



# G2SB20 thru G2SB80

New Product

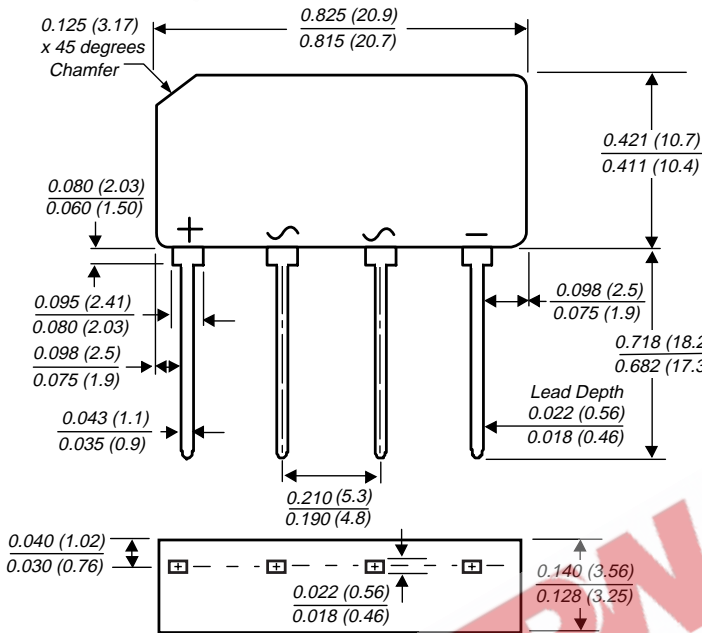
Vishay Semiconductors  
formerly General Semiconductor



## Glass Passivated Single-Phase Bridge Rectifier

Reverse Voltage 200 to 800V  
Forward Current 1.5A

Case Type GBL



Polarity shown on front side of case, positive lead beveled corner.

Dimensions in inches and (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
- 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:** Molded plastic body over passivated junctions  
**Terminals:** Plated leads solderable per MIL-STD-750, Method 2026

**Mounting Position:** Any

**Weight:** 0.071 oz., 2.0 g

**Packaging codes/options:**

1/400 EA. per Bulk Tray Stack, 4K/box

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

Parameter	Symbol	G2SB20	G2SB60	G2SB80	Unit
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	200	600	800	V
Maximum RMS voltage	V <sub>RMS</sub>	140	420	560	V
Maximum DC blocking voltage	V <sub>DC</sub>	200	600	800	V
Maximum average forward rectified output current at T <sub>A</sub> = 25°C	I <sub>F(AV)</sub>	1.5			A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	80			A
Rating for fusing (t<8.3ms)	I <sup>2</sup> t	27			A <sup>2</sup> sec
Typical thermal resistance per leg	R <sub>θJA</sub> R <sub>θJL</sub>	40 12			°C/W
Operating junction storage and 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	G2SB20	G2SB60	G2SB80	Unit
Maximum instantaneous forward voltage drop per leg at 0.75 A	V <sub>F</sub>	1.00			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>	5.0 300			μA

**Note:** (1) Unit mounted on P.C.B. with 0.5 x 0.5" (12 x 12mm) copper pads and 0.375" (9.5mm) lead length

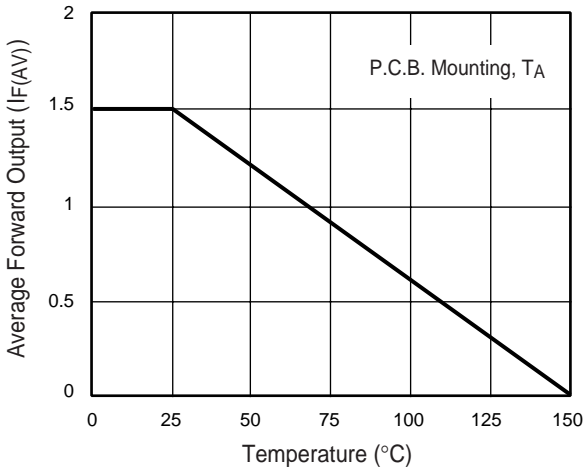
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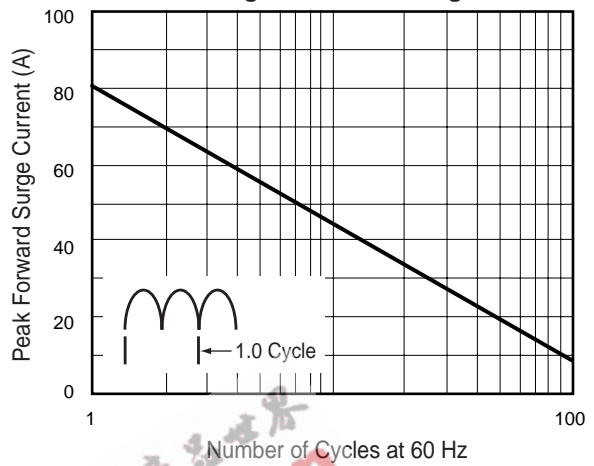
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## Ratings and Characteristic Curves ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

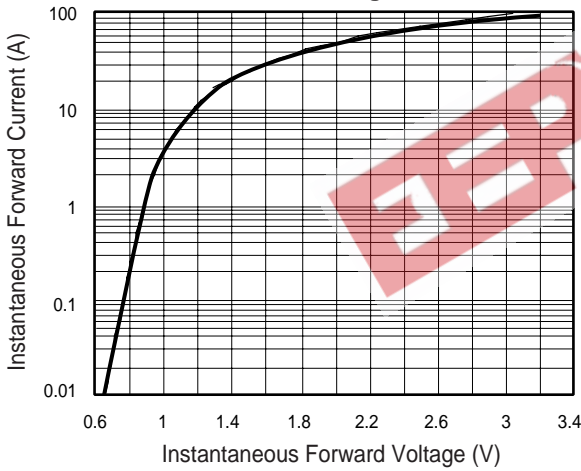
**Fig. 1 - Derating Curve Output Rectified Current**



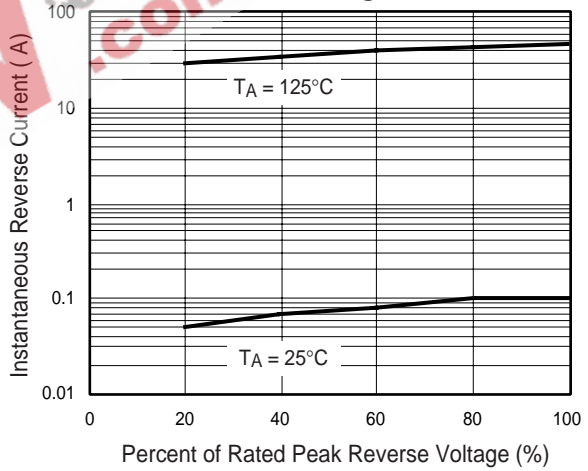
**Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Leg**



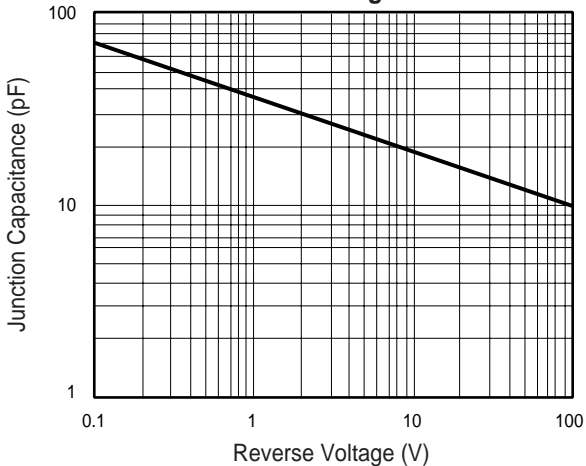
**Fig. 3 - Typical Forward Characteristics Per Leg**



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



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



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

