



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

BZX55C2V4

THRU

BZX55C39

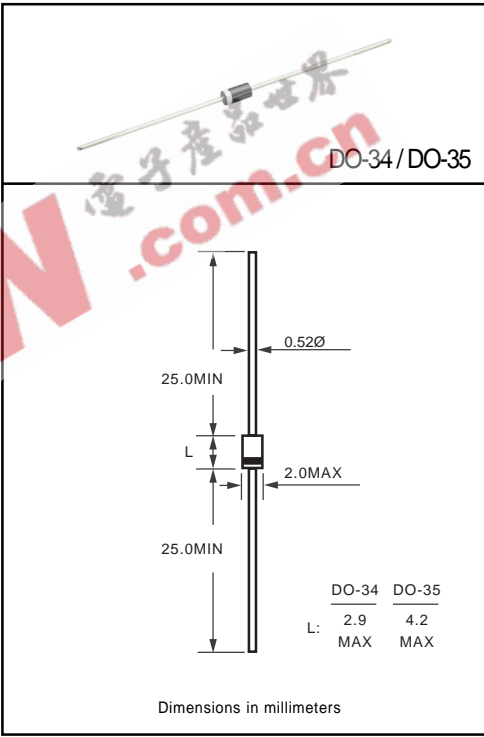
TECHNICAL SPECIFICATIONS OF GLASS SILICON ZENER DIODES

FEATURES

- * Voltage Range: 2.4V to 39V
- * Double slug type construction

MECHANICAL DATA

- * Case: Glass sealed case
- * Lead: MIL-STD-202E, Method 208 guaranteed
- * Polarity: Color band denotes cathode end
- * Mounting position: Any
- * Weight: 0.13 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

| | SYMBOL | VALUE | UNITS |
|---|--------|------------------------------|-------------------------------|
| Zener Current see Table "Characteristics" | | | |
| Power Dissipation at Tamb=25°C | Ptot | 500 ⁽¹⁾ | mW |
| Junction Temperature | Tj | 175 | °C |
| Storage Temperature Range | Tstg | -55 to + 175 | °C |
| Thermal Resistance Junction to Ambient Air | RthA | - - 0.3 ⁽¹⁾ | K/mW Typ. Min. Max. |
| Forward Voltage at IF=100mA | VF | - - 1 | Volts Typ. Min. Max. |

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

NOTE: 1. Standard Zener Voltage Tolerance ± 5%

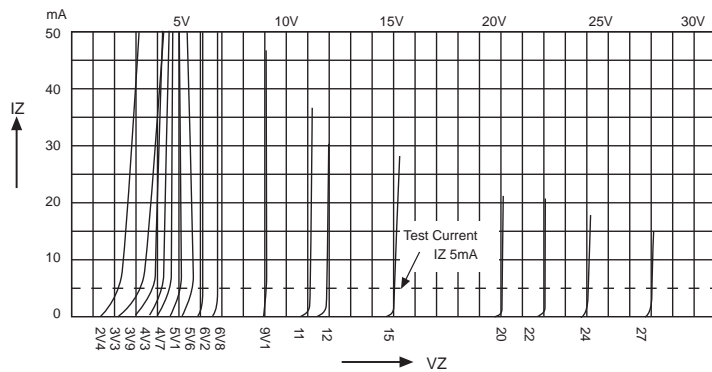
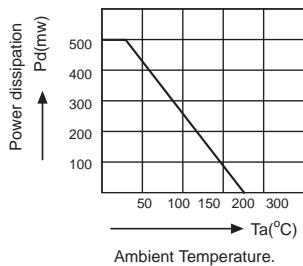
2. Suffix "M" stands for "DO-34" package. (e.g.: BZX55C2V4M, BZX55C39M)

RATING AND CHARACTERISTIC CURVES (BZX55C SERIES)

| TYPE | Nominal Zener Voltage VZ@IZT | | Zener Test Current IZT | Maximum Zener Impedance | | IZK | Maximum Reverse Leakage Current | | Typical Temperature Coefficient | Maximum Regulator Current IZM |
|-----------|---------------------------------|------|---------------------------|-------------------------|---------|-----|---------------------------------|-------|---------------------------------|----------------------------------|
| | Min | Max | | ZZT@IZT | ZZT@IZK | | IR | @VR | | |
| | | | mA | Ohms | Ohms | mA | uA | Volts | % / °C | mA |
| BZX55C2V4 | 2.28 | 2.56 | 5 | 85 | 600 | 1 | 50 | 1 | -0.085 | 155 |
| BZX55C2V7 | 2.5 | 2.9 | 5 | 85 | 600 | 1 | 10 | 1 | -0.080 | 135 |
| BZX55C3V0 | 2.8 | 3.2 | 5 | 85 | 600 | 1 | 4 | 1 | -0.075 | 125 |
| BZX55C3V3 | 3.1 | 3.5 | 5 | 85 | 600 | 1 | 2 | 1 | -0.070 | 115 |
| BZX55C3V6 | 3.4 | 3.8 | 5 | 85 | 600 | 1 | 2 | 1 | -0.065 | 105 |
| BZX55C3V9 | 3.7 | 4.1 | 5 | 85 | 600 | 1 | 2 | 1 | -0.060 | 95 |
| BZX55C4V3 | 4.0 | 4.6 | 5 | 75 | 600 | 1 | 1 | 1 | ±0.055 | 90 |
| BZX55C4V7 | 4.4 | 5.0 | 5 | 60 | 600 | 1 | 0.5 | 1 | ±0.030 | 85 |
| BZX55C5V1 | 4.8 | 5.4 | 5 | 35 | 550 | 1 | 0.1 | 1 | ±0.030 | 80 |
| BZX55C5V6 | 5.2 | 6.0 | 5 | 25 | 450 | 1 | 0.1 | 1 | +0.038 | 70 |
| BZX55C6V2 | 5.8 | 6.6 | 5 | 10 | 200 | 1 | 0.1 | 2 | +0.045 | 64 |
| BZX55C6V8 | 6.4 | 7.2 | 5 | 8 | 150 | 1 | 0.1 | 3 | +0.050 | 58 |
| BZX55C7V5 | 7.0 | 7.9 | 5 | 7 | 50 | 1 | 0.1 | 5 | +0.058 | 53 |
| BZX55C8V2 | 7.7 | 8.7 | 5 | 7 | 50 | 1 | 0.1 | 6.2 | +0.062 | 74 |
| BZX55C9V1 | 8.5 | 9.6 | 5 | 10 | 50 | 1 | 0.1 | 6.8 | +0.068 | 43 |
| BZX55C10 | 9.4 | 10.6 | 5 | 15 | 70 | 1 | 0.1 | 7.5 | +0.075 | 40 |
| BZX55C11 | 10.4 | 11.6 | 5 | 20 | 70 | 1 | 0.1 | 8.2 | +0.076 | 36 |
| BZX55C12 | 11.4 | 12.7 | 5 | 20 | 90 | 1 | 0.1 | 9.1 | +0.077 | 32 |
| BZX55C13 | 12.4 | 14.1 | 5 | 26 | 110 | 1 | 0.1 | 10 | +0.079 | 29 |
| BZX55C15 | 13.8 | 15.6 | 5 | 30 | 110 | 1 | 0.1 | 11 | +0.082 | 27 |
| BZX55C16 | 15.3 | 17.1 | 5 | 40 | 170 | 1 | 0.1 | 12 | +0.083 | 24 |
| BZX55C18 | 16.8 | 19.1 | 5 | 50 | 170 | 1 | 0.1 | 12 | +0.085 | 21 |
| BZX55C20 | 18.8 | 21.2 | 5 | 55 | 220 | 1 | 0.1 | 15 | +0.086 | 20 |
| BZX55C22 | 20.8 | 23.3 | 5 | 55 | 220 | 1 | 0.1 | 16 | +0.087 | 18 |
| BZX55C24 | 22.8 | 25.6 | 5 | 80 | 220 | 1 | 0.1 | 18 | +0.088 | 16 |
| BZX55C27 | 25.1 | 28.9 | 5 | 80 | 220 | 1 | 0.1 | 20 | +0.090 | 14 |
| BZX55C30 | 28 | 32 | 5 | 80 | 220 | 1 | 0.1 | 22 | +0.091 | 13 |
| BZX55C33 | 31 | 35 | 5 | 80 | 220 | 1 | 0.1 | 24 | +0.092 | 12 |
| BZX55C36 | 34 | 38 | 5 | 80 | 220 | 1 | 0.1 | 27 | +0.093 | 11 |
| BZX55C39 | 37 | 41 | 2.5 | 90 | 500 | 0.5 | 0.1 | 30 | +0.094 | 10 |

Breakdown characteristic BZX55-SERIES

changes in the power dissipation due to the ambient temperature.



DC COMPONENTS CO., LTD.