

SOD-882 Surface Mount Zener Voltage Regulators

Green Product

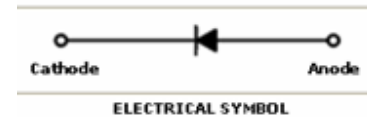


SOD882 Package

Absolute Maximum Ratings $T_A = 25^\circ\text{C}$ unless otherwise noted

| Symbol | Parameter | Value | Units |
|-----------|--------------------------------|-------------|------------------|
| P_D | Power Dissipation | 200 | mW |
| T_{STG} | Storage Temperature Range | -55 to +150 | $^\circ\text{C}$ |
| T_J | Operating Junction Temperature | +150 | $^\circ\text{C}$ |

These ratings are limiting values above which the serviceability of the diode may be impaired.



Specification Features:

- High Speed Switching
- Small Surface Mounting Type (DFN1006)
- RoHS Compliant
- Green EMC
- Matte Tin(Sn) Lead Finish
- Band Indicates Cathode
- Weight: approx. 0.001g

Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise noted

| Device Type | Device Marking | $V_Z @ I_{ZT}$ (Volts) | | | I_{ZT} (mA) | $Z_{ZT} @ I_{ZT}$ (Ω) Max | I_{ZK} (mA) | $Z_{ZK} @ I_{ZK}$ (Ω) Max | $I_R @ V_R$ (μA) Max | V_R (Volts) |
|-------------|----------------|------------------------|-----|------|---------------|------------------------------------|---------------|------------------------------------|-----------------------------------|---------------|
| | | Min | Nom | Max | | | | | | |
| MM8Z2V0C | 8± | 1.90 | 2.0 | 2.10 | 5 | 100 | 1 | 564 | 120 | 0.5 |
| MM8Z2V2C | 8⊥ | 2.09 | 2.2 | 2.31 | 5 | 100 | 1 | 564 | 120 | 0.7 |
| MM8Z2V4C | 80 | 2.2 | 2.4 | 2.6 | 5 | 100 | 1 | 1000 | 50 | 1 |
| MM8Z2V7C | 81 | 2.5 | 2.7 | 2.9 | 5 | 100 | 1 | 1000 | 20 | 1 |
| MM8Z3V0C | 82 | 2.8 | 3.0 | 3.2 | 5 | 100 | 1 | 1000 | 10 | 1 |
| MM8Z3V3C | 83 | 3.1 | 3.3 | 3.5 | 5 | 95 | 1 | 1000 | 5 | 1 |
| MM8Z3V6C | 84 | 3.4 | 3.6 | 3.8 | 5 | 90 | 1 | 1000 | 5 | 1 |
| MM8Z3V9C | 85 | 3.7 | 3.9 | 4.1 | 5 | 90 | 1 | 1000 | 3 | 1 |
| MM8Z4V3C | 86 | 4.0 | 4.3 | 4.6 | 5 | 90 | 1 | 1000 | 3 | 1 |
| MM8Z4V7C | 87 | 4.4 | 4.7 | 5.0 | 5 | 80 | 1 | 800 | 3 | 2 |
| MM8Z5V1C | 88 | 4.8 | 5.1 | 5.4 | 5 | 60 | 1 | 500 | 2 | 2 |
| MM8Z5V6C | 89 | 5.2 | 5.6 | 6.0 | 5 | 40 | 1 | 200 | 1 | 2 |
| MM8Z6V2C | 8A | 5.8 | 6.2 | 6.6 | 5 | 10 | 1 | 100 | 3 | 4 |
| MM8Z6V8C | 8B | 6.4 | 6.8 | 7.2 | 5 | 15 | 1 | 160 | 2 | 4 |
| MM8Z7V5C | 8C | 7.0 | 7.5 | 7.9 | 5 | 15 | 1 | 160 | 1 | 5 |
| MM8Z8V2C | 8D | 7.7 | 8.2 | 8.7 | 5 | 15 | 1 | 160 | 0.7 | 5 |
| MM8Z9V1C | 8E | 8.5 | 9.1 | 9.6 | 5 | 15 | 1 | 160 | 0.2 | 7 |
| MM8Z10VC | 8F | 9.4 | 10 | 10.6 | 5 | 20 | 1 | 160 | 0.1 | 8 |
| MM8Z11VC | 8G | 10.4 | 11 | 11.6 | 5 | 20 | 1 | 160 | 0.1 | 8 |
| MM8Z12VC | 8H | 11.4 | 12 | 12.7 | 5 | 25 | 1 | 80 | 0.1 | 8 |
| MM8Z13VC | 8J | 12.4 | 13 | 14.1 | 5 | 30 | 1 | 80 | 0.1 | 8 |

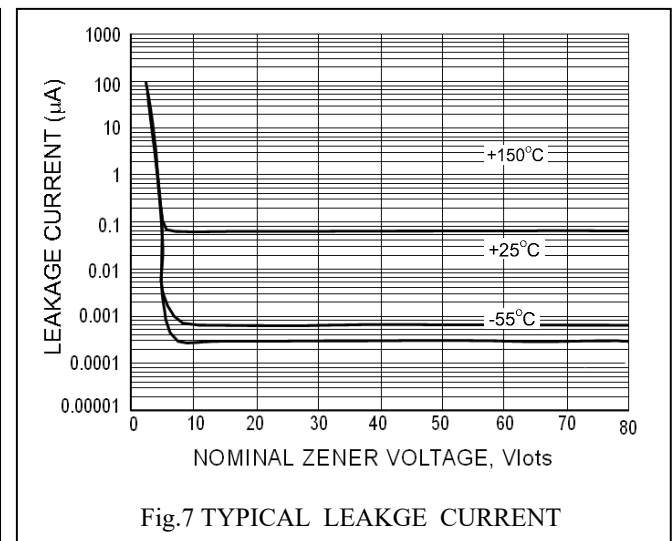
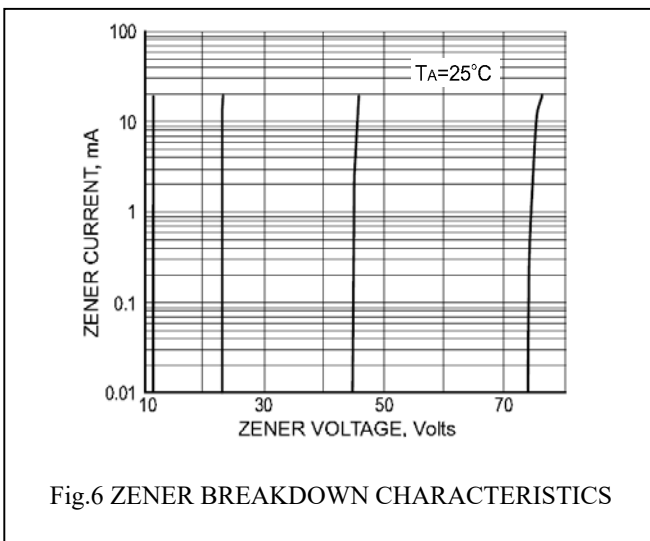
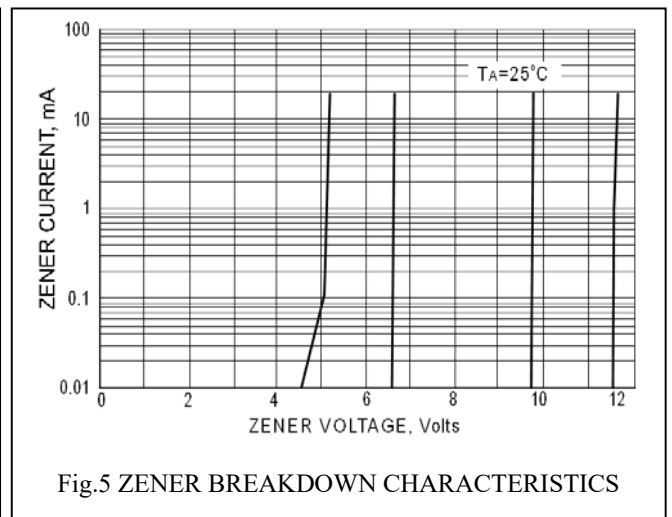
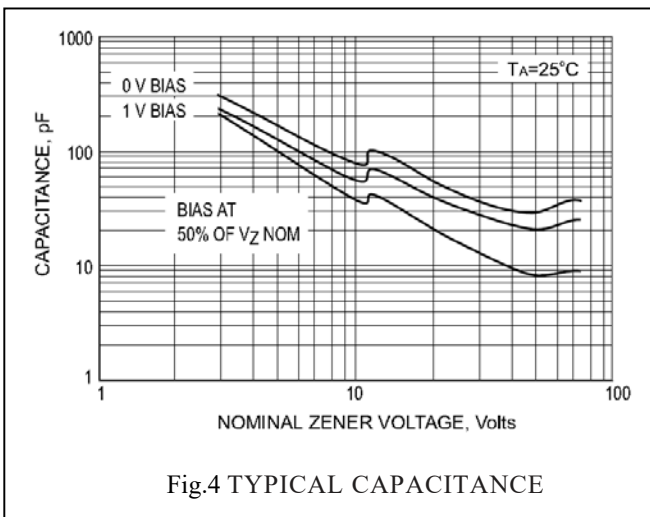
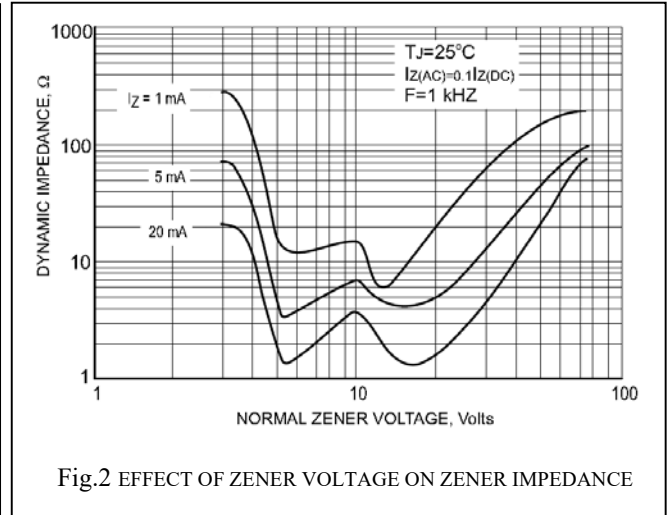
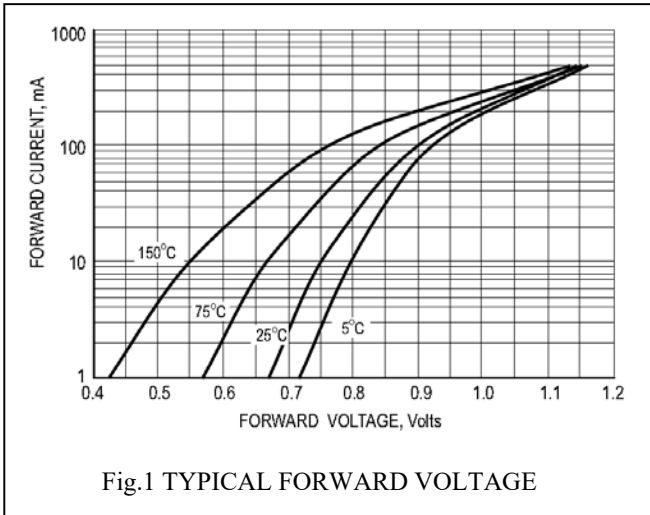
Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise noted

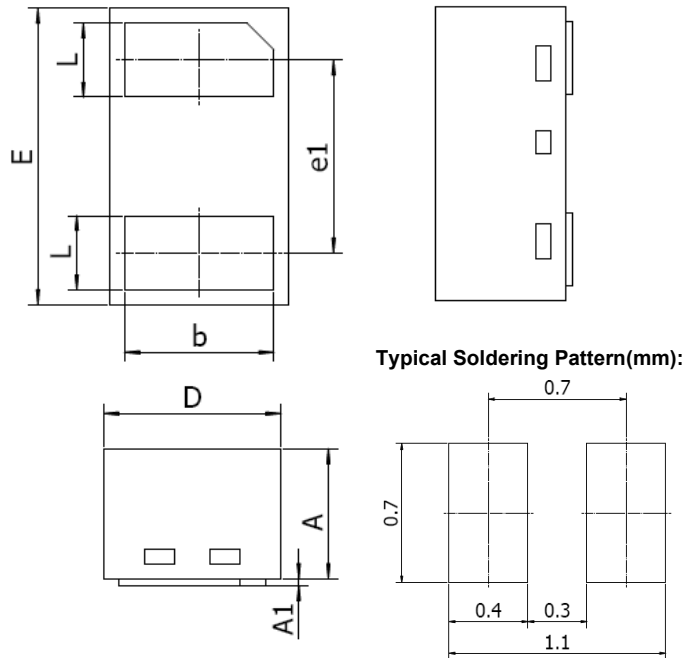
| Device Type | Device Marking | $V_Z @ I_{ZT}$ (Volts) | | | I_{ZT} (mA) | $Z_{ZT} @ I_{ZT}$ (Ω) Max | I_{ZK} (mA) | $Z_{ZK} @ I_{ZK}$ (Ω) Max | $I_R @ V_R$ (μA) Max | V_R (Volts) |
|-------------|----------------|---------------------------|-----|------|------------------|--|------------------|--|---|------------------|
| | | Min | Nom | Max | | | | | | |
| MM8Z15VC | 8K | 14.3 | 15 | 15.8 | 5 | 30 | 1 | 80 | 0.05 | 10.5 |
| MM8Z16VC | 8L | 15.3 | 16 | 17.1 | 5 | 40 | 1 | 80 | 0.05 | 11.2 |
| MM8Z18VC | 8M | 16.8 | 18 | 19.1 | 5 | 45 | 1 | 80 | 0.05 | 12.6 |
| MM8Z20VC | 8N | 18.8 | 20 | 21.2 | 5 | 55 | 1 | 100 | 0.05 | 14 |
| MM8Z22VC | 8P | 20.8 | 22 | 23.3 | 5 | 55 | 1 | 100 | 0.05 | 15.4 |
| MM8Z24VC | 8R | 22.8 | 24 | 25.6 | 5 | 70 | 1 | 120 | 0.05 | 16.8 |
| MM8Z27VC | 8S | 25.1 | 27 | 28.9 | 2 | 80 | 0.5 | 300 | 0.05 | 18.9 |
| MM8Z30VC | 8T | 28 | 30 | 32 | 2 | 80 | 0.5 | 300 | 0.05 | 21 |
| MM8Z33VC | 8U | 31 | 33 | 35 | 2 | 80 | 0.5 | 300 | 0.05 | 23.2 |
| MM8Z36VC | 8V | 34 | 36 | 38 | 2 | 90 | 0.5 | 500 | 0.05 | 25.2 |
| MM8Z39VC | 8X | 37 | 39 | 41 | 2 | 130 | 0.5 | 500 | 0.05 | 27.3 |
| MM8Z43VC | 8Y | 40 | 43 | 46 | 2 | 150 | 0.5 | 500 | 0.05 | 30.1 |
| MM8Z47VC | 8Z | 44 | 47 | 50 | 2 | 170 | 0.5 | 500 | 0.05 | 32.9 |
| MM8Z51VC | 8- | 48 | 51 | 54 | 2 | 180 | 0.5 | 500 | 0.05 | 35.7 |
| MM8Z56VC | 8= | 52 | 56 | 60 | 2 | 200 | 0.5 | 500 | 0.05 | 39.2 |
| MM8Z62VC | 8≡ | 58 | 62 | 66 | 2 | 215 | 0.5 | 500 | 0.05 | 43.4 |
| MM8Z68VC | 8> | 64 | 68 | 72 | 2 | 240 | 0.5 | 500 | 0.05 | 47.6 |
| MM8Z75VC | 8< | 70 | 75 | 79 | 2 | 255 | 0.5 | 500 | 0.05 | 52.5 |

 V_F Forward Voltage = 1 V Maximum @ $I_F = 10$ mA for all types

Notes:

1. The Zener Voltage (V_Z) is tested under pulse condition of 10mS.
2. For detailed information on price, availability and delivery of nominal zener voltages between the voltages shown and tighter voltage tolerances, contact your nearest Tak Cheong Electronics representative.
3. The zener impedance is derived from the 60-cycle ac voltage, which results when an ac current having an rms value equal to 10% of the dc zener current (I_{ZT} or I_{ZK}) is superimposed to I_{ZT} or I_{ZK} .

RATING AND CHARACTERISTIC CURVES


SOD882 Package Outline


| DIM | MILLIMETERS | | INCHES | |
|-----|-------------|------|------------|-------|
| | MIN | MAX | MIN | MAX |
| A | 0.46 | 0.50 | 0.018 | 0.020 |
| A1 | --- | 0.03 | --- | 0.001 |
| b | 0.45 | 0.55 | 0.018 | 0.022 |
| D | 0.55 | 0.65 | 0.022 | 0.026 |
| E | 0.95 | 1.05 | 0.037 | 0.041 |
| e1 | Typ. 0.65 | | Typ. 0.026 | |
| L | 0.20 | 0.30 | 0.008 | 0.012 |

NOTICE

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