

**Vishay**|威世 B125C1500G-E4/51 **PDF**

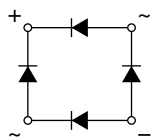


**深圳创唯电子有限公司**

<http://www.vishay-ic.com>



## 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  $\mu A$
- Solder dip 275 °C max. 10 s, per JESD 22-B106
- Material categorization: For definitions of compliance please see [www.vishay.com/doc?99912](http://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 $\mu A$
$V_F$ 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 <sub>RRM</sub>	65	125	200	400	600	V
Maximum RMS input voltage R- and C-load	V <sub>RMS</sub>	40	80	125	250	380	V
Maximum DC blocking voltage	V <sub>DC</sub>	65	125	200	400	600	V
Maximum peak working voltage	V <sub>RWM</sub>	90	180	300	600	800	V
Maximum non-repetitive peak voltage	V <sub>RSM</sub>	100	200	350	600	1000	V
Maximum repetitive peak forward surge current	I <sub>FRM</sub>	10					A
Maximum average forward output current      R- and L-load for free air operation at T <sub>A</sub> = 45 °C                      C-load	I <sub>F(AV)</sub>	1.6					A
		1.5					
Peak forward surge current single sine-wave on rated load	I <sub>FSM</sub>	50					A
Rating for fusing at T <sub>J</sub> = 125 °C (t < 100 ms)	I <sup>2</sup> t	12.5					A <sup>2</sup> s
Minimum series resistor C-load at V <sub>RMS</sub> = ± 10 %	R <sub>T</sub>	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					$\mu A$

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

PARAMETER	SYMBOL	B40 C1500G	B80 C1500G	B125 C1500G	B250 C1500G	B380 C1500G	UNIT
Typical thermal resistance <sup>(1)</sup>	R <sub>θJA</sub>	36					°C/W
	R <sub>θJL</sub>	11					

**Note**

<sup>(1)</sup> 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

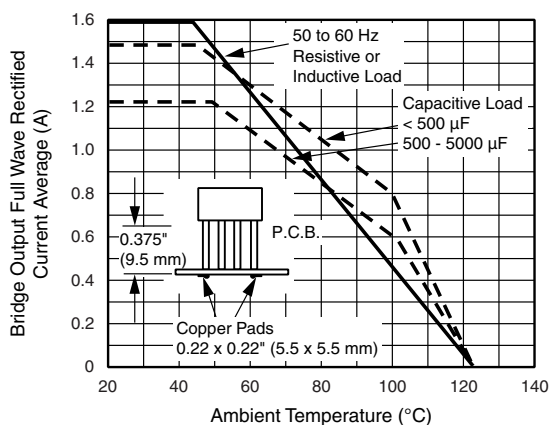
**RATINGS AND CHARACTERISTICS CURVES** ( $T_A = 25\text{ }^{\circ}\text{C}$  unless otherwise noted)

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

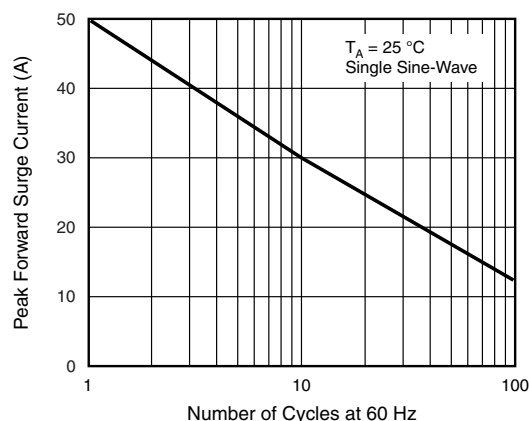


Fig. 3 - Maximum Non-Repetitive Peak Forward Surge Current Per Diode

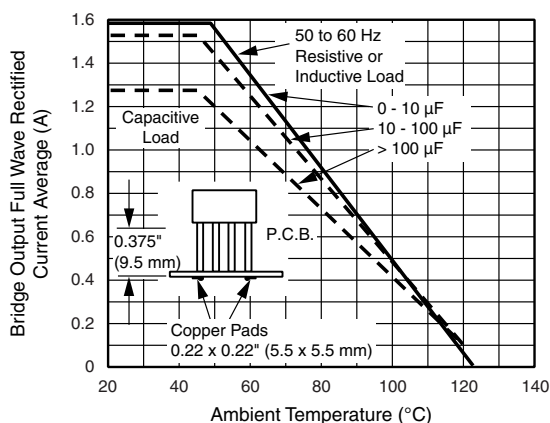


Fig. 2 - Derating Curves Output Rectified Current for B250C1500G...B380C1500G

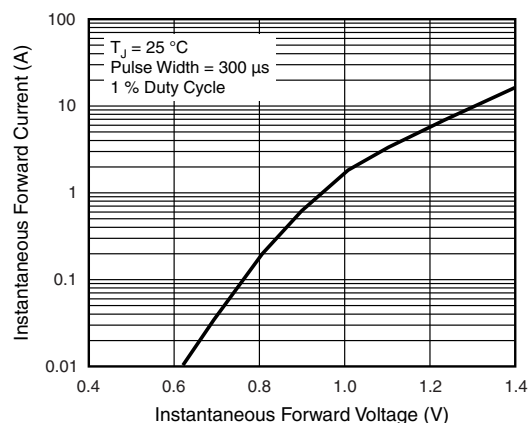


Fig. 4 - Typical Forward Characteristics Per Diode

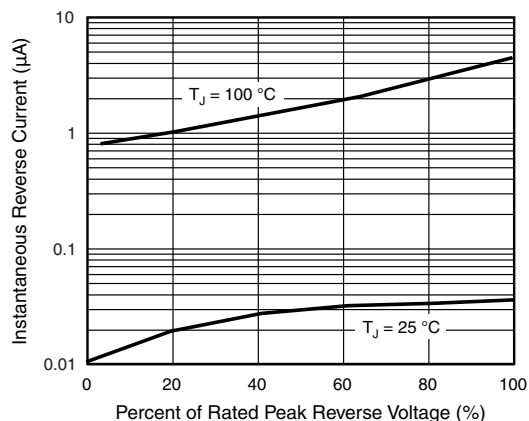


Fig. 5 - Typical Reverse Characteristics Per Diode

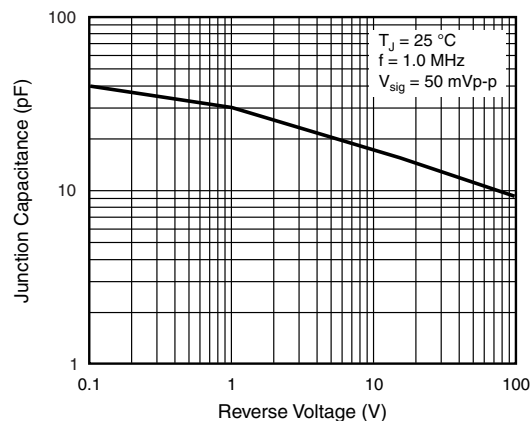
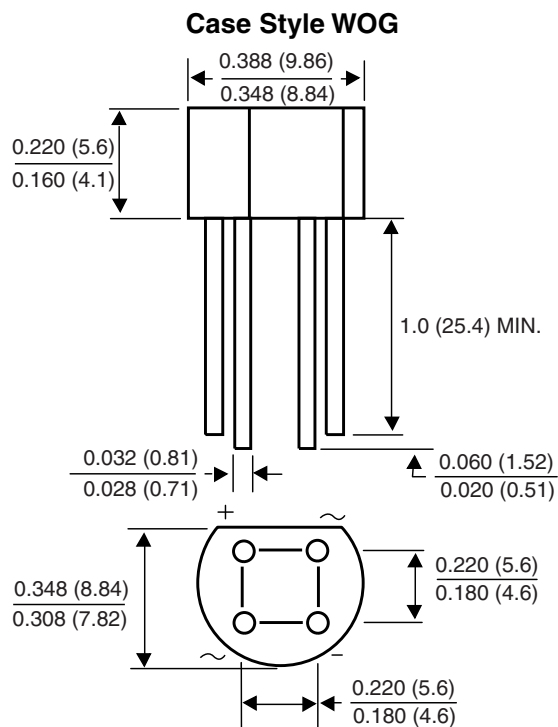


Fig. 6 - Typical Junction Capacitance Per Diode

**PACKAGE OUTLINE DIMENSIONS** in inches (millimeters)





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