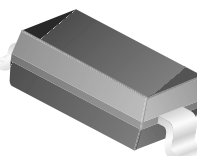


MMSZ5226B - MMSZ5257B

Zeners

Tolerance = 5%



SOD-123

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

| Symbol | Parameter | Value | Units |
|-----------------|--|-------------|-------|
| P_D | Power Dissipation @25°C | 500 | mW |
| $R_{\theta JA}$ | Thermal Resistance, Junction to Ambient ** | 340 | °C/W |
| T_{STG} | Storage Temperature Range | -55 to +150 | °C |
| T_J | Operating Junction Temperature | +150 | °C |

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

** FR-4 or FR-5 = 3.5 × 1.5 inches using minimum recommended land pads.

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

| Device | Mark | V_Z (V) | | | $Z_Z(\Omega) @ I_{ZK}(mA)$ | | $Z_{ZK}(\Omega) @ I_{ZK}(mA)$ | | $I_R(\mu A) @ V_R$ (V) | |
|-----------|------|-----------|------|-------|----------------------------|-----|-------------------------------|------|------------------------|-----|
| | | Min. | Typ. | Max. | | | | | | |
| MMSZ5226B | D1 | 3.135 | 3.3 | 3.465 | 28 | 20 | 1,600 | 0.25 | 25 | 1.0 |
| MMSZ5227B | D2 | 3.42 | 3.6 | 3.78 | 24 | 20 | 1,700 | 0.25 | 15 | 1.0 |
| MMSZ5228B | D3 | 3.705 | 3.9 | 4.095 | 23 | 20 | 1,900 | 0.25 | 10 | 1.0 |
| MMSZ5229B | D4 | 4.085 | 4.3 | 4.515 | 22 | 20 | 2,000 | 0.25 | 5.0 | 1.0 |
| MMSZ5230B | D5 | 4.465 | 4.7 | 4.935 | 19 | 20 | 1,900 | 0.25 | 5.0 | 2.0 |
| MMSZ5231B | E1 | 4.845 | 5.1 | 5.355 | 17 | 20 | 1,600 | 0.25 | 5.0 | 2.0 |
| MMSZ5232B | E2 | 5.32 | 5.6 | 5.88 | 11 | 20 | 1,600 | 0.25 | 5.0 | 3.0 |
| MMSZ5233B | E3 | 5.7 | 6 | 6.3 | 7.0 | 20 | 1,600 | 0.25 | 5.0 | 3.5 |
| MMSZ5234B | E4 | 5.89 | 6.2 | 6.51 | 7.0 | 20 | 1,000 | 0.25 | 5.0 | 4.0 |
| MMSZ5235B | E5 | 6.46 | 6.8 | 7.14 | 5.0 | 20 | 750 | 0.25 | 3.0 | 5.0 |
| MMSZ5236B | F1 | 7.125 | 7.5 | 7.875 | 6.0 | 20 | 500 | 0.25 | 3.0 | 6.0 |
| MMSZ5237B | F2 | 7.79 | 8.2 | 8.61 | 8.0 | 20 | 500 | 0.25 | 3.0 | 6.5 |
| MMSZ5238B | F3 | 8.265 | 8.7 | 9.135 | 8.0 | 20 | 600 | 0.25 | 3.0 | 6.5 |
| MMSZ5239B | F4 | 8.645 | 9.1 | 9.555 | 10 | 20 | 600 | 0.25 | 3.0 | 7.0 |
| MMSZ5240B | F5 | 9.5 | 10 | 10.5 | 17 | 20 | 600 | 0.25 | 3.0 | 8.0 |
| MMSZ5241B | H1 | 10.45 | 11 | 11.55 | 22 | 20 | 600 | 0.25 | 2.0 | 8.4 |
| MMSZ5242B | H2 | 11.4 | 12 | 12.6 | 30 | 20 | 600 | 0.25 | 1.0 | 9.1 |
| MMSZ5243B | H3 | 12.35 | 13 | 13.65 | 13 | 9.5 | 600 | 0.25 | 0.5 | 9.9 |
| MMSZ5244B | H4 | 13.3 | 14 | 14.7 | 15 | 9.0 | 600 | 0.25 | 0.1 | 10 |
| MMSZ5245B | H5 | 14.25 | 15 | 15.75 | 16 | 8.5 | 600 | 0.25 | 0.1 | 11 |
| MMSZ5246B | J1 | 15.2 | 16 | 16.8 | 17 | 7.8 | 600 | 0.25 | 0.1 | 12 |
| MMSZ5247B | J2 | 16.15 | 17 | 17.85 | 19 | 7.4 | 600 | 0.25 | 0.1 | 13 |

V_F Forward Voltage = 0.9V Maximum @ $I_F = 10mA$ for all MMSZ5200 series

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

| Device | Mark | V_Z (V) | | | $Z_Z(\Omega) @ I_{ZK}(\text{mA})$ | | $Z_{ZK}(\Omega) @ I_{ZK}(\text{mA})$ | | $I_R(\mu\text{A}) @ V_R$ (V) | |
|-----------|------|-----------|------|-------|-----------------------------------|-----|--------------------------------------|------|------------------------------|----|
| | | Min. | Typ. | Max. | | | | | | |
| MMSZ5248B | J3 | 17.1 | 18 | 18.9 | 21 | 7.0 | 600 | 0.25 | 0.1 | 14 |
| MMSZ5249B | J4 | 18.05 | 19 | 19.95 | 23 | 6.6 | 600 | 0.25 | 0.1 | 14 |
| MMSZ5250B | J5 | 19 | 20 | 21 | 25 | 6.2 | 600 | 0.25 | 0.1 | 15 |
| MMSZ5251B | K1 | 20.92 | 22 | 23.1 | 29 | 5.6 | 600 | 0.25 | 0.1 | 17 |
| MMSZ5252B | K2 | 22.8 | 24 | 25.2 | 33 | 5.2 | 600 | 0.25 | 0.1 | 18 |
| MMSZ5253B | K3 | 23.75 | 25 | 26.25 | 35 | 5.0 | 600 | 0.25 | 0.1 | 19 |
| MMSZ5254B | K4 | 25.65 | 27 | 28.35 | 41 | 4.6 | 600 | 0.25 | 0.1 | 21 |
| MMSZ5255B | K5 | 26.6 | 28 | 29.4 | 44 | 4.5 | 600 | 0.25 | 0.1 | 21 |
| MMSZ5256B | M1 | 28.5 | 30 | 31.5 | 49 | 4.2 | 600 | 0.25 | 0.1 | 23 |
| MMSZ5257B | M2 | 31.35 | 33 | 34.65 | 58 | 3.8 | 700 | 0.25 | 0.1 | 25 |

V_F Forward Voltage = 0.9V Maximum @ $I_F = 10\text{mA}$ for all MMSZ5200 series

Typical Performance Characteristics

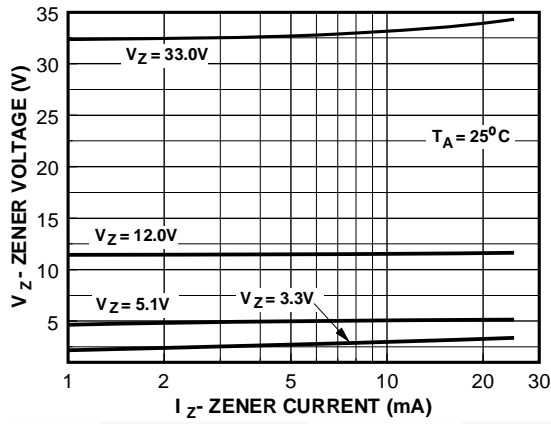


Figure 1. Zener Current vs. Zener Voltage

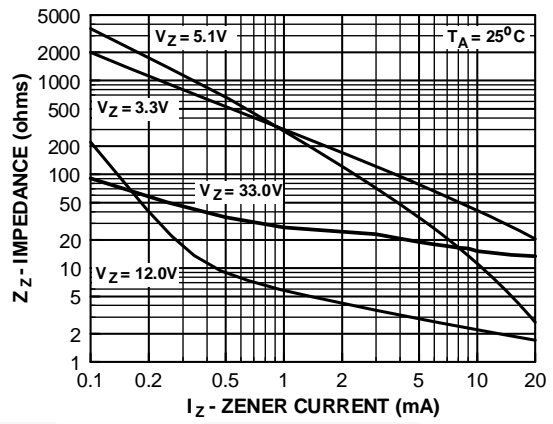


Figure 2. Zener Current vs. Zener Impedance

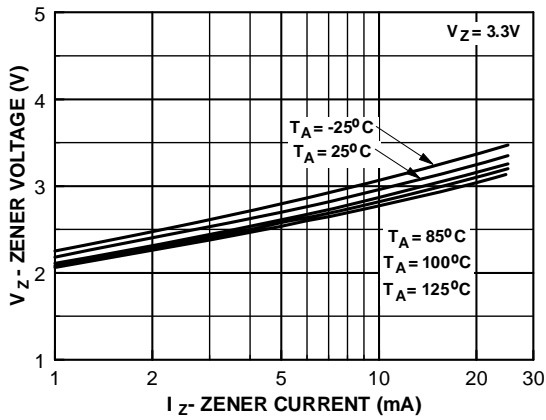


Figure 3. 3.3 Zener Voltage vs. Temperature

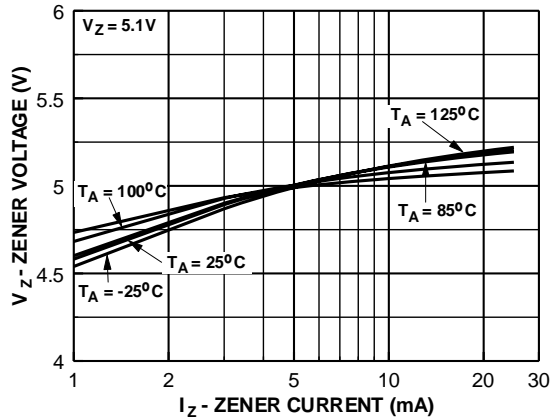


Figure 4. 5.1 Zener Voltage vs. Temperature

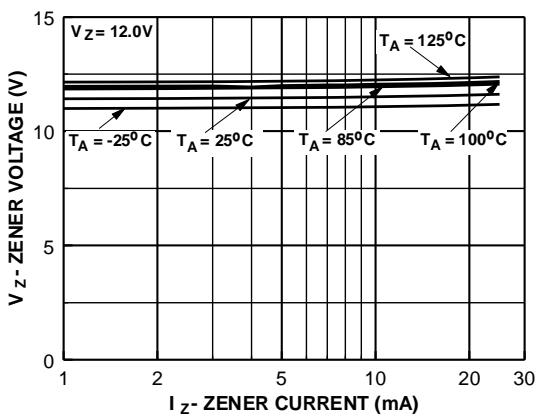


Figure 5. 12 Zener Voltage vs. Zener Temperature

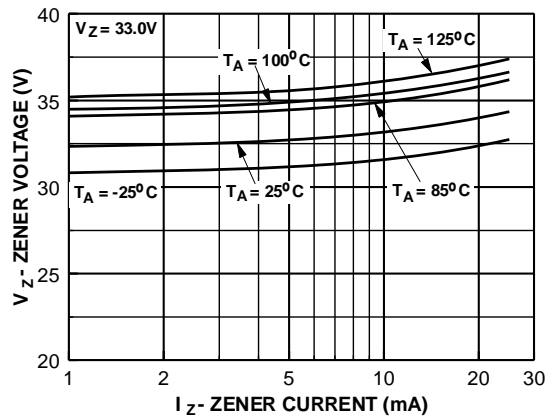






Figure 6. 33 Zener Voltage vs. Zener Temperature



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