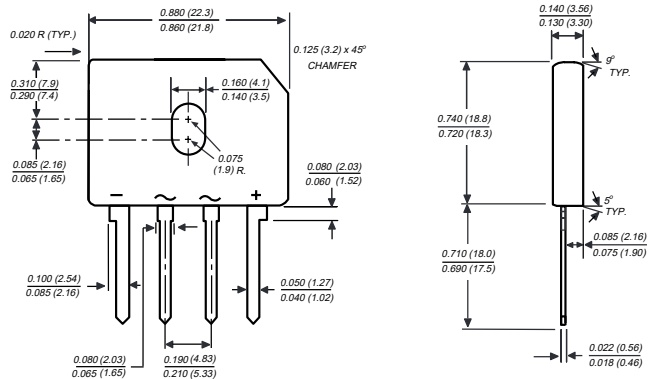


GBU6A THRU GBU6M

GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

Reverse Voltage - 50 to 1000 Volts Forward Current - 6.0 Amperes

Case Style GBU

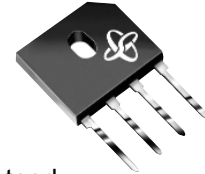


Polarity shown on front side of case, positive lead by beveled corner

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 junctions
- ◆ 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 chip
- 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°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 | Volts |
| Maximum RMS Voltage | V _{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | Volts |
| Maximum DC blocking voltage | V _{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum average forward rectified output current at T _C =100°C (NOTE 1, 2) | I <sub(av)< sub=""></sub(av)<> | 6.0 | | | | | | | Amps |
| Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method) T _J =150°C | I _{FSM} | 175.0 | | | | | | | Amps |
| Rating for fusing (t<8.3ms) | I ² t | 127.0 | | | | | | | A ² sec |
| Maximum instantaneous forward voltage drop per leg at 6.0A | V _F | 1.0 | | | | | | | Volts |
| Maximum DC reverse current at rated DC blocking voltage per leg | I _R | 5.0 500.0 | | | | | | | A |
| Typical junction capacitance per leg (NOTE 3) | C _J | 211.0 | | | | | 94.0 | | pF |
| Typical thermal resistance per leg (NOTE 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 |

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
- (3) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts

RATINGS AND CHARACTERISTICS CURVES GBU6A THRU GBU6M

FIG. 1 - DERATING CURVE OUTPUT RECTIFIED CURRENT

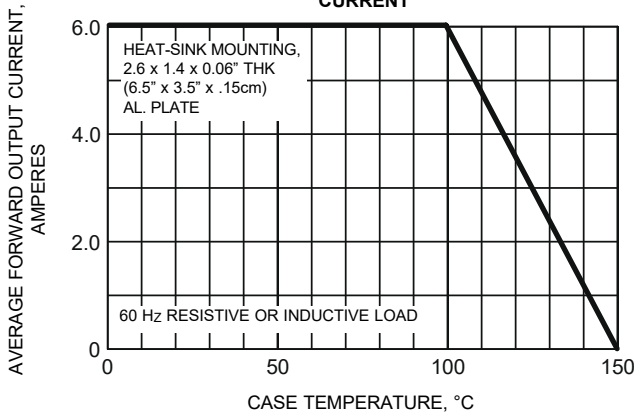


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

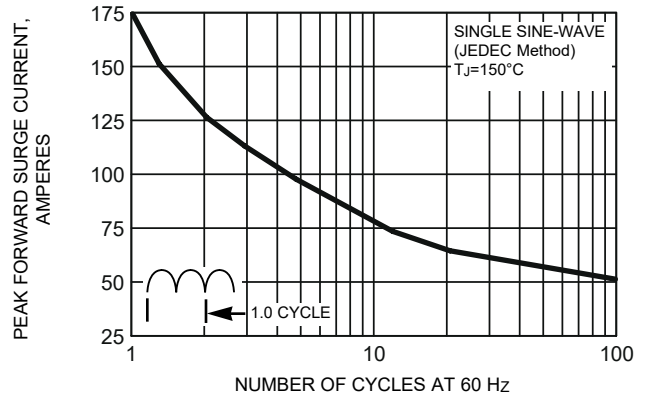


FIG. 3 - TYPICAL FORWARD CHARACTERISTICS PER LEG

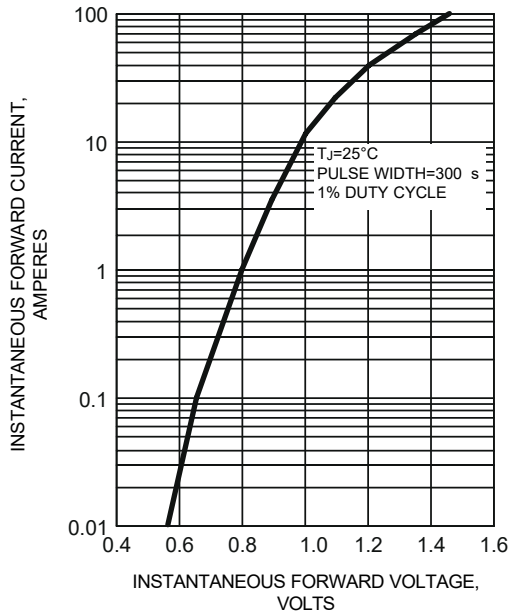


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS PER LEG

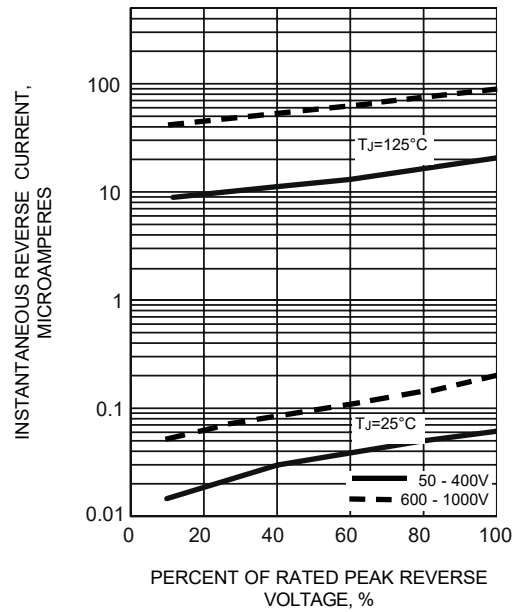


FIG. 5 - TYPICAL JUNCTION CAPACITANCE PER LEG

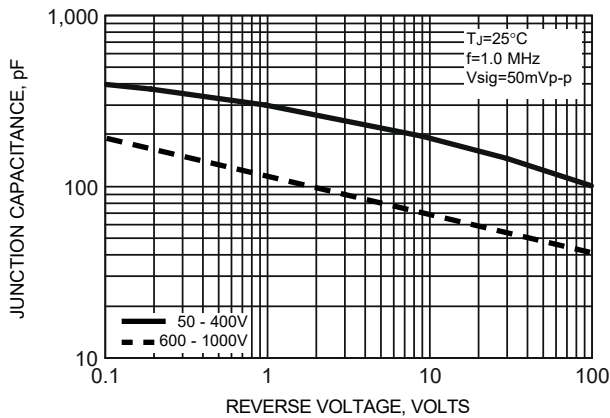


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

