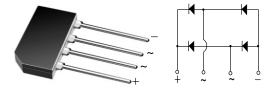


G2SBA20, G2SBA60 & G2SBA80

Vishay General Semiconductor

Glass Passivated Single-Phase Bridge Rectifier



Case Type GBL

1.5 A

200 V, 600 V, 800 V

60 A

5 μΑ

1.0 V

150 °C

PRIMARY CHARACTERISTICS

I_{F(AV)}

V_{RRM}

I_{FSM}

 I_{R}

 V_{F}

T_J max.

FEATURES

- UL recognition file number E54214
- · Ideal for printed circuit boards
- High surge current capability
- Typical I_B less than 0.1 μA
- · High case dielectric strength
- Solder dip 260 °C, 40 s
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC

TYPICAL APPLICATIONS

General purpose use in ac-to-dc bridge full wave rectification for monitor, TV, printer, SMPS, adapter, audio equipment, and home appliances applications.

MECHANICAL DATA

Case: GBL

Epoxy meets UL 94 V-0 flammability rating

Terminals: Matte tin plated leads, solderable per J-STD-002 and JESD22-B102

E3 suffix for consumer grade, meets JESD 201 class 1A whisker test

Polarity: As marked on body

| MAXIMUM RATINGS (T _A = 25 °C unless otherwise noted) | | | | | | |
|---|-----------------------------------|---------------|---------|---------|------------------|--|
| PARAMETER | | G2SBA20 | G2SBA60 | G2SBA80 | UNIT | |
| Maximum repetitive peak reverse voltage | V _{RRM} | 200 | 600 | 800 | V | |
| Maximum RMS voltage | | 140 | 420 | 560 | V | |
| Maximum DC blocking voltage | V _{DC} | 200 | 600 | 800 | V | |
| Maximum average forward rectified output current at T_A = 25 $^\circ\text{C}$ | I _{F(AV)} | 1.5 | | | А | |
| Peak forward surge current single sine-wave superimposed on rated load | I _{FSM} | 60 | | | A | |
| Rating for fusing (t < 8.3 ms) | l ² t | 15 | | | A ² s | |
| Operating junction and storage temperature range | T _J , T _{STG} | - 55 to + 150 | | | °C | |

| ELECTRICAL CHARACTERISTICS ($T_A = 25$ °C unless otherwise noted) | | | | | | | |
|---|---|----------------|------------|---------|---------|------|--|
| PARAMETER TEST CONDITION | | SYMBOL | G2SBA20 | G2SBA60 | G2SBA80 | UNIT | |
| Maximum instantaneous forward voltage drop per diode | 0.75 A | V _F | 1.00 | | V | | |
| Maximum DC reverse current at rated DC blocking voltage per diode | T _A = 25 °C T _A = 125 °C | I _R | 5.0 300 | | μA | | |

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COMPLIANT

Vishay General Semiconductor



| THERMAL CHARACTERISTICS (T _A = 25 °C unless otherwise noted) | | | | | | |
|--|----------------------------|----------|---------|---------|------|--|
| PARAMETER | SYMBOL | G2SBA20 | G2SBA60 | G2SBA80 | UNIT | |
| Typical thermal resistance | $R_{	hetaJA}\ R_{	hetaJC}$ | 40 12 | | °C/W | | |

Note:

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

| ORDERING INFORMATION (Example) | | | | | | |
|--------------------------------|-----------------|------------------------|---------------|----------------------|--|--|
| PREFERRED P/N | UNIT WEIGHT (g) | PREFERRED PACKAGE CODE | BASE QUANTITY | DELIVERY MODE | | |
| G2SBA60-E3/45 | 2.017 | 45 | 20 | Tube | | |
| G2SBA60-E3/51 | 2.017 | 51 | 400 | Anti-static PVC tray | | |

RATINGS AND CHARACTERISTICS CURVES

(T_A = 25 °C unless otherwise noted)

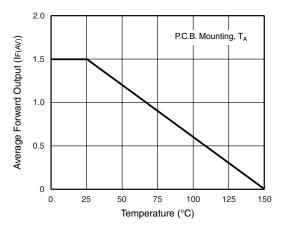


Figure 1. Derating Curve Output Rectified Current

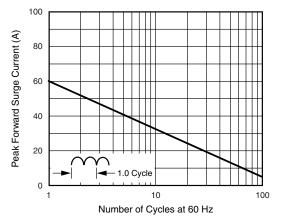


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Diode

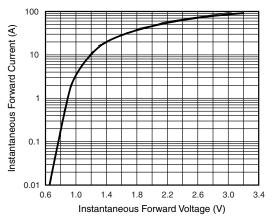
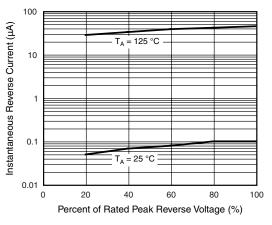


Figure 3. Typical Forward Characteristics Per Diode







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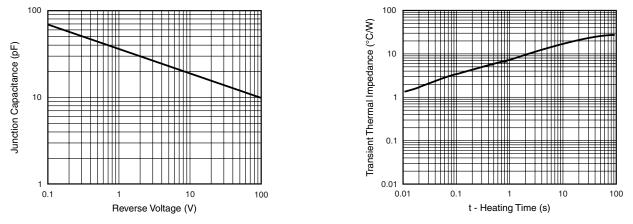
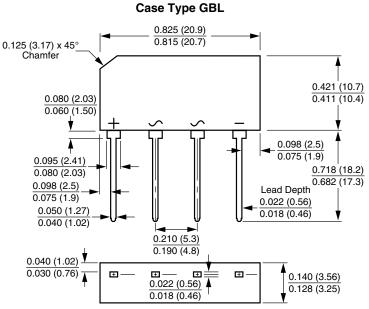


Figure 5. Typical Junction Capacitance Per Diode

Figure 6. Typical Transient Thermal Impedance





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



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