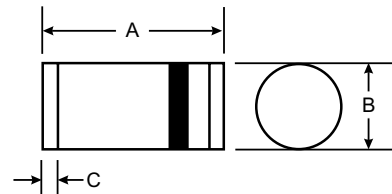


Features

- Planar Die Construction
- Sealed Glass Case
- Ideally Suited for Automated Insertion
- 2.4V - 75V Nominal Zener Voltages

**NOT FOR NEW DESIGN,
USE BZT52C2V4 - BZT52C51**



Mechanical Data

- Case: MiniMELF, Glass
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Approx. Weight: 0.05 grams

| MiniMELF | | |
|----------------------|------|------|
| Dim | Min | Max |
| A | 3.30 | 3.70 |
| B | 1.30 | 1.60 |
| C | 0.28 | 0.50 |
| All Dimensions in mm | | |

Maximum Ratings @ T_A = 25°C unless otherwise specified

| Characteristic | Symbol | Value | Unit |
|--|-----------------------------------|-------------|------|
| Power Dissipation (Note 2) | P _d | 500 | mW |
| Forward Voltage @ I _F = 200mA | V _F | 1.5 | V |
| Thermal Resistance, Junction to Ambient Air (Note 2) | R _{θJA} | 300 | K/W |
| Operating and Storage Temperature Range | T _J , T _{STG} | -55 to +175 | °C |

- Notes:
1. Tested with Pulses, t_p = 20ms.
 2. Valid provided that Electrodes are kept at Ambient Temperature.

Electrical Characteristics @ T_A = 25°C unless otherwise specified

| Type Number | Nominal Zener Voltage (Note 1) | | Zener Voltage Range | Maximum Zener Impedance | Maximum Zener Impedance | | Maximum Leakage Current @ V _R | | | Temperature Coefficient |
|-------------|----------------------------------|------|----------------------------------|-----------------------------------|-----------------------------------|------|--|---|----------------|-------------------------|
| | V _Z @ I _{ZT} | | V _Z @ I _{ZT} | Z _{ZT} @ I _{ZT} | Z _{ZK} @ I _{ZK} | | I _R @ T _J = 25°C | I _R @ T _J = 150°C | V _R | (%/K) |
| | (V) | (mA) | (V) | (Ω) | (Ω) | (mA) | (μA) | (μA) | (V) | |
| ZMM2V4 | 2.4 | 5.0 | 2.28 to 2.56 | 85 | 600 | 1.0 | 50 | 100 | 1.0 | -0.09 to -0.06 |
| ZMM2V7 | 2.7 | 5.0 | 2.5 to 2.9 | 85 | 600 | 1.0 | 10 | 50 | 1.0 | -0.09 to -0.06 |
| ZMM3V0 | 3.0 | 5.0 | 2.8 to 3.2 | 90 | 600 | 1.0 | 4.0 | 40 | 1.0 | -0.08 to -0.05 |
| ZMM3V3 | 3.3 | 5.0 | 3.1 to 3.5 | 90 | 600 | 1.0 | 2.0 | 40 | 1.0 | -0.08 to -0.05 |
| ZMM3V6 | 3.6 | 5.0 | 3.4 to 3.8 | 90 | 600 | 1.0 | 2.0 | 40 | 1.0 | -0.08 to -0.05 |
| ZMM3V9 | 3.9 | 5.0 | 3.7 to 4.1 | 90 | 600 | 1.0 | 2.0 | 40 | 1.0 | -0.08 to -0.05 |
| ZMM4V3 | 4.3 | 5.0 | 4.0 to 4.6 | 90 | 600 | 1.0 | 1.0 | 20 | 1.0 | -0.06 to -0.03 |
| ZMM4V7 | 4.7 | 5.0 | 4.4 to 5.0 | 80 | 600 | 1.0 | 0.5 | 10 | 1.0 | -0.05 to +0.02 |
| ZMM5V1 | 5.1 | 5.0 | 4.8 to 5.4 | 60 | 550 | 1.0 | 0.1 | 2.0 | 1.0 | -0.02 to +0.02 |
| ZMM5V6 | 5.6 | 5.0 | 5.2 to 6.0 | 40 | 450 | 1.0 | 0.1 | 2.0 | 1.0 | -0.05 to +0.05 |
| ZMM6V2 | 6.2 | 5.0 | 5.8 to 6.6 | 10 | 200 | 1.0 | 0.1 | 2.0 | 2.0 | 0.03 to 0.06 |
| ZMM6V8 | 6.8 | 5.0 | 6.4 to 7.2 | 8.0 | 150 | 1.0 | 0.1 | 2.0 | 3.0 | 0.03 to 0.07 |
| ZMM7V5 | 7.5 | 5.0 | 7.0 to 7.9 | 7.0 | 50 | 1.0 | 0.1 | 2.0 | 5.0 | 0.03 to 0.07 |
| ZMM8V2 | 8.2 | 5.0 | 7.7 to 8.7 | 7.0 | 50 | 1.0 | 0.1 | 2.0 | 6.2 | 0.03 to 0.08 |
| ZMM9V1 | 9.1 | 5.0 | 8.5 to 9.6 | 10 | 50 | 1.0 | 0.1 | 2.0 | 6.8 | 0.03 to 0.09 |
| ZMM10 | 10 | 5.0 | 9.4 to 10.6 | 15 | 70 | 1.0 | 0.1 | 2.0 | 7.5 | 0.03 to 0.10 |
| ZMM11 | 11 | 5.0 | 10.4 to 11.6 | 20 | 70 | 1.0 | 0.1 | 2.0 | 8.2 | 0.03 to 0.11 |
| ZMM12 | 12 | 5.0 | 11.4 to 12.7 | 20 | 90 | 1.0 | 0.1 | 2.0 | 9.1 | 0.03 to 0.11 |
| ZMM13 | 13 | 5.0 | 12.4 to 14.1 | 26 | 110 | 1.0 | 0.1 | 2.0 | 10 | 0.03 to 0.11 |
| ZMM15 | 15 | 5.0 | 13.8 to 15.6 | 30 | 110 | 1.0 | 0.1 | 2.0 | 11 | 0.03 to 0.11 |
| ZMM16 | 16 | 5.0 | 15.3 to 17.1 | 40 | 170 | 1.0 | 0.1 | 2.0 | 12 | 0.03 to 0.11 |
| ZMM18 | 18 | 5.0 | 16.8 to 19.1 | 50 | 170 | 1.0 | 0.1 | 2.0 | 13 | 0.03 to 0.11 |
| ZMM20 | 20 | 5.0 | 18.8 to 21.2 | 55 | 220 | 1.0 | 0.1 | 2.0 | 15 | 0.03 to 0.11 |
| ZMM22 | 22 | 5.0 | 20.8 to 23.3 | 55 | 220 | 1.0 | 0.1 | 2.0 | 16 | 0.04 to 0.12 |
| ZMM24 | 24 | 5.0 | 22.8 to 25.6 | 80 | 220 | 1.0 | 0.1 | 2.0 | 18 | 0.04 to 0.12 |
| ZMM27 | 27 | 5.0 | 25.1 to 28.9 | 80 | 220 | 1.0 | 0.1 | 2.0 | 20 | 0.04 to 0.12 |
| ZMM30 | 30 | 5.0 | 28 to 32 | 80 | 220 | 1.0 | 0.1 | 2.0 | 22 | 0.04 to 0.12 |
| ZMM33 | 33 | 5.0 | 31 to 35 | 80 | 220 | 1.0 | 0.1 | 2.0 | 24 | 0.04 to 0.12 |
| ZMM36 | 36 | 5.0 | 34 to 38 | 80 | 220 | 1.0 | 0.1 | 2.0 | 27 | 0.04 to 0.12 |
| ZMM39 | 39 | 2.5 | 37 to 41 | 90 | 500 | 0.5 | 0.1 | 5.0 | 30 | 0.04 to 0.12 |
| ZMM43 | 43 | 2.5 | 40 to 46 | 90 | 600 | 0.5 | 0.1 | 5.0 | 33 | 0.04 to 0.12 |
| ZMM47 | 47 | 2.5 | 44 to 50 | 110 | 700 | 0.5 | 0.1 | 5.0 | 36 | 0.04 to 0.12 |
| ZMM51 | 51 | 2.5 | 48 to 54 | 125 | 700 | 0.5 | 0.1 | 10 | 39 | 0.04 to 0.12 |
| ZMM56 | 56 | 2.5 | 52 to 60 | 135 | 1000 | 0.5 | 0.1 | 10 | 43 | 0.04 to 0.12 |
| ZMM62 | 62 | 2.5 | 58 to 66 | 150 | 1000 | 0.5 | 0.1 | 10 | 47 | 0.04 to 0.12 |
| ZMM68 | 68 | 2.5 | 64 to 72 | 200 | 1000 | 0.5 | 0.1 | 10 | 51 | 0.04 to 0.12 |
| ZMM75 | 75 | 2.5 | 70 to 79 | 250 | 1500 | 0.5 | 0.1 | 10 | 56 | 0.04 to 0.12 |

- Notes: 1. Tested with pulses t_p = 20 ms.
2. Valid provided that electrodes are kept at ambient temperature.

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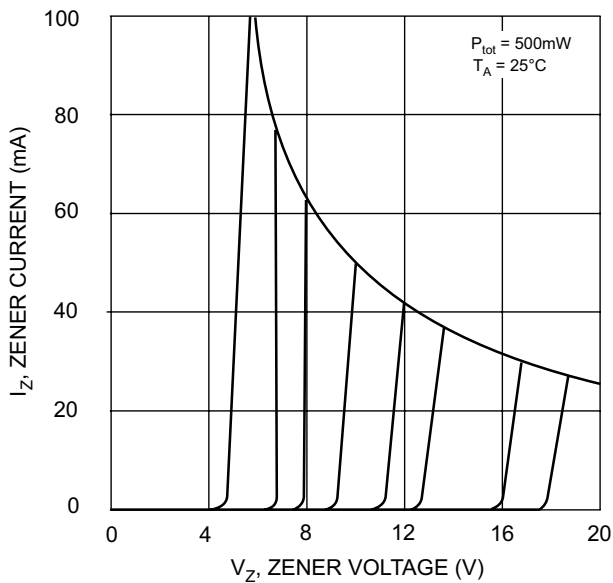


Fig. 1, Zener Current vs Zener Voltage

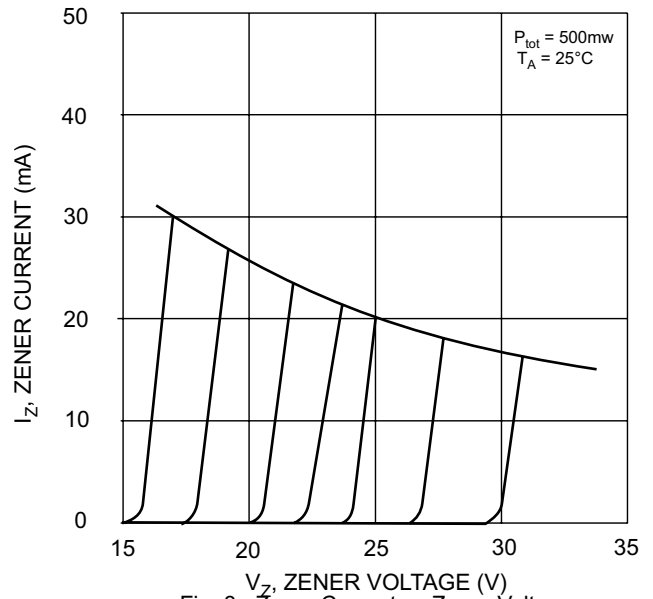


Fig. 8, Zener Current vs Zener Voltage

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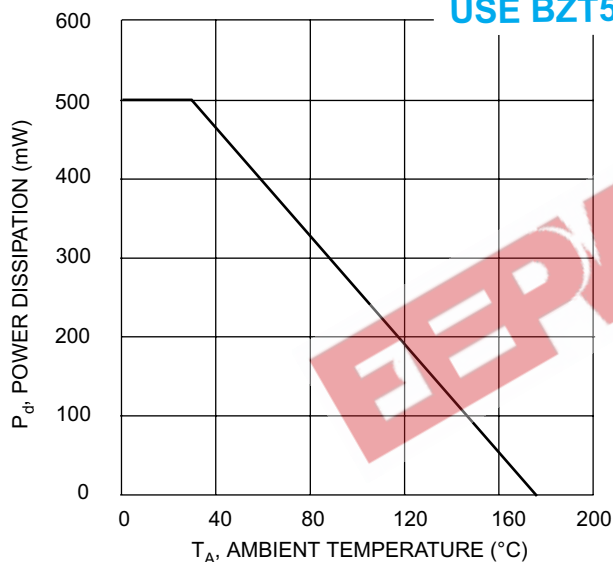


Fig. 3, Power Dissipation vs Ambient Temperature

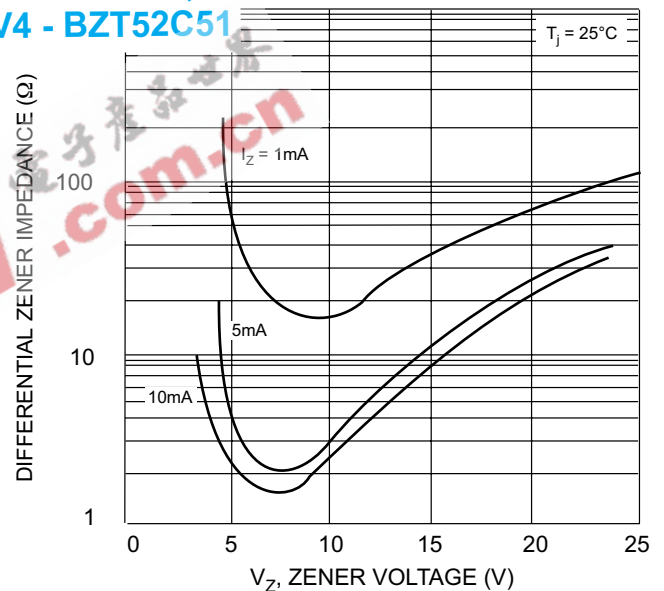


Fig. 4, Differential Zener Impedance

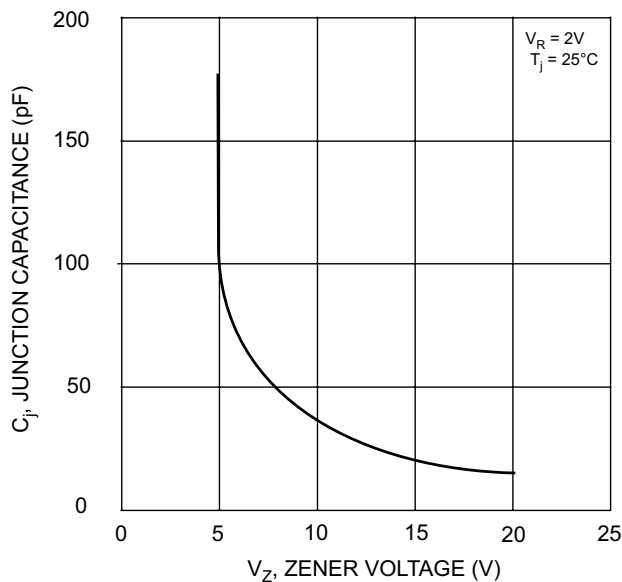


Fig. 5, Junction Capacitance vs Zener Voltage