



Micro Commercial Components



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BZT52B2V4 THRU BZT52B75

**410 mW
 Zener Diode
 2.4 to 75 Volts**

Features

- Planar Die Construction
- 410mW Power Dissipation on Ceramic PCB
- General Purpose Medium Current
- Ideally Suited for Automated Assembly Processes
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1
- Lead Free Finish/RoHS Compliant("P" Suffix designates RoHS Compliant. See ordering information)
- Halogen free available upon request by adding suffix "-HF"

Absolute Maximum Ratings

| Symbol | Rating | Rating | Unit |
|------------------|---------------------------|-------------|------|
| P _D | Power dissipation | 410 | mW |
| T _J | Junction Temperature | -55 to +175 | °C |
| T _{STG} | Storage Temperature Range | -55 to +175 | °C |

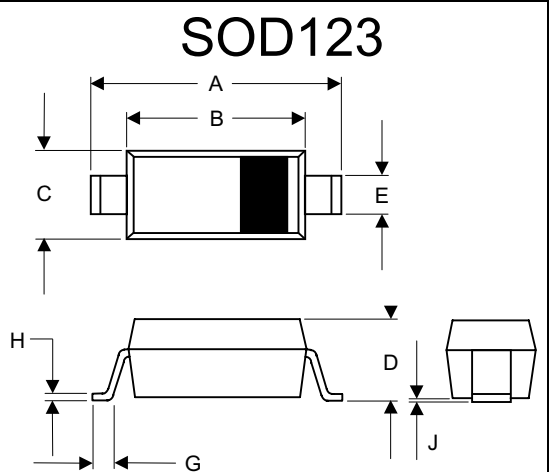
Absolute Maximum Ratings

| Symbol | Rating | Rating | Unit |
|-------------------|---|--------|------|
| R _{thJA} | Thermal Resistance Junction to Ambient* | 430 | °C/W |

* Device mounted on ceramic PCB: 7.6mm x 9.4mm x 0.87mm with pad areas 25 mm²

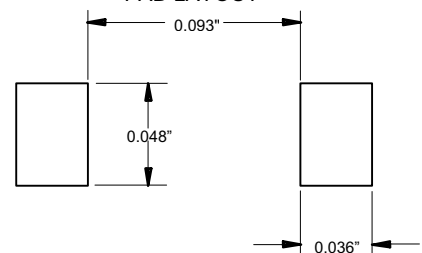
Electrical Characteristics

| Symbol | Rating | Rating | Unit |
|----------------|--|--------|------|
| V _F | Maximum Forward Voltage (I _F =100mA _{dc}) | 0.9 | V |



| DIM | INCHES | | MM | | NOTE |
|-----|--------|-------|-------|-------|------|
| | MIN | MAX | MIN | MAX | |
| A | .140 | .152 | 3.55 | 3.85 | |
| B | .100 | .112 | 2.55 | 2.85 | |
| C | .055 | .071 | 1.40 | 1.80 | |
| D | ----- | .053 | ----- | 1.35 | |
| E | .012 | .031 | 0.30 | .78 | |
| G | .006 | ----- | 0.15 | ----- | |
| H | ----- | .01 | ----- | .25 | |
| J | ----- | .006 | ----- | .15 | |

SUGGESTED SOLDER PAD LAYOUT



Electrical Characteristics@25°C

| Type | ZENER VOLTAGE $V_Z^{(1)}$ VOLTS | | | Maximum Zener Impedance ⁽²⁾ Z_{ZT} (OHMS) | | Maximum Zener Impedance ⁽²⁾ Z_{ZK} (OHMS) | | REVERSE CURRENT $I_R(\text{Max})@V_R$ | | Marking |
|-----------|---------------------------------------|------|-------|--|------|--|------|---|------|---------|
| | Min. | Nom. | Max. | I_{ZT} (mA) | Max. | I_{ZK} (mA) | Max. | uA | V | |
| BZT52B2V4 | 2.35 | 2.4 | 2.45 | 5 | 85 | 1 | 600 | 100 | 1.0 | W1 |
| BZT52B2V7 | 2.64 | 2.7 | 2.75 | 5 | 83 | 1 | 600 | 75 | 1.0 | W2 |
| BZT52B3V0 | 2.94 | 3.0 | 3.06 | 5 | 95 | 1 | 600 | 50 | 1.0 | W3 |
| BZT52B3V3 | 3.23 | 3.3 | 3.37 | 5 | 95 | 1 | 600 | 25 | 1.0 | W4 |
| BZT52B3V6 | 3.52 | 3.6 | 3.67 | 5 | 95 | 1 | 600 | 15 | 1.0 | W5 |
| BZT52B3V9 | 3.82 | 3.9 | 3.98 | 5 | 95 | 1 | 600 | 10 | 1.0 | W6 |
| BZT52B4V3 | 4.21 | 4.3 | 4.39 | 5 | 95 | 1 | 600 | 5 | 1.0 | W7/2W6 |
| BZT52B4V7 | 4.61 | 4.7 | 4.79 | 5 | 78 | 1 | 500 | 5 | 2.0 | W8/2W7 |
| BZT52B5V1 | 5.0 | 5.1 | 5.2 | 5 | 60 | 1 | 480 | 0.1 | 0.8 | W9/2W8 |
| BZT52B5V6 | 5.49 | 5.6 | 5.71 | 5 | 40 | 1 | 400 | 0.1 | 1.0 | WA/2W9 |
| BZT52B6V2 | 6.08 | 6.2 | 6.32 | 5 | 10 | 1 | 150 | 0.1 | 2.0 | WB/2WA |
| BZT52B6V8 | 6.66 | 6.8 | 6.94 | 5 | 8 | 1 | 80 | 0.1 | 3.0 | WC/2WB |
| BZT52B7V5 | 7.35 | 7.5 | 7.65 | 5 | 7 | 1 | 80 | 0.1 | 5.0 | WD/2WC |
| BZT52B8V2 | 8.04 | 8.2 | 8.36 | 5 | 7 | 1 | 80 | 0.1 | 6.0 | WE/2WD |
| BZT52B9V1 | 8.92 | 9.1 | 9.28 | 5 | 10 | 1 | 100 | 0.1 | 7.0 | WF/2WE |
| BZT52B10 | 9.8 | 10 | 10.2 | 5 | 15 | 1 | 150 | 0.1 | 7.5 | WG/2WF |
| BZT52B11 | 10.78 | 11 | 11.22 | 5 | 20 | 1 | 150 | 0.1 | 8.5 | WH/2WG |
| BZT52B12 | 11.76 | 12 | 12.24 | 5 | 20 | 1 | 150 | 0.1 | 9.0 | WI/2WH |
| BZT52B13 | 12.74 | 13 | 13.3 | 5 | 25 | 1 | 170 | 0.1 | 10.0 | WK/2WI |
| BZT52B15 | 14.7 | 15 | 15.3 | 5 | 30 | 1 | 200 | 0.1 | 11.0 | WL/2WJ |
| BZT52B16 | 15.68 | 16 | 16.3 | 5 | 40 | 1 | 200 | 0.1 | 12.0 | WM/2WK |
| BZT52B18 | 17.6 | 18 | 18.4 | 5 | 50 | 1 | 225 | 0.1 | 14.0 | WN/2WL |
| BZT52B20 | 19.6 | 20 | 20.4 | 5 | 50 | 1 | 225 | 0.1 | 15.0 | WO/2WM |
| BZT52B22 | 21.56 | 22 | 22.44 | 5 | 55 | 1 | 250 | 0.1 | 17.0 | WP/2WN |
| BZT52B24 | 23.52 | 24 | 24.5 | 5 | 70 | 1 | 250 | 0.1 | 18.0 | WR/2WO |
| BZT52B27 | 26.46 | 27 | 27.54 | 5 | 80 | 1 | 300 | 0.1 | 20.0 | WS/2WP |
| BZT52B30 | 29.4 | 30 | 30.6 | 5 | 80 | 1 | 300 | 0.1 | 22.5 | WT/2WQ |
| BZT52B33 | 32.34 | 33 | 33.7 | 5 | 80 | 1 | 325 | 0.1 | 25.0 | WU/2WR |
| BZT52B36 | 35.28 | 36 | 36.72 | 5 | 90 | 1 | 350 | 0.1 | 27.0 | WW/2WS |
| BZT52B39 | 38.22 | 39 | 39.8 | 5 | 90 | 1 | 350 | 0.1 | 29.0 | WX/2WT |
| BZT52B43 | 42.14 | 43 | 43.86 | 5 | 100 | 1 | 375 | 0.1 | 32.0 | WY |
| BZT52B47 | 46.06 | 47 | 47.94 | 5 | 100 | 1 | 375 | 0.1 | 35.0 | WZ |
| BZT52B51 | 49.98 | 51 | 52.02 | 5 | 100 | 1 | 400 | 0.1 | 38.0 | XA |
| BZT52B56 | 54.88 | 56 | 57.12 | 5 | 135 | 1 | 1000 | 0.1 | 42.0 | X2 |
| BZT52B62 | 60.76 | 62 | 63.24 | 5 | 150 | 1 | 1000 | 0.1 | 46.0 | X3 |
| BZT52B68 | 66.64 | 68 | 69.36 | 5 | 200 | 1 | 1000 | 0.1 | 51.0 | X4 |
| BZT52B75 | 73.50 | 75 | 76.50 | 5 | 250 | 1 | 1000 | 0.1 | 56.0 | X5 |

(1) Device mounted on ceramic PCB: 7.6mm x 9.4mm x 0.87mm with pad areas 25 mm²

(2) f=1KHz



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Ordering Information :

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

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



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