

# BZX584C2V4 SERIES

## SURFACE MOUNT SILICON ZENER DIODES

**VOLTAGE** 2.4 to 75 Volt **POWER** 200 mWatt

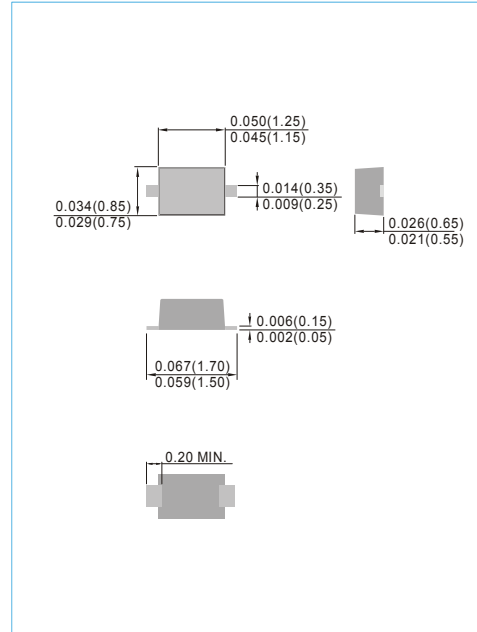
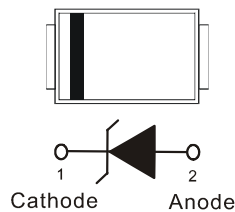
**SOD-523** Unit : inch(mm)

### FEATURES

- Planar die construction
- 200mW power dissipation
- Zener voltages from 2.4V~75V
- Ideally suited for automated assembly processes
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

### MECHANICAL DATA

- Case: SOD-523, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Standard packaging: 8mm tape
- Apporx. Weight: 0.00005 ounces, 0.00143 grams



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

| PARAMETER                                           | SYMBOL | VALUE       | UNITS            |
|-----------------------------------------------------|--------|-------------|------------------|
| Forward Voltage @ $I_F=10\text{mA}$                 | $V_F$  | 0.9         | V                |
| Power Dissipation @ $T_A=25^\circ\text{C}$ (Note A) | $P_D$  | 200         | mW               |
| Operating Junction and Storage Temperature Range    | $T_J$  | -55 to +150 | $^\circ\text{C}$ |

### NOTES :

A. Mounted on 100cm<sup>2</sup>(1mm thick) copper areas.



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| Part Number | Nominal Zener Voltage            |        |        | Max. Zener Impedance              |     |                                   |      | Max Reverse Leakage Current     |       | Marking Code |
|-------------|----------------------------------|--------|--------|-----------------------------------|-----|-----------------------------------|------|---------------------------------|-------|--------------|
|             | V <sub>Z</sub> @ I <sub>ZT</sub> |        |        | Z <sub>ZT</sub> @ I <sub>ZT</sub> |     | Z <sub>ZK</sub> @ I <sub>ZK</sub> |      | I <sub>R</sub> @ V <sub>R</sub> |       |              |
|             | Nom. V                           | Min. V | Max. V | Ω                                 | mA  | Ω                                 | mA   | uA                              | V     |              |
| BZX584C2V4  | 2.4                              | 2.28   | 2.52   | 100                               | 5.0 | 600                               | 1.00 | 50                              | 1.0   | W1           |
| BZX584C2V7  | 2.7                              | 2.57   | 2.84   | 100                               | 5.0 | 600                               | 1.00 | 20                              | 1.0   | W2           |
| BZX584C3    | 3                                | 2.85   | 3.15   | 95                                | 5.0 | 600                               | 1.00 | 10                              | 1.0   | W3           |
| BZX584C3V3  | 3.3                              | 3.14   | 3.47   | 95                                | 5.0 | 600                               | 1.00 | 5.0                             | 1.0   | W4           |
| BZX584C3V6  | 3.6                              | 3.42   | 3.78   | 90                                | 5.0 | 600                               | 1.00 | 5.0                             | 1.0   | W5           |
| BZX584C3V9  | 3.9                              | 3.71   | 4.10   | 90                                | 5.0 | 600                               | 1.00 | 3.0                             | 1.0   | W6           |
| BZX584C4V3  | 4.3                              | 4.09   | 4.52   | 90                                | 5.0 | 600                               | 1.00 | 3.0                             | 1.0   | W7           |
| BZX584C4V7  | 4.7                              | 4.47   | 4.94   | 80                                | 5.0 | 500                               | 1.00 | 3.0                             | 2.0   | W8           |
| BZX584C5V1  | 5.1                              | 4.85   | 5.36   | 60                                | 5.0 | 480                               | 1.00 | 2.0                             | 2.0   | W9           |
| BZX584C5V6  | 5.6                              | 5.32   | 5.88   | 40                                | 5.0 | 400                               | 1.00 | 1.0                             | 2.0   | WA           |
| BZX584C6V2  | 6.2                              | 5.89   | 6.51   | 10                                | 5.0 | 150                               | 1.00 | 3.0                             | 4.0   | WB           |
| BZX584C6V8  | 6.8                              | 6.46   | 7.14   | 15                                | 5.0 | 80                                | 1.00 | 2.0                             | 4.0   | WC           |
| BZX584C7V5  | 7.5                              | 7.13   | 7.88   | 15                                | 5.0 | 80                                | 1.00 | 1.0                             | 5.0   | WD           |
| BZX584C8V2  | 8.2                              | 7.79   | 8.61   | 15                                | 5.0 | 80                                | 1.00 | 0.7                             | 5.0   | WE           |
| BZX584C8V7  | 8.7                              | 8.27   | 9.14   | 15                                | 5.0 | 100                               | 1.00 | 0.7                             | 5.0   | 3C           |
| BZX584C9V1  | 9.1                              | 8.65   | 9.56   | 15                                | 5.0 | 100                               | 1.00 | 0.5                             | 6.0   | WF           |
| BZX584C10   | 10                               | 9.50   | 10.50  | 20                                | 5.0 | 150                               | 1.00 | 0.2                             | 7.0   | WG           |
| BZX584C11   | 11                               | 10.45  | 11.55  | 20                                | 5.0 | 150                               | 1.00 | 0.1                             | 8.0   | WH           |
| BZX584C12   | 12                               | 11.40  | 12.60  | 25                                | 5.0 | 150                               | 1.00 | 0.1                             | 8.0   | WI           |
| BZX584C13   | 13                               | 12.35  | 13.65  | 30                                | 5.0 | 170                               | 1.00 | 0.1                             | 8.0   | WK           |
| BZX584C14   | 14                               | 13.30  | 14.70  | 30                                | 5.0 | 170                               | 1.00 | 0.1                             | 10.00 | WJ           |
| BZX584C15   | 15                               | 14.25  | 15.75  | 30                                | 5.0 | 200                               | 1.00 | 0.1                             | 10.50 | WL           |
| BZX584C16   | 16                               | 15.20  | 16.80  | 40                                | 5.0 | 200                               | 1.00 | 0.1                             | 11.20 | WM           |
| BZX584C17   | 17                               | 16.15  | 17.85  | 40                                | 5.0 | 200                               | 1.00 | 0.1                             | 12.20 | 4C           |
| BZX584C18   | 18                               | 17.10  | 18.90  | 45                                | 5.0 | 225                               | 1.00 | 0.1                             | 12.60 | WN           |
| BZX584C20   | 20                               | 19.00  | 21.00  | 55                                | 5.0 | 225                               | 1.00 | 0.1                             | 14.00 | WO           |
| BZX584C22   | 22                               | 20.90  | 23.10  | 55                                | 5.0 | 250                               | 1.00 | 0.1                             | 15.40 | WP           |
| BZX584C24   | 24                               | 22.80  | 25.20  | 70                                | 5.0 | 250                               | 1.00 | 0.1                             | 16.80 | WR           |
| BZX584C27   | 27                               | 25.65  | 28.35  | 80                                | 5.0 | 300                               | 1.00 | 0.1                             | 18.90 | WS           |
| BZX584C28   | 28                               | 26.60  | 29.40  | 80                                | 5.0 | 300                               | 1.00 | 0.1                             | 20.50 | 5C           |
| BZX584C30   | 30                               | 28.50  | 31.50  | 80                                | 5.0 | 300                               | 1.00 | 0.1                             | 21.00 | WT           |
| BZX584C33   | 33                               | 31.35  | 34.65  | 80                                | 5.0 | 325                               | 1.00 | 0.1                             | 23.10 | WU           |
| BZX584C36   | 36                               | 34.20  | 37.80  | 90                                | 5.0 | 350                               | 1.00 | 0.1                             | 25.20 | WW           |
| BZX584C39   | 39                               | 37.05  | 40.95  | 130                               | 5.0 | 350                               | 1.00 | 0.1                             | 27.30 | WX           |
| BZX584C43   | 43                               | 40.85  | 45.15  | 150                               | 5.0 | 375                               | 1.00 | 0.1                             | 30.10 | WY           |
| BZX584C47   | 47                               | 44.65  | 49.35  | 170                               | 5.0 | 375                               | 1.00 | 0.1                             | 32.90 | WZ           |
| BZX584C51   | 51                               | 48.45  | 53.55  | 100                               | 5.0 | 400                               | 1.00 | 0.1                             | 38.00 | XA           |
| BZX584C56   | 56                               | 53.20  | 58.80  | 135                               | 2.5 | 1000                              | 1.00 | 0.1                             | 42.00 | X2           |
| BZX584C62   | 62                               | 58.90  | 65.10  | 150                               | 2.5 | 1000                              | 1.00 | 0.1                             | 46.00 | X3           |
| BZX584C68   | 68                               | 64.60  | 71.40  | 200                               | 2.5 | 1000                              | 1.00 | 0.1                             | 51.00 | X4           |
| BZX584C75   | 75                               | 71.25  | 78.75  | 250                               | 2.5 | 1000                              | 1.00 | 0.1                             | 56.00 | X5           |

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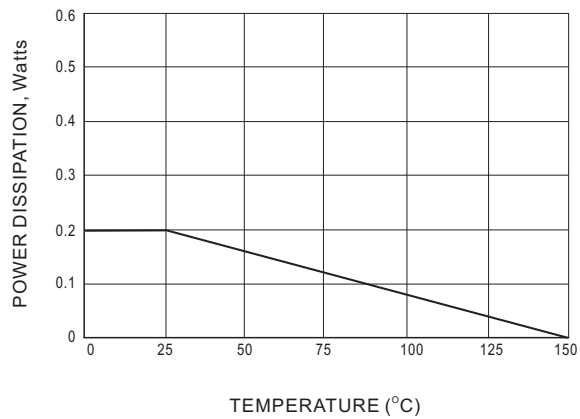


Fig.1 STEADY STATE POWER DERATING

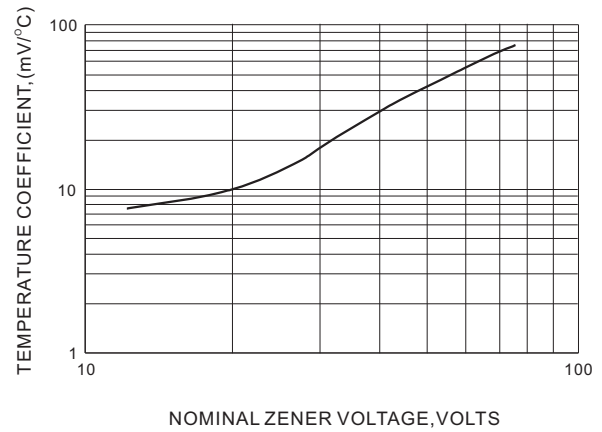


Fig.2 TEMPERATURE COEFFICIENTS

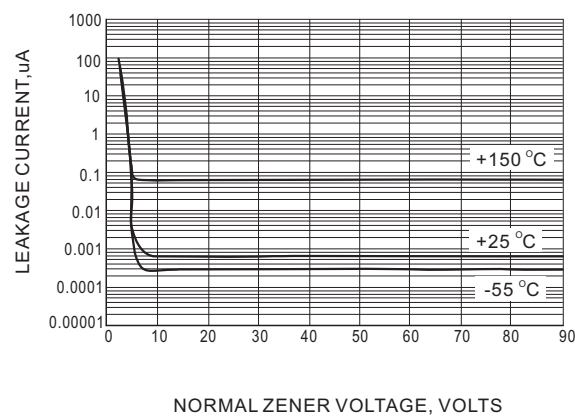


Fig.3 TYPICAL LEAKAGE CURRENT

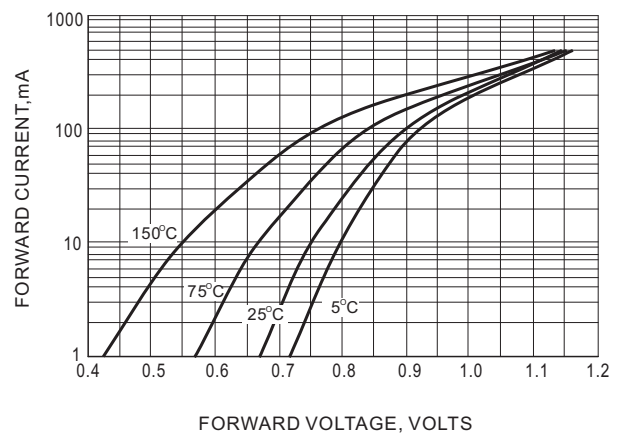


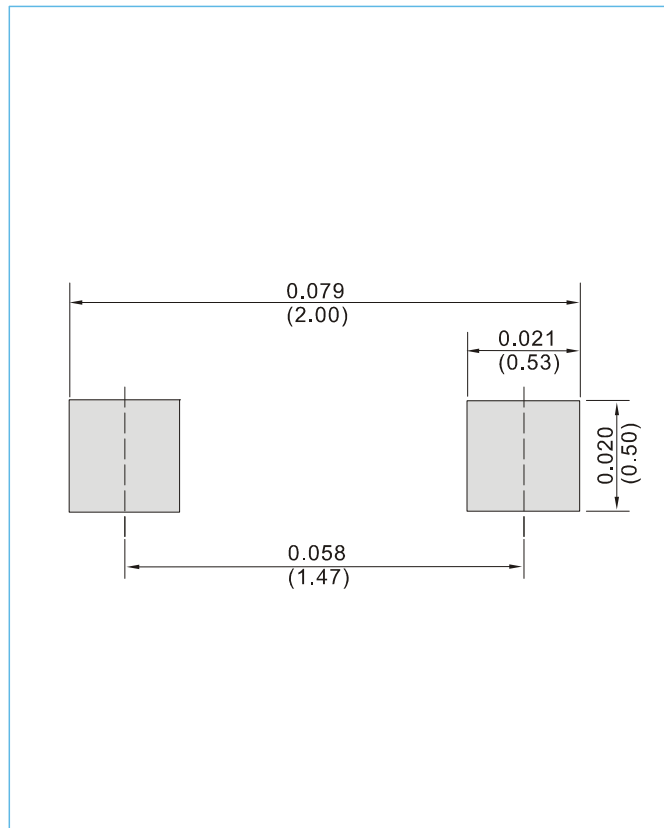
Fig.4 TYPICAL FORWARD VOLTAGE

# BZX584C2V4 SERIES

## MOUNTING PAD LAYOUT

**SOD-523**

Unit : inch(mm)



## ORDER INFORMATION

- Packing information
  - T/R - 12K per 13" plastic Reel
  - T/R - 5K per 7" plastic Reel

## BZX584C2V4 SERIES

### Part No.\_packing code\_Version

BZX584C2V4\_R1\_00001

BZX584C2V4\_R2\_00001

For example :

**RB500V-40\_R2\_00001**

Part No.

Serial number

Version code means HF

Packing size code means 13"

Packing type means T/R

| Packing Code <b>XX</b>               |                      |                                  |                      | Version Code <b>XXXXX</b> |                      |                                       |
|--------------------------------------|----------------------|----------------------------------|----------------------|---------------------------|----------------------|---------------------------------------|
| Packing type                         | 1 <sup>st</sup> Code | Packing size code                | 2 <sup>nd</sup> Code | HF or RoHS                | 1 <sup>st</sup> Code | 2 <sup>nd</sup> ~5 <sup>th</sup> Code |
| Tape and Ammunition Box (T/B)        | <b>A</b>             | N/A                              | <b>0</b>             | <b>HF</b>                 | <b>0</b>             | serial number                         |
| Tape and Reel (T/R)                  | <b>R</b>             | 7"                               | <b>1</b>             | <b>RoHS</b>               | <b>1</b>             | serial number                         |
| Bulk Packing (B/P)                   | <b>B</b>             | 13"                              | <b>2</b>             |                           |                      |                                       |
| Tube Packing (T/P)                   | <b>T</b>             | 26mm                             | <b>X</b>             |                           |                      |                                       |
| Tape and Reel (Right Oriented) (TRR) | <b>S</b>             | 52mm                             | <b>Y</b>             |                           |                      |                                       |
| Tape and Reel (Left Oriented) (TRL)  | <b>L</b>             | PANASERT T/B CATHODE UP (PBCU)   | <b>U</b>             |                           |                      |                                       |
| FORMING                              | <b>F</b>             | PANASERT T/B CATHODE DOWN (PBCD) | <b>D</b>             |                           |                      |                                       |



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