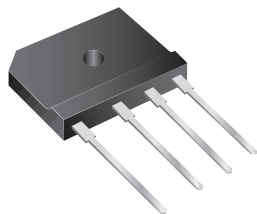




New Product

GSIB620 thru GSIB680

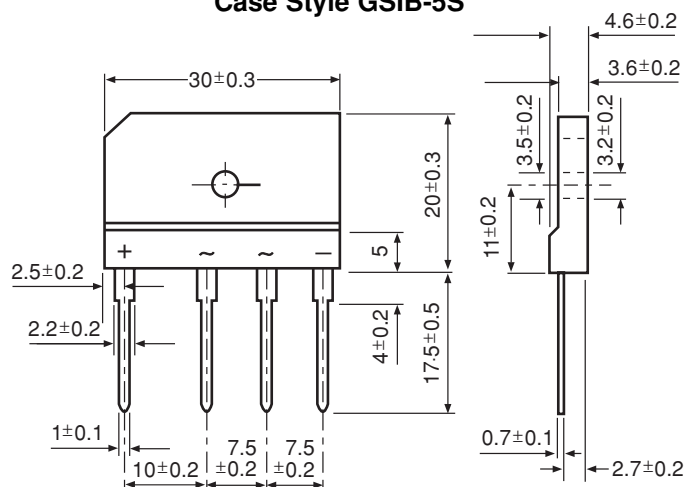
Vishay Semiconductors
formerly General Semiconductor



Glass Passivated Single-Phase Bridge Rectifier

Rectifier Reverse Voltage 200 and 800 V
Rectifier Forward Current 6.0 A

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 1500 VRMS
- Ideal for printed circuit boards
- Glass passivated chip junction
- High surge current capability

Mechanical Data

Case: 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⁽³⁾

Mounting Torque: 5 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	GSIB620	GSIB640	GSIB660	GSIB680	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)}	6.0 ⁽¹⁾ 2.8 ⁽²⁾				A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	180				A
Rating for fusing (t < 8.3ms)	I ² t	120				A ² sec
Typical thermal resistance per leg	R _{θJA} R _{θJC}	22 ⁽²⁾ 3.4 ⁽¹⁾				°C/W
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	Symbol	GSIB620	GSIB640	GSIB660	GSIB680	Unit
Maximum instantaneous forward voltage drop per leg at 3.0A	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. with 0.5 x 0.5" (12 x 12mm) copper pads and 0.375" (9.5mm) 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 Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Fig. 1 - Derating Curve Output Rectified Current

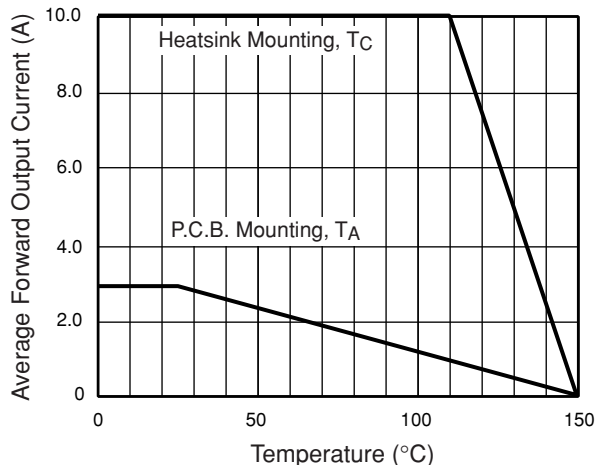


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Leg

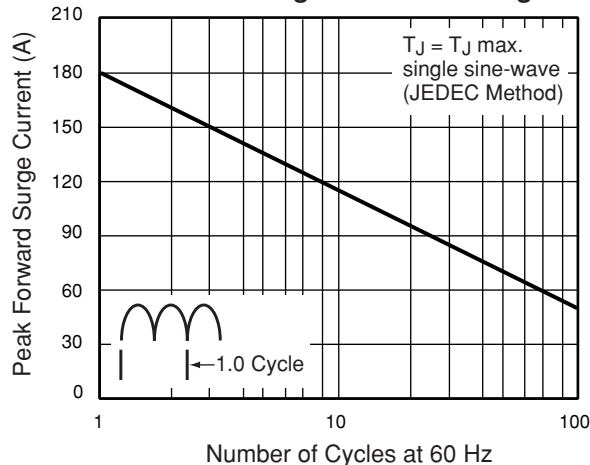


Fig. 3 - Typical Forward Characteristics Per Leg

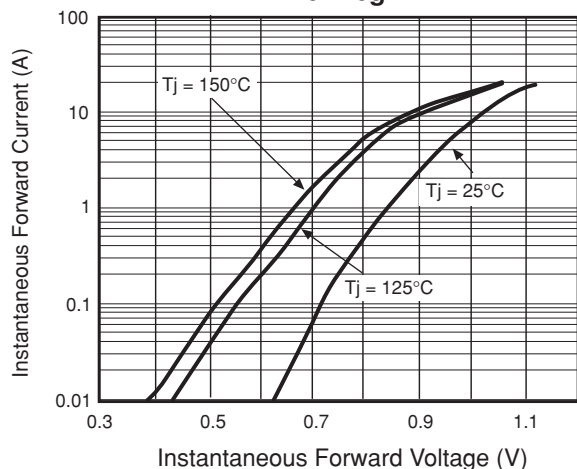


Fig. 4 - Typical Reverse Characteristics Per Leg

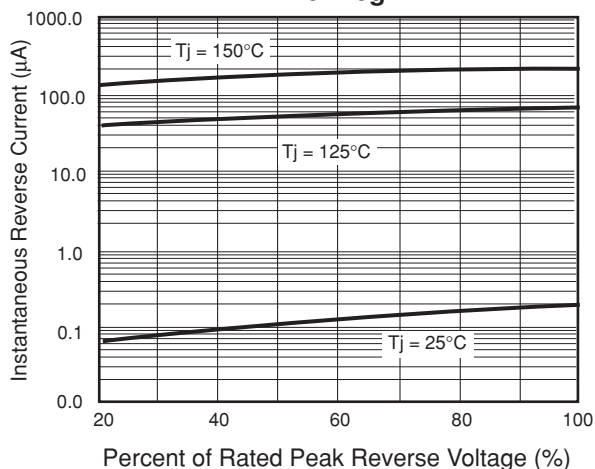


Fig. 5 - Typical Junction Capacitance Per Leg

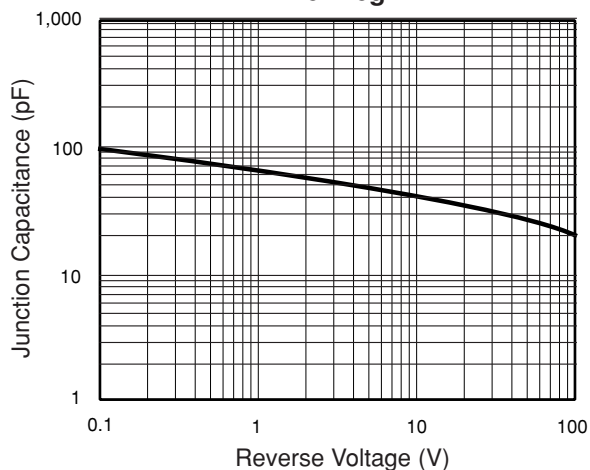


Fig. 6 - Typical Transient Thermal Impedance

