



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

BZX55C2V4
THRU
BZX55C47

TECHNICAL SPECIFICATIONS OF GLASS SILICON ZENER DIODES

FEATURES

- * Voltage Range: 2.4V to 47V
- * Double slug type construction

MECHANICAL DATA

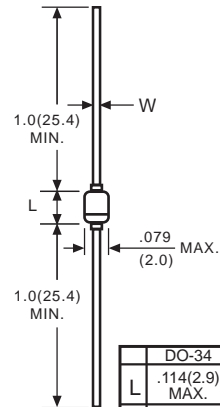
- * Case: Glass sealed case
- * Lead: Solder plated, solderable per MIL-STD-705, Method 2026 guaranteed
- * Polarity: Color band denotes cathode end
- * Mounting position: Any
- * Weight: 0.13 gram

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%.



DO-34/DO-35



| | DO-34 | DO-35 |
|---|------------------------|------------------------|
| L | .114(2.9) MAX. | .142(3.6) MAX. |
| W | .020(0.5) .012(0.3) | .024(0.6) .016(0.4) |

Dimensions in inches and (millimeters)

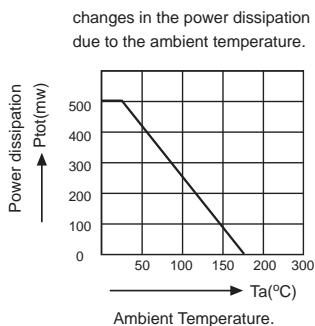
| | SYMBOL | VALUE | UNITS |
|--|-----------------------------------|-------------|-------|
| Zener Current see Table "Characteristics" | | | |
| Power Dissipation (Notes 1) at Tamb=25°C | P _{tot} | 500 | mW |
| Thermal Resistance - Junction to Ambient Air (Notes 2) | R _{thA} | 0.3 | K/mW |
| Maximum Forward Voltage at I _F =100mA | V _F | 1.0 | Volts |
| Operating and Storage Temperature | T _J , T _{stg} | -55 to +150 | °C |

- Notes: 1. Standard Zener Voltage Tolerance ± 5%
 2. Suffix "M" stands for "DO-34" package. (e.g.: BZX55C2V4M, BZX55C39M)

RATING AND CHARACTERISTIC CURVES (BZX55C SERIES)

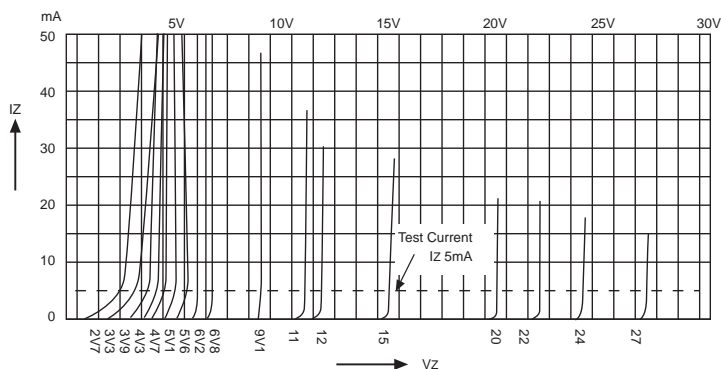
| TYPE | Nominal Zener Voltage $V_Z @ I_{ZT}$ | | Zener Test Current I_{ZT} | Maximum Zener Impedance | | I_{ZK} | Maximum Reverse Leakage Current | |
|-----------|--------------------------------------|------|-----------------------------|-------------------------|------|-------------------|---------------------------------|-------------|
| | Min | Max | | mA | Ohms | | Ohms | $I_R @ V_R$ |
| | | | $Z_{ZT} @ I_{ZT}$ | | | $Z_{ZK} @ I_{ZK}$ | | μA |
| BZX55C2V4 | 2.28 | 2.56 | 5 | 85 | 600 | 1 | 50 | 1.0 |
| BZX55C2V7 | 2.5 | 2.9 | 5 | 85 | 600 | 1 | 10 | 1.0 |
| BZX55C3V0 | 2.8 | 3.2 | 5 | 85 | 600 | 1 | 4 | 1.0 |
| BZX55C3V3 | 3.1 | 3.5 | 5 | 85 | 600 | 1 | 2 | 1.0 |
| BZX55C3V6 | 3.4 | 3.8 | 5 | 85 | 600 | 1 | 2 | 1.0 |
| BZX55C3V9 | 3.7 | 4.1 | 5 | 85 | 600 | 1 | 2 | 1.0 |
| BZX55C4V3 | 4.0 | 4.6 | 5 | 75 | 600 | 1 | 1 | 1.0 |
| BZX55C4V7 | 4.4 | 5.0 | 5 | 60 | 600 | 1 | 0.5 | 1.0 |
| BZX55C5V1 | 4.8 | 5.4 | 5 | 35 | 550 | 1 | 0.1 | 1.0 |
| BZX55C5V6 | 5.2 | 6.0 | 5 | 25 | 450 | 1 | 0.1 | 1.0 |
| BZX55C6V2 | 5.8 | 6.6 | 5 | 10 | 200 | 1 | 0.1 | 2.0 |
| BZX55C6V8 | 6.4 | 7.2 | 5 | 8 | 150 | 1 | 0.1 | 3.0 |
| BZX55C7V5 | 7.0 | 7.9 | 5 | 7 | 50 | 1 | 0.1 | 5.0 |
| BZX55C8V2 | 7.7 | 8.7 | 5 | 7 | 50 | 1 | 0.1 | 6.0 |
| BZX55C9V1 | 8.5 | 9.6 | 5 | 10 | 50 | 1 | 0.1 | 7.0 |
| BZX55C10 | 9.4 | 10.6 | 5 | 15 | 70 | 1 | 0.1 | 7.5 |
| BZX55C11 | 10.4 | 11.6 | 5 | 20 | 70 | 1 | 0.1 | 8.5 |
| BZX55C12 | 11.4 | 12.7 | 5 | 20 | 90 | 1 | 0.1 | 9.0 |
| BZX55C13 | 12.4 | 14.1 | 5 | 26 | 110 | 1 | 0.1 | 10 |
| BZX55C15 | 13.8 | 15.6 | 5 | 30 | 110 | 1 | 0.1 | 11 |
| BZX55C16 | 15.3 | 17.1 | 5 | 40 | 170 | 1 | 0.1 | 12 |
| BZX55C18 | 16.8 | 19.1 | 5 | 50 | 170 | 1 | 0.1 | 14 |
| BZX55C20 | 18.8 | 21.2 | 5 | 55 | 220 | 1 | 0.1 | 15 |
| BZX55C22 | 20.8 | 23.3 | 5 | 55 | 220 | 1 | 0.1 | 17 |
| BZX55C24 | 22.8 | 25.6 | 5 | 80 | 220 | 1 | 0.1 | 18 |
| BZX55C27 | 25.1 | 28.9 | 5 | 80 | 220 | 1 | 0.1 | 20 |
| BZX55C30 | 28 | 32 | 5 | 80 | 220 | 1 | 0.1 | 22 |
| BZX55C33 | 31 | 35 | 5 | 80 | 220 | 1 | 0.1 | 24 |
| BZX55C36 | 34 | 38 | 5 | 80 | 220 | 1 | 0.1 | 27 |
| BZX55C39 | 37 | 41 | 2.5 | 90 | 500 | 1 | 0.1 | 30 |
| BZX55C43 | 40 | 46 | 2.5 | 90 | 600 | 1 | 0.1 | 33 |
| BZX55C47 | 44 | 50 | 2.5 | 110 | 700 | 1 | 0.1 | 36 |

NOTE: Zener Voltage Tolerance $\pm 5\%$



Breakdown characteristics

BZX55-SERIES



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