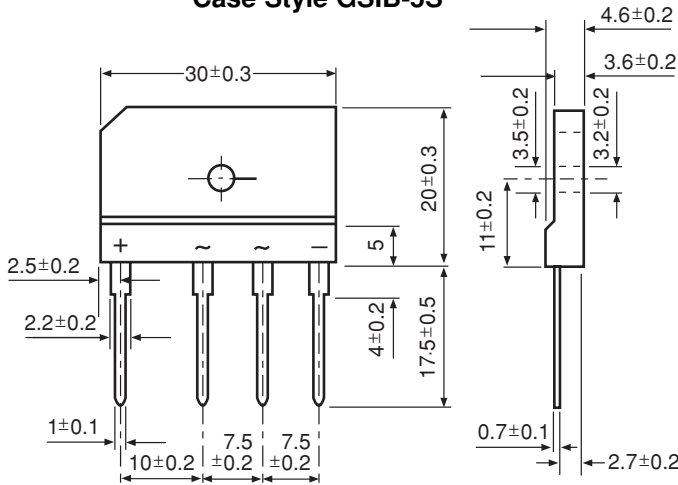


Single-Phase Single In-Line Bridge Rectifiers

Reverse Voltage 200 to 800V
Forward Current 15A

Case Style GSIB-5S



Dimensions in millimeters

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- This series is UL listed under 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
- High temperature soldering guaranteed: 260°C/10 seconds, 0.375 (9.5mm) lead length, 5lbs. (2.3kg) tension

Mechanical Data

Case: GSIB-5S Molded plastic body

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

Mounting Position: Any⁽³⁾

Mounting Torque: 8 in-lbs max.

Weight: 0.26 oz., 7.0 g

Maximum Ratings & Thermal Characteristics (T_A = 25°C unless otherwise noted)

| Parameter | Symbol | GSIB1520 | GSIB1540 | GSIB1560 | GSIB1580 | 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 = 107°C T _A = 25°C | I _{F(AV)} | 15 ⁽¹⁾ 3.5 ⁽²⁾ | | | | A |
| Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method) | I _{FSM} | 300 | | | | A |
| Rating for fusing (t < 8.3ms) | I ² t | 240 | | | | A ² sec |
| Maximum thermal resistance per leg | R _{θJA} R _{θJC} | 22 ⁽²⁾ 1.5 ⁽¹⁾ | | | | °C/W |
| Operating junction and storage temperature range | T _J , T _{STG} | -55 to +150 | | | | °C |

Electrical Characteristics (T_A = 25°C unless otherwise noted)

| Parameter | Symbol | GSIB1520 | GSIB1540 | GSIB1560 | GSIB1580 | Unit |
|--|----------------|-----------|----------|----------|----------|------|
| Maximum instantaneous forward voltage drop per leg at 7.5A | V _F | 0.95 | | | | V |
| Maximum DC reverse current at rated DC blocking voltage per leg T _A = 25°C T _A = 125°C | I _R | 10 250 | | | | 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

Vishay Semiconductors
formerly General Semiconductor

Ratings and Characteristic Curves (T_A = 25°C unless otherwise noted)

Fig. 1 - Derating Curve Output Rectified Current

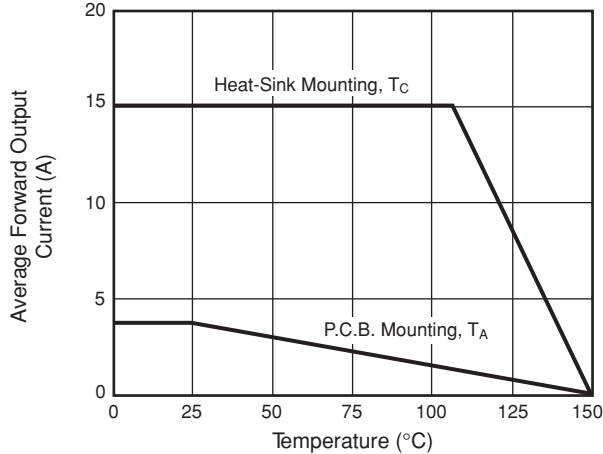


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Leg

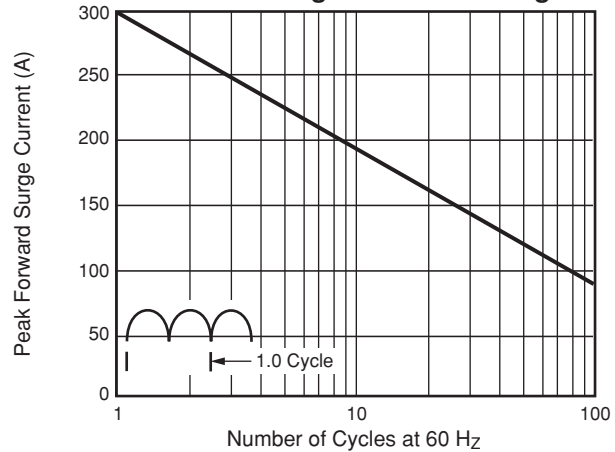


Fig. 3 - Typical Forward Characteristics Per Leg

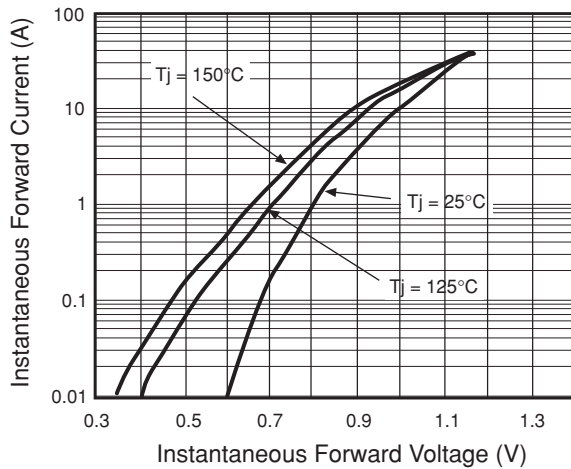


Fig. 4 - Typical Reverse Characteristics Per Leg

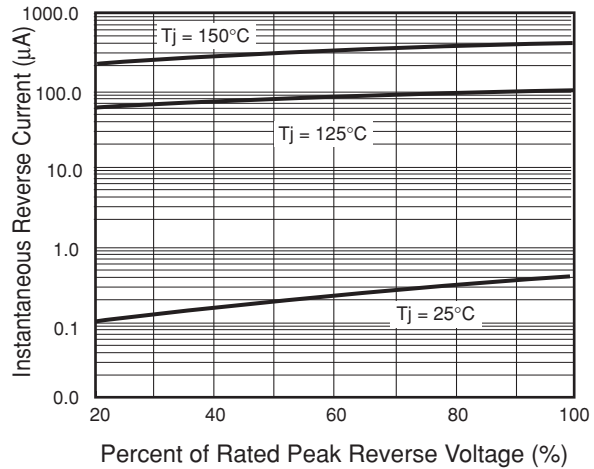


Fig. 5 - Typical Junction Capacitance Per Leg

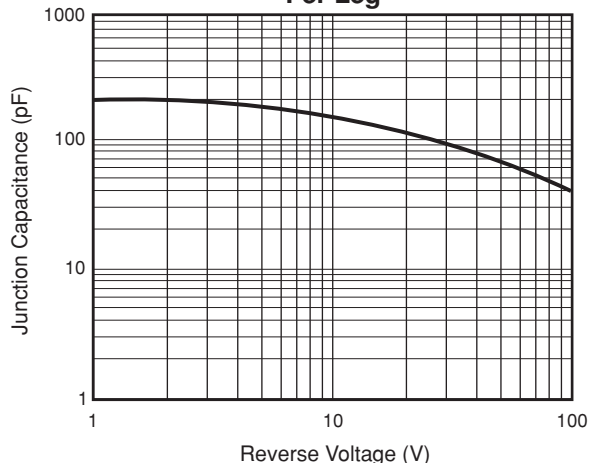


Fig. 6 - Typical Transient Thermal Impedance

