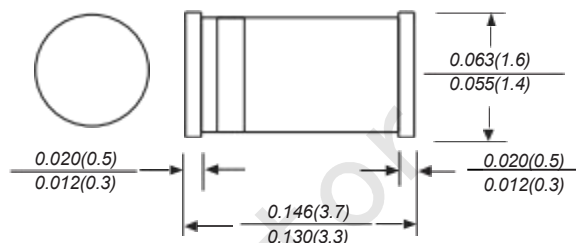


### FEATURE

In MiniMELF case especially for automatic insertion.  
 These diodes are also available in DO-35 case with  
 the type designation BZX55C...

#### LL-34



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

#### Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )

| Parameter                 | Symbol    | Value             | Unit             |
|---------------------------|-----------|-------------------|------------------|
| Power Dissipation         | $P_{tot}$ | 500 <sup>1)</sup> | mW               |
| Junction Temperature      | $T_j$     | 175               | $^\circ\text{C}$ |
| Storage Temperature Range | $T_{stg}$ | - 55 to + 175     | $^\circ\text{C}$ |

<sup>1)</sup> Valid provided that electrodes are kept at ambient temperature

#### Characteristics at $T_a = 25\text{ }^\circ\text{C}$

| Parameter                                   | Symbol          | Max.              | Unit |
|---|-----------------|-------------------|------|
| Thermal Resistance Junction to Ambient Air  | $R_{\theta JA}$ | 0.3 <sup>1)</sup> | K/mW |
| Forward Voltage<br>at $I_F = 100\text{ mA}$ | $V_F$           | 1                 | V    |

<sup>1)</sup> Valid provided that electrodes are kept at ambient temperature

**Electrical Characteristics** @ TA = 25°C unless otherwise specified

| Type   | Zener Voltage Range <sup>1)</sup> |             |        | Dynamic Resistance |          |        | Reverse Leakage Current |            |       | Temp. Coefficient of Zener Voltage<br>TKvz(%/K) |
|--------|-----------------------------------|-------------|--------|--------------------|----------|--------|-------------------------|------------|-------|---|
|        | VZnom                             | VZ          | at IZT | ZZT                | ZZK      | at IZK | TA = 25°C               | TA = 125°C | at VR |   |
|        | (V)                               | (V)         | (mA)   | Max. (Ω)           | Max. (Ω) | (mA)   | Max. (μA)               | Max. (μA)  | (V)   |   |
| ZMM2V0 | 2                                 | 1.8...2.15  | 5      | 85                 | 600      | 1      | 100                     | 200        | 1     | -0.09...-0.06                                   |
| ZMM2V2 | 2.2                               | 2.08...2.33 | 5      | 85                 | 600      | 1      | 75                      | 160        | 1     | -0.09...-0.06                                   |
| ZMM2V4 | 2.4                               | 2.28...2.56 | 5      | 85                 | 600      | 1      | 50                      | 100        | 1     | -0.09...-0.06                                   |
| ZMM2V7 | 2.7                               | 2.5...2.9   | 5      | 85                 | 600      | 1      | 10                      | 50         | 1     | -0.09...-0.06                                   |
| ZMM3V0 | 3                                 | 2.8...3.2   | 5      | 85                 | 600      | 1      | 4                       | 40         | 1     | -0.08...-0.05                                   |
| ZMM3V3 | 3.3                               | 3.1...3.5   | 5      | 85                 | 600      | 1      | 2                       | 40         | 1     | -0.08...-0.05                                   |
| ZMM3V6 | 3.6                               | 3.4...3.8   | 5      | 85                 | 600      | 1      | 2                       | 40         | 1     | -0.08...-0.05                                   |
| ZMM3V9 | 3.9                               | 3.7...4.1   | 5      | 85                 | 600      | 1      | 2                       | 40         | 1     | -0.08...-0.05                                   |
| ZMM4V3 | 4.3                               | 4...4.6     | 5      | 75                 | 600      | 1      | 1                       | 20         | 1     | -0.06...-0.03                                   |
| ZMM4V7 | 4.7                               | 4.4...5     | 5      | 60                 | 600      | 1      | 0.5                     | 10         | 1     | -0.05...+0.02                                   |
| ZMM5V1 | 5.1                               | 4.8...5.4   | 5      | 35                 | 550      | 1      | 0.1                     | 2          | 1     | -0.02...+0.02                                   |
| ZMM5V6 | 5.6                               | 5.2...6     | 5      | 25                 | 450      | 1      | 0.1                     | 2          | 1     | -0.05...+0.05                                   |
| ZMM6V2 | 6.2                               | 5.8...6.6   | 5      | 10                 | 200      | 1      | 0.1                     | 2          | 2     | 0.03...0.06                                     |
| ZMM6V8 | 6.8                               | 6.4...7.2   | 5      | 8                  | 150      | 1      | 0.1                     | 2          | 3     | 0.03...0.07                                     |
| ZMM7V5 | 7.5                               | 7...7.9     | 5      | 7                  | 50       | 1      | 0.1                     | 2          | 5     | 0.03...0.07                                     |
| ZMM8V2 | 8.2                               | 7.7...8.7   | 5      | 7                  | 50       | 1      | 0.1                     | 2          | 6.2   | 0.03...0.08                                     |
| ZMM9V1 | 9.1                               | 8.5...9.6   | 5      | 10                 | 50       | 1      | 0.1                     | 2          | 6.8   | 0.03...0.09                                     |
| ZMM10  | 10                                | 9.4...10.6  | 5      | 15                 | 70       | 1      | 0.1                     | 2          | 7.5   | 0.03...0.1                                      |
| ZMM11  | 11                                | 10.4...11.6 | 5      | 20                 | 70       | 1      | 0.1                     | 2          | 8.2   | 0.03...0.11                                     |
| ZMM12  | 12                                | 11.4...12.7 | 5      | 20                 | 90       | 1      | 0.1                     | 2          | 9.1   | 0.03...0.11                                     |
| ZMM13  | 13                                | 12.4...14.1 | 5      | 26                 | 110      | 1      | 0.1                     | 2          | 10    | 0.03...0.11                                     |
| ZMM15  | 15                                | 13.8...15.6 | 5      | 30                 | 110      | 1      | 0.1                     | 2          | 11    | 0.03...0.11                                     |
| ZMM16  | 16                                | 15.3...17.1 | 5      | 40                 | 170      | 1      | 0.1                     | 2          | 12    | 0.03...0.11                                     |
| ZMM18  | 18                                | 16.8...19.1 | 5      | 50                 | 170      | 1      | 0.1                     | 2          | 13    | 0.03...0.11                                     |
| ZMM20  | 20                                | 18.8...21.2 | 5      | 55                 | 220      | 1      | 0.1                     | 2          | 15    | 0.03...0.11                                     |
| ZMM22  | 22                                | 20.8...23.3 | 5      | 55                 | 220      | 1      | 0.1                     | 2          | 16    | 0.04...0.12                                     |
| ZMM24  | 24                                | 22.8...25.6 | 5      | 80                 | 220      | 1      | 0.1                     | 2          | 18    | 0.04...0.12                                     |
| ZMM27  | 27                                | 25.1...28.9 | 5      | 80                 | 220      | 1      | 0.1                     | 2          | 20    | 0.04...0.12                                     |
| ZMM30  | 30                                | 28...32     | 5      | 80                 | 220      | 1      | 0.1                     | 2          | 22    | 0.04...0.12                                     |
| ZMM33  | 33                                | 31...35     | 5      | 80                 | 220      | 1      | 0.1                     | 2          | 24    | 0.04...0.12                                     |
| ZMM36  | 36                                | 34...38     | 5      | 80                 | 220      | 1      | 0.1                     | 2          | 27    | 0.04...0.12                                     |
| ZMM39  | 39                                | 37...41     | 2.5    | 90                 | 500      | 0.5    | 0.1                     | 5          | 30    | 0.04...0.12                                     |
| ZMM43  | 43                                | 40...46     | 2.5    | 90                 | 500      | 0.5    | 0.1                     | 5          | 33    | 0.04...0.12                                     |
| ZMM47  | 47                                | 44...50     | 2.5    | 110                | 600      | 0.5    | 0.1                     | 5          | 36    | 0.04...0.12                                     |
| ZMM51  | 51                                | 48...54     | 2.5    | 125                | 700      | 0.5    | 0.1                     | 10         | 39    | 0.04...0.12                                     |
| ZMM56  | 56                                | 52...60     | 2.5    | 135                | 700      | 0.5    | 0.1                     | 10         | 43    | 0.04...0.12                                     |
| ZMM62  | 62                                | 58...66     | 2.5    | 150                | 1000     | 0.5    | 0.1                     | 10         | 47    | 0.04...0.12                                     |
| ZMM68  | 68                                | 64...72     | 2.5    | 200                | 1000     | 0.5    | 0.1                     | 10         | 51    | 0.04...0.12                                     |
| ZMM75  | 75                                | 70...79     | 2.5    | 250                | 1000     | 0.5    | 0.1                     | 10         | 56    | 0.04...0.12                                     |

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

