



Glass Passivated Single-Phase Bridge Rectifier



Case Style WOG

FEATURES

- Ideal for printed circuit boards
- High case dielectric strength
- High surge current capability
- Typical I_R less than 0.1 μA
- Solder dip 275 °C max. 10 s, per JESD 22-B106
- Material categorization: For definitions of compliance please see www.vishay.com/doc?99912

RoHS
COMPLIANT

PRIMARY CHARACTERISTICS

Package	WOG
$I_{F(AV)}$	1.5 A
V_{RRM}	65 V, 125 V, 200 V, 400 V, 600 V
I_{FSM}	50 A
I_R	10 μA
V_F at $I_F = 1.5$ A	1.0 V
T_J max.	125 °C
Diode variations	Quad

TYPICAL APPLICATIONS

General purpose use in AC/DC bridge full wave rectification for power supply, adapter, charger, lighting ballaster on consumers, and home appliances applications.

MECHANICAL DATA

Case: WOG

Molding compound meets UL 94 V-0 flammability rating
Base P/N-E4 - RoHS-compliant, commercial grade

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

Polarity: As marked on body

MAXIMUM RATINGS ($T_A = 25$ °C unless otherwise noted)

PARAMETER	SYMBOL	B40 C1500G	B80 C1500G	B125 C1500G	B250 C1500G	B380 C1500G	UNIT
Maximum repetitive peak reverse voltage	V _{RRM}	65	125	200	400	600	V
Maximum RMS input voltage R- and C-load	V _{RMS}	40	80	125	250	380	V
Maximum DC blocking voltage	V _{DC}	65	125	200	400	600	V
Maximum peak working voltage	V _{RWM}	90	180	300	600	800	V
Maximum non-repetitive peak voltage	V _{RSM}	100	200	350	600	1000	V
Maximum repetitive peak forward surge current	I _{FRM}	10					A
Maximum average forward output current R- and L-load for free air operation at T _A = 45 °C C-load	I _{F(AV)}	1.6					A
		1.5					
Peak forward surge current single sine-wave on rated load	I _{FSM}	50					A
Rating for fusing at T _J = 125 °C (t < 100 ms)	I ² t	12.5					A ² s
Minimum series resistor C-load at V _{RMS} = ± 10 %	R _T	1.0	2.0	4.0	8.0	12	Ω
Maximum load capacitance 							

ELECTRICAL CHARACTERISTICS ($T_A = 25$ °C unless otherwise noted)

PARAMETER	TEST CONDITIONS	SYMBOL	B40 C1500G	B80 C1500G	B125 C1500G	B250 C1500G	B380 C1500G	UNIT
Maximum instantaneous forward voltage drop per diode	1.5 A	V_F	1.0					V
Maximum reverse current at rated repetitive peak voltage per diode	$T_A = 25$ °C	I_R	10					μA

**THERMAL CHARACTERISTICS** ($T_A = 25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	B40 C1500G	B80 C1500G	B125 C1500G	B250 C1500G	B380 C1500G	UNIT
Typical thermal resistance ⁽¹⁾	R _{θJA}	36					°C/W
	R _{θJL}	11					

Note

⁽¹⁾ Thermal resistance from junction to ambient and from junction to lead mounted on PCB at 0.375" (9.5 mm) lead lengths with 0.22" x 0.22" (5.5 mm x 5.5 mm) copper pads

ORDERING INFORMATION (Example)

PREFERRED P/N	UNIT WEIGHT (g)	PREFERRED PACKAGE CODE	BASE QUANTITY	DELIVERY MODE
B380C1500G-E4/51	1.12	51	100	Plastic bag

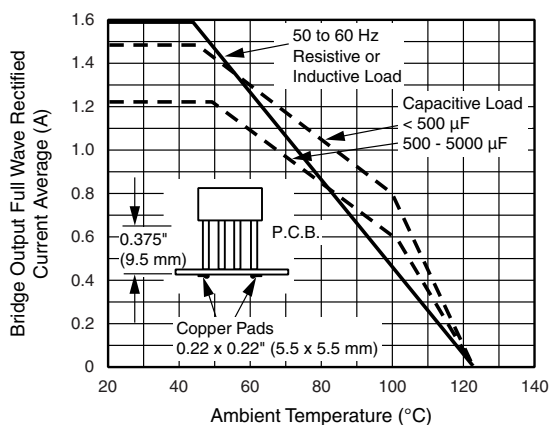
RATINGS AND CHARACTERISTICS CURVES ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Fig. 1 - Derating Curves Output Rectified Current for B40C1500G...B125C1500G

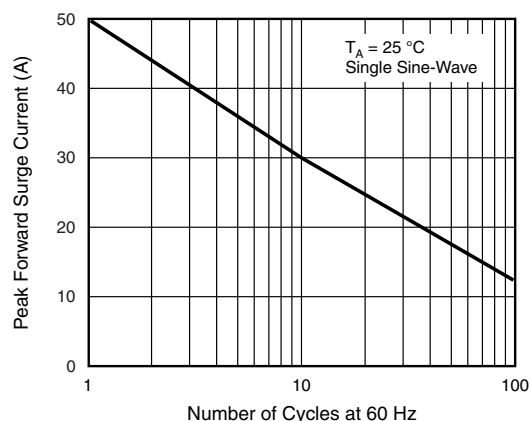


Fig. 3 - Maximum Non-Repetitive Peak Forward Surge Current Per Diode

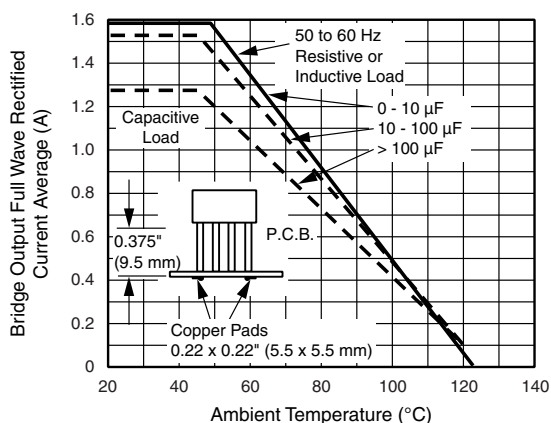


Fig. 2 - Derating Curves Output Rectified Current for B250C1500G...B380C1500G

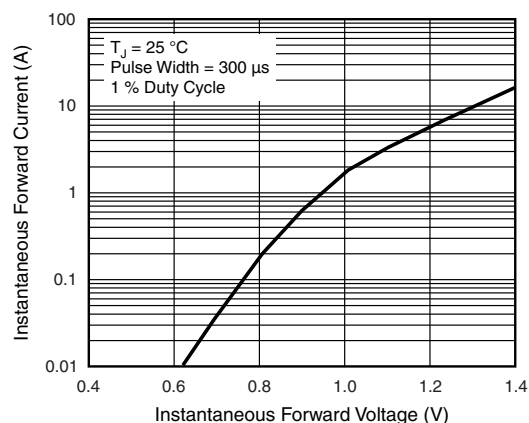


Fig. 4 - Typical Forward Characteristics Per Diode

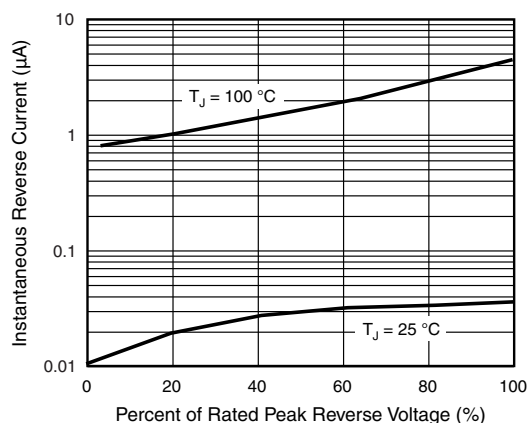


Fig. 5 - Typical Reverse Characteristics Per Diode

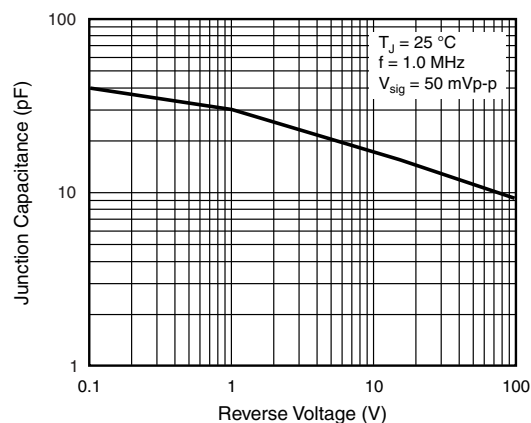
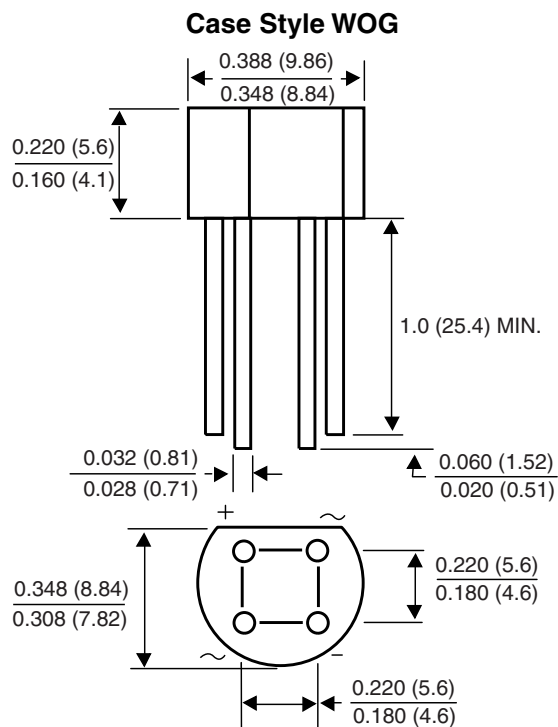


Fig. 6 - Typical Junction Capacitance Per Diode

PACKAGE OUTLINE DIMENSIONS in inches (millimeters)





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