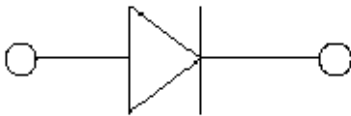


Zener Diodes



Features

- High reliability
- Very sharp reverse characteristic
- Low reverse current level
- Zener Voltage 2.4V~75V

Mechanical Data

- **Package:** SOD-323
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end

■Maximum Ratings (Ta=25°C Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | VALUE |
|---------------------------------------------------|-----------------|-------|-------------|
| Power Dissipation(*Note) | P_D | mW | 300 |
| Storage Temperature Range | T_{stg} | °C | -55~+150 |
| Junction Temperature | T_J | °C | -55~+150 |
| Maximum Forward Voltage @ $I_F=10mA$ | V_F | V | 0.9 |
| Maximum Regulator Current | I_{ZM} | mA | P_D / V_z |
| Thermal Resistance Junction to Ambient Air(*Note) | $R_{\theta JA}$ | °C /W | 417 |

Note:Device mounted on PCB

■Ordering Information (Example)

| PREFERRED P/N | PACKING CODE | UNIT WEIGHT(g) | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|------------------------------|--------------|-------------------|----------------------|-------------------------|----------------------------|---------------|
| BZT52B2V4S THRU BZT52B75S | F2 | Approximate 0.004 | 3000 | 30000 | 120000 | 7" reel |



BZT52B2V4S THRU BZT52B75S

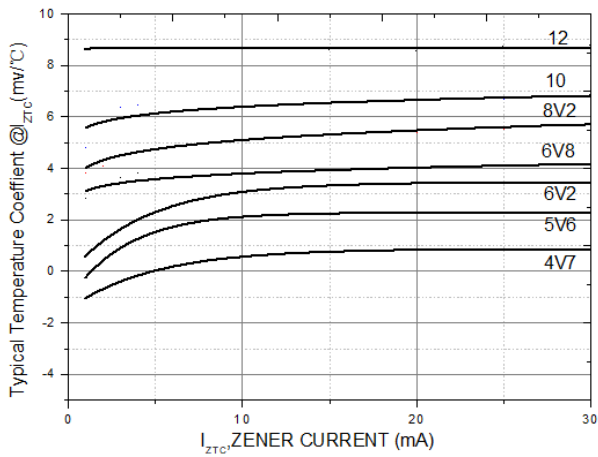
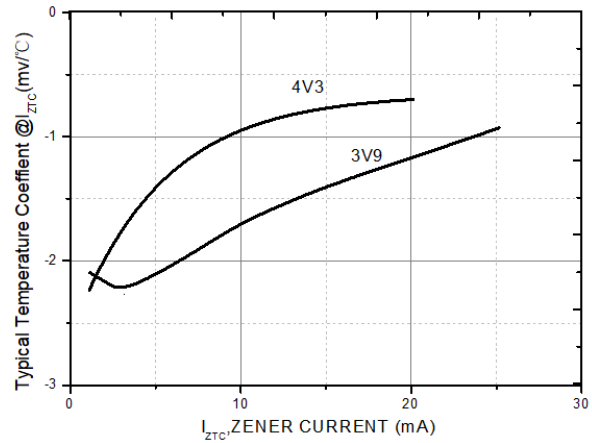
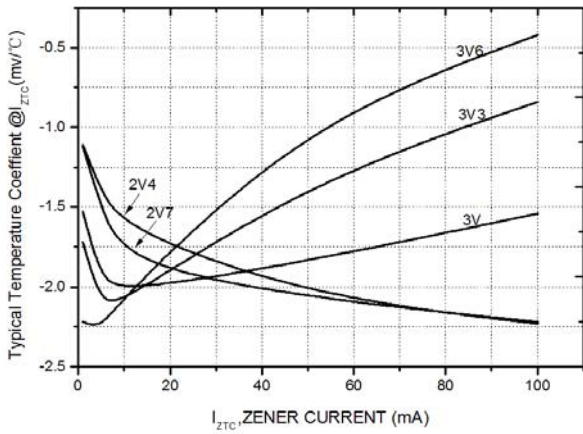
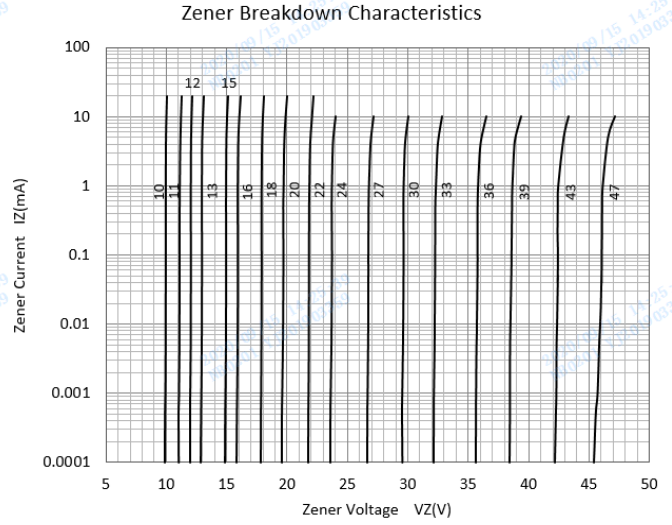
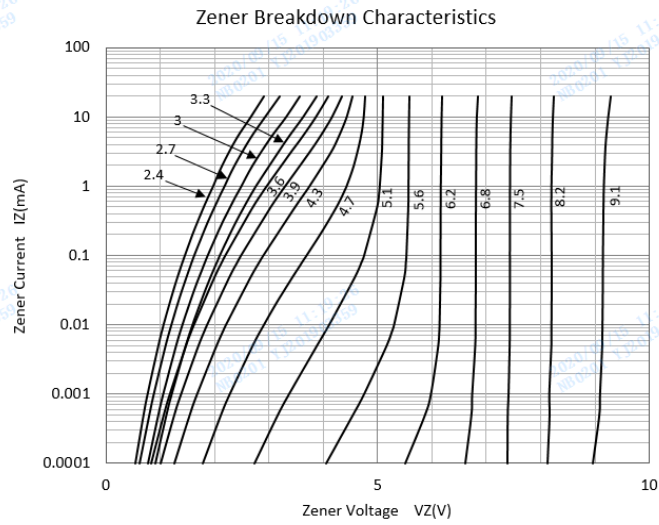
■Electrical Characteristics (T_a=25°C Unless otherwise specified)

| Type Number | Device Marking | V _z at I _{ZT} (V) | | | Z _{zt} (Ω) | | Z _{zk} (Ω) | | I _R (μA)@V _R | | Typical Temperature Coefficient@ IZTC mV/°C | |
|-------------|----------------|---------------------------------------|------|-------|----------------------|------|----------------------|------|------------------------------------|--------------------|---------------------------------------------|------|
| | | min. | typ. | max. | I _{ZT} (mA) | max. | I _{zk} (mA) | max. | max | V _R (V) | Min | Max |
| BZT52B2V4S | 2WX | 2.34 | 2.4 | 2.46 | 5 | 100 | 1.0 | 600 | 45 | 1.0 | -3.5 | 0 |
| BZT52B2V7S | 2W1 | 2.63 | 2.7 | 2.77 | 5 | 100 | 1.0 | 600 | 20 | 1.0 | -3.5 | 0 |
| BZT52B3V0S | 2W2 | 2.92 | 3.0 | 3.08 | 5 | 100 | 1.0 | 600 | 9 | 1.0 | -3.5 | 0 |
| BZT52B3V3S | 2W3 | 3.21 | 3.3 | 3.39 | 5 | 95 | 1.0 | 600 | 4.5 | 1.0 | -3.5 | 0 |
| BZT52B3V6S | 2W4 | 3.52 | 3.6 | 3.67 | 5 | 95 | 1.0 | 600 | 15 | 1.0 | -3.5 | 0 |
| BZT52B3V9S | 2W5 | 3.82 | 3.9 | 3.98 | 5 | 95 | 1.0 | 600 | 10 | 1.0 | -3.5 | 0 |
| BZT52B4V3S | 2W6 | 4.21 | 4.3 | 4.39 | 5 | 95 | 1.0 | 600 | 5 | 1.0 | -3.5 | 0 |
| BZT52B4V7S | 2W7 | 4.61 | 4.7 | 4.79 | 5 | 78 | 1.0 | 500 | 5 | 2.0 | -3.5 | 0 |
| BZT52B5V1S | 2W8 | 5.0 | 5.1 | 5.2 | 5 | 60 | 1.0 | 480 | 0.1 | 0.8 | -2.7 | 1.2 |
| BZT52B5V6S | 2W9 | 5.49 | 5.6 | 5.71 | 5 | 40 | 1.0 | 400 | 0.1 | 1.0 | -2 | 2.5 |
| BZT52B6V2S | 2WA | 6.08 | 6.2 | 6.32 | 5 | 10 | 1.0 | 150 | 0.1 | 2.0 | 0.4 | 3.7 |
| BZT52B6V8S | 2WB | 6.66 | 6.8 | 6.94 | 5 | 8 | 1.0 | 80 | 0.1 | 3.0 | 1.2 | 4.5 |
| BZT52B7V5S | 2WC | 7.35 | 7.5 | 7.65 | 5 | 7 | 1.0 | 80 | 0.1 | 5.0 | 2.5 | 5.3 |
| BZT52B8V2S | 2WD | 8.04 | 8.2 | 8.36 | 5 | 7 | 1.0 | 80 | 0.1 | 6.0 | 3.2 | 6.2 |
| BZT52B9V1S | 2WE | 8.92 | 9.1 | 9.28 | 5 | 10 | 1.0 | 100 | 0.1 | 7.0 | 3.8 | 7.0 |
| BZT52B10S | WG | 9.8 | 10 | 10.2 | 5 | 15 | 1.0 | 150 | 0.1 | 7.5 | 4.5 | 8.0 |
| BZT52B11S | 2WG | 10.78 | 11 | 11.22 | 5 | 20 | 1.0 | 150 | 0.1 | 8.5 | 5.4 | 9.0 |
| BZT52B12S | WI | 11.76 | 12 | 12.24 | 5 | 20 | 1.0 | 150 | 0.1 | 9.0 | 6.0 | 10.0 |
| BZT52B13S | 2WI | 12.74 | 13 | 13.3 | 5 | 25 | 1.0 | 170 | 0.1 | 10.0 | 7.0 | 11.0 |
| BZT52B14S | WJ | 13.7 | 14 | 14.3 | 5 | 30 | 1.0 | 170 | 0.1 | 10.2 | 8.1 | 12.0 |
| BZT52B15S | WL | 14.7 | 15 | 15.3 | 5 | 30 | 1.0 | 200 | 0.1 | 11.0 | 9.2 | 13.0 |
| BZT52B16S | WM | 15.68 | 16 | 16.3 | 5 | 40 | 1.0 | 200 | 0.1 | 12 | 10.4 | 14.0 |
| BZT52B18S | WN | 17.6 | 18 | 18.4 | 5 | 50 | 1.0 | 225 | 0.1 | 14.0 | 12.4 | 16.0 |
| BZT52B20S | 2WM | 19.6 | 20 | 20.4 | 5 | 55 | 1.0 | 225 | 0.1 | 15.0 | 14.4 | 18.0 |
| BZT52B22S | 2WN | 21.56 | 22 | 22.44 | 5 | 55 | 1.0 | 250 | 0.1 | 17.0 | 16.4 | 20.0 |
| BZT52B24S | WR | 23.52 | 24 | 24.5 | 5 | 70 | 1.0 | 250 | 0.1 | 18.0 | 18.4 | 22.0 |
| BZT52B27S | 2WP | 26.46 | 27 | 27.54 | 5 | 80 | 1.0 | 300 | 0.1 | 20.0 | 21.4 | 25.3 |
| BZT52B30S | 2WQ | 29.4 | 30 | 30.6 | 5 | 80 | 1.0 | 300 | 0.1 | 22.5 | 24.4 | 29.4 |
| BZT52B33S | 2WR | 32.34 | 33 | 33.7 | 5 | 80 | 1.0 | 325 | 0.1 | 25.0 | 27.4 | 33.4 |
| BZT52B36S | 2WS | 35.28 | 36 | 36.72 | 5 | 90 | 1.0 | 350 | 0.1 | 27.0 | 30.4 | 37.4 |
| BZT52B39S | 2WT | 38.22 | 39 | 39.8 | 5 | 90 | 1.0 | 350 | 0.1 | 29.0 | 33.4 | 41.2 |
| BZT52B43S | 2WU | 42.14 | 43 | 43.86 | 5 | 100 | 1 | 375 | 0.1 | 32.0 | 37.6 | 46.6 |
| BZT52B47S | 2WV | 46.06 | 47 | 47.94 | 5 | 110 | 1 | 375 | 0.1 | 35.0 | 42.0 | 51.8 |
| BZT52B51S | 2X1 | 50.0 | 51 | 52.0 | 2 | 180 | 0.5 | 400 | 0.05 | 35.7 | 46.6 | 57.2 |
| BZT52B56S | 2X2 | 54.9 | 56 | 57.1 | 2 | 200 | 0.5 | 425 | 0.05 | 39.2 | 52.2 | 63.8 |
| BZT52B62S | 2X3 | 60.8 | 62 | 63.2 | 2 | 215 | 0.5 | 450 | 0.05 | 43.4 | 58.8 | 71.6 |
| BZT52B68S | 2X4 | 66.6 | 68 | 69.4 | 2 | 240 | 0.5 | 475 | 0.05 | 47.6 | 65.6 | 79.8 |
| BZT52B75S | 2X5 | 73.5 | 75 | 76.5 | 2 | 255 | 0.5 | 500 | 0.05 | 52.5 | 73.4 | 88.6 |



BZT52B2V4S THRU BZT52B75S

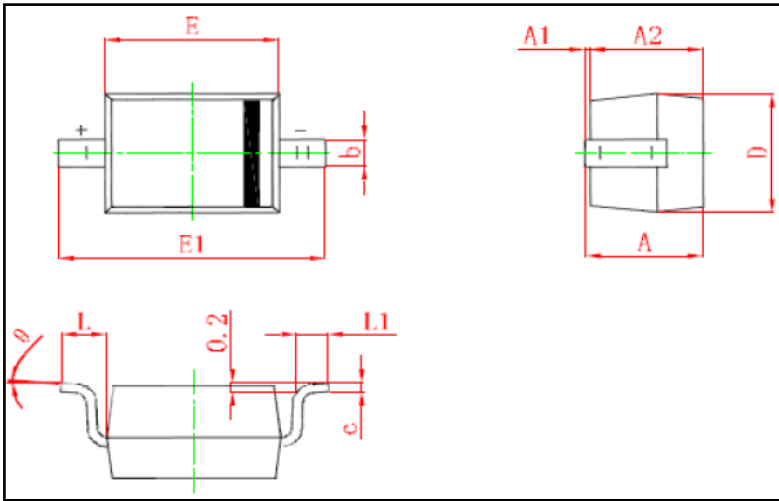
■ Characteristics (Typical)





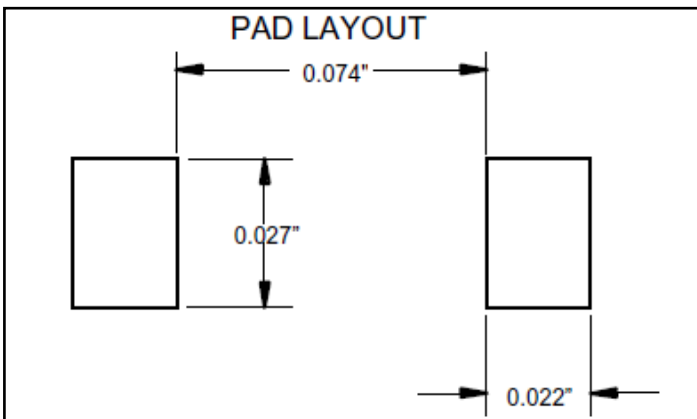
BZT52B2V4S THRU BZT52B75S

■ SOD-323 Package Outline Dimensions



| Symbol | Min. (mm) | Max. (mm) |
|--------|-----------|-----------|
| A | | 1.000 |
| A1 | 0.000 | 0.100 |
| A2 | 0.800 | 0.900 |
| b | 0.250 | 0.400 |
| c | 0.080 | 0.150 |
| D | 1.200 | 1.400 |
| E | 1.600 | 1.800 |
| E1 | 2.500 | 2.700 |
| L | 0.475REF | |
| L1 | 0.250 | 0.400 |
| θ | 0° | 8° |

■ SOD-323 Soldering Footprint





BZT52B2V4S THRU BZT52B75S

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