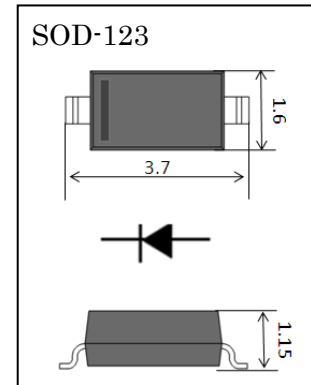


- Constant Voltage control
- Wide Voltage Range Selection 2.4V to 39V
- RoHS compliant / Green EMC
- Matte Tin (Sn) Lead finish
- Moisture Level Sensitivity 1
- Cathode Band / Device marking
Refer to table list



※Mark: refer to Device Marking

Absolute Maximum Ratings (Ta = 25 °C)

| Symbol | Parameter | Value | Units |
|-----------|---------------------------|-------------|-------|
| P_D | Power Dissipation | 500 | mW |
| T_J | Junction Temperature | 150 | °C |
| T_{STG} | Storage Temperature | -65 to +150 | °C |
| I_{ZM} | Maximum Regulator Current | P_D/V_Z | mA |

Electrical Characteristics (Ta = 25 °C)

| Type Number | Device Marking | V_Z (V) @ I_{ZT} | | | I_{ZT} mA | $Z_{ZT}@I_{ZT}$ Ω | $Z_{ZK}@I_{ZK}$ Ω | I_{zk} (mA) | I_R (μ A) | V_R (V) |
|-------------|----------------|----------------------|--------|--------|----------------|-----------------------------|-----------------------------|------------------|---------------------|--------------|
| | | Nom(V) | Min(V) | Max(V) | | | | | | |
| MMSZ5221B | C1 | 2.4 | 2.28 | 2.52 | 20 | 30 | 1200 | 0.25 | 100 | 1.0 |
| MMSZ5223B | C3 | 2.7 | 2.57 | 2.84 | 20 | 30 | 1300 | 0.25 | 75 | 1.0 |
| MMSZ5225B | C5 | 3.0 | 2.85 | 3.15 | 20 | 30 | 1600 | 0.25 | 50 | 1.0 |
| MMSZ5226B | G1 | 3.3 | 3.14 | 3.47 | 20 | 28 | 1600 | 0.25 | 25 | 1.0 |
| MMSZ5227B | G2 | 3.6 | 3.42 | 3.78 | 20 | 24 | 1700 | 0.25 | 15 | 1.0 |
| MMSZ5228B | G3 | 3.9 | 3.71 | 4.10 | 20 | 23 | 1900 | 0.25 | 10 | 1.0 |
| MMSZ5229B | G4 | 4.3 | 4.09 | 4.52 | 20 | 22 | 2000 | 0.25 | 5 | 1.0 |
| MMSZ5230B | G5 | 4.7 | 4.47 | 4.94 | 20 | 19 | 1900 | 0.25 | 5 | 2.0 |
| MMSZ5231B | E1 | 5.1 | 4.85 | 5.36 | 20 | 17 | 1600 | 0.25 | 5 | 2.0 |
| MMSZ5232B | E2 | 5.6 | 5.32 | 5.88 | 20 | 11 | 1600 | 0.25 | 5 | 3.0 |
| MMSZ5233B | E3 | 6.0 | 5.70 | 6.30 | 20 | 7 | 1600 | 0.25 | 5 | 3.5 |

Continued next page

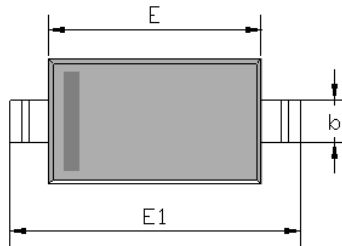
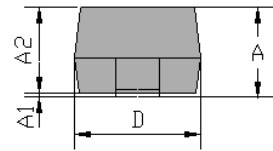
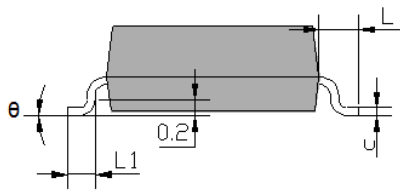
| Type Number | Device Marking | V _z (V)@I _{ZT} | | | I _{ZT} | Z _{ZT} @I _{ZT} | Z _{ZK} @I _{ZK} | I _{zk} (mA) | I _R (μ A) | V _R (V) |
|-------------|----------------|------------------------------------|--------|--------|-----------------|----------------------------------|----------------------------------|-------------------------|------------------------------|-----------------------|
| | | Nom(V) | Min(V) | Max(V) | mA | Ω | | | | |
| MMSZ5234B | E4 | 6.2 | 5.89 | 6.51 | 20 | 7 | 1000 | 0.25 | 5 | 4.0 |
| MMSZ5235B | E5 | 6.8 | 6.46 | 7.14 | 20 | 5 | 750 | 0.25 | 3 | 5.0 |
| MMSZ5236B | F1 | 7.5 | 7.13 | 7.88 | 20 | 6 | 500 | 0.25 | 3 | 6.0 |
| MMSZ5237B | F2 | 8.2 | 7.79 | 8.61 | 20 | 8 | 500 | 0.25 | 3 | 6.5 |
| MMSZ5238B | F3 | 8.7 | 8.27 | 9.14 | 20 | 8 | 600 | 0.25 | 3 | 6.5 |
| MMSZ5239B | F4 | 9.1 | 8.65 | 9.56 | 20 | 10 | 600 | 0.25 | 3 | 7.0 |
| MMSZ5240B | F5 | 10 | 9.50 | 10.50 | 20 | 17 | 600 | 0.25 | 3 | 8.0 |
| MMSZ5241B | H1 | 11 | 10.45 | 11.55 | 20 | 22 | 600 | 0.25 | 2.0 | 8.4 |
| MMSZ5242B | H2 | 12 | 11.40 | 12.60 | 20 | 30 | 600 | 0.25 | 1.0 | 9.1 |
| MMSZ5243B | H3 | 13 | 12.35 | 13.65 | 9.5 | 13 | 600 | 0.25 | 0.5 | 9.9 |
| MMSZ5244B | H4 | 14 | 13.30 | 14.70 | 9.0 | 15 | 600 | 0.25 | 0.1 | 10 |
| MMSZ5245B | H5 | 15 | 14.25 | 15.75 | 8.5 | 16 | 600 | 0.25 | 0.1 | 11 |
| MMSZ5246B | J1 | 16 | 15.20 | 16.80 | 7.8 | 17 | 600 | 0.25 | 0.1 | 12 |
| MMSZ5248B | J3 | 18 | 17.10 | 18.90 | 7.0 | 21 | 600 | 0.25 | 0.1 | 14 |
| MMSZ5250B | J5 | 20 | 19.00 | 21.00 | 6.2 | 25 | 600 | 0.25 | 0.1 | 15 |
| MMSZ5251B | K1 | 22 | 20.90 | 23.10 | 5.6 | 29 | 600 | 0.25 | 0.1 | 17 |
| MMSZ5252B | K2 | 24 | 22.80 | 25.20 | 5.2 | 33 | 600 | 0.25 | 0.1 | 18 |
| MMSZ5253B | K3 | 25 | 23.75 | 26.25 | 5.0 | 35 | 600 | 0.25 | 0.1 | 19 |
| MMSZ5254B | K4 | 27 | 25.65 | 28.35 | 5.0 | 41 | 600 | 0.25 | 0.1 | 21 |
| MMSZ5255B | K5 | 28 | 26.60 | 29.40 | 4.5 | 44 | 600 | 0.25 | 0.1 | 21 |
| MMSZ5256B | M1 | 30 | 28.50 | 31.50 | 4.2 | 49 | 600 | 0.25 | 0.1 | 23 |
| MMSZ5257B | M2 | 33 | 31.35 | 34.65 | 3.8 | 58 | 700 | 0.25 | 0.1 | 25 |
| MMSZ5258B | M3 | 36 | 34.20 | 37.80 | 3.4 | 70 | 700 | 0.25 | 0.1 | 27 |
| MMSZ5259B | M4 | 39 | 37.05 | 40.95 | 3.2 | 80 | 800 | 0.25 | 0.1 | 30 |

Ordering Information

| Device | Package | Shipping | Tape wide | Emboss pitch | Tape specification | Notes |
|-------------|---------|---------------------------------|-----------|--------------|--------------------|-------|
| MMSZ Series | SOD123 | Tape & Reel 3000pcs /7" Reel | 8 mm | 4 mm | Conductive | |

Package Dimensions

Package outline : SOD-123



| Unit | A | A1 | A2 | b | c | D | E | E1 | L | L1 | θ |
|------|------|------|------|------|------|------|------|------|---------------|------|----------|
| Max. | 1.25 | 0.10 | 1.15 | 0.65 | 0.15 | 1.70 | 2.80 | 3.85 | 0.500 REF. | 0.45 | 8° |
| Min. | 1.05 | 0.00 | 1.05 | 0.45 | 0.08 | 1.50 | 2.60 | 3.55 | | 0.25 | 0° |

SOD123 Package Outline

3 24



Land Pattern Recommendation

Note:

1. Halogen free,EMC
2. Pb free solder
3. Lead thickness includes solder plating
4. Lead frame: A42
5. Other Tolerance: ± 0.05
6. Dimensions are exclusive of Burrs, Mold Flash and Tie Bar extrusions
7. Unit: mm