

GBL005-E THRU GBL10-E

SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIER

Voltage: 50 to 1000V

Current: 4.0A

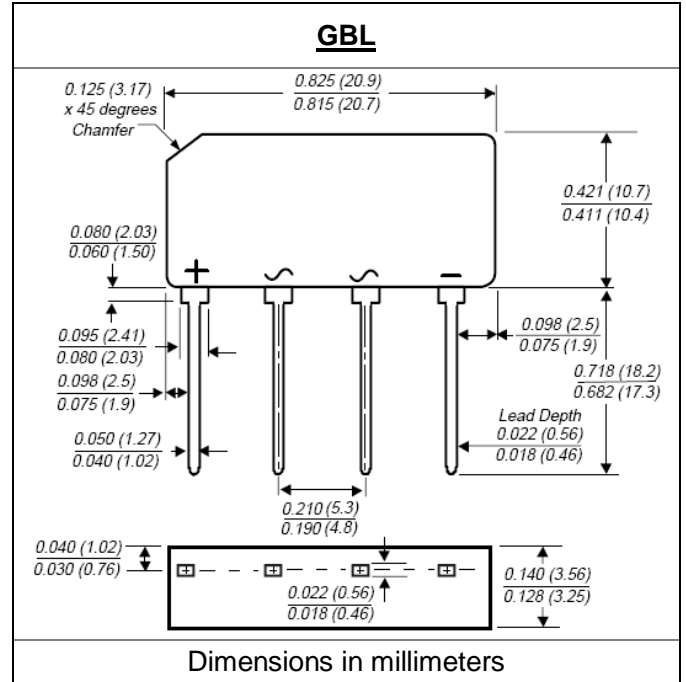


Features

Glass passivated chip junction
 High case dielectric strength
 High surge current capability
 Ideal for printed circuit board
 This series is UL listed under Recognized Component Index, file number E330278
 Halogen Free

Mechanical Data

Terminal: Plated leads solderable per J-STD-002
 Case: UL-94 Class V-0 recognized Halogen Free Epoxy
 Polarity: Polarity symbol marked on body
 Mounting position: any



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half -wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated)

| | Symbol | GBL0 05-E | GBL0 1-E | GBL0 2-E | GBL0 4-E | GBL0 6-E | GBL0 8-E | GBL1 0-E | 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 T _c = 50°C (Note1) T _a = 40°C (Note2) | I _{f(av)} | 4.0 3.0 | | | | | | | A |
| Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method) | I _{fsm} | 150 | | | | | | | A |
| Maximum instantaneous forward voltage drop per leg at 4.0A | V _f | 1.0 | | | | | | | V |
| Rating for fusing (t < 8.3ms) | I ² t | 93 | | | | | | | A ² Sec |
| 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 |
| Maximum thermal resistance per leg | R _{th(ja)} R _{th(jc)} | 22 3.5 | | | | | | | °C/W |
| Typical junction capacitance per leg at 4.0V, 1MHz | C _j | 95 | | | | 40 | | | pF |
| Operating junction and storage temperature range | T _j , T _{stg} | -55 to +150 | | | | | | | °C |

Note:

- Unit mounted on P.C.B. with 3.0 x 3.0 x 0.11" thick (7.5 x 7.5 x 0.3 cm) Aluminum plate
- Unit mounted on P.C.B. at 0.375" (9.5mm) lead length and 0.5 x 0.5" (12 x 12mm) copper pads

RATINGS AND CHARACTERISTIC CURVES GBL005-E THRU GBL10-E

Fig. 1 – Derating Curves Output Rectified Current

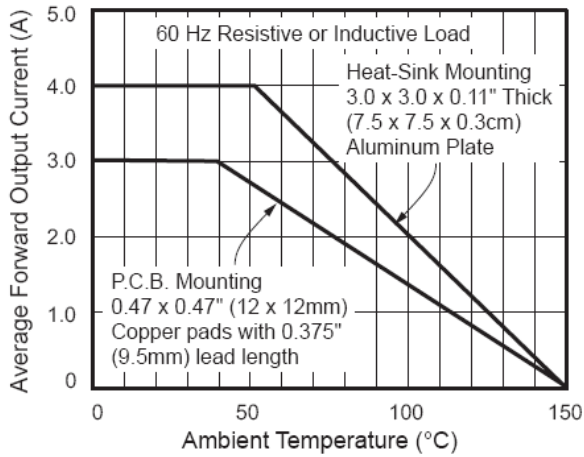


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current Per Leg

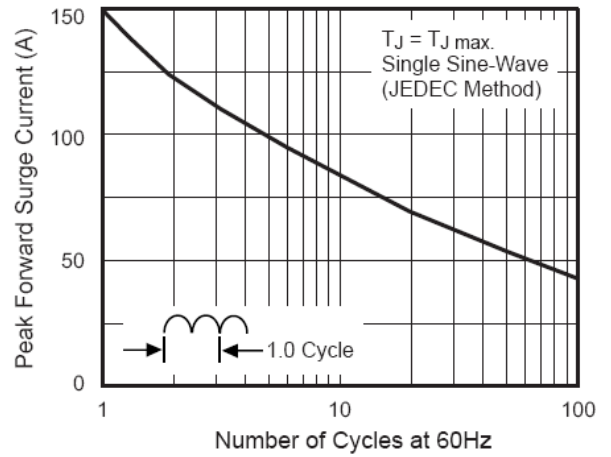


Fig. 3 – Typical Forward Voltage Characteristics Per Leg

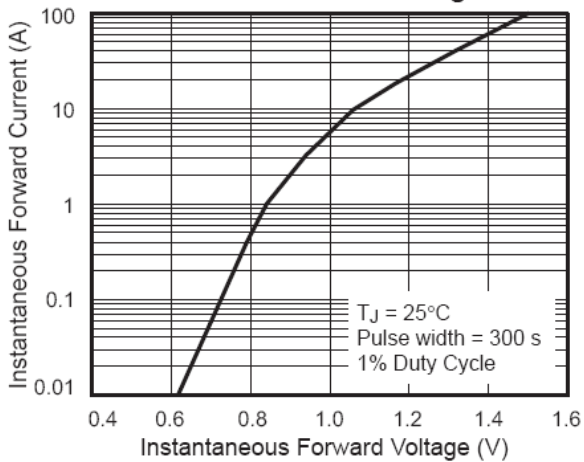


Fig. 4 – Typical Reverse Leakage Characteristics Per Leg

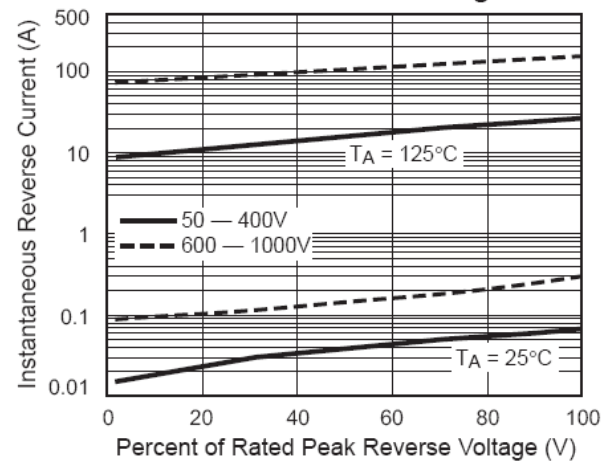


Fig. 5 – Typical Junction Capacitance Per Leg

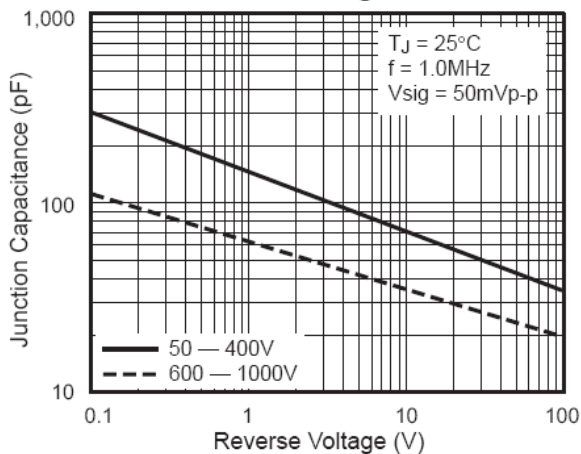


Fig. 6 – Typical Transient Thermal Impedance Per Leg

