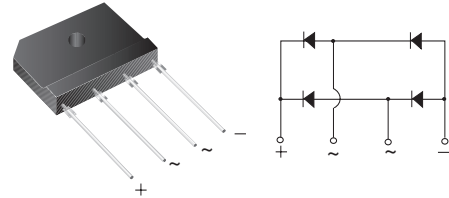


## Glass Passivated Single-In-Line Bridge Rectifier

### Major Ratings and Characteristics

|             |                |
|-------------|----------------|
| $I_{F(AV)}$ | 4 A            |
| $V_{RRM}$   | 200 V to 800 V |
| $I_{FSM}$   | 80 A           |
| $I_R$       | 5 $\mu$ A      |
| $V_F$       | 1.0 V          |
| $T_j$ max.  | 150 °C         |

Case Style GSIB-3G



### Features

- UL Recognition file number E54214
- Ideal for printed circuit boards
- High surge current capability
- High case dielectric strength of 1500  $V_{RMS}$
- Meets MSL level 1, per J-STD-020C

### Typical Applications

General purpose use in ac-to-dc bridge full wave rectification for Monitor, TV, Printer, Switching Mode Power Supply, Adapter, Audio equipment, and Home Appliances applications

### Mechanical Data

**Case:** GSIB-3G

Epoxy meets UL-94V-0 Flammability rating

**Terminals:** Matte tin plated (E3 Suffix) leads, solderable per J-STD-002B and MIL-STD-750, Method 2026

**Polarity:** As marked on body

**Mounting Torque:** 10 cm·kg (8.8 inches·lbs) max.

**Recommended Torque:** 5.7 cm·kg (5 inches·lbs)

### Maximum Ratings

Ratings at 25 °C ambient temperature unless otherwise specified.

| Parameter   | Symbol         | GSIB4A20                                 | GSIB4A40 | GSIB4A60 | GSIB4A80 | Unit               |
|---|----------------|--|----------|----------|----------|--------------------|
| Maximum repetitive peak reverse voltage   | $V_{RRM}$      | 200                                      | 400      | 600      | 800      | V                  |
| Maximum RMS voltage   | $V_{RMS}$      | 140                                      | 280      | 420      | 560      | V                  |
| Maximum DC blocking voltage   | $V_{DC}$       | 200                                      | 400      | 600      | 800      | V                  |
| Maximum average forward rectified output current at $T_C = 100$ °C<br>$T_A = 25$ °C | $I_{F(AV)}$    | 4.0 <sup>(1)</sup><br>2.3 <sup>(2)</sup> |          |          |          | A                  |
| Peak forward surge current single sine-wave superimposed on rated load              | $I_{FSM}$      | 80                                       |          |          |          | A                  |
| Rating for fusing ( $t < 8.3$ ms)   | $I^2t$         | 32                                       |          |          |          | A <sup>2</sup> sec |
| 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   | Test condition                  | Symbol | GSIB4A20   | GSIB4A40 | GSIB4A60 | GSIB4A80 | Unit    |
|---|---------------------------------|--------|------------|----------|----------|----------|---------|
| Maximum instantaneous forward drop per leg                      | at 2.0 A                        | $V_F$  | 1.00       |          |          |          | V       |
| Maximum DC reverse current at rated DC blocking voltage per leg | $T_A = 25$ °C<br>$T_A = 125$ °C | $I_R$  | 5.0<br>400 |          |          |          | $\mu$ A |

### Thermal Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

| Parameter                          | Symbol          | GSIB4A20          | GSIB4A40 | GSIB4A60 | GSIB4A80 | Unit |
|------------------------------------|-----------------|-------------------|----------|----------|----------|------|
| Typical thermal resistance per leg | $R_{\theta JA}$ | 26 <sup>(2)</sup> |          |          |          | °C/W |
|                                    | $R_{\theta JC}$ | 5 <sup>(1)</sup>  |          |          |          |      |

Notes:

- (1) Unit case mounted on Al plate heatsink.
- (2) Units mounted on P.C.B. with 0.5 x 0.5" (12 x 12 mm) copper pads and 0.375" (9.5 mm) 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 Characteristics Curves

( $T_A = 25\text{ °C}$  unless otherwise noted)

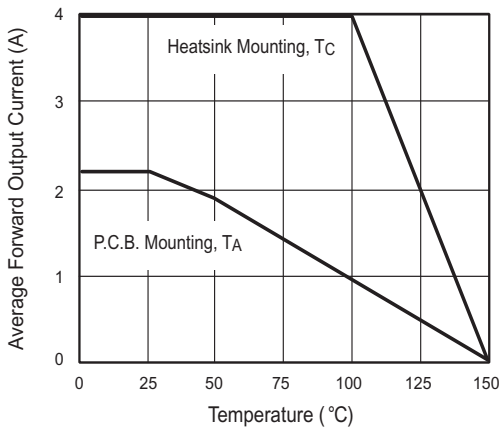


Figure 1. Derating Curve Output Rectified Current

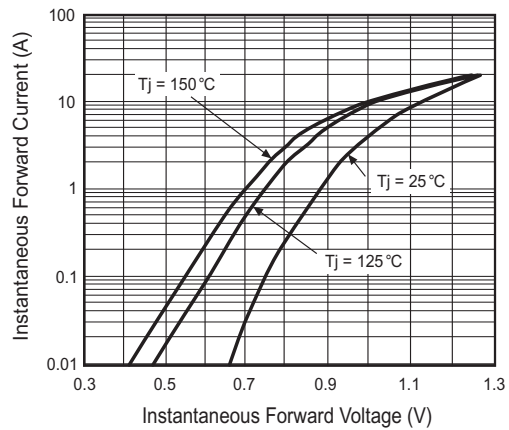


Figure 3. Typical Forward Characteristics Per Leg

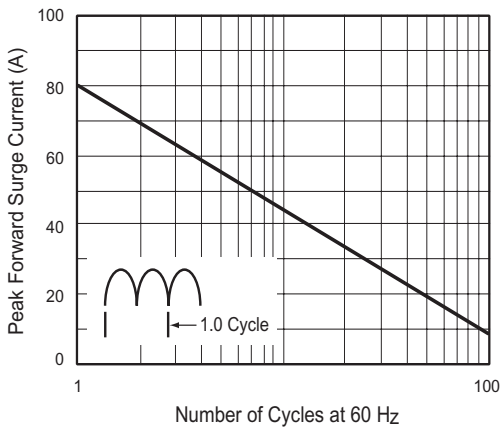


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Leg

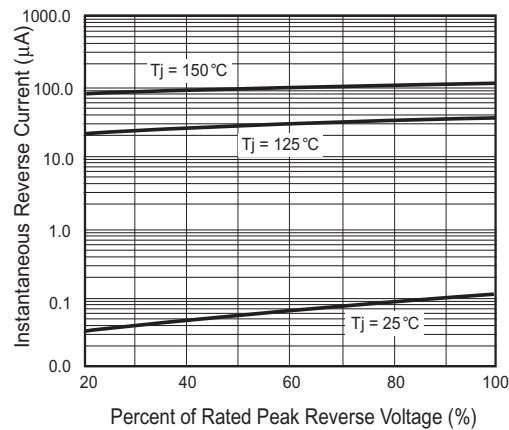


Figure 4. Typical Reverse Characteristics Per Leg

