

500mW SOD-123 SURFACE MOUNT

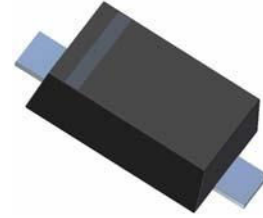
Flat Lead Surface Mount Plastic Package

Zener Voltage Regulators

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

| Symbol | Parameter | Value | Units |
|-----------|-----------------------------|-------------|------------------|
| P_D | Power Dissipation | 500 | mW |
| T_{STG} | Storage Temperature Range | -65 to +150 | $^\circ\text{C}$ |
| T_{OPR} | Operating Temperature Range | -65 to +150 | $^\circ\text{C}$ |

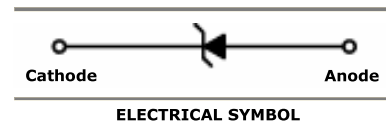
These ratings are limiting values above which the serviceability of the diode may be impaired.



SOD-123 Flat Lead

Specification Features:

- Wide Zener Voltage Range Selection, 2.4V to 75V
- VZ Tolerance Selection of $\pm 5\%$ (C Series)
- Flat Lead SOD-123 Plastic Package
- Surface Device Type Mounting
- RoHS Compliant
- Halogen-free Compliant
- Matte Tin(Sn) Lead Finish
- Band Indicates Cathode



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 | | | | | | |
| MMSZ2V4CW | 2V4Z | 2.28 | 2.4 | 2.52 | 5 | 100 | 1 | 564 | 45 | 1 |
| MMSZ2V7CW | 2V7Z | 2.57 | 2.7 | 2.84 | 5 | 100 | 1 | 564 | 18 | 1 |
| MMSZ3V0CW | 3V0Z | 2.85 | 3.0 | 3.15 | 5 | 100 | 1 | 564 | 9 | 1 |
| MMSZ3V3CW | 3V3Z | 3.14 | 3.3 | 3.47 | 5 | 95 | 1 | 564 | 4.5 | 1 |
| MMSZ3V6CW | 3V6Z | 3.42 | 3.6 | 3.78 | 5 | 90 | 1 | 564 | 4.5 | 1 |
| MMSZ3V9CW | 3V9Z | 3.71 | 3.9 | 4.10 | 5 | 90 | 1 | 564 | 2.7 | 1 |
| MMSZ4V3CW | 4V3Z | 4.09 | 4.3 | 4.52 | 5 | 90 | 1 | 564 | 2.7 | 1 |
| MMSZ4V7CW | 4V7Z | 4.47 | 4.7 | 4.94 | 5 | 80 | 1 | 470 | 2.7 | 2 |
| MMSZ5V1CW | 5V1Z | 4.85 | 5.1 | 5.36 | 5 | 60 | 1 | 451 | 1.8 | 2 |
| MMSZ5V6CW | 5V6Z | 5.32 | 5.6 | 5.88 | 5 | 40 | 1 | 376 | 0.9 | 2 |
| MMSZ6V2CW | 6V2Z | 5.89 | 6.2 | 6.51 | 5 | 10 | 1 | 141 | 2.7 | 4 |
| MMSZ6V8CW | 6V8Z | 6.46 | 6.8 | 7.14 | 5 | 15 | 1 | 75 | 1.8 | 4 |
| MMSZ7V5CW | 7V5Z | 7.11 | 7.5 | 7.86 | 5 | 15 | 1 | 75 | 0.9 | 5 |
| MMSZ8V2CW | 8V2Z | 7.79 | 8.2 | 8.61 | 5 | 15 | 1 | 75 | 0.63 | 5 |
| MMSZ9V1CW | 9V1Z | 8.65 | 9.1 | 9.56 | 5 | 15 | 1 | 94 | 0.45 | 6 |
| MMSZ10VCW | 10VZ | 9.50 | 10 | 10.50 | 5 | 20 | 1 | 141 | 0.18 | 7 |
| MMSZ11VCW | 11VZ | 10.45 | 11 | 11.55 | 5 | 20 | 1 | 141 | 0.09 | 8 |
| MMSZ12VCW | 12VZ | 11.40 | 12 | 12.60 | 5 | 25 | 1 | 141 | 0.09 | 8 |
| MMSZ13VCW | 13VZ | 12.35 | 13 | 13.65 | 5 | 30 | 1 | 160 | 0.09 | 8 |
| MMSZ15VCW | 15VZ | 14.25 | 15 | 15.75 | 5 | 30 | 1 | 188 | 0.045 | 10.5 |
| MMSZ16VCW | 16VZ | 15.20 | 16 | 16.80 | 5 | 40 | 1 | 188 | 0.045 | 11.2 |

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Flat Lead Surface Mount Plastic Package

Zener Voltage Regulators

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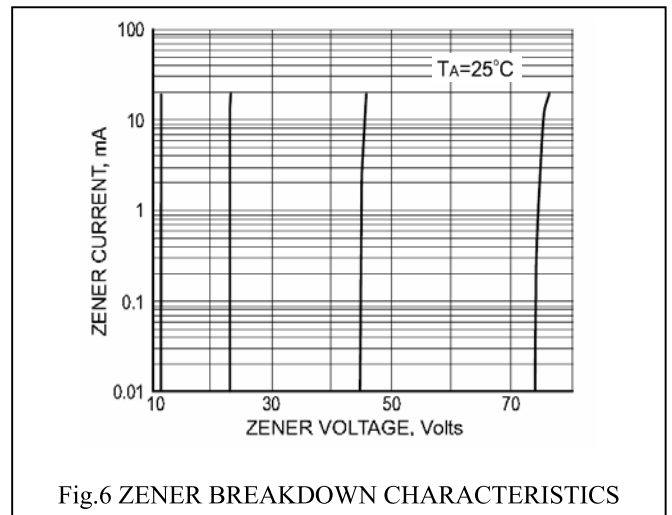
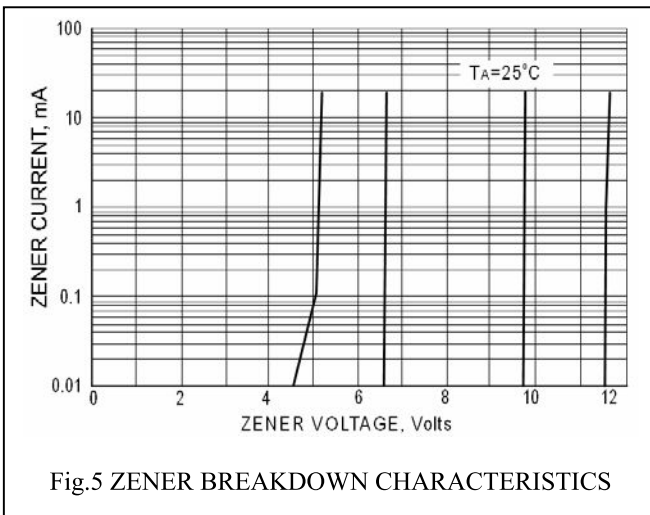
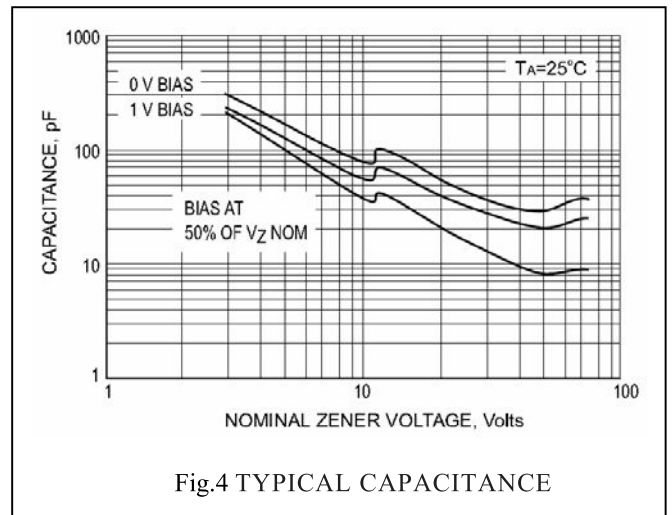
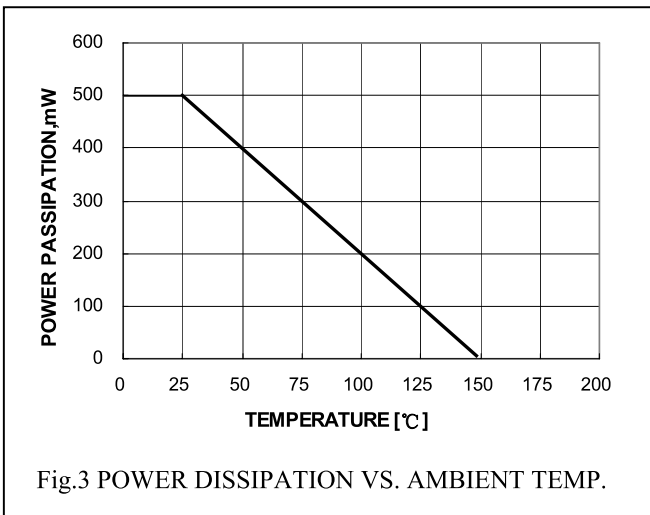
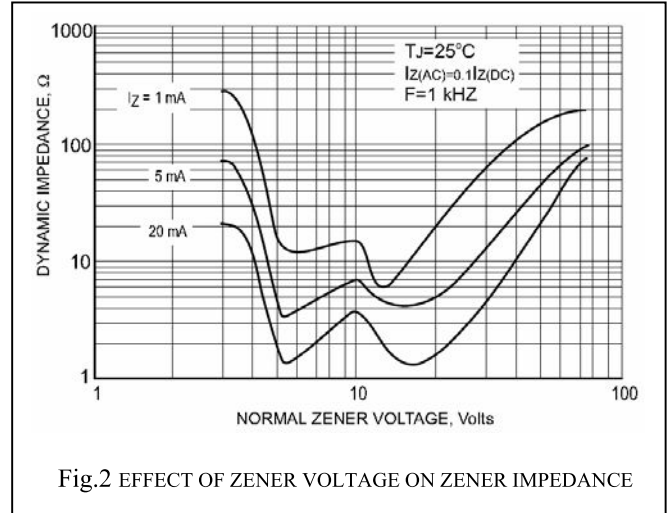
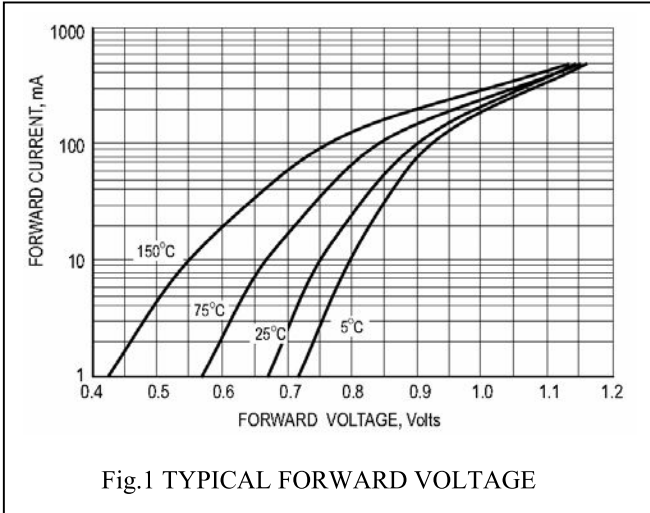
| Device Type | Device Marking | V _Z @ I _{ZT} (Volts) | | | I _{ZT} (mA) | Z _{ZT} @ I _{ZT} (Ω) Max | I _{ZK} (mA) | Z _{ZK} @ I _{ZK} (Ω) Max | I _R @ V _R (μA) Max | V _R (Volts) |
|-------------|----------------|--|-----|-------|----------------------|---|----------------------|---|--|------------------------|
| | | Min | Nom | Max | | | | | | |
| MMSZ18VCW | 18VZ | 17.10 | 18 | 18.90 | 5 | 45 | 1 | 212 | 0.045 | 12.6 |
| MMSZ20VCW | 20VZ | 19.00 | 20 | 21.00 | 5 | 55 | 1 | 212 | 0.045 | 14.0 |
| MMSZ22VCW | 22VZ | 20.90 | 22 | 23.10 | 5 | 55 | 1 | 235 | 0.045 | 15.4 |
| MMSZ24VCW | 24VZ | 22.80 | 24 | 25.20 | 5 | 70 | 1 | 235 | 0.045 | 16.8 |
| MMSZ27VCW | 27VZ | 25.65 | 27 | 28.35 | 2 | 80 | 0.5 | 282 | 0.045 | 18.9 |
| MMSZ30VCW | 30VZ | 28.50 | 30 | 31.50 | 2 | 80 | 0.5 | 282 | 0.045 | 21.0 |
| MMSZ33VCW | 33VZ | 31.35 | 33 | 34.65 | 2 | 80 | 0.5 | 306 | 0.045 | 23.0 |
| MMSZ36VCW | 36VZ | 34.20 | 36 | 37.80 | 2 | 90 | 0.5 | 329 | 0.045 | 25.2 |
| MMSZ39VCW | 39VZ | 37.05 | 39 | 40.95 | 2 | 130 | 0.5 | 329 | 0.045 | 27.3 |
| MMSZ43VCW | 43VZ | 40.85 | 43 | 45.15 | 2 | 150 | 0.5 | 353 | 0.045 | 30.1 |
| MMSZ47VCW | 47VZ | 44.65 | 47 | 49.35 | 2 | 170 | 0.5 | 353 | 0.045 | 33.0 |
| MMSZ51VCW | 51VZ | 48.45 | 51 | 53.55 | 2 | 180 | 0.5 | 376 | 0.045 | 35.7 |
| MMSZ56VCW | 56VZ | 53.20 | 56 | 58.80 | 2 | 200 | 0.5 | 400 | 0.045 | 39.2 |
| MMSZ62VCW | 62VZ | 58.90 | 62 | 65.10 | 2 | 215 | 0.5 | 423 | 0.045 | 43.4 |
| MMSZ68VCW | 68VZ | 64.60 | 68 | 71.40 | 2 | 240 | 0.5 | 447 | 0.045 | 47.6 |
| MMSZ75VCW | 75VZ | 71.25 | 75 | 78.75 | 2 | 255 | 0.5 | 470 | 0.045 | 52.5 |

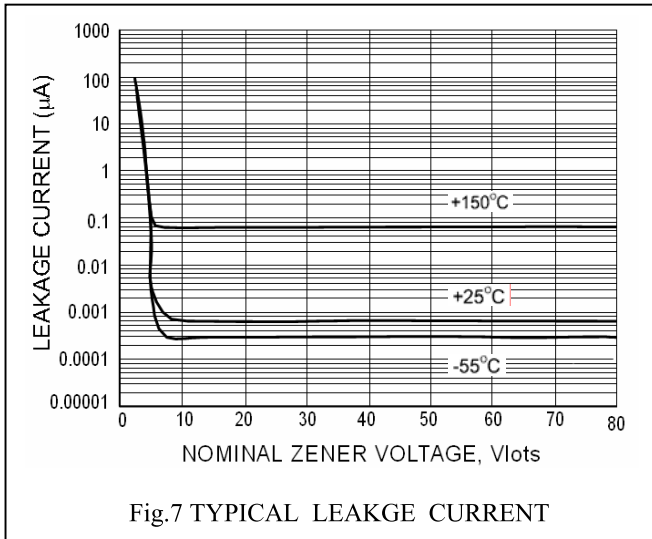
V_F Forward Voltage = 900mV Maximum @ I_F = 10 mA for all types

Notes:

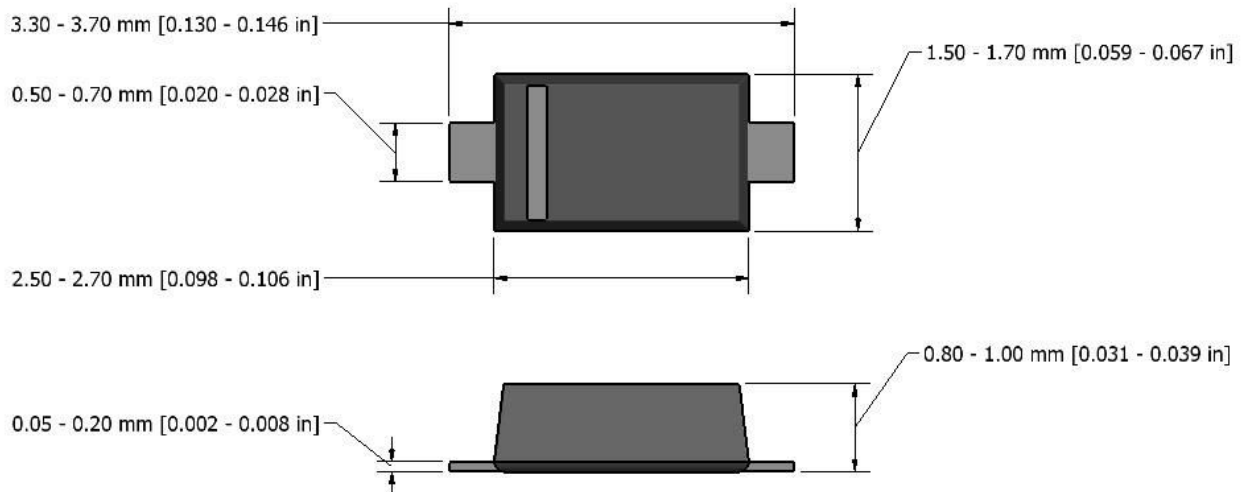
1. The Zener Voltage (V_Z) is tested under pulse condition of 10mS.
2. The device numbers listed have a standard tolerance on the nominal zener voltage of ±5%.
3. The zener impedance is derived from the 60-cycle ac voltage, which results when an ac current having an rms value equal to 10% of the dc zener current (I_{ZT} or I_{ZK}) is superimposed to I_{ZT} or I_{ZK}.

RATING AND CHARACTERISTIC CURVES





Flat Lead SOD-123 Package Outline



Note: Dimensions are exclusive of Burrs, Mold Flash & Tie Bar extrusions.

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[RKZ18B2KK#R1](#) [RKZ10B2KL#R1](#) [RKZ6.8B2KL#R1](#) [RKZ8.2B2KL#R1](#) [DZ2S240M0L](#) [SMAZ27-TP](#) [SMBZ5920B-E3/52](#) [ZMM3.0](#)
[RD16UM-T1-A](#) [RD39S-T1-A](#) [RD9.1S-T1-A](#) [RD10S-T1-A](#) [RD20S-T1-A](#) [RD2.2S-T1-A](#) [RD2.7UM-T1-A](#)