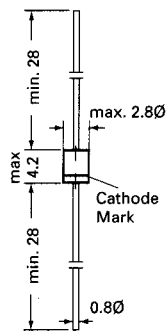


BZX 2C

SILICON PLANAR POWER ZENER DIODES

Silicon Planar Power Zener Diodes

for use in stabilizing and clipping circuits with high power rating. The Zener voltages are graded according to the international E 24 standard. Other voltage tolerances and higher Zener voltages upon request.



Glass case \approx JEDEC DO-41

Dimensions in mm

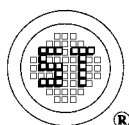
Absolute Maximum Ratings

| | Symbol | Value | Unit |
|---|-----------|-----------------|--------------------|
| Power Dissipation at $T_{amb} = 25\text{ }^{\circ}\text{C}$ | P_{tot} | 2 ¹⁾ | W |
| Junction Temperature | T_j | 175 | $^{\circ}\text{C}$ |
| Storage Temperature Range | T_s | -65 to + 175 | $^{\circ}\text{C}$ |

¹⁾ Valid provided that leads are at a distance of 8 mm from case are kept at ambient temperature

Characteristics at $T_{amb} = 25\text{ }^{\circ}\text{C}$

| | Symbol | Min. | Typ. | Max. | Unit |
|--|--------|------|------|------|------|
| Forward Voltage at $I_F = 200\text{ mA}$ | V_F | - | - | 1.2 | V |



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BZX 2C

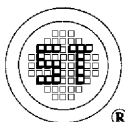
2W SILICON PLANAR POWER ZENER DIODES

Characteristics at $T_j = 25\text{ }^\circ\text{C}$

| TYPE | Nominal Zener Voltage | Zener Voltage Range | | Dynamic Resistance | | | Reverse Leakage Current (I_R at V_R) | | Maximum DC Zener Current |
|-----------|-----------------------|---------------------|---------------|--------------------|-----------------|---------------|--|-----------|--------------------------|
| | | V | I_{ZT} (mA) | Ohm at I_{ZT} | Ohm at I_{ZK} | I_{ZK} (mA) | I_R (uA) | V_R (V) | |
| BZX2C3V6 | 3.6 | 3.4 ... 3.8 | 139 | 5.0 | 400 | 1.0 | 80 | 1.0 | 504 |
| BZX2C3V9 | 3.9 | 3.7 ... 4.1 | 128 | 5.0 | 400 | 1.0 | 30 | 1.0 | 468 |
| BZX2C4V3 | 4.3 | 4.0 ... 4.6 | 116 | 4.5 | 400 | 1.0 | 20 | 1.0 | 434 |
| BZX2C4V7 | 4.7 | 4.4 ... 5.0 | 106 | 4.5 | 550 | 1.0 | 5.0 | 1.0 | 386 |
| BZX2C5V1 | 5.1 | 4.8 ... 5.4 | 98 | 3.5 | 600 | 1.0 | 5.0 | 1.0 | 356 |
| BZX2C5V6 | 5.6 | 5.2 ... 6.0 | 89.5 | 2.5 | 500 | 1.0 | 5.0 | 2.0 | 324 |
| BZX2C6V2 | 6.2 | 5.8 ... 6.6 | 80.5 | 1.5 | 700 | 1.0 | 5.0 | 3.0 | 292 |
| BZX2C6V8 | 6.8 | 6.4 ... 7.2 | 73.5 | 2.0 | 700 | 1.0 | 5.0 | 4.0 | 266 |
| BZX2C7V5 | 7.5 | 7.0 ... 7.9 | 66.5 | 2.0 | 700 | 0.5 | 5.0 | 5.0 | 242 |
| BZX2C8V2 | 8.2 | 7.7 ... 8.7 | 61.0 | 2.3 | 700 | 0.5 | 5.0 | 6.0 | 220 |
| BZX2C9V1 | 9.1 | 8.5 ... 9.6 | 55.0 | 2.5 | 700 | 0.5 | 2.0 | 7.0 | 200 |
| BZX2C10V | 10 | 9.4 ... 10.6 | 50.0 | 3.5 | 700 | 0.25 | 3.0 | 7.6 | 182 |
| BZX2C11V | 11 | 10.4 ... 11.6 | 45.5 | 4.0 | 700 | 0.25 | 1.0 | 8.4 | 166 |
| BZX2C12V | 12 | 11.4 ... 12.7 | 41.5 | 4.5 | 700 | 0.25 | 1.0 | 9.1 | 152 |
| BZX2C13V | 13 | 12.4 ... 14.1 | 38.5 | 5.0 | 700 | 0.25 | 0.5 | 9.9 | 138 |
| BZX2C15V | 15 | 13.8 ... 15.6 | 33.4 | 7.0 | 700 | 0.25 | 0.5 | 11.4 | 122 |
| BZX2C16V | 16 | 15.3 ... 17.1 | 31.2 | 8.0 | 700 | 0.25 | 0.3 | 12.2 | 114 |
| BZX2C18V | 18 | 16.8 ... 19.1 | 27.8 | 10 | 750 | 0.25 | 0.5 | 13.7 | 100 |
| BZX2C20V | 20 | 18.8 ... 21.2 | 25.0 | 11 | 750 | 0.25 | 0.5 | 15.2 | 90 |
| BZX2C22V | 22 | 20.8 ... 23.3 | 22.8 | 12 | 750 | 0.25 | 0.5 | 16.7 | 82 |
| BZX2C24V | 24 | 22.8 ... 25.6 | 20.8 | 13 | 750 | 0.25 | 0.5 | 18.2 | 76 |
| BZX2C27V | 27 | 25.1 ... 28.9 | 18.5 | 18 | 750 | 0.25 | 0.5 | 20.6 | 68 |
| BZX2C30V | 30 | 28 ... 32 | 16.6 | 20 | 1000 | 0.25 | 0.5 | 22.5 | 60 |
| BZX2C33V | 33 | 31 ... 35 | 15.1 | 23 | 1000 | 0.25 | 0.5 | 25.1 | 55 |
| BZX2C36V | 36 | 34 ... 38 | 13.9 | 25 | 100 | 0.25 | 0.5 | 27.4 | 50 |
| BZX2C39V | 39 | 37 ... 41 | 12.8 | 30 | 1000 | 0.25 | 0.5 | 29.7 | 47 |
| BZX2C43V | 43 | 40 ... 46 | 11.6 | 35 | 1500 | 0.25 | 0.5 | 32.7 | 43 |
| BZX2C47V | 47 | 44 ... 50 | 10.6 | 40 | 1500 | 0.25 | 0.5 | 35.8 | 39 |
| BZX2C51V | 51 | 48 ... 54 | 9.8 | 48 | 1500 | 0.25 | 0.5 | 38.8 | 36 |
| BZX2C56V | 56 | 52 ... 60 | 9.0 | 55 | 2000 | 0.25 | 0.5 | 42.6 | 32 |
| BZX2C62V | 62 | 58 ... 66 | 8.1 | 60 | 2000 | 0.25 | 0.5 | 47.1 | 29 |
| BZX2C68V | 68 | 64 ... 72 | 7.4 | 75 | 2000 | 0.25 | 0.5 | 51.7 | 27 |
| BZX2C75V | 75 | 70 ... 79 | 6.7 | 90 | 2000 | 0.25 | 0.5 | 56.0 | 24 |
| BZX2C82V | 82 | 77 ... 87 | 6.1 | 100 | 3000 | 0.25 | 0.5 | 62.2 | 22 |
| BZX2C91V | 91 | 85 ... 96 | 5.5 | 125 | 3000 | 0.25 | 0.5 | 69.2 | 20 |
| BZX2C100V | 100 | 94 ... 106 | 5.0 | 175 | 3000 | 0.25 | 0.5 | 76 | 18 |
| BZX2C110V | 110 | 104 ... 116 | 4.5 | 250 | 4000 | 0.25 | 0.5 | 83.6 | 17 |
| BZX2C120V | 120 | 114 ... 127 | 4.2 | 325 | 4500 | 0.25 | 0.5 | 91.2 | 15 |
| BZX2C130V | 130 | 124 ... 141 | 3.8 | 400 | 5000 | 0.25 | 0.5 | 98.8 | 14 |
| BZX2C150V | 150 | 138 ... 156 | 3.3 | 575 | 6000 | 0.25 | 0.5 | 114.0 | 12 |
| BZX2C160V | 160 | 153 ... 171 | 3.1 | 650 | 6500 | 0.25 | 0.5 | 121.6 | 11 |
| BZX2C180V | 180 | 168 ... 191 | 2.8 | 725 | 7000 | 0.25 | 0.5 | 136.8 | 10 |
| BZX2C200V | 200 | 188 ... 212 | 2.5 | 900 | 0.25 | 0.5 | 0.5 | 152.0 | 9.0 |

1) Tested with pulses $t_p = 20\text{ ms}$.

2) Valid provided that leads are kept at ambient temperature at a distance of 8 mm from case.



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