



BZX55C2V4 THRU BZX55C100

Axial Lead Zener Diodes

Voltage 2.4 to 100 volts Power 500 mWatts

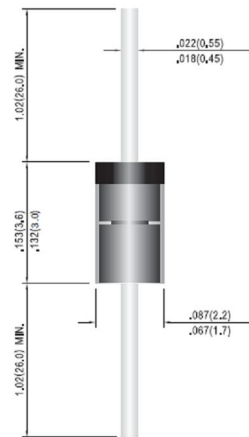
Features

- Planar Die construction
- 200mW Power Dissipation
- Ideally Suited for Automated Assembly Processes
- In compliance with EU RoHS 2002/95/EC directives

Mechanical Data

- Case: Molded glass DO-35
- Terminals: Solderable per MIL-STD-750, Method 2026
- Polarity: See diagram below
- Mounting position: Any
- Approx. Weight: 0.13 gram

DO-35



Unit: inch(mm)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

| Parameter | Symbol | Value | Units |
|--------------------------------------------------|-----------|-------------|-------|
| Power Dissipation at 25 °C | P_{TOT} | 500 | mW |
| Operating Junction and Storage Temperature Range | T_J | 175 | °C |
| Storage Temperature Range | T_S | -65 to +175 | °C |

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

| Parameter | Symbol | Min. | Typ. | Max. | Units |
|--------------------------------------------|----------|------|------|------|-------|
| Thermal Resistance Junction to Ambient Air | R_{JA} | -- | -- | 0.3 | K/mW |
| Forward Voltage at $I = 100mA$ | V | -- | -- | 1 | V |

Valid provided that leads at a distance of 10 mm from case are kept at ambient temperature.

| Part Number | Nominal Zener Voltage | | | Max. Zener Impedance | | | | Max Reverse Leakage Current | | marking code |
|-------------|----------------------------------|--------|--------|-----------------------------------|-----|-----------------------------------|-----|---------------------------------|----|--------------|
| | V _Z @ I _{ZT} | | | Z _{ZT} @ I _{ZT} | | Z _{ZK} @ I _{ZK} | | I _R @ V _R | | |
| | Nom. V | Min. V | Max. V | & | mA | & | mA | uA | V | |
| BZX55C2V4 | 2.4 | 2.28 | 2.56 | 85 | 5 | 600 | 1 | 50 | 1 | BZX55C2V4 |
| BZX55C2V7 | 2.7 | 2.5 | 2.9 | 85 | 5 | 600 | 1 | 10 | 1 | BZX55C2V7 |
| BZX55C3V0 | 3 | 2.8 | 3.2 | 85 | 5 | 600 | 1 | 4 | 1 | BZX55C3V0 |
| BZX55C3V3 | 3.3 | 3.1 | 3.5 | 85 | 5 | 600 | 1 | 2 | 1 | BZX55C3V3 |
| BZX55C3V6 | 3.6 | 3.4 | 3.8 | 85 | 5 | 600 | 1 | 2 | 1 | BZX55C3V6 |
| BZX55C3V9 | 3.9 | 3.7 | 4.1 | 85 | 5 | 600 | 1 | 2 | 1 | BZX55C3V9 |
| BZX55C4V3 | 4.3 | 4 | 4.6 | 75 | 5 | 600 | 1 | 1 | 1 | BZX55C4V3 |
| BZX55C4V7 | 4.7 | 4.4 | 5 | 60 | 5 | 600 | 1 | 0.5 | 1 | BZX55C4V7 |
| BZX55C5V1 | 5.1 | 4.8 | 5.4 | 35 | 5 | 550 | 1 | 0.1 | 1 | BZX55C5V1 |
| BZX55C5V6 | 5.6 | 5.2 | 6 | 25 | 5 | 450 | 1 | 0.1 | 1 | BZX55C5V6 |
| BZX55C6V2 | 6.2 | 5.8 | 6.6 | 10 | 5 | 200 | 1 | 0.1 | 2 | BZX55C6V2 |
| BZX55C6V8 | 6.8 | 6.4 | 7.2 | 8 | 5 | 150 | 1 | 0.1 | 3 | BZX55C6V8 |
| BZX55C7V5 | 7.5 | 7 | 7.9 | 7 | 5 | 50 | 1 | 0.1 | 5 | BZX55C7V5 |
| BZX55C8V2 | 8.2 | 7.7 | 8.7 | 7 | 5 | 50 | 1 | 0.1 | 6 | BZX55C8V2 |
| BZX55C9V1 | 9.1 | 8.5 | 9.6 | 10 | 5 | 50 | 1 | 0.1 | 7 | BZX55C9V1 |
| BZX55C10 | 10 | 9.4 | 10.6 | 15 | 5 | 70 | 1 | 0.1 | 8 | BZX55C10 |
| BZX55C11 | 11 | 10.4 | 11.6 | 20 | 5 | 70 | 1 | 0.1 | 9 | BZX55C11 |
| BZX55C12 | 12 | 11.4 | 12.7 | 20 | 5 | 90 | 1 | 0.1 | 9 | BZX55C12 |
| BZX55C13 | 13 | 12.4 | 14.1 | 26 | 5 | 110 | 1 | 0.1 | 10 | BZX55C13 |
| BZX55C15 | 15 | 13.8 | 15.6 | 30 | 5 | 110 | 1 | 0.1 | 11 | BZX55C15 |
| BZX55C16 | 16 | 15.3 | 17.1 | 40 | 5 | 170 | 1 | 0.1 | 12 | BZX55C16 |
| BZX55C18 | 18 | 16.8 | 19.1 | 50 | 5 | 170 | 1 | 0.1 | 14 | BZX55C18 |
| BZX55C20 | 20 | 18.8 | 21.2 | 55 | 5 | 220 | 1 | 0.1 | 15 | BZX55C20 |
| BZX55C22 | 22 | 20.8 | 23.3 | 55 | 5 | 220 | 1 | 0.1 | 17 | BZX55C22 |
| BZX55C24 | 24 | 22.8 | 25.6 | 80 | 5 | 220 | 1 | 0.1 | 18 | BZX55C24 |
| BZX55C27 | 27 | 25.1 | 28.9 | 80 | 5 | 220 | 1 | 0.1 | 20 | BZX55C27 |
| BZX55C30 | 30 | 28 | 32 | 80 | 5 | 220 | 1 | 0.1 | 22 | BZX55C30 |
| BZX55C33 | 33 | 31 | 35 | 80 | 5 | 220 | 1 | 0.1 | 24 | BZX55C33 |
| BZX55C36 | 36 | 34 | 38 | 80 | 5 | 220 | 1 | 0.1 | 27 | BZX55C36 |
| BZX55C39 | 39 | 37 | 41 | 90 | 2.5 | 500 | 1 | 0.1 | 30 | BZX55C39 |
| BZX55C43 | 43 | 40 | 46 | 90 | 2.5 | 600 | 1 | 0.1 | 33 | BZX55C43 |
| BZX55C47 | 47 | 44 | 50 | 110 | 2.5 | 700 | 1 | 0.1 | 36 | BZX55C47 |
| BZX55C51 | 51 | 48 | 54 | 125 | 2.5 | 700 | 0.5 | 0.1 | 39 | BZX55C51 |
| BZX55C56 | 56 | 52 | 60 | 135 | 2.5 | 1000 | 0.5 | 0.1 | 43 | BZX55C56 |
| BZX55C62 | 62 | 58 | 66 | 150 | 2.5 | 1000 | 0.5 | 0.1 | 47 | BZX55C62 |
| BZX55C68 | 68 | 64 | 72 | 200 | 2.5 | 1000 | 0.5 | 0.1 | 51 | BZX55C68 |
| BZX55C75 | 75 | 70 | 79 | 250 | 2.5 | 1500 | 0.5 | 0.1 | 56 | BZX55C75 |
| BZX55C82 | 82 | 77 | 87 | 300 | 2.5 | 2000 | 0.5 | 0.1 | 62 | BZX55C82 |
| BZX55C91 | 91 | 85 | 96 | 450 | 1 | 5000 | 0.1 | 0.1 | 68 | BZX55C91 |
| BZX55C100 | 100 | 94 | 106 | 450 | 1 | 5000 | 0.1 | 0.1 | 75 | BZX55C100 |

RATING AND CHARACTERISTIC CURVES

Fig1. Forward Derating Curve

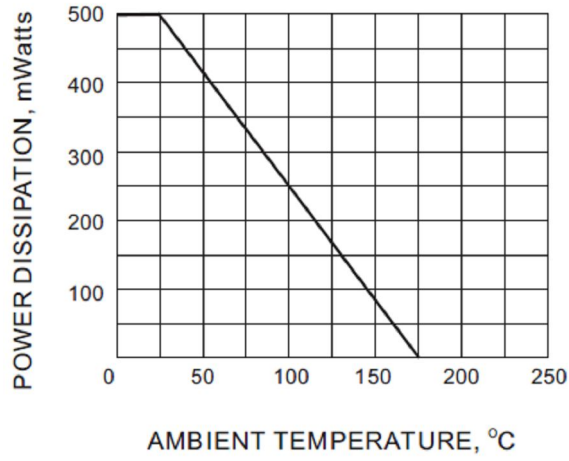


Fig2. Breakdown Characteristics

