

# BZX584C-02V Series

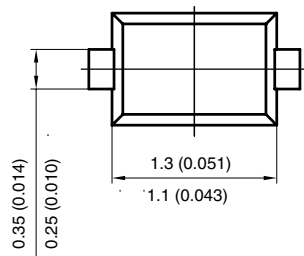
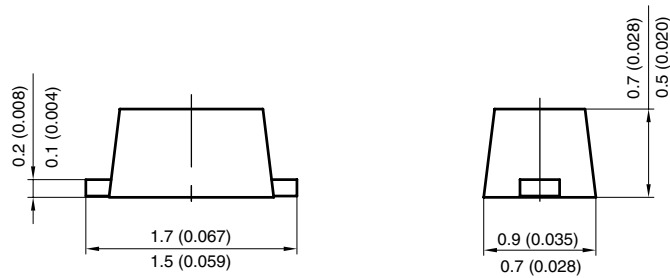
Vishay Semiconductors



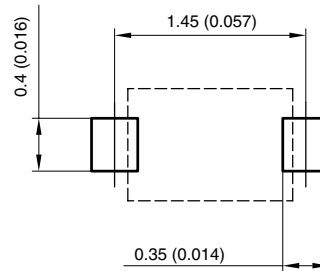
## Electrical Characteristics

| Part number    | Marking code | Zener voltage range |      | Dynamic resistance    |                       | Test current | Temp. coefficient of zener voltage |       | Test current | Reverse leakage current |                |
|----------------|--------------|---------------------|------|-----------------------|-----------------------|--------------|------------------------------------|-------|--------------|-------------------------|----------------|
|                |              | $V_Z$ at 5 mA       |      | $r_{zj}$ at $I_{ZT1}$ | $r_{zj}$ at $I_{ZT2}$ | $I_{ZT1}$    | $\alpha_{VZ}$ at 5 mA              |       | $I_{ZT2}$    | $I_R$                   | at $V_R$       |
|                |              | V                   |      | $\Omega$              |                       | mA           | $10^{-4}/^{\circ}\text{C}$         |       | mA           | $\mu\text{A}$           | V              |
|                |              | min                 | max  |                       |                       |              | min                                | max   |              |                         |                |
| BZX584C2V4-02V | 2            | 2.2                 | 2.6  | 70 ( $\leq 100$ )     | 275 ( $\leq 600$ )    | 5            | - 9                                | - 4   | 1            | 50                      | 1              |
| BZX584C2V7-02V | 3            | 2.5                 | 2.9  | 75 ( $\leq 100$ )     | 300 ( $\leq 600$ )    | 5            | - 9                                | - 4   | 1            | 20                      | 1              |
| BZX584C3V0-02V | 4            | 2.8                 | 3.2  | 80 ( $\leq 95$ )      | 325 ( $\leq 600$ )    | 5            | - 9                                | - 3   | 1            | 10                      | 1              |
| BZX584C3V3-02V | 5            | 3.1                 | 3.5  | 85 ( $\leq 95$ )      | 350 ( $\leq 600$ )    | 5            | - 8                                | - 3   | 1            | 5                       | 1              |
| BZX584C3V6-02V | 6            | 3.4                 | 3.8  | 85 ( $\leq 90$ )      | 375 ( $\leq 600$ )    | 5            | - 8                                | - 3   | 1            | 5                       | 1              |
| BZX584C3V9-02V | 7            | 3.7                 | 4.1  | 85 ( $\leq 90$ )      | 400 ( $\leq 600$ )    | 5            | - 7                                | - 3   | 1            | 3                       | 1              |
| BZX584C4V3-02V | 8            | 4                   | 4.6  | 80 ( $\leq 90$ )      | 410 ( $\leq 600$ )    | 5            | - 6                                | - 1   | 1            | 3                       | 1              |
| BZX584C4V7-02V | 9            | 4.4                 | 5    | 50 ( $\leq 80$ )      | 425 ( $\leq 500$ )    | 5            | - 5                                | + 2   | 1            | 3                       | 2              |
| BZX584C5V1-02V | 1            | 4.8                 | 5.4  | 40 ( $\leq 60$ )      | 400 ( $\leq 480$ )    | 5            | - 3                                | + 4   | 1            | 2                       | 2              |
| BZX584C5V6-02V | 0            | 5.2                 | 6    | 15 ( $\leq 40$ )      | 80 ( $\leq 400$ )     | 5            | - 2                                | + 6   | 1            | 1                       | 2              |
| BZX584C6V2-02V | 1            | 5.8                 | 6.6  | 6 ( $\leq 10$ )       | 40 ( $\leq 150$ )     | 5            | - 1                                | + 7   | 1            | 3                       | 4              |
| BZX584C6V8-02V | 2            | 6.4                 | 7.2  | 6 ( $\leq 15$ )       | 30 ( $\leq 80$ )      | 5            | + 2                                | + 7   | 1            | 2                       | 4              |
| BZX584C7V5-02V | 3            | 7                   | 7.9  | 6 ( $\leq 15$ )       | 30 ( $\leq 80$ )      | 5            | + 3                                | + 7   | 1            | 1                       | 5              |
| BZX584C8V2-02V | 4            | 7.7                 | 8.7  | 6 ( $\leq 15$ )       | 40 ( $\leq 80$ )      | 5            | + 4                                | + 7   | 1            | 0.7                     | 5              |
| BZX584C9V1-02V | 5            | 8.5                 | 9.6  | 6 ( $\leq 15$ )       | 40 ( $\leq 100$ )     | 5            | + 5                                | + 8   | 1            | 0.5                     | 6              |
| BZX584C10-02V  | 6            | 9.4                 | 10.6 | 8 ( $\leq 20$ )       | 50 ( $\leq 150$ )     | 5            | + 5                                | + 8   | 1            | 0.2                     | 7              |
| BZX584C11-02V  | 7            | 10.4                | 11.6 | 10 ( $\leq 20$ )      | 50 ( $\leq 150$ )     | 5            | + 5                                | + 9   | 1            | 0.1                     | 8              |
| BZX584C12-02V  | 8            | 11.4                | 12.7 | 10 ( $\leq 25$ )      | 50 ( $\leq 150$ )     | 5            | + 6                                | + 9   | 1            | 0.1                     | 8              |
| BZX584C13-02V  | 9            | 12.4                | 14.1 | 10 ( $\leq 30$ )      | 50 ( $\leq 170$ )     | 5            | + 7                                | + 9   | 1            | 0.1                     | 8              |
| BZX584C15-02V  | 0            | 13.8                | 15.6 | 10 ( $\leq 30$ )      | 50 ( $\leq 200$ )     | 5            | + 7                                | + 9   | 1            | 0.1                     | 8              |
| BZX584C16-02V  | 1            | 15.3                | 17.1 | 10 ( $\leq 40$ )      | 50 ( $\leq 200$ )     | 5            | + 8                                | + 9.5 | 1            | 0.05                    | 0.7 $V_{Znom}$ |
| BZX584C18-02V  | 2            | 16.8                | 19.1 | 10 ( $\leq 45$ )      | 50 ( $\leq 225$ )     | 5            | + 8                                | + 9.5 | 1            | 0.05                    | 0.7 $V_{Znom}$ |
| BZX584C20-02V  | 3            | 18.8                | 21.2 | 15 ( $\leq 55$ )      | 60 ( $\leq 225$ )     | 5            | + 8                                | + 10  | 1            | 0.05                    | 0.7 $V_{Znom}$ |
| BZX584C22-02V  | 4            | 20.8                | 23.3 | 20 ( $\leq 55$ )      | 60 ( $\leq 250$ )     | 5            | + 8                                | + 10  | 1            | 0.05                    | 0.7 $V_{Znom}$ |
| BZX584C24-02V  | 5            | 22.8                | 25.6 | 25 ( $\leq 70$ )      | 60 ( $\leq 250$ )     | 5            | + 8                                | + 10  | 1            | 0.05                    | 0.7 $V_{Znom}$ |
| BZX584C27-02V  | 6            | 25.1                | 28.9 | 25 ( $\leq 80$ )      | 65 ( $\leq 300$ )     | 2            | + 8                                | + 10  | 0.5          | 0.05                    | 0.7 $V_{Znom}$ |
| BZX584C30-02V  | K            | 28                  | 32   | 30 ( $\leq 80$ )      | 70 ( $\leq 300$ )     | 2            | + 8                                | + 10  | 0.5          | 0.05                    | 0.7 $V_{Znom}$ |
| BZX584C33-02V  | q            | 31                  | 35   | 35 ( $\leq 80$ )      | 75 ( $\leq 325$ )     | 2            | + 8                                | + 10  | 0.5          | 0.05                    | 0.7 $V_{Znom}$ |
| BZX584C36-02V  | q            | 34                  | 38   | 35 ( $\leq 90$ )      | 80 ( $\leq 350$ )     | 2            | + 8                                | + 10  | 0.5          | 0.05                    | 0.7 $V_{Znom}$ |
| BZX584C39-02V  | H            | 37                  | 41   | 40 ( $\leq 130$ )     | 80 ( $\leq 350$ )     | 2            | + 10                               | + 12  | 0.5          | 0.05                    | 0.7 $V_{Znom}$ |
| BZX584C43-02V  | J            | 40                  | 46   | 45 ( $\leq 150$ )     | 85 ( $\leq 375$ )     | 2            | + 10                               | + 12  | 0.5          | 0.05                    | 0.7 $V_{Znom}$ |
| BZX584C47-02V  | L            | 44                  | 50   | 50 ( $\leq 170$ )     | 85 ( $\leq 375$ )     | 2            | + 10                               | + 12  | 0.5          | 0.05                    | 0.7 $V_{Znom}$ |
| BZX584C51-02V  | M            | 48                  | 54   | 60 ( $\leq 180$ )     | 85 ( $\leq 400$ )     | 2            | + 10                               | + 12  | 0.5          | 0.05                    | 0.7 $V_{Znom}$ |

## Package Dimensions in millimeters (inches): SOD-523



Foot print recommendation:



Document no.: S8-V-3880.02-001  
Rev. f - Date: 25. January. 2005  
16864



### Disclaimer

All product specifications and data are subject to change without notice.

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 herein or in any other disclosure relating to any product.

Vishay disclaims any and all liability arising out of the use or application of any product described herein or of any information provided herein to the maximum extent permitted by law. The product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein, which apply to these products.

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.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications unless otherwise expressly indicated. Customers using or selling Vishay products not expressly indicated for use in such applications do so entirely at their own risk and agree to fully indemnify Vishay for any damages arising or resulting from such use or sale. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

Product names and markings noted herein may be trademarks of their respective owners.