



Micro Commercial Components
21201 Itasca Street Chatsworth
CA 91311
Phone: (818) 701-4933
Fax: (818) 701-4939

BZX55-C2V4 THRU BZX55-C47

Features

- Silicon Planar Power Zener Diodes
- Glass Package

500 mWatt Zener Diode 2.42 to 47 Volts

Maximum Ratings

| Symbol | Rating | Rating | Unit |
|-----------|--|--------------------|------|
| P_D | Power dissipation | 500 ⁽¹⁾ | mW |
| R_{JA} | Thermal Resistance Junction to Ambient Air | 300 ⁽¹⁾ | °C/W |
| T_J | Junction Temperature | -55 to +150 | °C |
| T_{STG} | Storage Temperature Range | -55 to +150 | °C |

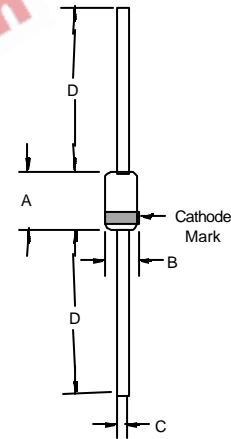
Admissible power dissipation versus ambient temperature

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



Note: (1) Valid provided that leads at a distance of 3/8" from case are kept at ambient temperature.

DO-35 GLASS



| DIM | DIMENSIONS | | | | NOTE |
|-----|------------|------|-------|------|------|
| | INCHES | | MM | | |
| | MIN | MAX | MIN | MAX | |
| A | --- | .166 | --- | 4.2 | |
| B | --- | .079 | --- | 2.00 | |
| C | --- | .020 | --- | .52 | |
| D | 1.000 | --- | 25.40 | --- | |

BZX55-C2V4 thru BZX55-C47

ELECTRICAL CHARACTERISTICS @25°C Maximum $V_F=1.0V$ at $I_F=100mA$

| MCC PART NUMBER | ZENER VOLTAGE RANGE ⁽¹⁾ at I_{ZT} V_Z (V) | | TEST CURRENT I_{ZT} mA | MAXIMUM DYNAMIC RESISTANCE f=1.0kHz $I_Z=5.0mA$ $I_Z=1.0mA$ | | TEMP. COEFFICIENT OF ZENER VOLTAGE at $I_Z=5mA$ V_Z (%/°C) | | REVERSE LEAKAGE CURRENT I_R nA | TEST CURRENT V_R V |
|-----------------------|--|------|-----------------------------------|--|--------------------|---|-------|--|-------------------------------|
| | MIN. | MAX. | | OHMS | OHMS | MIN. | MAX. | | |
| BZX55-C2V4 | 2.28 | 2.56 | 5.0 | 85 | 600 | -0.08 | -0.06 | 50000 | 1.0 |
| BZX55-C2V7 | 2.50 | 2.90 | 5.0 | 85 | 600 | -0.08 | -0.06 | 10000 | 1.0 |
| BZX55-C3V0 | 2.80 | 3.20 | 5.0 | 85 | 600 | -0.08 | -0.06 | 4000 | 1.0 |
| BZX55-C3V3 | 3.10 | 3.50 | 5.0 | 85 | 600 | -0.08 | -0.05 | 2000 | 1.0 |
| BZX55-C3V6 | 3.40 | 3.90 | 5.0 | 85 | 600 | -0.08 | -0.04 | 2000 | 1.0 |
| BZX55-C3V9 | 3.70 | 4.10 | 5.0 | 85 | 600 | -0.07 | -0.03 | 2000 | 1.0 |
| BZX55-C4V3 | 4.00 | 4.60 | 5.0 | 75 | 600 | -0.04 | -0.01 | 1000 | 1.0 |
| BZX55-C4V7 | 4.40 | 5.00 | 5.0 | 60 | 600 | -0.03 | +0.01 | 500 | 1.0 |
| BZX55-C5V1 | 4.80 | 5.40 | 5.0 | 35 | 550 | -0.02 | +0.05 | 100 | 1.0 |
| BZX55-C5V6 | 5.20 | 6.00 | 5.0 | 25 | 450 | -0.01 | +0.06 | 100 | 1.0 |
| BZX55-C6V2 | 5.80 | 6.60 | 5.0 | 10 | 200 | 0 | +0.07 | 100 | 2.0 |
| BZX55-C6V8 | 6.40 | 7.20 | 5.0 | 8.0 | 150 | +0.01 | +0.08 | 100 | 3.0 |
| BZX55-C7V5 | 7.00 | 7.90 | 5.0 | 7.0 | 50 | +0.01 | +0.09 | 100 | 5.0 |
| BZX55-C8V2 | 7.70 | 8.70 | 5.0 | 7.0 | 50 | +0.01 | +0.09 | 100 | 6.2 |
| BZX55-C9V1 | 8.50 | 9.60 | 5.0 | 10 | 50 | +0.02 | +0.10 | 100 | 6.8 |
| BZX55-C10 | 9.40 | 10.6 | 5.0 | 15 | 70 | +0.03 | +0.11 | 100 | 7.5 |
| BZX55-C11 | 10.4 | 11.6 | 5.0 | 20 | 70 | +0.03 | +0.11 | 100 | 8.2 |
| BZX55-C12 | 11.4 | 12.7 | 5.0 | 20 | 90 | +0.03 | +0.11 | 100 | 9.1 |
| BZX55-C13 | 12.4 | 14.1 | 5.0 | 26 | 110 | +0.03 | +0.11 | 100 | 10 |
| BZX55-C15 | 13.8 | 15.6 | 5.0 | 30 | 110 | +0.03 | +0.11 | 100 | 11 |
| BZX55-C16 | 15.3 | 17.1 | 5.0 | 40 | 170 | +0.03 | +0.11 | 100 | 12 |
| BZX55-C18 | 16.8 | 19.1 | 5.0 | 40 | 170 | +0.03 | +0.11 | 100 | 13 |
| BZX55-C20 | 18.8 | 21.2 | 5.0 | 55 | 220 | +0.03 | +0.11 | 100 | 15 |
| BZX55-C22 | 20.8 | 23.3 | 5.0 | 55 | 220 | +0.03 | +0.11 | 100 | 16 |
| BZX55-C24 | 22.8 | 25.6 | 5.0 | 80 | 220 | +0.04 | +0.12 | 100 | 18 |
| BZX55-C27 | 25.1 | 28.9 | 5.0 | 80 | 220 | +0.04 | +0.12 | 100 | 20 |
| BZX55-C30 | 28.0 | 32.0 | 5.0 | 80 | 220 | +0.04 | +0.12 | 100 | 22 |
| BZX55-C33 | 31.0 | 35.0 | 5.0 | 80 | 220 | +0.04 | +0.12 | 100 | 24 |
| BZX55-C36 | 34.0 | 38.0 | 5.0 | 80 | 220 | +0.04 | +0.12 | 100 | 27 |
| BZX55-C39 | 37.0 | 41.0 | 2.5 | 90 ⁽²⁾ | 500 ⁽³⁾ | +0.04 | +0.12 | 100 | 30 |
| BZX55-C43 | 40.0 | 46.0 | 2.5 | 90 ⁽²⁾ | 600 ⁽³⁾ | +0.04 | +0.12 | 100 | 33 |
| BZX55-C47 | 44.0 | 50.0 | 2.5 | 110 ⁽²⁾ | 700 ⁽³⁾ | +0.04 | +0.12 | 100 | 36 |

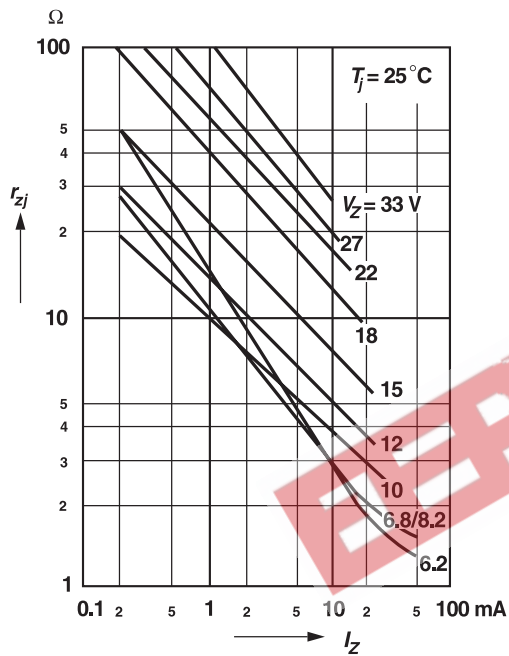
Note: (1) Measured with pulses $t_p=5.0ms$

(2) at $I_Z=2.5mA$

(3) at $I_Z=0.5mA$

BZX55-C2V4 thru BZX55-C47

Dynamic resistance versus Zener current



Dynamic resistance versus Zener voltage

