

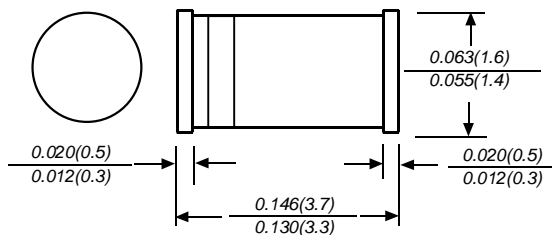
Data Sheet 2595, Rev. -

**BZV55C/ZMM55C-SERIES**

**ZENER DIODES**

**Zener Voltage: 2.4-180V Peak Pulse Power: 500mW**

**MINI MELF**



**FEATURE**

- ◆ Low zener impedance
- ◆ Low regulation factor
- ◆ Glass passivated junction
- ◆ High temperature soldering guaranteed:  
260°C/10S at terminals

**MECHANICAL DATA**

**Case:** MINI MELF molded glass body

**Terminals:** Plated axial leads, solderable per MIL-STD 750, method 2026

**Polarity:** Color band denotes cathode end

**Mounting Position:** Any

**Weight:** 0.002 ounce, 0.05 gram

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.

|   | SYMBOLS          | VALUE        | UNITS |
|---|------------------|--------------|-------|
| Zener Current see Table Characteristics     |                  |              |       |
| Power Dissipation at Tamb=25°C(Note 1)      | P <sub>tot</sub> | 500          | mW    |
| Junction Temperature                        | T <sub>j</sub>   | 200          | °C    |
| Storage Temperature Range                   | T <sub>STG</sub> | -65 to + 200 | °C    |
| Thermal resistance junction ambient(Note 1) | R <sub>θJA</sub> | 0.3          | K/mW  |
| Forward voltage at I <sub>F</sub> =100mA    | V <sub>F</sub>   | 1.0          | V     |

Note 1: Valid provided that leads at a distance of 10mm from case are kept at ambient temperature

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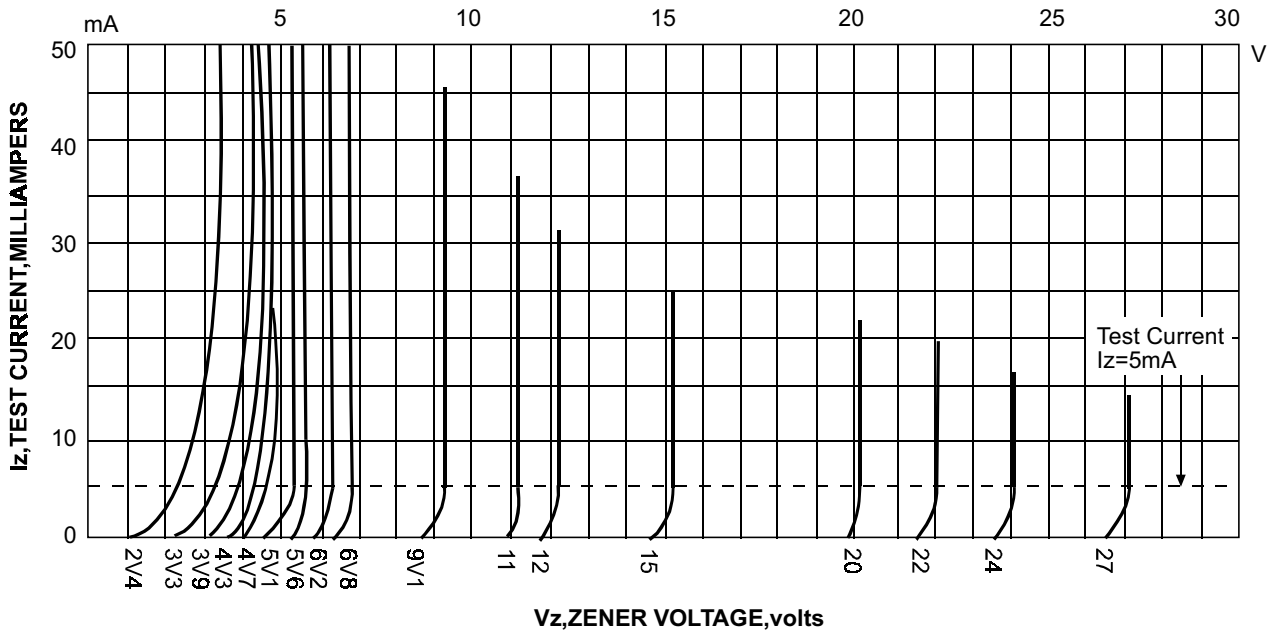
**ELECTRICAL CHARACTERISTICS (at TA=25°C unless otherwise noted)**

| Device Type   | Nominal Zener Voltage Vz@Izr |      | Test Current Izr<br>mA | Maximum Zener Impedance |         |     | Maximum Reverse Leakage Current |       | Typical Temperature Coefficient<br>(%/°C) | Maximum Regulator Current IzM<br>mA |
|---------------|------------------------------|------|------------------------|-------------------------|---------|-----|---------------------------------|-------|---|-------------------------------------|
|               | Min                          | Max  |                        | Zzt@Izr                 | Zzk@Izk | Izk | IR                              | @VR   |   |                                     |
|               |                              |      |                        | Ohms                    | Ohms    | mA  | µA                              | Volts |   |                                     |
| BZV/ZMM55C2V4 | 2.28                         | 2.56 | 5.0                    | 85                      | 600     | 1.0 | 50                              | 1.0   | -0.085                                    | 155                                 |
| BZV/ZMM55C2V7 | 2.5                          | 2.9  | 5.0                    | 85                      | 600     | 1.0 | 10                              | 1.0   | -0.080                                    | 135                                 |
| BZV/ZMM55C3V0 | 2.8                          | 3.2  | 5.0                    | 85                      | 600     | 1.0 | 4.0                             | 1.0   | -0.075                                    | 125                                 |
| BZV/ZMM55C3V3 | 3.1                          | 3.5  | 5.0                    | 85                      | 600     | 1.0 | 2.0                             | 1.0   | -0.070                                    | 115                                 |
| BZV/ZMM55C3V6 | 3.4                          | 3.8  | 5.0                    | 85                      | 600     | 1.0 | 2.0                             | 1.0   | -0.065                                    | 105                                 |
| BZV/ZMM55C3V9 | 3.7                          | 4.1  | 5.0                    | 85                      | 600     | 1.0 | 2.0                             | 1.0   | -0.060                                    | 95                                  |
| BZV/ZMM55C4C3 | 4.0                          | 4.6  | 5.0                    | 75                      | 600     | 1.0 | 1.0                             | 1.0   | ±0.055                                    | 90                                  |
| BZV/ZMM55C4V7 | 4.4                          | 5.0  | 5.0                    | 60                      | 600     | 1.0 | 0.5                             | 1.0   | ±0.030                                    | 85                                  |
| BZV/ZMM55C5V1 | 4.8                          | 5.4  | 5.0                    | 35                      | 550     | 1.0 | 0.1                             | 1.0   | ±0.030                                    | 80                                  |
| BZV/ZMM55C5V6 | 5.2                          | 6.0  | 5.0                    | 25                      | 450     | 1.0 | 0.1                             | 1.0   | +0.038                                    | 70                                  |
| BZV/ZMM55C6V2 | 5.8                          | 6.6  | 5.0                    | 10                      | 200     | 1.0 | 0.1                             | 2.0   | +0.045                                    | 64                                  |
| BZV/ZMM55C6V8 | 6.4                          | 7.2  | 5.0                    | 8                       | 150     | 1.0 | 0.1                             | 3.0   | +0.050                                    | 58                                  |
| BZV/ZMM55C7V5 | 7.0                          | 7.9  | 5.0                    | 7                       | 50      | 1.0 | 0.1                             | 5.0   | +0.058                                    | 53                                  |
| BZV/ZMM55C8V2 | 7.7                          | 8.7  | 5.0                    | 7                       | 50      | 1.0 | 0.1                             | 6.2   | +0.062                                    | 74                                  |
| BZV/ZMM55C9V1 | 8.5                          | 9.6  | 5.0                    | 10                      | 50      | 1.0 | 0.1                             | 6.8   | +0.068                                    | 43                                  |
| BZV/ZMM55C10  | 9.4                          | 10.6 | 5.0                    | 15                      | 70      | 1.0 | 0.1                             | 7.5   | +0.075                                    | 40                                  |
| BZV/ZMM55C11  | 10.4                         | 11.6 | 5.0                    | 20                      | 70      | 1.0 | 0.1                             | 8.2   | +0.076                                    | 36                                  |
| BZV/ZMM55C12  | 11.4                         | 12.7 | 5.0                    | 20                      | 90      | 1.0 | 0.1                             | 9.1   | +0.077                                    | 32                                  |
| BZV/ZMM55C13  | 12.4                         | 14.1 | 5.0                    | 26                      | 110     | 1.0 | 0.1                             | 10    | +0.079                                    | 29                                  |
| BZV/ZMM55C15  | 13.8                         | 15.6 | 5.0                    | 30                      | 110     | 1.0 | 0.1                             | 11    | +0.082                                    | 27                                  |
| BZV/ZMM55C16  | 15.3                         | 17.1 | 5.0                    | 40                      | 170     | 1.0 | 0.1                             | 12    | +0.083                                    | 24                                  |
| BZV/ZMM55C18  | 16.8                         | 19.1 | 5.0                    | 50                      | 170     | 1.0 | 0.1                             | 13    | +0.085                                    | 21                                  |
| BZV/ZMM55C20  | 18.8                         | 21.2 | 5.0                    | 55                      | 220     | 1.0 | 0.1                             | 15    | +0.086                                    | 20                                  |
| BZV/ZMM55C22  | 20.8                         | 23.3 | 5.0                    | 55                      | 220     | 1.0 | 0.1                             | 16    | +0.087                                    | 18                                  |
| BZV/ZMM55C24  | 22.8                         | 25.6 | 5.0                    | 80                      | 220     | 1.0 | 0.1                             | 18    | +0.088                                    | 16                                  |
| BZV/ZMM55C27  | 25.1                         | 28.9 | 5.0                    | 80                      | 220     | 1.0 | 0.1                             | 20    | +0.090                                    | 14                                  |
| BZV/ZMM55C30  | 28                           | 32   | 5.0                    | 80                      | 220     | 1.0 | 0.1                             | 22    | +0.091                                    | 13                                  |
| BZV/ZMM55C33  | 31                           | 35   | 5.0                    | 80                      | 220     | 1.0 | 0.1                             | 24    | +0.092                                    | 12                                  |
| BZV/ZMM55C36  | 34                           | 38   | 5.0                    | 80                      | 220     | 1.0 | 0.1                             | 27    | +0.093                                    | 11                                  |
| BZV/ZMM55C39  | 37                           | 41   | 2.5                    | 90                      | 500     | 0.5 | 0.1                             | 30    | +0.094                                    | 10                                  |
| BZV/ZMM55C43  | 40                           | 46   | 2.5                    | 90                      | 600     | 0.5 | 0.1                             | 33    | +0.095                                    | 9.2                                 |
| BZV/ZMM55C47  | 44                           | 50   | 2.5                    | 110                     | 700     | 0.5 | 0.1                             | 36    | +0.095                                    | 8.5                                 |
| BZV/ZMM55C51  | 48                           | 54   | 2.5                    | 125                     | 700     | 0.5 | 0.1                             | 39    | +0.096                                    | 7.8                                 |
| BZV/ZMM55C56  | 52                           | 60   | 2.5                    | 135                     | 1000    | 0.5 | 0.1                             | 43    | +0.096                                    | 7.0                                 |
| BZV/ZMM55C62  | 58                           | 66   | 2.5                    | 150                     | 1000    | 0.5 | 0.1                             | 47    | +0.096                                    | 6.4                                 |
| BZV/ZMM55C68  | 64                           | 72   | 2.5                    | 200                     | 1000    | 0.5 | 0.1                             | 51    | +0.096                                    | 5.9                                 |
| BZV/ZMM55C75  | 70                           | 80   | 2.5                    | 250                     | 1500    | 0.5 | 0.1                             | 56    | +0.096                                    | 5.3                                 |
| BZV/ZMM55C82  | 77                           | 87   | 2.5                    | 300                     | 2000    | 0.5 | 0.1                             | 62    | +0.096                                    | 4.8                                 |
| BZV/ZMM55C91  | 85                           | 96   | 1.0                    | 450                     | 5000    | 0.1 | 0.1                             | 68    | +0.096                                    | 4.4                                 |
| BZV/ZMM55C100 | 94                           | 106  | 1.0                    | 450                     | 5000    | 0.1 | 0.1                             | 75    | +0.096                                    | 4.0                                 |
| BZV/ZMM55C110 | 104                          | 116  | 1.0                    | 600                     | 5000    | 0.1 | 0.1                             | 82    | +0.096                                    | 3.6                                 |
| BZV/ZMM55C120 | 114                          | 127  | 1.0                    | 800                     | 5000    | 0.1 | 0.1                             | 91    | +0.096                                    | 3.3                                 |
| BZV/ZMM55C130 | 124                          | 141  | 1.0                    | 1000                    | 5000    | 0.1 | 0.1                             | 100   | +0.096                                    | 3.0                                 |
| BZV/ZMM55C150 | 138                          | 156  | 1.0                    | 1200                    | 5000    | 0.1 | 0.1                             | 110   | +0.096                                    | 2.6                                 |
| BZV/ZMM55C160 | 153                          | 171  | 1.0                    | 1500                    | 5000    | 0.1 | 0.1                             | 120   | +0.096                                    | 2.5                                 |
| BZV/ZMM55C180 | 168                          | 191  | 1.0                    | 1800                    | 5000    | 0.1 | 0.1                             | 130   | +0.096                                    | 2.2                                 |
| BZV/ZMM55C188 | 188                          | 212  | 1.0                    | 2000                    | 5000    | 0.1 | 0.1                             | 150   | +0.096                                    | 2.0                                 |

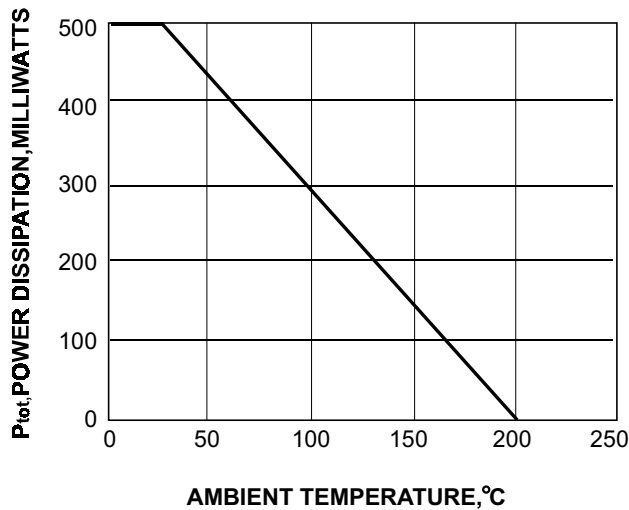
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**RATINGS AND CHARACTERISTIC CURVES BZV/ZMM55-SERIES**

**Breakdown characteristics**



**Admissible power dissipation versus ambient temperature**  
Valid provided that leads are kept at ambient temperature at a distance of 10mm from case



**TECHNICAL DATA**

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