

**BZT52C2V4S SERIES**  
**SURFACE MOUNT SILICON ZENER DIODES**

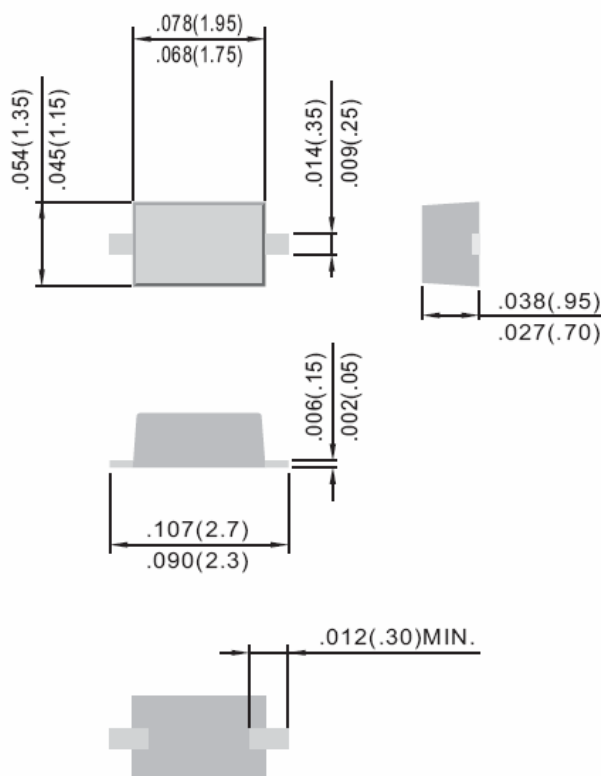
**Features:**

- Planar Die Construction
- 200mW Power Dissipation
- 2.4-51V Nominal Zener Voltage
- Ideally Suited for Automated Assembly Processes
- In compliance with EU RoHS 2002/95/EC directives
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

**Mechanical Data:**

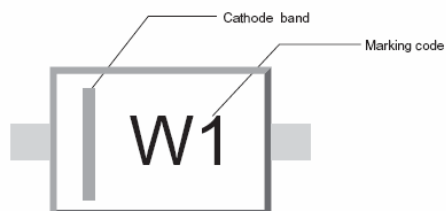
- Case: SOD-323, Molded Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Polarity : Cathode Band
- Weight: 0.008 grams (approx.)
- Mounting Position: Any

**Mechanical Dimensions: In Inches / mm**



**SOD-323**

## Marking Diagram:



W1 = Marking code

BZT52-C2V4S

**Cautions:** Molding resin  
Epoxy resin UL: 94V-0

## Ordering Information:

| Device               | Package              | Shipping       |
|----------------------|----------------------|----------------|
| BZT52C2V4S-BZT52C51S | SOD-323<br>(Pb-Free) | 3000pcs / reel |

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

## Maximum Ratings (T<sub>a</sub>=25°C, Unless otherwise specified)

| Characteristic                                    | Symbol           | BZT52C2V4S-BZT52C51S | Unit |
|---------------------------------------------------|------------------|----------------------|------|
| Power Dissipation (Note 1) @T <sub>A</sub> = 25°C | P <sub>D</sub>   | 200                  | mW   |
| Junction Temperature                              | T <sub>J</sub>   | -55 to +150          | °C   |
| Storage Temperature Range                         | T <sub>STG</sub> | -55 to +150          | °C   |

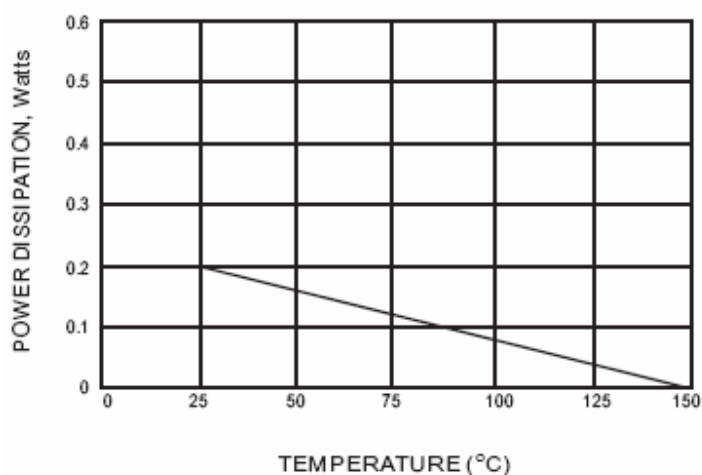
Note: 1 Mounted on 5.0mm 2 (.013mm thick) land areas.



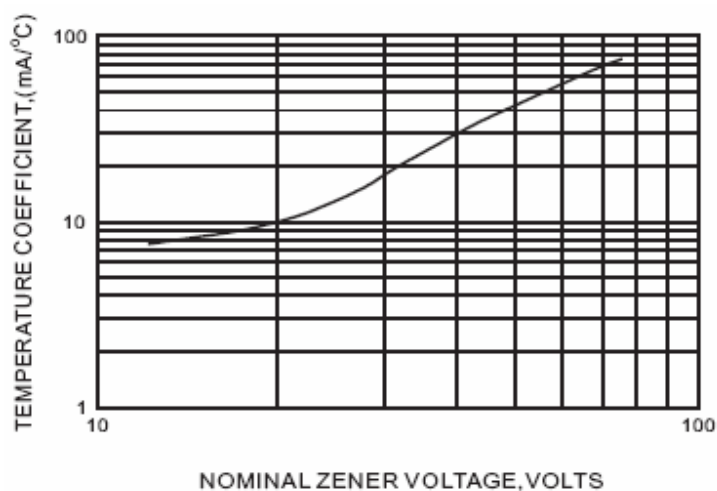
**Technical Data**  
**Data Sheet N1449, Rev.-**

**Green Products**

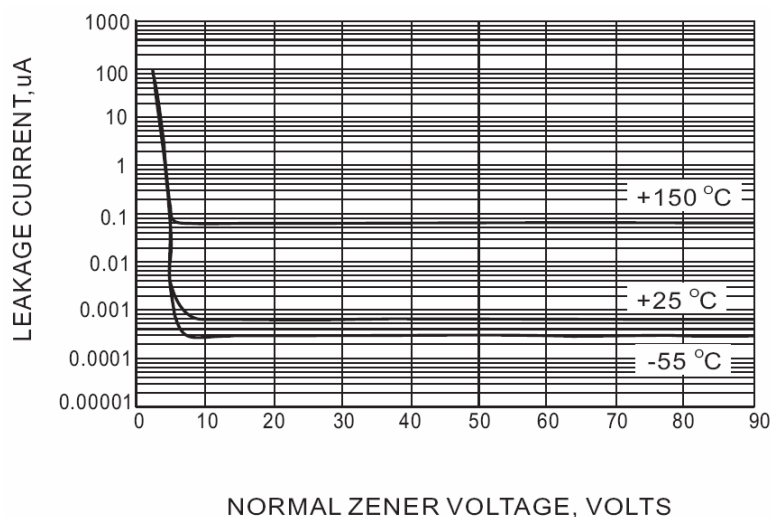
| Part Number             | Nominal Zener Voltage            |        |        | Max. Zener Impedance              |     |                                   |      | Max Reverse Leakage Current     |      | Marking Code | Package |
|-------------------------|----------------------------------|--------|--------|-----------------------------------|-----|-----------------------------------|------|---------------------------------|------|--------------|---------|
|                         | 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   | μA                              | V    |              |         |
| 200 mWatts Zener Diodes |                                  |        |        |                                   |     |                                   |      |                                 |      |              |         |
| BZT52C2V4S              | 2.4                              | 2.28   | 2.52   | 85                                | 5.0 | 600                               | 1.00 | 100                             | 1.0  | W1           | SOD-323 |
| BZT52C2V7S              | 2.7                              | 2.57   | 2.84   | 83                                | 5.0 | 600                               | 1.00 | 75                              | 1.0  | W2           | SOD-323 |
| BZT52C3S                | 3.0                              | 2.85   | 3.15   | 95                                | 5.0 | 600                               | 1.00 | 50                              | 1.0  | W3           | SOD-323 |
| BZT52C3V3S              | 3.3                              | 3.14   | 3.47   | 95                                | 5.0 | 600                               | 1.00 | 25                              | 1.0  | W4           | SOD-323 |
| BZT52C3V6S              | 3.6                              | 3.42   | 3.78   | 95                                | 5.0 | 600                               | 1.00 | 15                              | 1.0  | W5           | SOD-323 |
| BZT52C3V9S              | 3.9                              | 3.71   | 4.10   | 95                                | 5.0 | 600                               | 1.00 | 10                              | 1.0  | W6           | SOD-323 |
| BZT52C4V3S              | 4.3                              | 4.09   | 4.52   | 95                                | 5.0 | 600                               | 1.00 | 5.0                             | 1.0  | W7           | SOD-323 |
| BZT52C4V7S              | 4.7                              | 4.47   | 4.94   | 78                                | 5.0 | 500                               | 1.00 | 5.0                             | 1.0  | W8           | SOD-323 |
| BZT52C5V1S              | 5.1                              | 4.85   | 5.36   | 60                                | 5.0 | 480                               | 1.00 | 0.1                             | 0.8  | W9           | SOD-323 |
| BZT52C5V6S              | 5.6                              | 5.32   | 5.88   | 40                                | 5.0 | 400                               | 1.00 | 0.1                             | 1.0  | WA           | SOD-323 |
| BZT52C6V2S              | 6.2                              | 5.89   | 6.51   | 10                                | 5.0 | 150                               | 1.00 | 0.1                             | 2.0  | WB           | SOD-323 |
| BZT52C6V8S              | 6.8                              | 6.46   | 7.14   | 8                                 | 5.0 | 80                                | 1.00 | 0.1                             | 3.0  | WC           | SOD-323 |
| BZT52C7V5S              | 7.5                              | 7.13   | 7.88   | 7                                 | 5.0 | 80                                | 1.00 | 0.1                             | 5.0  | WD           | SOD-323 |
| BZT52C8V2S              | 8.2                              | 7.79   | 8.61   | 7                                 | 5.0 | 80                                | 1.00 | 0.1                             | 6.0  | WE           | SOD-323 |
| BZT52C8V7S              | 8.7                              | 8.27   | 9.14   | 7                                 | 5.0 | 100                               | 1.00 | 0.1                             | 6.5  | 87C          | SOD-323 |
| BZT52C9V1S              | 9.1                              | 8.65   | 9.56   | 10                                | 5.0 | 100                               | 1.00 | 0.1                             | 7.0  | WF           | SOD-323 |
| BZT52C10S               | 10                               | 9.50   | 10.50  | 15                                | 5.0 | 150                               | 1.00 | 0.1                             | 7.5  | WG           | SOD-323 |
| BZT52C11S               | 11                               | 10.45  | 11.55  | 20                                | 5.0 | 150                               | 1.00 | 0.1                             | 8.5  | WH           | SOD-323 |
| BZT52C12S               | 12                               | 11.40  | 12.60  | 20                                | 5.0 | 150                               | 1.00 | 0.1                             | 9.0  | WI           | SOD-323 |
| BZT52C13S               | 13                               | 12.35  | 13.65  | 25                                | 5.0 | 170                               | 1.00 | 0.1                             | 10.0 | WK           | SOD-323 |
| BZT52C14S               | 14                               | 13.30  | 14.70  | 25                                | 5.0 | 170                               | 1.00 | 0.1                             | 10.5 | WJ           | SOD-323 |
| BZT52C15S               | 15                               | 14.25  | 15.75  | 30                                | 5.0 | 200                               | 1.00 | 0.1                             | 11.0 | WL           | SOD-323 |
| BZT52C16S               | 16                               | 15.20  | 16.80  | 40                                | 5.0 | 200                               | 1.00 | 0.1                             | 12.0 | WM           | SOD-323 |
| BZT52C17S               | 17                               | 16.15  | 17.85  | 40                                | 5.0 | 200                               | 1.00 | 0.1                             | 13.0 | 17C          | SOD-323 |
| BZT52C18S               | 18                               | 17.10  | 18.90  | 50                                | 5.0 | 225                               | 1.00 | 0.1                             | 14.0 | WN           | SOD-323 |
| BZT52C20S               | 20                               | 19.00  | 21.00  | 50                                | 5.0 | 225                               | 1.00 | 0.1                             | 15.0 | WO           | SOD-323 |
| BZT52C22S               | 22                               | 20.90  | 23.10  | 55                                | 5.0 | 250                               | 1.00 | 0.1                             | 17.0 | WP           | SOD-323 |
| BZT52C24S               | 24                               | 22.80  | 25.20  | 80                                | 5.0 | 250                               | 1.00 | 0.1                             | 18.0 | WR           | SOD-323 |
| BZT52C27S               | 27                               | 25.65  | 28.35  | 80                                | 5.0 | 300                               | 1.00 | 0.1                             | 20.0 | WS           | SOD-323 |
| BZT52C28S               | 28                               | 26.60  | 29.40  | 80                                | 5.0 | 300                               | 1.00 | 0.1                             | 22.0 | 28C          | SOD-323 |
| BZT52C30S               | 30                               | 28.50  | 31.50  | 80                                | 5.0 | 300                               | 1.00 | 0.1                             | 22.5 | WT           | SOD-323 |
| BZT52C33S               | 33                               | 31.35  | 34.65  | 80                                | 5.0 | 325                               | 1.00 | 0.1                             | 25.0 | WU           | SOD-323 |
| BZT52C36S               | 36                               | 34.20  | 37.80  | 90                                | 5.0 | 350                               | 1.00 | 0.1                             | 27.0 | WW           | SOD-323 |
| BZT52C39S               | 39                               | 37.05  | 40.95  | 90                                | 5.0 | 350                               | 1.00 | 0.1                             | 29.0 | WX           | SOD-323 |
| BZT52C43S               | 43                               | 40.85  | 45.15  | 100                               | 5.0 | 700                               | 1.00 | 0.1                             | 32.0 | WY           | SOD-323 |
| BZT52C47S               | 47                               | 44.65  | 49.35  | 100                               | 5.0 | 750                               | 1.00 | 0.1                             | 35.0 | WZ           | SOD-323 |
| BZT52C51S               | 51                               | 48.45  | 53.55  | 100                               | 5.0 | 750                               | 1.00 | 0.1                             | 38.0 | XA           | SOD-323 |



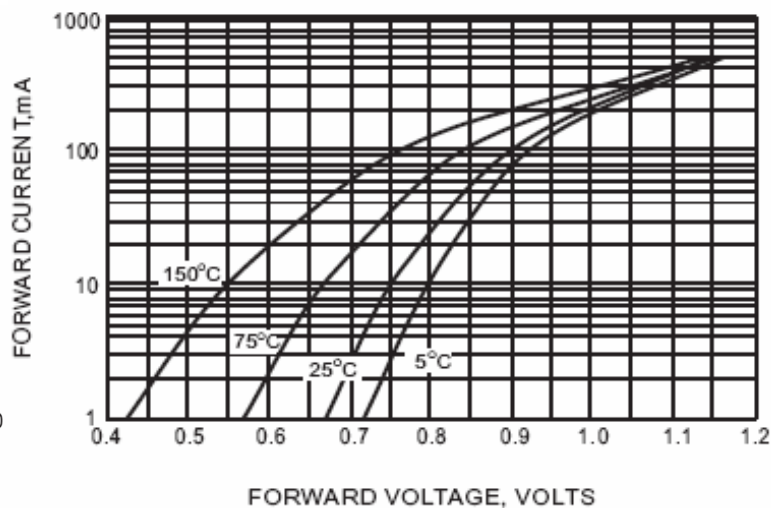
**Fig.1-Steady State Power Derating**



**Fig.2-Temperature Coefficients**



**Fig.3-Typical Leakage Current**



**Fig.4-Typical Forward Voltage**

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