

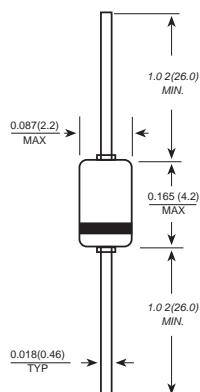
BZX55B-SERIES

ZENER DIODES

Zener Voltage: 2.0-39V

Peak Pulse Power: 500mW

DO-35(GLASS)



Dimensions in inches and (millimeters)

FEATURE

- ♦ Low Reverse Leakage
- ♦ Low Zener Impedance
- ♦ Power Dissipation of 500mW
- ♦ High Stability and High Reliability

MECHANICAL DATA

Case: DO-35 Glass Case

Polarity: Color band denotes cathode end

Mounting Position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Maximum Ratings & Thermal Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)

| Parameters | Symbol | Value | Unit |
|--------------------------------|--------|-------------------|------|
| Power Dissipation | Pd | 500 ¹⁾ | mW |
| Operating junction temperature | Tj | 175 | °C |
| Storage temperature range | Ts | -55-+175 | °C |

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

ELECTRICAL CHARACTERISTICS (at TA=25°C unless otherwise noted)

| TYPE | Zener Voltage | | | Reverse Current | | Dynamic Resistance | |
|------------|---------------|-------|----------------|-----------------|----------------|--------------------|----------------|
| | Vz(V) | | Test Condition | Ir(uA) | Test Condition | rd(Ω) | Test Condition |
| | Min. | Max. | Iz(mA) | Max. | Vr(V) | Max. | Iz(mA) |
| BZX55B 2V0 | 1.96 | 2.04 | 5.0 | 100 | 1.0 | 85 | 5.0 |
| BZX55B 2V2 | 2.16 | 2.24 | 5.0 | 75 | 1.0 | 85 | 5.0 |
| BZX55B 2V4 | 2.35 | 2.45 | 5.0 | 50 | 1.0 | 85 | 5.0 |
| BZX55B 2V7 | 2.65 | 2.75 | 5.0 | 10 | 1.0 | 85 | 5.0 |
| BZX55B 3V0 | 2.94 | 3.06 | 5.0 | 4 | 1.0 | 85 | 5.0 |
| BZX55B 3V3 | 3.23 | 3.37 | 5.0 | 2 | 1.0 | 85 | 5.0 |
| BZX55B 3V6 | 3.53 | 3.67 | 5.0 | 2 | 1.0 | 85 | 5.0 |
| BZX55B 3V9 | 3.82 | 3.98 | 5.0 | 2 | 1.0 | 85 | 5.0 |
| BZX55B 4V3 | 4.21 | 4.39 | 5.0 | 1 | 1.0 | 75 | 5.0 |
| BZX55B 4V7 | 4.61 | 4.79 | 5.0 | 0.5 | 1.0 | 60 | 5.0 |
| BZX55B 5V1 | 5.00 | 5.20 | 5.0 | 0.1 | 1.0 | 35 | 5.0 |
| BZX55B 5V6 | 5.49 | 5.71 | 5.0 | 0.1 | 1.0 | 25 | 5.0 |
| BZX55B 6V2 | 6.08 | 6.32 | 5.0 | 0.1 | 2.0 | 10 | 5.0 |
| BZX55B 6V8 | 6.66 | 6.94 | 5.0 | 0.1 | 3.0 | 8 | 5.0 |
| BZX55B 7V5 | 7.35 | 7.65 | 5.0 | 0.1 | 5.0 | 7 | 5.0 |
| BZX55B 8V2 | 8.04 | 8.36 | 5.0 | 0.1 | 6.2 | 7 | 5.0 |
| BZX55B 9V1 | 8.92 | 9.28 | 5.0 | 0.1 | 6.8 | 10 | 5.0 |
| BZX55B 10 | 9.80 | 10.20 | 5.0 | 0.1 | 7.5 | 15 | 5.0 |
| BZX55B 11 | 10.78 | 11.12 | 5.0 | 0.1 | 8.2 | 20 | 5.0 |
| BZX55B 12 | 11.76 | 12.24 | 5.0 | 0.1 | 9.1 | 20 | 5.0 |
| BZX55B 13 | 12.74 | 13.26 | 5.0 | 0.1 | 10.0 | 26 | 5.0 |
| BZX55B 15 | 14.70 | 15.30 | 5.0 | 0.1 | 11.0 | 30 | 5.0 |
| BZX55B 16 | 15.68 | 16.32 | 5.0 | 0.1 | 12.0 | 40 | 5.0 |
| BZX55B 18 | 17.64 | 18.36 | 5.0 | 0.1 | 13.0 | 50 | 5.0 |
| BZX55B 20 | 19.60 | 20.40 | 5.0 | 0.1 | 15.0 | 55 | 5.0 |
| BZX55B 22 | 21.56 | 22.44 | 5.0 | 0.1 | 16.0 | 55 | 5.0 |
| BZX55B 24 | 23.52 | 24.48 | 5.0 | 0.1 | 18.0 | 80 | 5.0 |
| BZX55B 27 | 26.46 | 27.54 | 5.0 | 0.1 | 20.0 | 80 | 5.0 |
| BZX55B 30 | 29.40 | 36.60 | 5.0 | 0.1 | 22.0 | 80 | 5.0 |
| BZX55B 33 | 32.34 | 33.66 | 5.0 | 0.1 | 24.0 | 80 | 5.0 |
| BZX55B 36 | 35.28 | 36.72 | 5.0 | 0.1 | 27.0 | 80 | 5.0 |
| BZX55B 39 | 38.22 | 39.78 | 2.5 | 0.1 | 30.0 | 90 | 2.5 |

Notes:

- 1) Tested with pulses tp = 20 ms.
- 2) Valid provided that leads are kept at ambient temperature at a distance of 8 mm from case
- 3) The BZX55-C0V8 is a silicon diode with operation in forward direction. Hence, the index of all parameters should be "F" instead of "Z". Connect the cathode lead to the negative pole.
- 4) VF(Max)=1.20V@ IF=100mA

RATINGS AND CHARACTERISTIC CURVES BZX55B SERIES

Breakdown characteristics $T_j = \text{constant}$ (pulsed)

