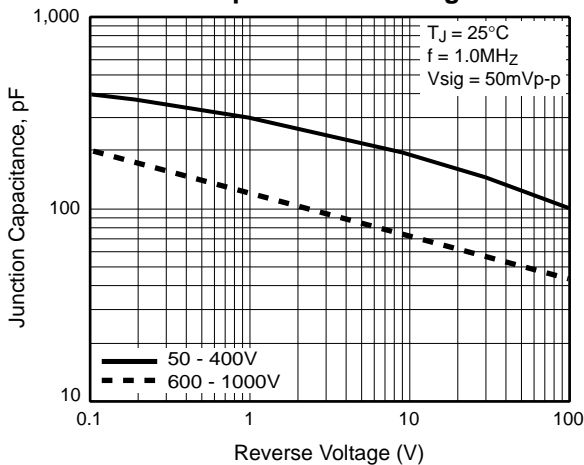
**Fig. 3 – Typical Forward
Characteristics Per Leg**



**Fig. 4 – Typical Reverse Leakage
Characteristics Per Leg**



**Fig. 5 – Typical Junction
Capacitance Per Leg**



**Fig. 6 – Typical Transient
Thermal Impedance**

