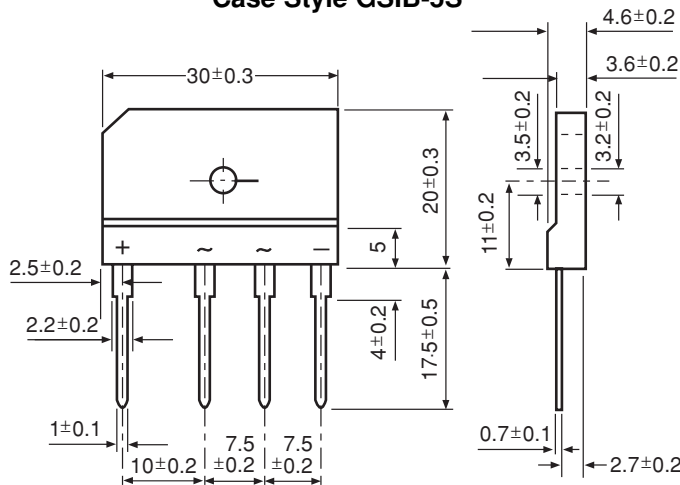


## Glass Passivated Single-Phase Bridge Rectifier

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 V<sub>RMS</sub>
- 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<sup>(3)</sup>

**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 <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>	6.0 <sup>(1)</sup> 2.8 <sup>(2)</sup>				A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	180				A
Rating for fusing (t < 8.3ms)	I <sup>2</sup> t	120				A <sup>2</sup> sec
Typical thermal resistance per leg	R <sub>θJA</sub> R <sub>θJC</sub>	22 <sup>(2)</sup> 3.4 <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	GSIB620	GSIB640	GSIB660	GSIB680	Unit
Maximum instantaneous forward voltage drop per leg at 3.0A	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

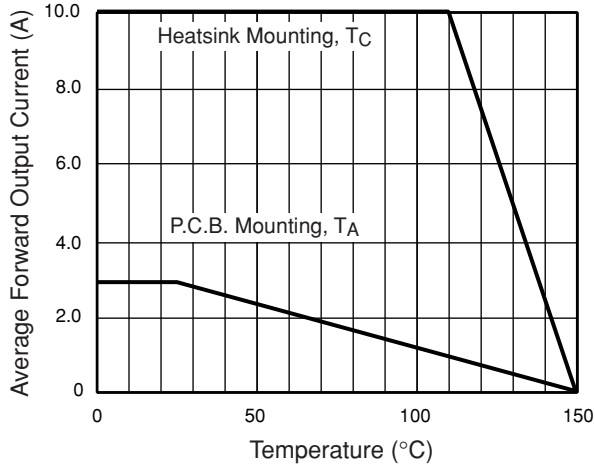
**Notes:** (1) Unit case mounted on Al plate heatsink

(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

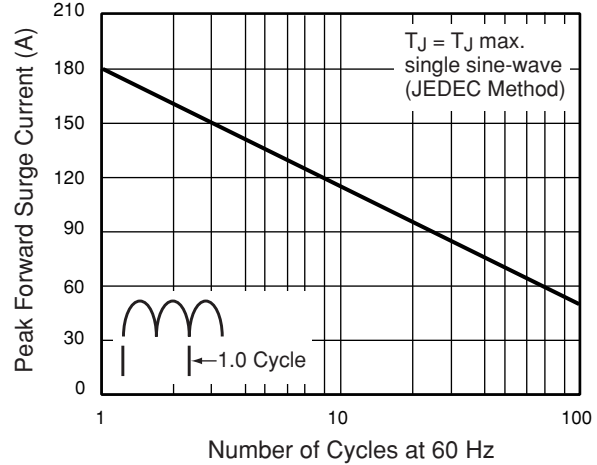
(3) Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw

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

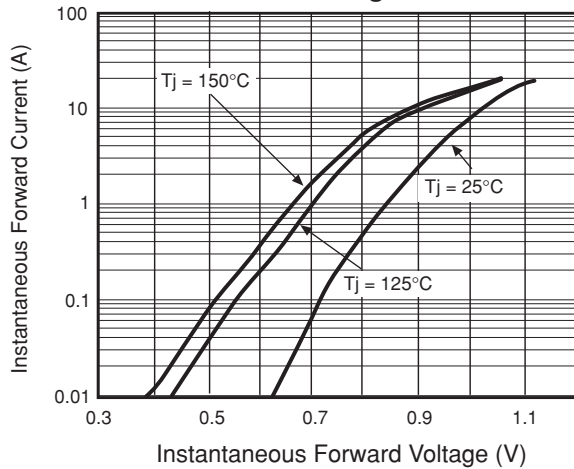
**Fig. 1 - Derating Curve Output Rectified Current**



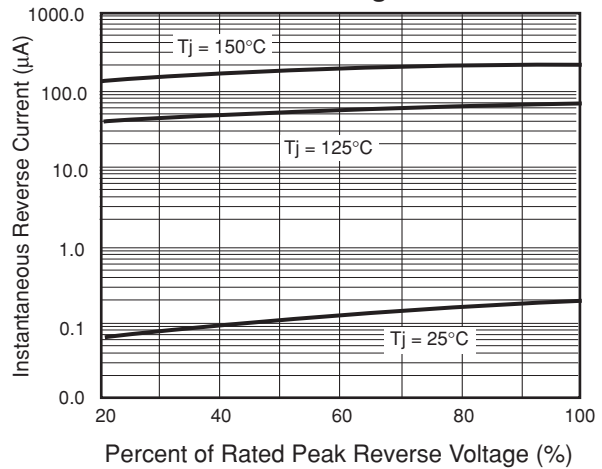
**Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Leg**



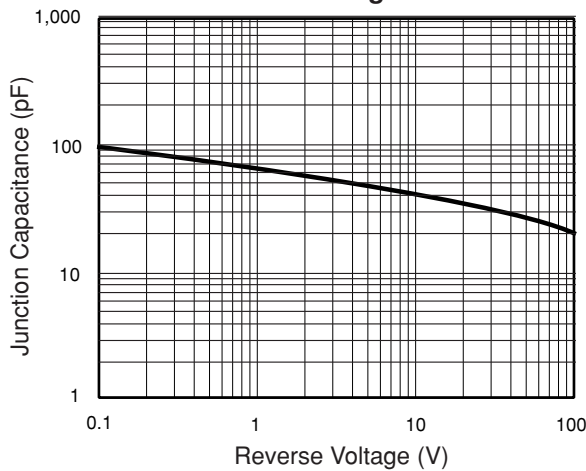
**Fig. 3 - Typical Forward Characteristics Per Leg**



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



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



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

