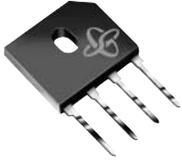
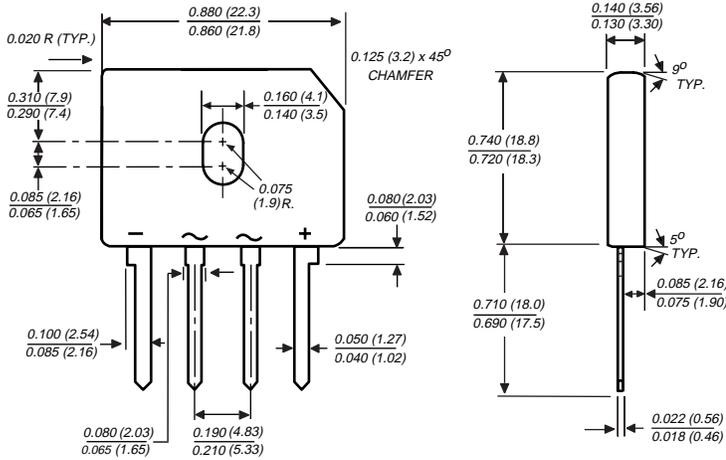


Glass Passivated Single-Phase Bridge Rectifier

Reverse Voltage 50 and 1000V
Forward Current 6.0A



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 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-lbs max.

Weight: 0.15 ounce, 4.0 grams

Maximum Ratings & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	GBU8A	GBU8B	GBU8D	GBU8G	GBU8J	GBU8K	GBU8M	Unit
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 (Note 1)	I _{F(AV)}	8.0							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method) T _J = 150°C	I _{FSM}	200							A
Rating for fusing (t < 8.3ms)	I ² t	166							A ² sec
Typical thermal resistance per leg (Note 3)	R _{θJA} R _{θJC}	21 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.

Parameter	Symbol	GBU8A	GBU8B	GBU8D	GBU8G	GBU8J	GBU8K	GBU8M	Unit
Maximum instantaneous forward voltage drop per leg at 8.0 A	V _F	1.0							V
Maximum DC reverse current at T _A = 25°C rated DC blocking voltage per leg T _A = 125°C	I _R	5.0 500							μA
Typical junction capacitance per leg at 4V, 1MHz	C _J	211				94			pF

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

(3) Units mounted in free air, no heatsink on P.C.B., 0.5 x 0.5" (12 x 12mm) copper pads, 0.375" lead length

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

FIG. 1 - DERATING CURVE OUTPUT RECTIFIED CURRENT

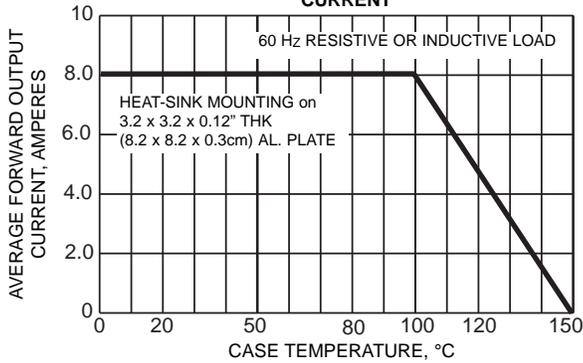


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

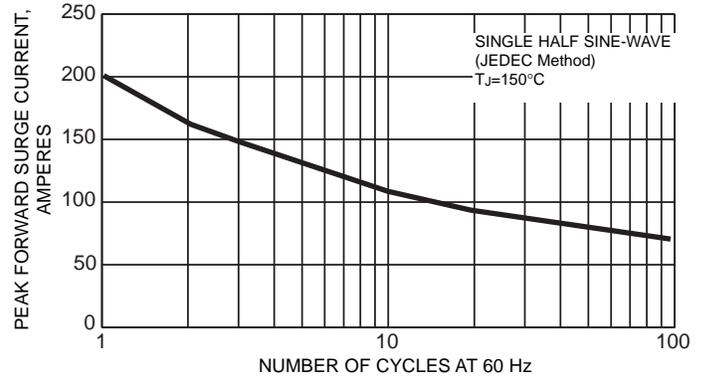


FIG. 3 - TYPICAL FORWARD CHARACTERISTICS PER LEG

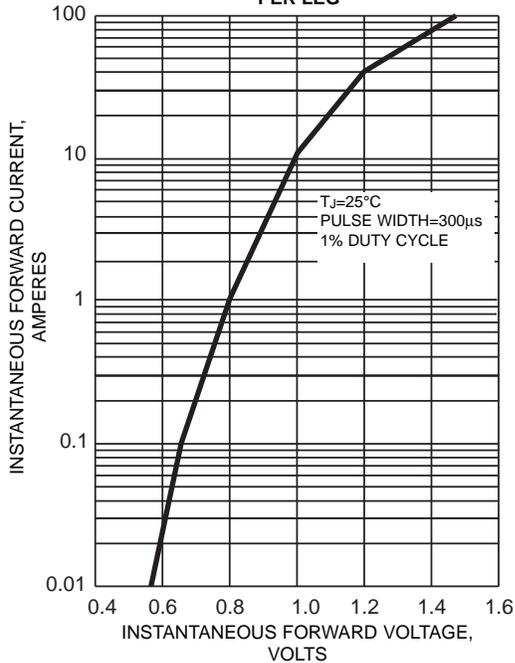


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS PER LEG

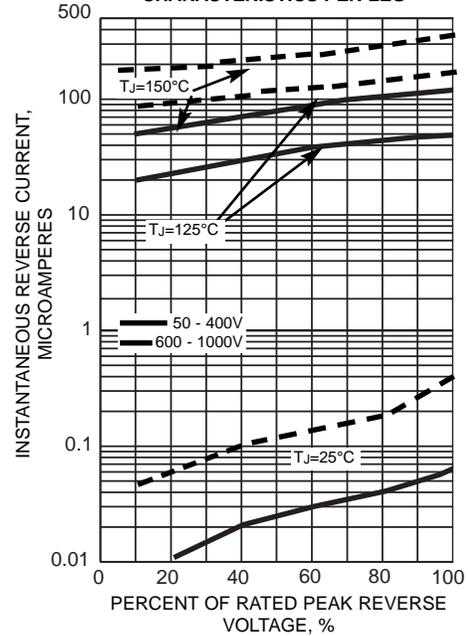


FIG. 5 - TYPICAL JUNCTION CAPACITANCE PER LEG

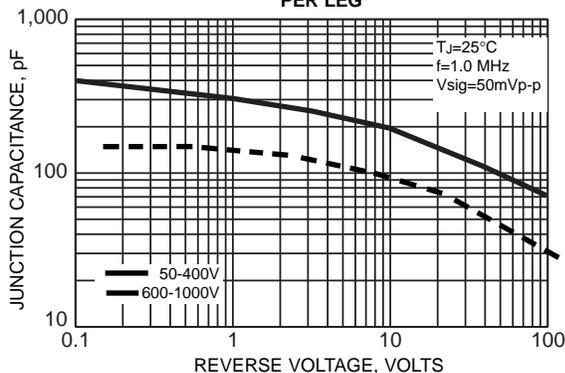


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

