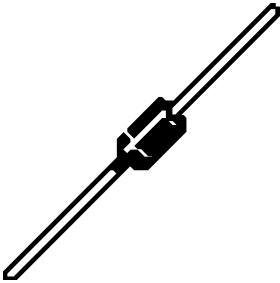


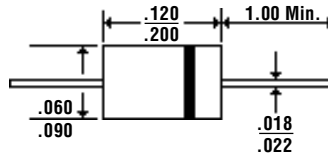
**1/2 Watt ZENER DIODES
(2.4V to 91V)**

Description



Mechanical Dimensions

JEDEC
DO-35 Glass



BZX55C2V4 . . . 91 Series

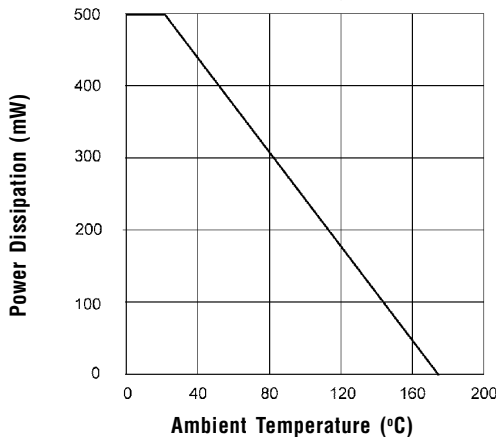
Features

■ WIDE VOLTAGE RANGE

■ MEETS UL SPECIFICATION 94V-0

| Maximum Ratings | BZX55C2V4 . . . 91 Series | Units |
|---|---------------------------|--------------------|
| Power Dissipation @ $T_L = 25^\circ\text{C}$... P_D Lead Length = 4.0mm | 500 | mW |
| Forward Voltage @ $I_F = 200\text{mA}$... V_F | 1.2 | V |
| Thermal Resistance Junction to Ambient... $R_{\theta JA}$ | 300 | $^\circ\text{C/W}$ |
| Operating & Storage Temperature Range... T_J, T_{STRG} | -65 to 200 | $^\circ\text{C}$ |

Power Derating Curve



1/2 Watt ZENER DIODES (24V to 91V)

BZX55C2V4...91 Series

- NOTES:**
1. The part numbers have max / min Zener Voltage as listed. Tolerance of 2% is designated by a "B" in place of the "C".
 2. V_z is measured with the device in thermal equilibrium at the lead temperature of $30^\circ\text{C} \pm 1^\circ\text{C}$, 3/8" from the diode body.
 3. The Zener Impedance is measured by dividing the AC voltage drop across the device by the AC current applied. The specified limits are for $I_z(\text{ac}) = 0.1 I_z(\text{dc})$ with the ac frequency = 1.0kHz.

Electrical Characteristics @ 25°C.

| Part # | Zener Voltage @ I_{ZT} (1) | | Max. Zener Impedance (3) $Z_{ZT} @ I_{ZT} (\Omega)$ | Test Current $I_{ZT} (\text{mA})$ | Max. Reverse Leakage Current @ $V_R, I_R (\mu\text{A})$ | | $V_R (V)$ | Max. DC Zener Current (2) $I_{ZM} (\text{mA})$ |
|-----------|------------------------------|----------------------|--|--------------------------------------|---|---------------------------|-----------|---|
| | Minimum $V_z (V)$ | Maximum $V_z (V)$ | | | $T_A = 25^\circ\text{C}$ | $T_A = 125^\circ\text{C}$ | | |
| BZX55C2V4 | 2.28 | 2.56 | 85 | 5.0 | 50 | 100 | 1.0 | 155 |
| BZX55C2V7 | 2.5 | 2.9 | 85 | 5.0 | 10 | 50 | 1.0 | 135 |
| BZX55C3V0 | 2.8 | 3.2 | 85 | 5.0 | 4.0 | 40 | 1.0 | 125 |
| BZX55C3V3 | 3.1 | 3.5 | 85 | 5.0 | 2.0 | 40 | 1.0 | 115 |
| BZX55C3V6 | 3.4 | 3.8 | 85 | 5.0 | 2.0 | 40 | 1.0 | 105 |
| BZX55C3V9 | 3.7 | 4.1 | 85 | 5.0 | 2.0 | 40 | 1.0 | 95 |
| BZX55C4V3 | 4.0 | 4.6 | 75 | 5.0 | 1.0 | 20 | 1.0 | 90 |
| BZX55C4V7 | 4.4 | 5.0 | 60 | 5.0 | 0.5 | 10 | 1.0 | 85 |
| BZX55C5V1 | 4.8 | 5.4 | 35 | 5.0 | 0.1 | 2.0 | 1.0 | 80 |
| BZX55C5V6 | 5.2 | 6.0 | 25 | 5.0 | 0.1 | 2.0 | 1.0 | 70 |
| BZX55C6V2 | 5.8 | 6.6 | 10 | 5.0 | 0.1 | 2.0 | 2.0 | 64 |
| BZX55C6V8 | 6.4 | 7.2 | 8.0 | 5.0 | 0.1 | 2.0 | 3.0 | 58 |
| BZX55C7V5 | 7.0 | 7.9 | 7.0 | 5.0 | 0.1 | 2.0 | 5.0 | 53 |
| BZX55C8V2 | 7.7 | 8.7 | 7.0 | 5.0 | 0.1 | 2.0 | 6.0 | 47 |
| BZX55C9V1 | 8.5 | 9.6 | 10 | 5.0 | 0.1 | 2.0 | 7.0 | 43 |
| BZX55C10 | 9.4 | 10.6 | 15 | 5.0 | 0.1 | 2.0 | 7.5 | 40 |
| BZX55C11 | 10.4 | 11.6 | 20 | 5.0 | 0.1 | 2.0 | 8.5 | 36 |
| BZX55C12 | 11.4 | 12.7 | 20 | 5.0 | 0.1 | 2.0 | 9.0 | 32 |
| BZX55C13 | 12.4 | 14.1 | 26 | 5.0 | 0.1 | 2.0 | 10 | 29 |
| BZX55C15 | 13.8 | 15.6 | 30 | 5.0 | 0.1 | 2.0 | 11 | 27 |
| BZX55C16 | 15.3 | 17.1 | 40 | 5.0 | 0.1 | 2.0 | 12 | 24 |
| BZX55C18 | 16.8 | 19.1 | 50 | 5.0 | 0.1 | 2.0 | 14 | 21 |
| BZX55C20 | 18.8 | 21.1 | 55 | 5.0 | 0.1 | 2.0 | 15 | 20 |
| BZX55C22 | 20.8 | 23.3 | 55 | 5.0 | 0.1 | 2.0 | 17 | 18 |
| BZX55C24 | 22.8 | 25.6 | 80 | 5.0 | 0.1 | 2.0 | 18 | 16 |
| BZX55C27 | 25.1 | 28.9 | 80 | 5.0 | 0.1 | 2.0 | 20 | 14 |
| BZX55C30 | 28.0 | 32.0 | 80 | 5.0 | 0.1 | 2.0 | 22 | 13 |
| BZX55C33 | 31.0 | 35.0 | 80 | 5.0 | 0.1 | 2.0 | 24 | 12 |
| BZX55C36 | 34.0 | 38.0 | 80 | 5.0 | 0.1 | 2.0 | 27 | 11 |
| BZX55C39 | 37.0 | 41.0 | 90 | 2.5 | 0.1 | 5.0 | 28 | 10 |
| BZX55C43 | 40.0 | 46.0 | 90 | 2.5 | 0.1 | 5.0 | 32 | 9.2 |
| BZX55C47 | 44.0 | 50.0 | 110 | 2.5 | 0.1 | 5.0 | 35 | 8.5 |
| BZX55C51 | 48.0 | 54.0 | 125 | 2.5 | 0.1 | 10 | 38 | 7.8 |
| BZX55C56 | 52.0 | 60.0 | 135 | 2.5 | 0.1 | 10 | 42 | 7.0 |
| BZX55C62 | 58.0 | 66.0 | 150 | 2.5 | 0.1 | 10 | 47 | 6.4 |
| BZX55C68 | 64.0 | 72.0 | 160 | 2.5 | 0.1 | 10 | 51 | 5.9 |
| BZX55C75 | 70.0 | 80.0 | 170 | 2.5 | 0.1 | 10 | 56 | 5.3 |
| BZX55C82 | 77.0 | 87.0 | 200 | 2.5 | 0.1 | 10 | 62 | 4.8 |
| BZX55C91 | 85.0 | 96.0 | 250 | 1.0 | 0.1 | 10 | 69 | 4.3 |