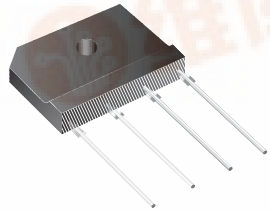




# GSIB420 thru GSIB480

New Product

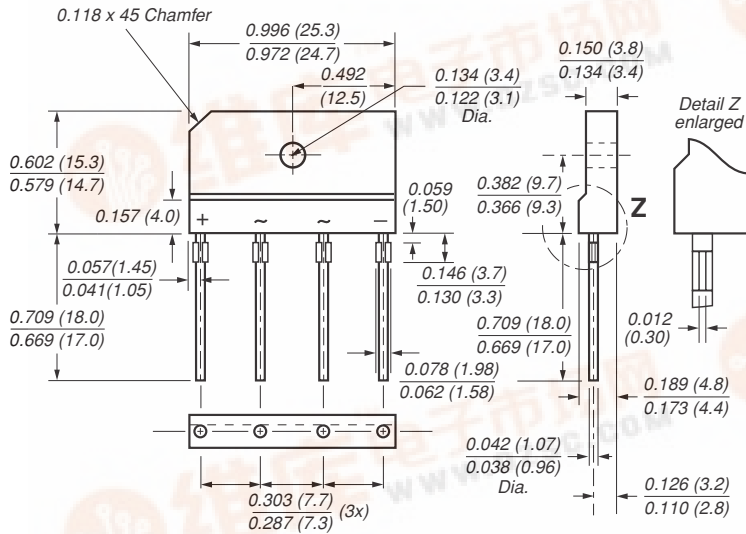
Vishay Semiconductors  
formerly General Semiconductor



## Single-Phase Single In-Line Bridge Rectifier

Reverse Voltage  
200 and 800V  
Forward Current 4.0A

Case Style GSIB-3G



Dimensions in inches and (millimeters)  
Use suffix "N" for no stand-off

### Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- High case dielectric strength of 1500 VRMS
- Ideal for printed circuit boards
- Glass passivated chip junction
- High surge current capability

### Mechanical Data

- Case:** Molded plastic body over passivated junctions
- 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<sup>(3)</sup>
- Mounting Torque:** 5 in-lbs max.
- Weight:** 0.15 oz., 4.0 g

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

Parameter	Symbol	GSIB420	GSIB440	GSIB460	GSIB480	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 T <sub>C</sub> = 100°C T <sub>A</sub> = 25°C	I <sub>F(AV)</sub>	4.0 <sup>(1)</sup> 2.3 <sup>(2)</sup>				A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	130				A
Rating for fusing (t<8.3ms)	I <sup>2</sup> t	60				A <sup>2</sup> sec
Maximum thermal resistance per leg	R <sub>θJA</sub> R <sub>θJC</sub>	26 <sup>(2)</sup> 5 <sup>(1)</sup>				°C/W
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150				°C

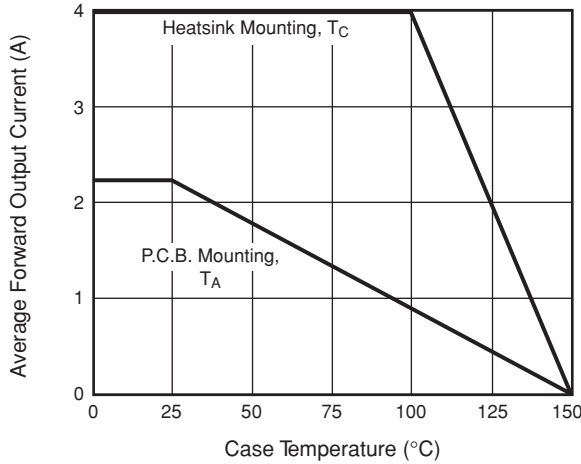
### Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	GSIB420	GSIB440	GSIB460	GSIB480	Unit
Maximum instantaneous forward voltage drop per leg at 2.0A	V <sub>F</sub>	0.95				V
Maximum DC reverse current at rated DC blocking voltage per leg T <sub>A</sub> = 25°C T <sub>A</sub> = 125°C	I <sub>R</sub>	10 250				μA

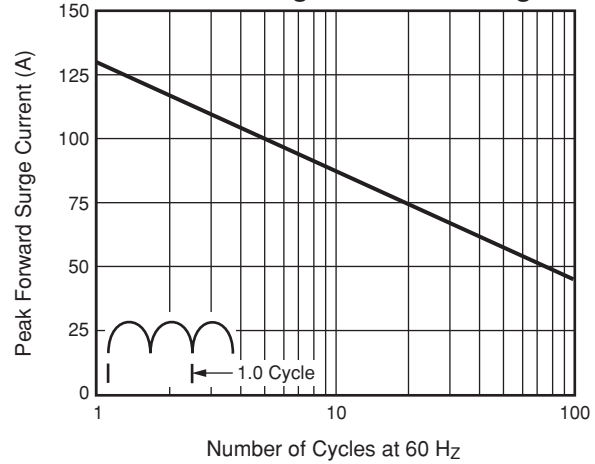
Notes: (1) Unit case mounted on Al plate heatsink.  
(2) Units mounted on P.C.B. with 0.5 x 0.5" (12 x 12mm) copper pads and 0.375" (9.5mm) lead length  
(3) Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw

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

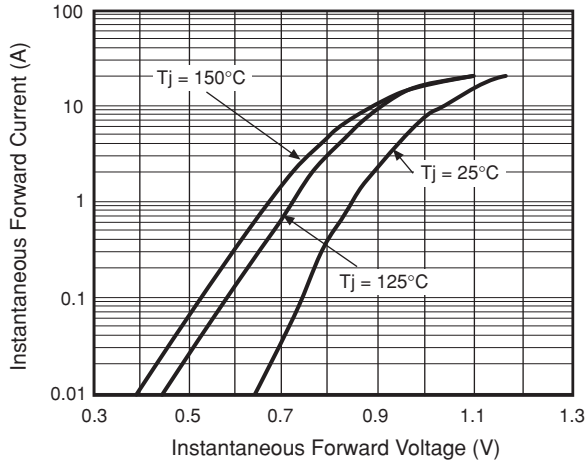
**Fig. 1 – Derating Curve Output Rectified Current**



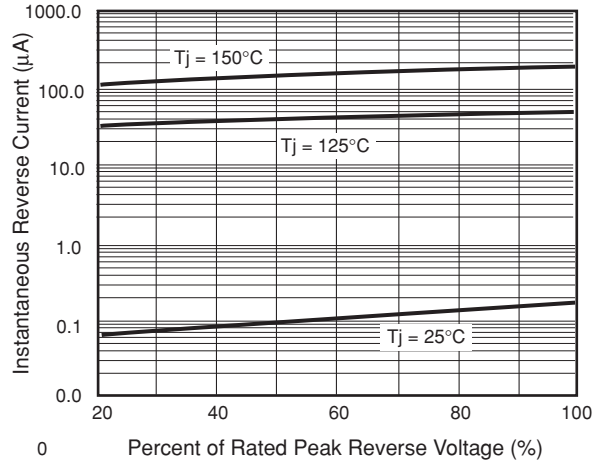
**Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current Per Leg**



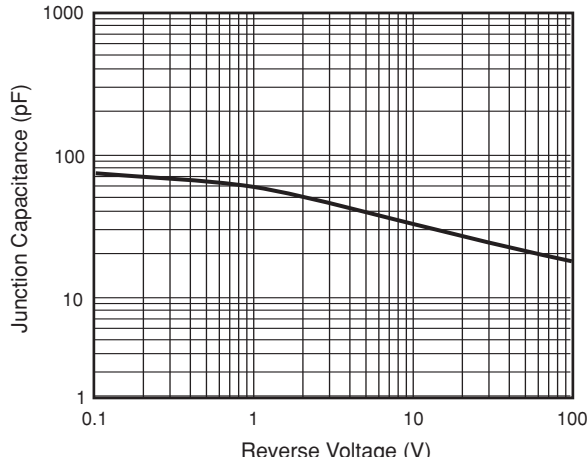
**Fig. 3 – Typical Instantaneous Forward Characteristics Per Leg**



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



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



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

