## Features

- Standard Vz Tolerance is ±2%
- Planar Die Construction
- Ideally Suited for Automated Assembly Processes
- Halogen Free. “Green” Device (Note 1)
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

# 500 mW Zener Diode 2.4 to 75 Volts

## Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance : 304°C/W Junction to Ambient (Note2)
- Thermal Resistance : 250°C/W Junction to Ambient (Note3)

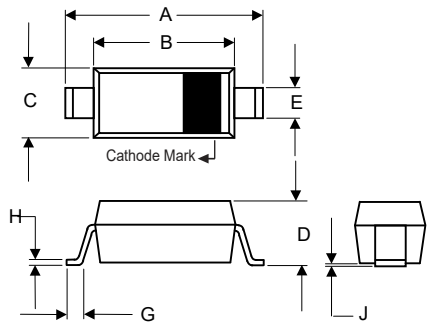
| Parameter | Symbol | Rating | Conditions |
|---|---|---|---|
| Power Dissipation | $P_D$ | 410mW | Diode on Ceramic Substrate 0.7 mm, 2.5 $mm^2$ Pad Areas |
| Power Dissipation | $P_D$ | 500mW | Diode on Ceramic Substrate 0.7 mm, 5 $mm^2$ Pad Areas |
| Maximum Forward Voltage | $V_F$ | 0.9V | $I_F$=10mA |

Note: 1. Halogen free "Green” products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

Note: 2. Diode on Ceramic Substrate 0.7 mm, 2.5 $mm^2$ Pad Areas.

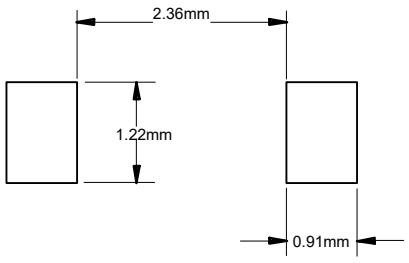
Note: 3. Diode on Ceramic Substrate 0.7 mm, 5 $mm^2$ Pad Areas.

## SOD-123




| DIMENSIONS | | | | | |
|---|---|---|---|---|---|
| DIM | INCHES | | MM | | NOTE |
| | MIN | MAX | MIN | MAX | |
| A | 0.140 | 0.152 | 3.55 | 3.85 | |
| B | 0.100 | 0.112 | 2.55 | 2.85 | |
| C | 0.055 | 0.071 | 1.40 | 1.80 | |
| D | ---- | 0.053 | ---- | 1.35 | |
| E | 0.018 | 0.026 | 0.45 | 0.65 | |
| G | 0.006 | ---- | 0.15 | ---- | |
| H | ---- | 0.010 | ---- | 0.25 | |
| J | ---- | 0.006 | ---- | 0.15 | |

**SUGGESTED SOLDER PAD LAYOUT**



## Electrical Characteristics @ 25°C Unless Otherwise Specified

| MCC Part Number | Zener Voltage | | | Maximum Zener Impedance (4) | | | | Reverse Current | | Marking Code |
|---|---|---|---|---|---|---|---|---|---|---|
| | $V_Z$ @ $I_{ZT}$ | | | $Z_{ZT}$ | $I_{ZT}$ | $Z_{ZK}$ | $I_{ZK}$ | $I_R$(Max) | $V_R$ | |
| | Min.(V) | Nom(V) | Max.(V) | Ω | mA | Ω | mA | μA | V | |
| BZT52B2V4 | 2.35 | 2.4 | 2.45 | 85 | 5 | 600 | 1 | 100 | 1.0 | 2WX |
| BZT52B2V7 | 2.64 | 2.7 | 2.75 | 83 | 5 | 600 | 1 | 75 | 1.0 | 2W1 |
| BZT52B3V0 | 2.94 | 3.0 | 3.06 | 95 | 5 | 600 | 1 | 50 | 1.0 | 2W2 |
| BZT52B3V3 | 3.23 | 3.3 | 3.37 | 95 | 5 | 600 | 1 | 25 | 1.0 | 2W3 |
| BZT52B3V6 | 3.52 | 3.6 | 3.67 | 95 | 5 | 600 | 1 | 15 | 1.0 | 2W4 |
| BZT52B3V9 | 3.82 | 3.9 | 3.98 | 95 | 5 | 600 | 1 | 10 | 1.0 | 2W5 |
| BZT52B4V3 | 4.21 | 4.3 | 4.39 | 95 | 5 | 600 | 1 | 5 | 1.0 | 2W6 |
| BZT52B4V7 | 4.61 | 4.7 | 4.79 | 78 | 5 | 500 | 1 | 5 | 2.0 | 2W7 |
| BZT52B5V1 | 5.0 | 5.1 | 5.2 | 60 | 5 | 480 | 1 | 0.1 | 0.8 | 2W8 |
| BZT52B5V6 | 5.49 | 5.6 | 5.71 | 40 | 5 | 400 | 1 | 0.1 | 1.0 | 2W9 |
| BZT52B6V2 | 6.08 | 6.2 | 6.32 | 10 | 5 | 150 | 1 | 0.1 | 2.0 | 2WA |
| BZT52B6V8 | 6.66 | 6.8 | 6.94 | 8 | 5 | 80 | 1 | 0.1 | 3.0 | 2WB |
| BZT52B7V5 | 7.35 | 7.5 | 7.65 | 7 | 5 | 80 | 1 | 0.1 | 5.0 | 2WC |
| BZT52B8V2 | 8.04 | 8.2 | 8.36 | 7 | 5 | 80 | 1 | 0.1 | 6.0 | 2WD |
| BZT52B9V1 | 8.92 | 9.1 | 9.28 | 10 | 5 | 100 | 1 | 0.1 | 7.0 | 2WE |
| BZT52B10 | 9.80 | 10 | 10.2 | 15 | 5 | 150 | 1 | 0.1 | 7.5 | 2WF |
| BZT52B11 | 10.78 | 11 | 11.22 | 20 | 5 | 150 | 1 | 0.1 | 8.5 | 2WG |
| BZT52B12 | 11.76 | 12 | 12.24 | 20 | 5 | 150 | 1 | 0.1 | 9.0 | 2WH |
| BZT52B13 | 12.74 | 13 | 13.3 | 25 | 5 | 170 | 1 | 0.1 | 10.0 | 2WI |
| BZT52B15 | 14.7 | 15 | 15.3 | 30 | 5 | 200 | 1 | 0.1 | 11.0 | 2WJ |
| BZT52B16 | 15.68 | 16 | 16.3 | 40 | 5 | 200 | 1 | 0.1 | 12.0 | 2WK |
| BZT52B18 | 17.6 | 18 | 18.4 | 50 | 5 | 225 | 1 | 0.1 | 14.0 | 2WL |
| BZT52B20 | 19.6 | 20 | 20.4 | 50 | 5 | 225 | 1 | 0.1 | 15.0 | 2WM |
| BZT52B22 | 21.56 | 22 | 22.44 | 55 | 5 | 250 | 1 | 0.1 | 17.0 | 2WN |
| BZT52B24 | 23.52 | 24 | 24.5 | 70 | 5 | 250 | 1 | 0.1 | 18.0 | WR |
| BZT52B27 | 26.46 | 27 | 27.54 | 80 | 2 | 300 | 1 | 0.1 | 20.0 | 2WP |
| BZT52B30 | 29.4 | 30 | 30.6 | 80 | 2 | 300 | 1 | 0.1 | 22.5 | WT |
| BZT52B33 | 32.34 | 33 | 33.7 | 80 | 2 | 325 | 1 | 0.1 | 25.0 | 2WR |
| BZT52B36 | 35.28 | 36 | 36.72 | 90 | 2 | 350 | 1 | 0.1 | 27.0 | 2WS |
| BZT52B39 | 38.22 | 39 | 39.8 | 90 | 2 | 350 | 1 | 0.1 | 29.0 | 2WT |
| BZT52B43 | 42.14 | 43 | 43.86 | 100 | 2 | 375 | 1 | 0.1 | 32.0 | 2WU |
| BZT52B47 | 46.06 | 47 | 47.94 | 100 | 2 | 375 | 1 | 0.1 | 35.0 | 2WV |
| BZT52B51 | 49.98 | 51 | 52.02 | 100 | 2 | 400 | 1 | 0.1 | 38.0 | 2X1 |
| BZT52B56 | 54.88 | 56 | 57.12 | 135 | 2 | 1000 | 1 | 0.1 | 42.0 | 2X2 |
| BZT52B62 | 60.76 | 62 | 63.24 | 150 | 2 | 1000 | 1 | 0.1 | 46.0 | X3 |
| BZT52B68 | 66.64 | 68 | 69.36 | 200 | 2 | 1000 | 1 | 0.1 | 51.0 | X4 |
| BZT52B75 | 73.50 | 75 | 76.50 | 250 | 2 | 1000 | 1 | 0.1 | 56.0 | 2X5 |

Note : 4. f=1KHz

## Curve Characteristics

Fig. 1 - Power Derating Curve

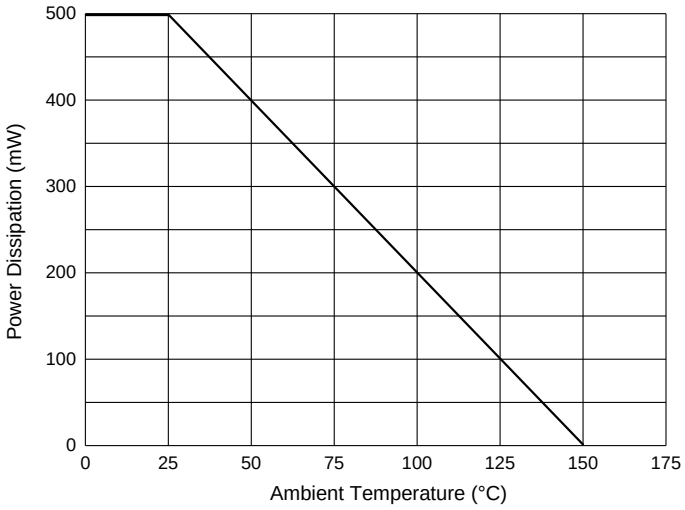



Fig. 2 - Typical Zener Breakdown Characteristics

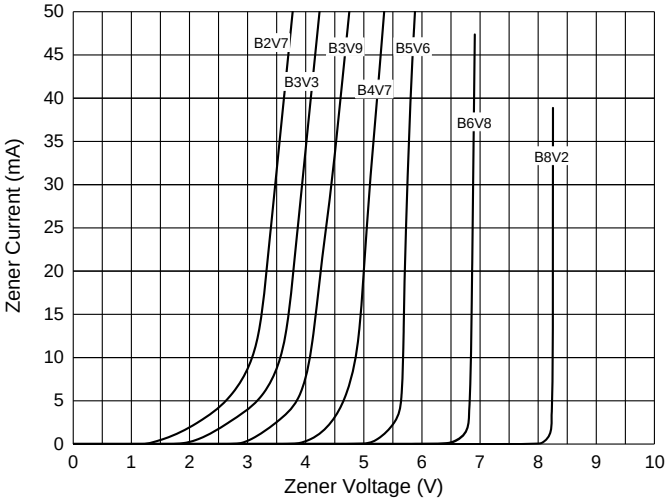



Fig. 3 - Typical Zener Breakdown Characteristics

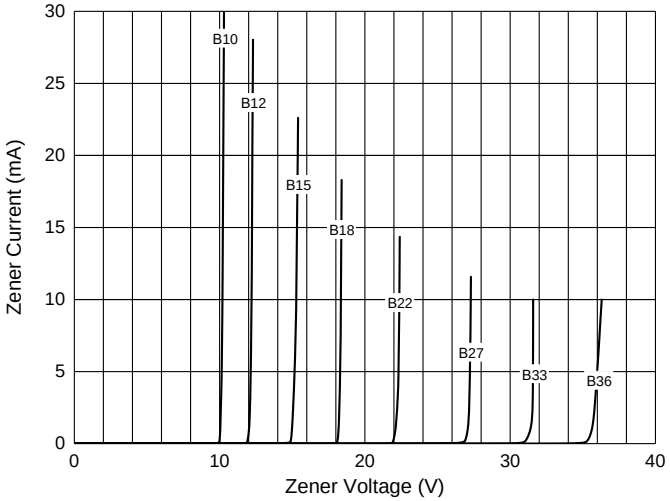
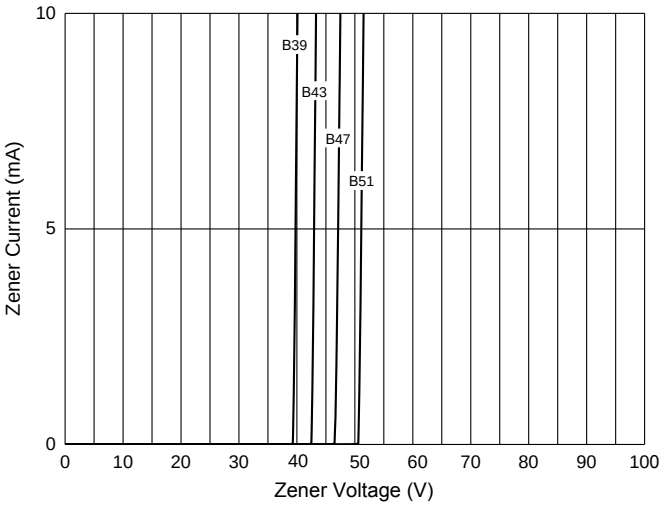



Fig. 4 - Typical Zener Breakdown Characteristics



## Ordering Information

| Device | Packing |
|---|---|
| Part Number-TP | Tape&Reel:3Kpcs/Reel |

单击下面可查看定价，库存，交付和生命周期等信息

>>MCC(美微科)