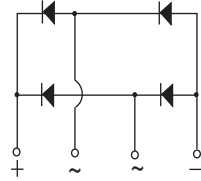


Glass Passivated Single-Phase Bridge Rectifier



Case Type GBL



FEATURES

- UL recognition file number E54214
- Ideal for printed circuit boards
- High surge current capability
- Typical I_R less than $0.1 \mu A$
- High case dielectric strength
- Solder dip $275^\circ C$ max. 10 s, per JESD 22-B106
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912



RoHS
COMPLIANT
HALOGEN
FREE

TYPICAL APPLICATIONS

General purpose use in AC/DC bridge full wave rectification for monitor, TV, printer, SMPS, adapter, audio equipment, and home appliances application.

MECHANICAL DATA

Case: GBL

Molding compound meets UL 94 V-0 flammability rating
Base P/N-M3 - halogen-free, RoHS-compliant, and commercial grade

Terminals: Matte tin plated leads, solderable per J-STD-002 and JESD 22-B102

M3 suffix meets JESD 201 class 1A whisker test

Polarity: As marked on body

PRIMARY CHARACTERISTICS	
Package	GBL
$I_{F(AV)}$	1.5 A
V_{RRM}	200 V, 600 V, 800 V
I_{FSM}	80 A
I_R	$5 \mu A$
V_F at $I_F = 0.75 A$	1.0 V
T_J max.	$150^\circ C$
Diode variations	In-line

MAXIMUM RATINGS ($T_A = 25^\circ C$ unless otherwise noted)						
PARAMETER	SYMBOL	G2SB20	G2SB60	G2SB80	UNIT	
Maximum repetitive peak reverse voltage	V_{RRM}	200	600	800	V	
Maximum RMS voltage	V_{RMS}	140	420	560	V	
Maximum DC blocking voltage	V_{DC}	200	600	800	V	
Maximum average forward rectified output current at $T_A = 25^\circ C$	$I_{F(AV)}$	1.5			A	
Peak forward surge current single sine-wave superimposed on rated load	I_{FSM}	80			A	
Rating for fusing ($t < 8.3 ms$)	I^2t	27			A^2s	
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150			$^\circ C$	

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ C$ unless otherwise noted)						
PARAMETER	TEST CONDITIONS	SYMBOL	G2SB20	G2SB60	G2SB80	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	$T_A = 25^\circ C$	I_R	5.0			μA
	$T_A = 125^\circ C$		300			



THERMAL CHARACTERISTICS ($T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted)					
PARAMETER	SYMBOL	G2SB20	G2SB60	G2SB80	UNIT
Typical thermal resistance	$R_{\theta JA}$	40			$^\circ\text{C/W}$
	$R_{\theta JC}$	12			

Note

- Unit mounted on PCB with 0.5" x 0.5" (12 mm 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
G2SB60-M3/45	2.045	45	20	Tube
G2SB60-M3/51	2.045	51	400	Anti-static PVC tray

RATINGS AND CHARACTERISTICS CURVES ($T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted)

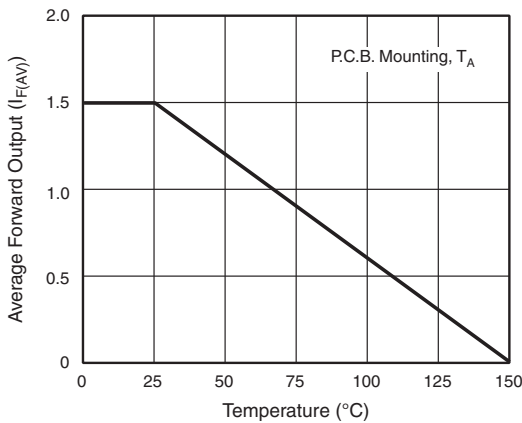


Fig. 1 - Derating Curve Output Rectified Current

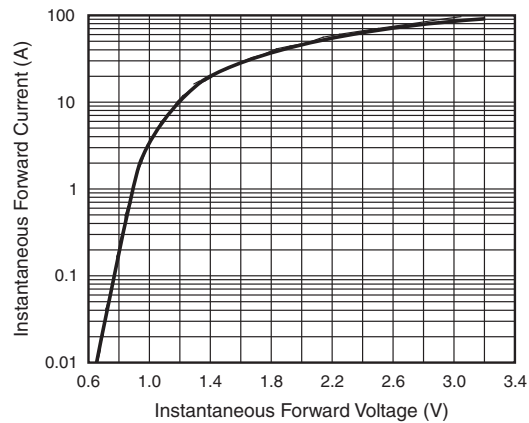


Fig. 3 - Typical Forward Characteristics Per Diode

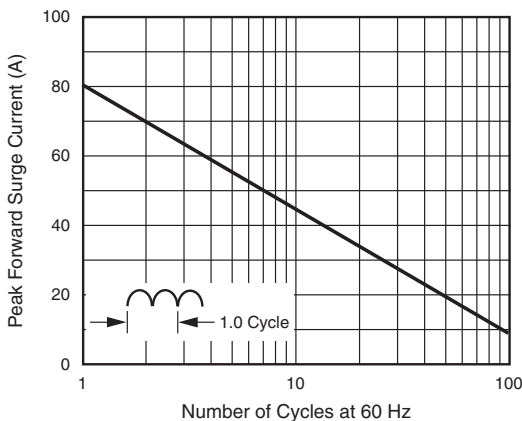


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Diode

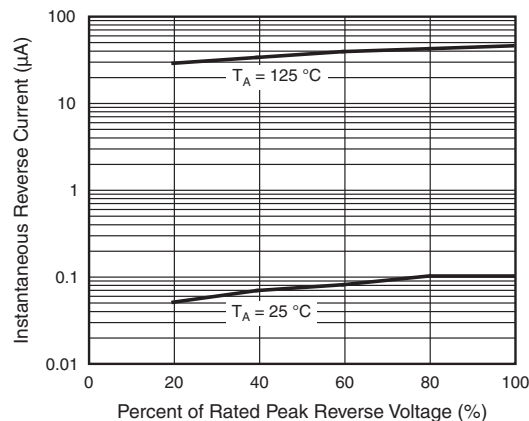


Fig. 4 - Typical Reverse Characteristics Per Diode

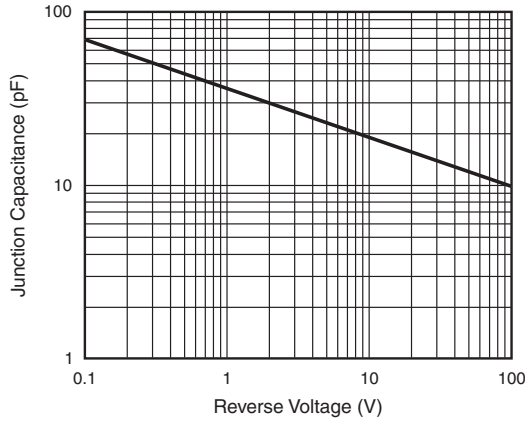


Fig. 5 - Typical Junction Capacitance Per Diode

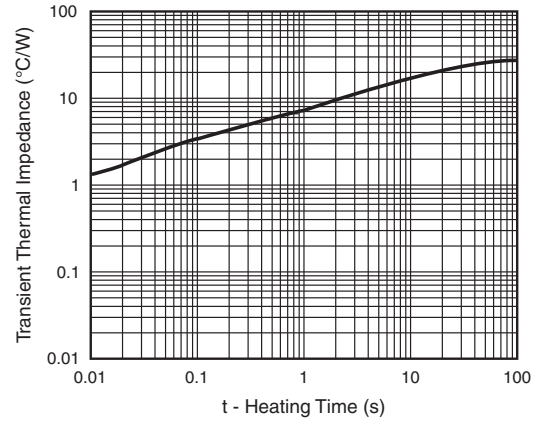
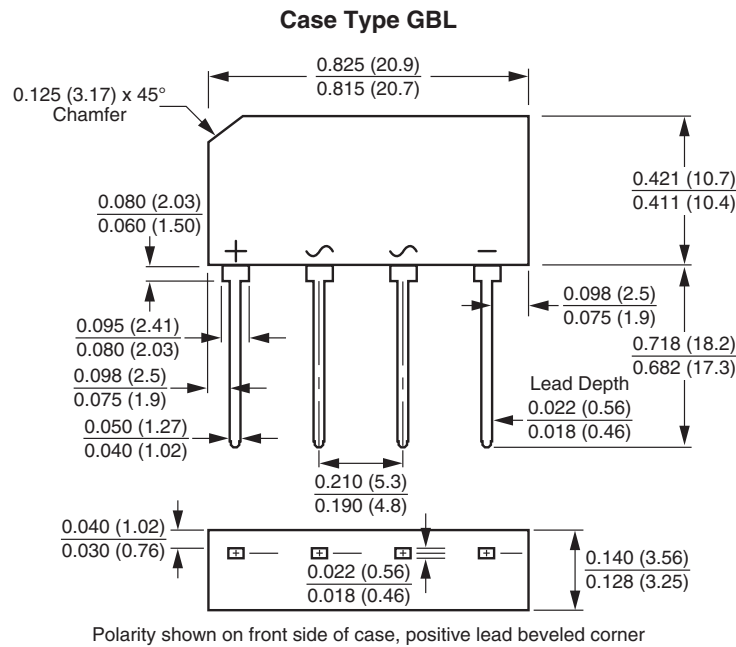


Fig. 6 - Typical Transient Thermal Impedance

PACKAGE OUTLINE DIMENSIONS in inches (millimeters)





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