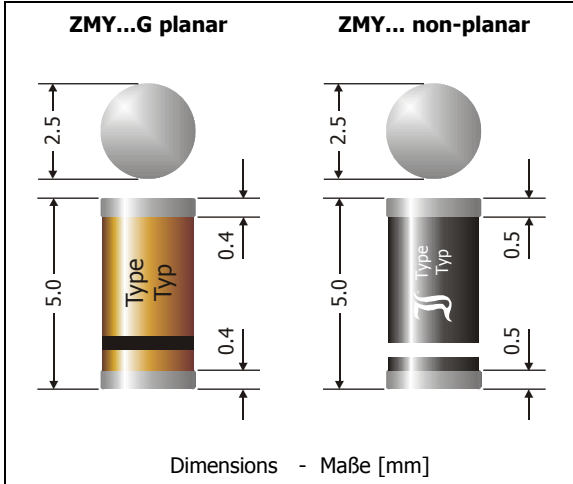


**ZMY3B9G ... ZMY9B1G (1.0 W, 2%),
ZMY10B ... ZMY200B (1.3 W, 2%)**

**Surface Mount Silicon-Zener Diodes
Si-Zener-Dioden für die Oberflächenmontage**

Version 2012-02-23



ZMY3B9G ... ZMY9B1G

Nominal Z-voltage – Nominale Z-Spannung 3.9...9.1 V
Glass case – Glasgehäuse MELF DO-213AB

ZMY10B ... ZMY200B

Nominal Z-voltage – Nominale Z-Spannung 10...200 V
Plastic case – Kunststoffgehäuse MELF DO-213AB
Weight approx. – Gewicht ca. 0.12 g

Plastic material has UL classification 94V-0
Gehäusematerial UL94V-0 klassifiziert

Standard packaging taped and reeled
Standard Lieferform gegurtet auf Rolle



Zener voltage is selected to a tolerance of $\sim \pm 2\%$.

Die Zener-Spannung ist selektiert auf $\sim \pm 2\%$ Toleranz.

Maximum ratings and Characteristics

Grenz- und Kennwerte

| | | ZMY3B9G ... ZMY9B1G | |
|---|--------------------------|----------------------------|-------------------------|
| Power dissipation – Verlustleistung | $T_A = 50^\circ\text{C}$ | P_{tot} | 1.0 W ¹⁾ |
| Junction temperature – Sperrschichttemperatur | | T_J | -50...+175°C |
| Storage temperature – Lagerungstemperatur | | T_S | -50...+175°C |
| Thermal resistance junction to ambient air Wärmewiderstand Sperrschicht – umgebende Luft | | R_{thA} | < 150 K/W ¹⁾ |
| Thermal resistance junction to terminal Wärmewiderstand Sperrschicht – Anschluss | | R_{thT} | < 70 K/W |
| | | ZMY10B ... ZMY200B | |
| Power dissipation – Verlustleistung | $T_A = 50^\circ\text{C}$ | P_{tot} | 1.3 W ¹⁾ |
| Non repetitive peak power dissipation, $t < 10$ ms Einmalige Impuls-Verlustleistung, $t < 10$ ms | $T_A = 25^\circ\text{C}$ | P_{ZSM} | 40 W |
| Junction temperature – Sperrschichttemperatur | | T_J | -50...+150°C |
| Storage temperature – Lagerungstemperatur | | T_S | -50...+175°C |
| Thermal resistance junction to ambient air Wärmewiderstand Sperrschicht – umgebende Luft | | R_{thA} | < 45 K/W ¹⁾ |
| Thermal resistance junction to terminal Wärmewiderstand Sperrschicht – Anschluss | | R_{thT} | < 10 K/W |

1 Mounted on P.C. board with 50 mm² copper pads at each terminal
Montage auf Leiterplatte mit 50 mm² Kupferbelag (Löt-pad) an jedem Anschluss
2 Tested with pulses – Gemessen mit Impulsen

Maximum ratings and Characteristics

 (T_A = 25°C unless otherwise specified)

Grenz- und Kennwerte

 (T_A = 25°C wenn nicht anders spezifiziert)

| Type Typ | Zener voltage ²⁾ Zener-Spannung ²⁾ I _Z = I _{Ztest} | | Test current Meßstrom I _{Ztest} [mA] | Dynamic resistance Diff. Widerstand I _{Ztest} / f = 1 kHz r _{zj} [Ω] | Temp. Coeffic. of Z-voltage ...der Z-Spannung α _{VZ} [10 ⁻⁴ /°C] | Reverse volt. Sperrspanng. I _R = 1 µA V _R [V] | Z-current ¹⁾ Z-Strom ¹⁾ T _A = 50°C I _{Zmax} [mA] |
|-------------|--|-----------------------|---|---|---|--|---|
| | V _{Zmin} [V] | V _{Zmax} [V] | | | | | |
| ZMY3B9G | 3.81 | 3.99 | 100 | 4 (<7) | -7...+2 | > 0.7 / 100 µA | 244 |
| ZMY4B3G | 4.20 | 4.40 | 100 | 4 (<7) | -7...+3 | > 0.7 / 50 µA | 217 |
| ZMY4B7G | 4.60 | 4.80 | 100 | 4 (<7) | -7...+4 | > 0.7 / 10 µA | 200 |
| ZMY5B1G | 4.99 | 5.21 | 100 | 2 (<5) | -6...+5 | > 0.7 / 10 µA | 185 |
| ZMY5B6G | 5.48 | 5.72 | 100 | 1 (<2) | -3...+5 | > 0.5 / 3 µA | 167 |
| ZMY6B2G | 6.07 | 6.33 | 100 | 1 (<2) | -1...+6 | > 1.5 / 500 nA | 152 |
| ZMY6B8G | 6.65 | 6.95 | 100 | 1 (<2) | 0...+7 | > 2 / 500 nA | 139 |
| ZMY7B5G | 7.34 | 7.66 | 100 | 1 (<2) | 0...+7 | > 3 / 500 nA | 127 |
| ZMY8B2G | 8.03 | 8.37 | 100 | 1 (<2) | +3...+8 | > 6 / 500 nA | 115 |
| ZMY9B1G | 8.91 | 9.29 | 50 | 2 (<4) | +3...+8 | > 7 / 500 nA | 104 |
| ZMY10B | 9.79 | 10.21 | 50 | 2 (<4) | +5...+9 | > 5 | 123 |
| ZMY11B | 10.79 | 11.21 | 50 | 4 (<7) | +5...+10 | > 5 | 112 |
| ZMY12B | 11.79 | 12.21 | 50 | 4 (<7) | +5...+10 | > 7 | 102 |
| ZMY13B | 12.68 | 13.32 | 50 | 5 (<10) | +5...+10 | > 7 | 92 |
| ZMY15B | 14.68 | 15.32 | 50 | 5 (<10) | +5...+10 | > 10 | 83 |
| ZMY16B | 15.68 | 16.32 | 25 | 6 (<15) | +6...+11 | > 10 | 76 |
| ZMY18B | 17.58 | 18.42 | 25 | 6 (<15) | +6...+11 | > 10 | 68 |
| ZMY20B | 19.58 | 20.42 | 25 | 6 (<15) | +6...+11 | > 10 | 61 |
| ZMY22B | 21.58 | 22.42 | 25 | 6 (<15) | +6...+11 | > 12 | 56 |
| ZMY24B | 23.48 | 24.52 | 25 | 7 (<15) | +6...+11 | > 12 | 51 |
| ZMY27B | 26.48 | 27.52 | 25 | 7 (<15) | +6...+11 | > 14 | 45 |
| ZMY30B | 29.38 | 30.62 | 25 | 8 (<15) | +6...+11 | > 14 | 41 |
| ZMY33B | 32.3 | 33.8 | 25 | 8 (<15) | +6...+11 | > 17 | 37 |
| ZMY36B | 35.2 | 36.8 | 10 | 16 (<40) | +6...+11 | > 17 | 34 |
| ZMY39B | 38.1 | 39.9 | 10 | 20 (<40) | +6...+11 | > 20 | 32 |
| ZMY43B | 42.0 | 44.0 | 10 | 24 (<45) | +7...+12 | > 20 | 28 |
| ZMY47B | 46.0 | 48.0 | 10 | 24 (<45) | +7...+12 | > 24 | 26 |
| ZMY51B | 49.9 | 52.1 | 10 | 25 (<60) | +7...+12 | > 24 | 24 |
| ZMY56B | 54.8 | 57.2 | 10 | 25 (<60) | +7...+12 | > 28 | 22 |
| ZMY62B | 60.7 | 63.3 | 10 | 25 (<80) | +8...+13 | > 28 | 20 |
| ZMY68B | 66.5 | 69.5 | 10 | 25 (<80) | +8...+13 | > 34 | 18 |
| ZMY75B | 73.4 | 76.6 | 10 | 30 (<100) | +8...+13 | > 34 | 16 |
| ZMY82B | 80.3 | 83.7 | 10 | 30 (<100) | +8...+13 | > 41 | 15 |
| ZMY91B | 89.1 | 92.9 | 5 | 40 (<200) | +9...+13 | > 41 | 14 |
| ZMY100B | 97.9 | 102.1 | 5 | 60 (<200) | +9...+13 | > 50 | 12 |
| ZMY110B | 108 | 112 | 5 | 80 (<250) | +9...+13 | > 50 | 12 |
| ZMY120B | 118 | 122 | 5 | 80 (<250) | +9...+13 | > 60 | 11 |
| ZMY130B | 127 | 133 | 5 | 90 (<300) | +9...+13 | > 60 | 10 |
| ZMY150B | 147 | 153 | 5 | 100 (<300) | +9...+13 | > 75 | 8 |
| ZMY160B | 157 | 163 | 2.5 | 110 (<350) | +9...+13 | > 75 | 8 |
| ZMY180B | 176 | 184 | 2.5 | 120 (<350) | +9...+13 | > 90 | 7 |
| ZMY200B | 196 | 204 | 2.5 | 150 (<350) | +9...+13 | > 90 | 6 |

1 Notes see previous page – Fußnoten siehe vorhergehende Seite