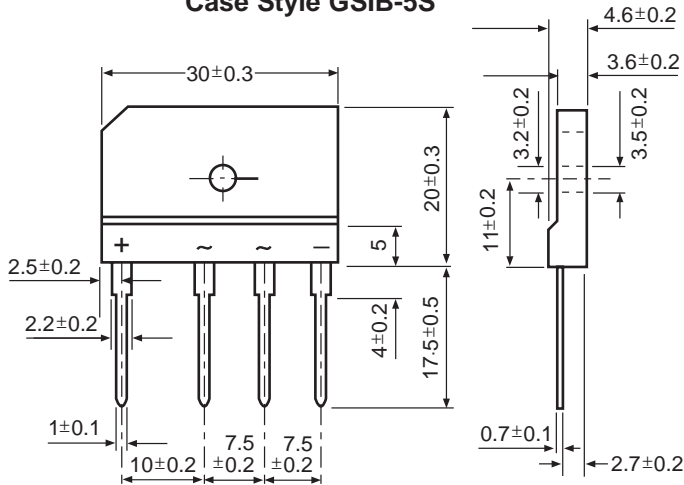


## Single-Phase Single In-Line Bridge Rectifiers

Reverse Voltage 200 to 800V  
Forward Current 25A

Case Style GSIB-5S



Dimensions in 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 2500 VRMS
- Ideal for printed circuit boards
- Glass passivated chip junction
- High surge current capability

### Mechanical Data

**Case:** GSIB-5S Molded plastic body

**Terminals:** Plated leads solderable per MIL-STD-750, Method 2026

High temperature soldering guaranteed:  
260°C/10 seconds, 0.375 (9.5mm) lead length,  
5lbs. (2.3kg) tension

**Mounting Position:** Any (Note 3)

**Mounting Torque:** 8 in-lbs max.

**Weight:** 0.26 oz., 7.0 g

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

| Parameter   | Symbol                               | GSIB2520                                | GSIB2540 | GSIB2560 | GSIB2580 | Unit               |
|---|--------------------------------------|---|----------|----------|----------|--------------------|
| Maximum repetitive peak reverse voltage   | V <sub>RRM</sub>                     | 200                                     | 400      | 600      | 800      | V                  |
| Maximum RMS voltage   | V <sub>RMS</sub>                     | 140                                     | 280      | 420      | 560      | V                  |
| Maximum DC blocking voltage   | V <sub>DC</sub>                      | 200                                     | 400      | 600      | 800      | V                  |
| Maximum average forward rectified output current at<br>T <sub>C</sub> = 98°C<br>T <sub>A</sub> = 25°C | I <sub>F(AV)</sub>                   | 25 <sup>(1)</sup><br>3.5 <sup>(2)</sup> |          |          |          | A                  |
| Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)                 | I <sub>FSM</sub>                     | 350                                     |          |          |          | A                  |
| Rating for fusing (t < 8.3ms)   | I <sup>2</sup> t                     | 500                                     |          |          |          | A <sup>2</sup> sec |
| Maximum thermal resistance per leg  | R <sub>θJA</sub><br>R <sub>θJC</sub> | 22 <sup>(2)</sup><br>1.0 <sup>(1)</sup> |          |          |          | °C/W               |
| Operating junction and storage temperature range  | T <sub>J</sub> , T <sub>STG</sub>    | -55 to +150                             |          |          |          | °C                 |

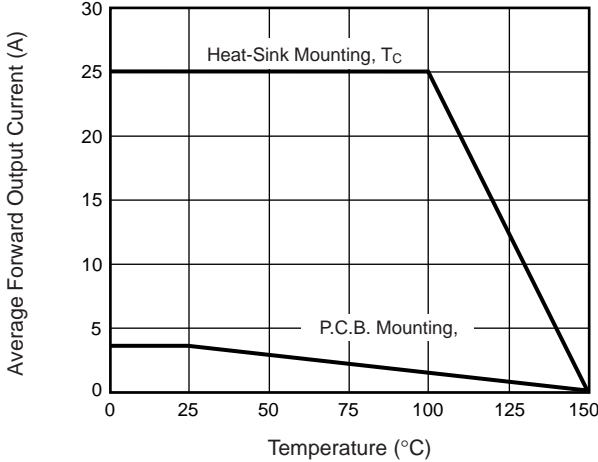
## Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

| Parameter  | Symbol         | GSIB2520  | GSIB2540 | GSIB2560 | GSIB2580 | Unit |
|--|----------------|-----------|----------|----------|----------|------|
| Maximum instantaneous forward voltage drop per leg at 12.5A  | V <sub>F</sub> | 1.00      |          |          |          | V    |
| Maximum DC reverse current at rated DC blocking voltage per leg<br>T <sub>A</sub> = 25°C<br>T <sub>A</sub> = 125°C | I <sub>R</sub> | 10<br>350 |          |          |          | μA   |

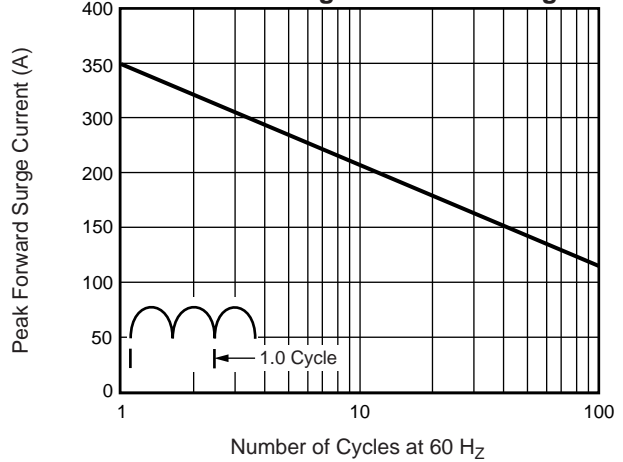
- Notes:** (1) Unit case mounted on Al plate heatsink  
(2) Units mounted on P.C.B. without heatsink  
(3) Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw

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

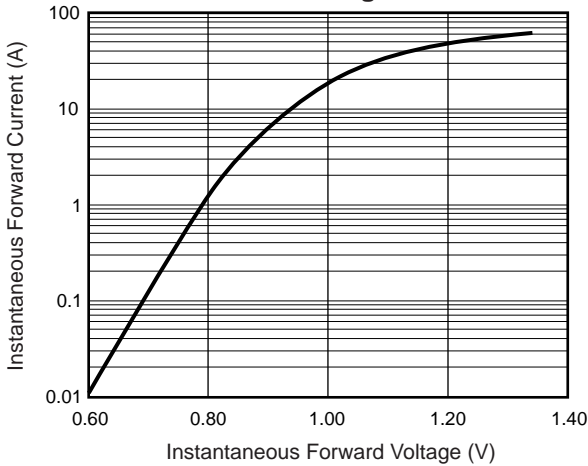
**Fig. 1 – Derating Curve Output Rectified Current**



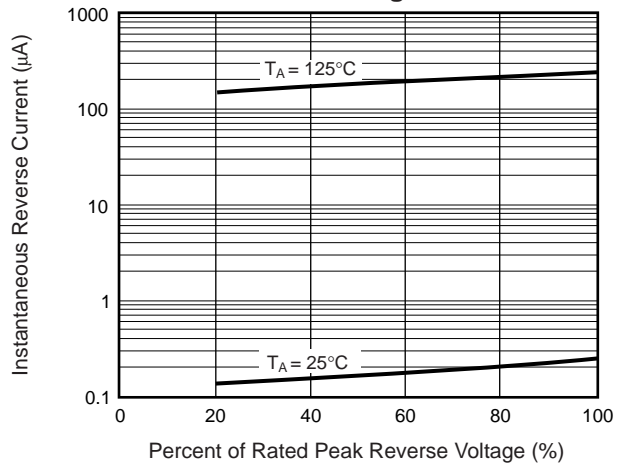
**Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current Per Leg**



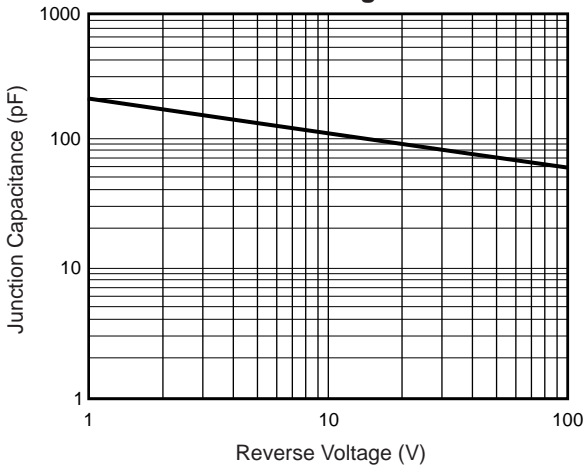
**Fig. 3 – Typical Forward Characteristics Per Leg**



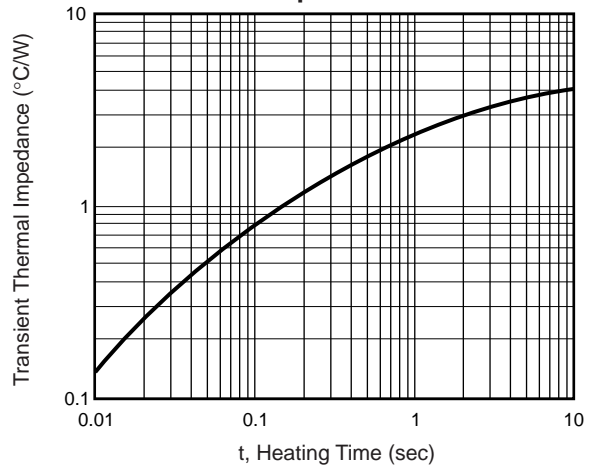
**Fig. 4 – Typical Reverse Characteristics Per Leg**



**Fig. 5 – Typical Junction Capacitance Per Leg**



**Fig. 6 – Typical Transient Thermal Impedance**



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