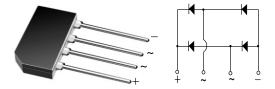


G2SBA20, G2SBA60 & G2SBA80

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)

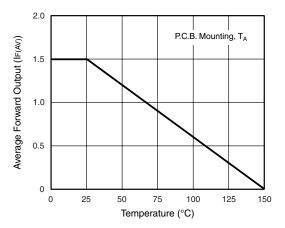


Figure 1. Derating Curve Output Rectified Current

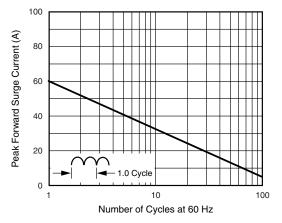


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Diode

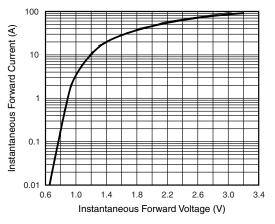
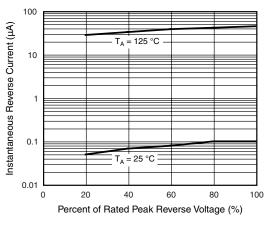


Figure 3. Typical Forward Characteristics Per Diode







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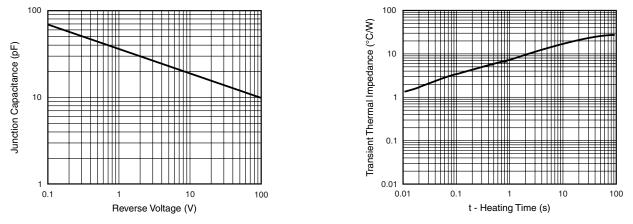
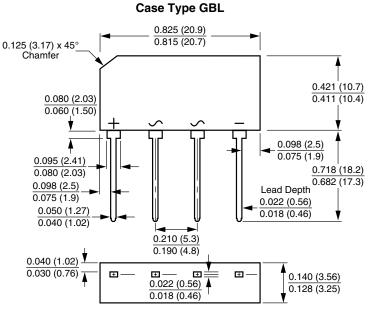


Figure 5. Typical Junction Capacitance Per Diode

Figure 6. Typical Transient Thermal Impedance





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



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