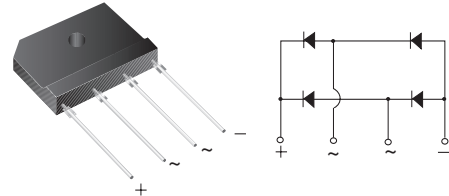


## Glass Passivated Single-In-Line Bridge Rectifier

### 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 $T_A = 25$ °C	$I_{F(AV)}$	4.0 <sup>(1)</sup> 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 $T_A = 125$ °C	$I_R$	5.0 400				$\mu$ 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)

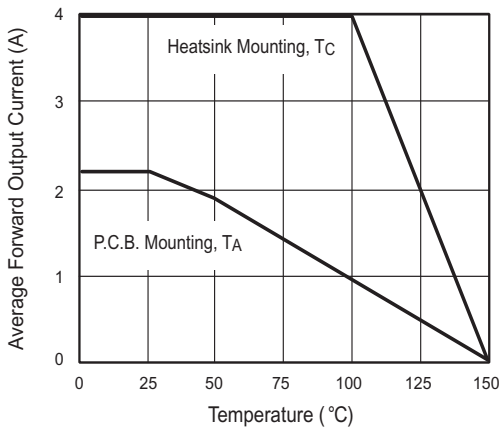


Figure 1. Derating Curve Output Rectified Current

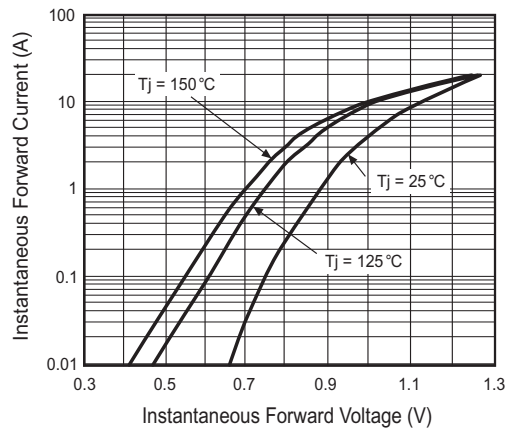


Figure 3. Typical Forward Characteristics Per Leg

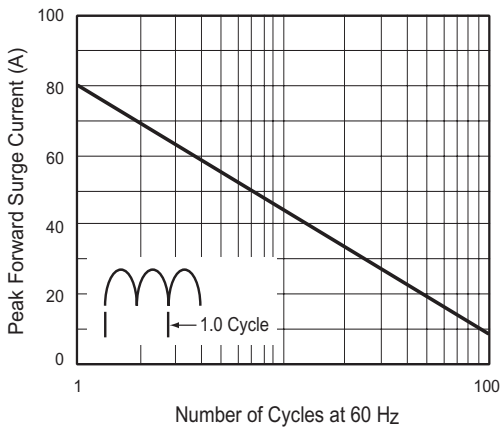


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Leg

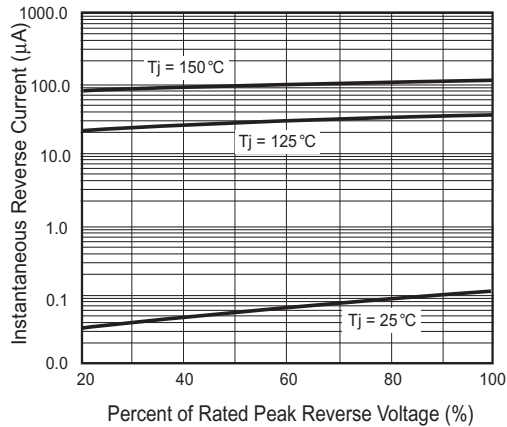


Figure 4. Typical Reverse Characteristics Per Leg

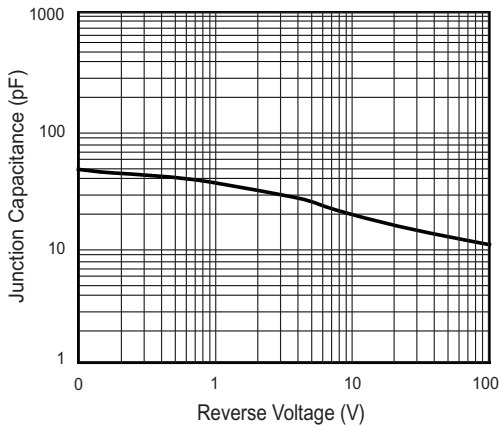


Figure 5. Typical Junction Capacitance Per Leg

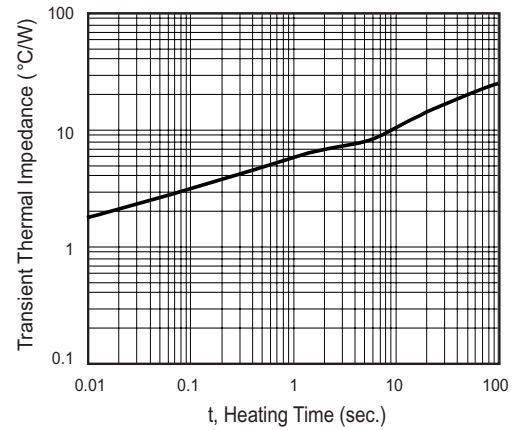


Figure 6. Typical Transient Thermal Impedance Per Leg

## Package outline dimensions in inches (millimeters)

### Case Style GSIB-3G

