

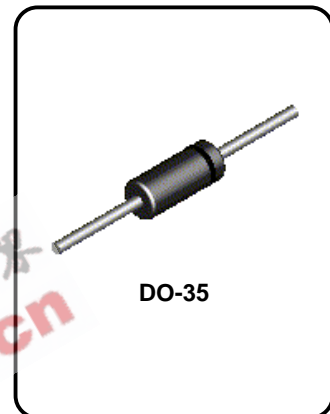
BZX55C 3V3 - 33 Series Half Watt Zeners

Absolute Maximum Ratings*

TA = 25°C unless otherwise noted

Tolerance: C = 5%

| Parameter | Value | Units |
|---|-------------|-------|
| Storage Temperature Range | -65 to +200 | °C |
| Maximum Junction Operating Temperature | + 200 | °C |
| Lead Temperature (1/16" from case for 10 seconds) | + 230 | °C |
| Total Device Dissipation | 500 | mW |
| Derate above 25°C | 4.0 | mW/°C |
| Surge Power** | 30 | W |



*These ratings are limiting values above which the serviceability of the diode may be impaired.

**Non-recurrent square wave PW= 8.3 ms, TA= 50 degrees C.

NOTES:

- 1) These ratings are based on a maximum junction temperature of 200 degrees C.
- 2) These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

Electrical Characteristics

TA = 25°C unless otherwise noted

| Device | V _Z (V) | | Z _Z (Ω) @ I _{ZT} (mA) | Z _{ZK} (Ω) @ I _{ZT} (mA) | V _R (V) @ I _R (μA) @ I _R (μA) T _A = 150°C | T _C (%/°C) | I _{ZM} (mA) |
|------------|--------------------|------|---|--|---|-----------------------|----------------------|
| | MIN | MAX | | | | | |
| BZX55C 3V3 | 3.1 | 3.5 | 85 | 5.0 | 600 1.0 1.0 2.0 40 | - 0.060 | 115 |
| BZX55C 3V6 | 3.4 | 3.8 | 85 | 5.0 | 600 1.0 1.0 2.0 40 | - 0.055 | 105 |
| BZX55C 3V9 | 3.7 | 4.1 | 85 | 5.0 | 600 1.0 1.0 2.0 40 | - 0.050 | 95 |
| BZX55C 4V3 | 4.0 | 4.6 | 75 | 5.0 | 600 1.0 1.0 1.0 20 | - 0.040 | 90 |
| BZX55C 4V7 | 4.4 | 5.0 | 60 | 5.0 | 600 1.0 1.0 0.5 10 | - 0.020 | 85 |
| BZX55C 5V1 | 4.8 | 5.4 | 35 | 5.0 | 550 1.0 1.0 0.1 2.0 | +0.010 | 80 |
| BZX55C 5V6 | 5.2 | 6.0 | 25 | 5.0 | 450 1.0 1.0 0.1 2.0 | +0.025 | 70 |
| BZX55C 6V2 | 5.8 | 6.6 | 10 | 5.0 | 200 1.0 2.0 0.1 2.0 | +0.032 | 64 |
| BZX55C 6V8 | 6.4 | 7.2 | 8.0 | 5.0 | 150 1.0 3.0 0.1 2.0 | +0.040 | 58 |
| BZX55C 7V5 | 7.0 | 7.9 | 7.0 | 5.0 | 50 1.0 5.0 0.1 2.0 | +0.045 | 53 |
| BZX55C 8V2 | 7.7 | 8.7 | 7.0 | 5.0 | 50 1.0 6.2 0.1 2.0 | +0.048 | 47 |
| BZX55C 9V1 | 8.5 | 9.6 | 10 | 5.0 | 50 1.0 6.8 0.1 2.0 | +0.050 | 43 |
| BZX55C 10 | 9.4 | 10.6 | 15 | 5.0 | 70 1.0 7.5 0.1 2.0 | +0.055 | 40 |
| BZX55C 11 | 10.4 | 11.6 | 20 | 5.0 | 70 1.0 8.2 0.1 2.0 | +0.060 | 36 |
| BZX55C 12 | 11.4 | 12.7 | 20 | 5.0 | 90 1.0 9.1 0.1 2.0 | +0.065 | 32 |
| BZX55C 13 | 12.4 | 14.1 | 26 | 5.0 | 110 1.0 10 0.1 2.0 | 0.070 | 29 |
| BZX55C 15 | 13.8 | 15.6 | 30 | 5.0 | 110 1.0 11 0.1 2.0 | 0.070 | 27 |
| BZX55C 16 | 15.3 | 17.1 | 40 | 5.0 | 170 1.0 12 0.1 2.0 | 0.075 | 24 |
| BZX55C 18 | 16.8 | 19.1 | 50 | 5.0 | 170 1.0 13 0.1 2.0 | 0.075 | 21 |
| BZX55C 20 | 18.8 | 21.1 | 55 | 5.0 | 220 1.0 15 0.1 2.0 | 0.080 | 20 |
| BZX55C 22 | 20.8 | 23.3 | 55 | 5.0 | 220 1.0 16 0.1 2.0 | 0.080 | 18 |
| BZX55C 24 | 22.8 | 25.6 | 80 | 5.0 | 220 1.0 18 0.1 2.0 | 0.080 | 16 |
| BZX55C 27 | 25.1 | 28.9 | 80 | 5.0 | 220 1.0 20 0.1 2.0 | 0.085 | 14 |
| BZX55C 30 | 28.0 | 32.0 | 80 | 5.0 | 220 1.0 22 0.1 2.0 | 0.085 | 13 |
| BZX55C 33 | 31.0 | 35.0 | 80 | 5.0 | 220 1.0 24 0.1 2.0 | 0.085 | 12 |

V_F Forward Voltage = 1.0 V Maximum @ I_F = 100 mA for all BZX 55 series