

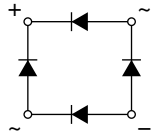


**THE DATASHEET OF
B125C1000G-E4/51**





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 |
| $I_{F(AV)}$ | 1.0 A |
| V_{RRM} | 65 V, 125 V, 200 V, 400 V, 600 V |
| I_{FSM} | 45 A |
| I_R | 10 μA |
| V_F at $I_F = 1.0$ 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 C1000G | B80 C1000G | B125 C1000G | B250 C1000G | B380 C1000G | 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 for free air operation at $T_A = 45$ °C | R- and L-load | 1.2 | | | | | A |
| | C-load | 1.0 | | | | | |
| Peak forward surge current single sine-wave on rated load | I_{FSM} | 45 | | | | | A |
| Rating for fusing at $T_J = 125$ °C ($t < 8.3$ ms) | I^2t | 10 | | | | | A ² s |
| Minimum series resistor C-load at $V_{RMS} = \pm 10$ % | R_T | 1.0 | 2.0 | 4.0 | 8.0 | 12 | Ω |
| Maximum load capacitance | C_L | 5000 | 2500 | 1000 | 500 | 200 | μF |
| Operating junction temperature range | T_J | - 40 to + 125 | | | | | °C |
| Storage temperature range | T_{STG} | - 40 to + 150 | | | | | °C |

| ELECTRICAL CHARACTERISTICS ($T_A = 25$ °C unless otherwise noted) | | | | | | | | |
|--|-----------------|--------|------------|------------|-------------|-------------|-------------|---------|
| PARAMETER | TEST CONDITIONS | SYMBOL | B40 C1000G | B80 C1000G | B125 C1000G | B250 C1000G | B380 C1000G | UNIT |
| Maximum instantaneous forward voltage drop per diode | 1.0 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 ($T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted) | | | | | | | |
|--|-----------------|------------|------------|-------------|-------------|-------------|--------------------|
| PARAMETER | SYMBOL | B40 C1000G | B80 C1000G | B125 C1000G | B250 C1000G | B380 C1000G | UNIT |
| Typical thermal resistance (1) | $R_{\theta JA}$ | 36 | | | | | $^\circ\text{C/W}$ |
| | $R_{\theta JL}$ | 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 |
| B380C1000G-E4/51 | 1.12 | 51 | 100 | Plastic bag |

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

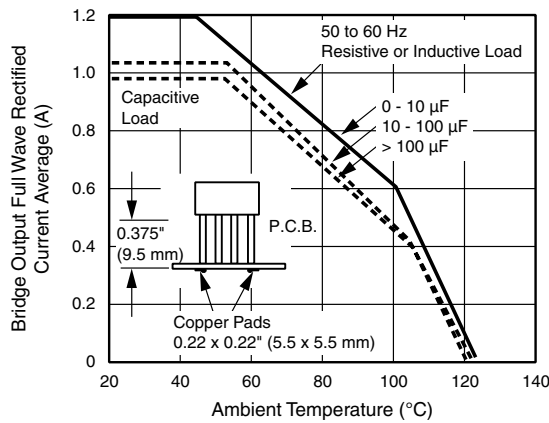


Fig. 1 - Derating Curves Output Rectified Current for B40C1000G...B125C1000G

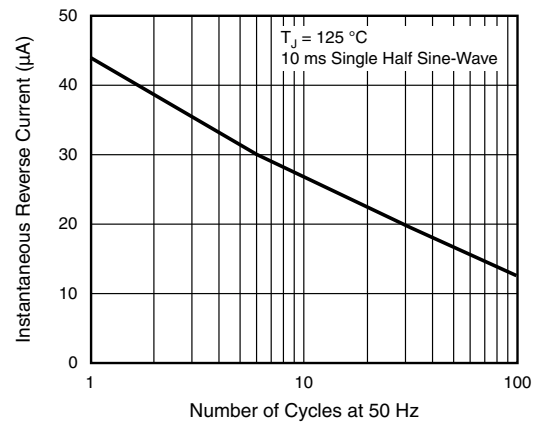


Fig. 3 - Maximum Non-Repetitive Peak Forward Surge Current Per Diode

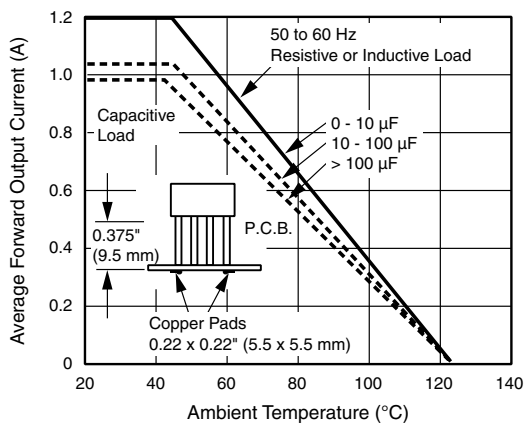


Fig. 2 - Derating Curves Output Rectified Current for B250C1000G...B380C1000G

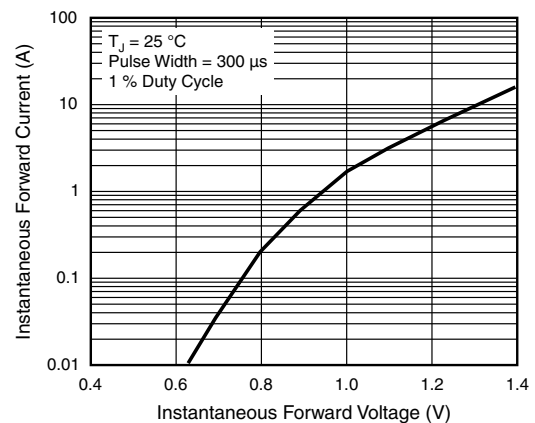


Fig. 4 - Typical Forward Characteristics Per Diode

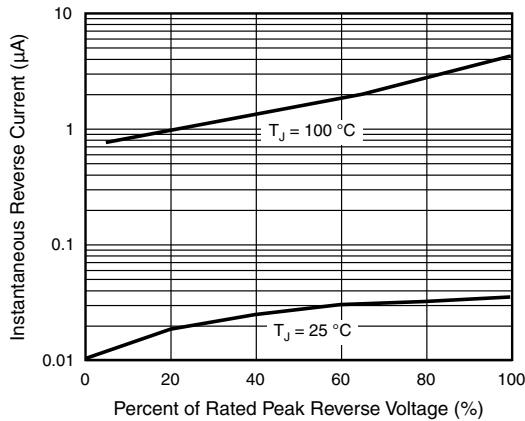


Fig. 5 - Typical Reverse Characteristics Per Diode

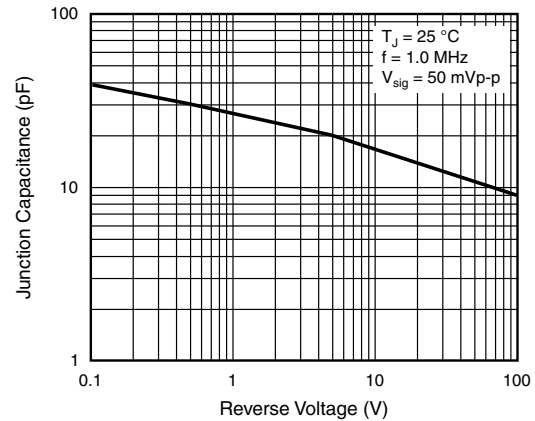
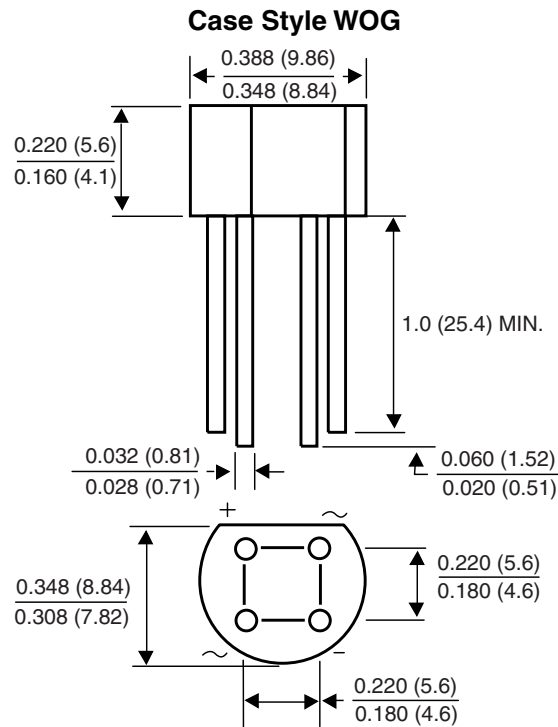


Fig. 6 - Typical Junction Capacitance Per Diode

PACKAGE OUTLINE DIMENSIONS in inches (millimeters)





Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay's knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Except as expressly indicated in writing, Vishay products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Vishay product could result in personal injury or death. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.

Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

 [View B125C1000G-E4/51 on WIN SOURCE](#)

 [Vishay Information](#)

Optimize Your Supply Chain with WIN SOURCE Solutions

-  Global Sourcing Solution
-  Obsolete Management
-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management