

MSKSEMI 美森科

SEMICONDUCTOR



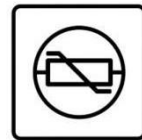
ESD



TVS



TSS



MOV



GDT



PLED

1SMA4728A-MS - 1SMA4777A-MS

Product specification


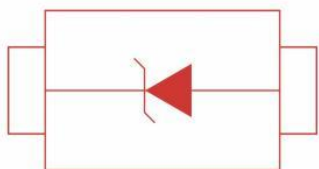
FEATURES

- Total power dissipation: Max. 1 W.
- Wide zener reverse voltage range 3.3V to 330V.
- Small plastic package suitable for surface mounted design.

Mechanical Data

- Case: SMA
- Terminals: Solderable per MIL- STD- 750, Method 2026
- Approx . Weight: 0 .055g / 0 .002oz

Reference News

| PACKAGE OUTLINE | PIN CONFIGURATION |
|---|--|
|  |  |
| Simplified outline SMA and symbol | |

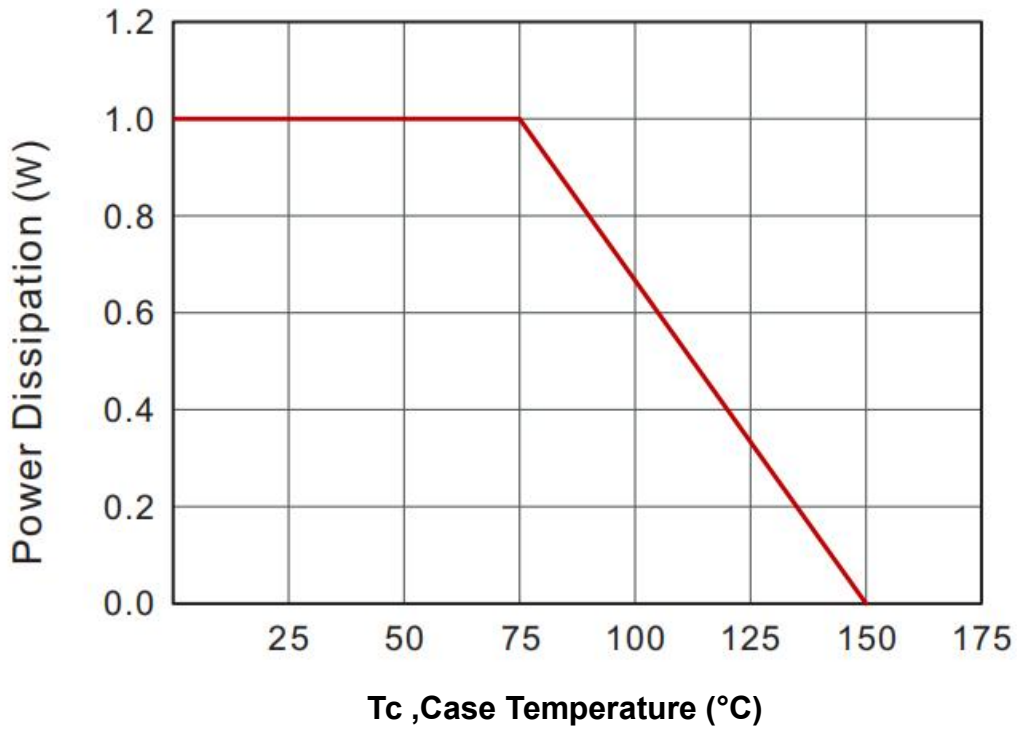
PINNING

| PIN | DESCRIPTION |
|-----|-------------|
| 1 | Cathode |
| 2 | A node |

Absolute Maximum Ratings And Characteristics (Ta = 25 °C)

| Parameter | Symbol | Value | Unit |
|--|----------------|---------------|------|
| Power Dissipation at T _c = 75°C | P _D | 1 | W |
| Forward Voltage at I _F = 200 mA | V _F | 1.2 | V |
| Junction Temperature Range | T _J | - 55 to + 150 | °C |
| Storage Temperature Range | T _S | - 55 to + 150 | °C |

Fig.1 Maximum Continuous Power Derating

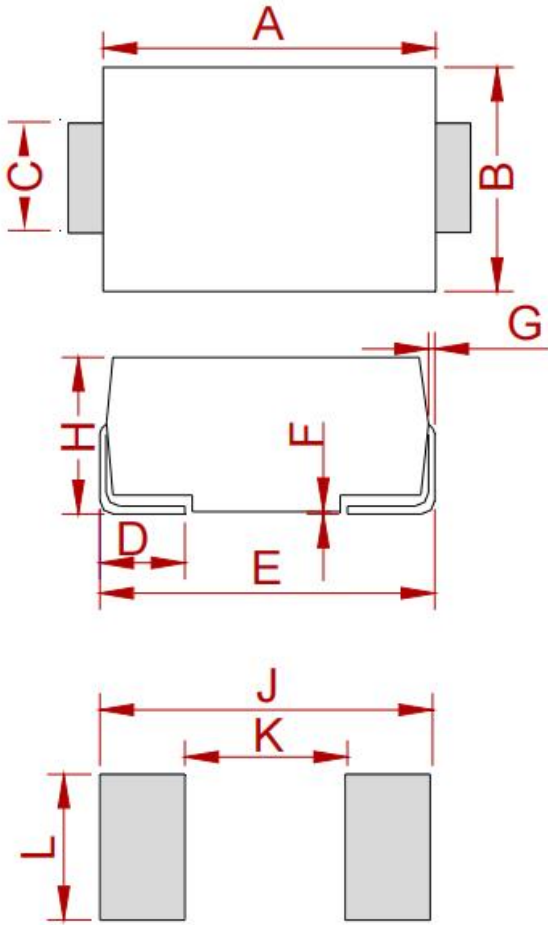


C haracteristics at Ta = 25°C

| Type | Marking | Zener Voltage Range ⁽¹⁾ | | | I _{ZT} | Dynamic Impedance | Reverse Current | | Admissible Zener Current |
|--------------|---------|--|---------|---------|-----------------|--|-----------------|-------------------|--------------------------|
| | | V _{ZT} (at I _{ZT}) | | | | Z _{ZT} (at I _{ZT}) | I _R | at V _R | |
| | | Min (V) | Nom (V) | Max (V) | (mA) | Max (Ω) | Max (μA) | (V) | I _{ZM} (mA) |
| 1SMA4728A-MS | 728A | 3.10 | 3.3 | 3.50 | 75 | 10 | 100 | 1 | 285 |
| 1SMA4729A-MS | 729A | 3.40 | 3.6 | 3.80 | 69 | 10 | 100 | 1 | 263 |
| 1SMA4730A-MS | 730A | 3.70 | 3.9 | 4.10 | 64 | 9.0 | 50 | 1 | 243 |
| 1SMA4731A-MS | 731A | 4.06 | 4.3 | 4.56 | 58 | 9.0 | 25 | 1 | 219 |
| 1SMA4732A-MS | 732A | 4.50 | 4.7 | 4.93 | 53 | 8.0 | 10 | 1 | 203 |
| 1SMA4733A-MS | 733A | 4.84 | 5.1 | 5.36 | 49 | 7.0 | 10 | 1 | 186 |
| 1SMA4734A-MS | 734A | 5.32 | 5.6 | 5.92 | 45 | 5.0 | 10 | 2 | 170 |
| 1SMA4735A-MS | 735A | 5.86 | 6.2 | 6.51 | 41 | 2.0 | 10 | 3 | 154 |
| 1SMA4736A-MS | 736A | 6.46 | 6.8 | 7.18 | 37 | 3.5 | 10 | 4 | 140 |
| 1SMA4737A-MS | 737A | 7.12 | 7.5 | 7.88 | 34 | 4.0 | 10 | 5 | 127 |
| 1SMA4738A-MS | 738A | 7.79 | 8.2 | 8.67 | 31 | 4.5 | 10 | 6 | 116 |
| 1SMA4739A-MS | 739A | 8.60 | 9.1 | 9.59 | 28 | 5.0 | 10 | 7 | 104 |
| 1SMA4740A-MS | 740A | 9.50 | 10 | 10.5 | 25 | 7.0 | 10 | 7 | 95 |
| 1SMA4741A-MS | 741A | 10.4 | 11 | 11.6 | 23 | 8.0 | 5 | 8 | 86 |
| 1SMA4742A-MS | 742A | 11.4 | 12 | 12.6 | 21 | 9.0 | 5 | 9 | 79 |
| 1SMA4743A-MS | 743A | 12.4 | 13 | 14.1 | 19 | 10 | 5 | 10 | 71 |
| 1SMA4744A-MS | 744A | 13.8 | 15 | 15.8 | 17 | 14 | 5 | 11 | 63 |
| 1SMA4745A-MS | 745A | 15.2 | 16 | 17.1 | 16 | 16 | 5 | 12 | 58 |
| 1SMA4746A-MS | 746A | 16.8 | 18 | 19.2 | 14 | 20 | 5 | 13 | 52 |
| 1SMA4747A-MS | 747A | 19.0 | 20 | 21.2 | 13 | 22 | 5 | 15 | 47 |
| 1SMA4748A-MS | 748A | 20.8 | 22 | 23.3 | 12 | 23 | 5 | 17 | 43 |
| 1SMA4749A-MS | 749A | 22.8 | 24 | 26.0 | 11 | 25 | 5 | 18 | 38 |
| 1SMA4750A-MS | 750A | 25.3 | 27 | 28.9 | 9.5 | 35 | 5 | 21 | 35 |
| 1SMA4751A-MS | 751A | 28.2 | 30 | 32.0 | 8.5 | 40 | 5 | 23 | 31 |
| 1SMA4752A-MS | 752A | 31.3 | 33 | 34.9 | 7.5 | 45 | 5 | 25 | 28 |
| 1SMA4753A-MS | 753A | 34.2 | 36 | 37.9 | 7.0 | 50 | 5 | 27 | 26 |
| 1SMA4754A-MS | 754A | 37.2 | 39 | 41.5 | 6.5 | 60 | 5 | 30 | 24 |
| 1SMA4755A-MS | 755A | 40.9 | 43 | 45.6 | 6.0 | 70 | 1 | 32 | 22 |
| 1SMA4756A-MS | 756A | 44.9 | 47 | 49.8 | 5.5 | 80 | 1 | 35 | 20 |
| 1SMA4757A-MS | 757A | 48.6 | 51 | 54.0 | 5.0 | 95 | 1 | 38 | 18 |
| 1SMA4758A-MS | 758A | 53.6 | 56 | 58.8 | 4.5 | 110 | 1 | 42 | 17 |
| 1SMA4759A-MS | 759A | 58.9 | 62 | 65.6 | 4.0 | 125 | 1 | 47 | 15 |
| 1SMA4760A-MS | 760A | 64.6 | 68 | 71.7 | 3.7 | 150 | 1 | 52 | 14 |
| 1SMA4761A-MS | 761A | 71.2 | 75 | 78.8 | 3.3 | 175 | 1 | 56 | 12 |
| 1SMA4762A-MS | 762A | 77.9 | 82 | 87.0 | 3.0 | 200 | 1 | 62 | 11 |
| 1SMA4763A-MS | 763A | 86.0 | 91 | 96.0 | 2.8 | 250 | 1 | 69 | 10 |
| 1SMA4764A-MS | 764A | 95.0 | 100 | 105 | 2.5 | 350 | 1 | 76 | 9.5 |
| 1SMA4765A-MS | 765A | 104 | 110 | 116 | 2.3 | 450 | 1 | 84 | 8.6 |
| 1SMA4766A-MS | 766A | 114 | 120 | 127 | 2.0 | 550 | 1 | 91 | 7.8 |
| 1SMA4767A-MS | 767A | 125 | 135 | 142 | 1.9 | 700 | 1 | 100 | 7.0 |
| 1SMA4768A-MS | 768A | 140 | 150 | 157 | 1.7 | 900 | 1 | 110 | 6.3 |
| 1SMA4769A-MS | 769A | 155 | 165 | 172 | 1.6 | 1100 | 1 | 120 | 5.8 |
| 1SMA4770A-MS | 770A | 170 | 180 | 191 | 1.4 | 1200 | 1 | 135 | 5.2 |
| 1SMA4771A-MS | 771A | 189 | 200 | 211 | 1.2 | 1400 | 1 | 150 | 4.7 |
| 1SMA4772A-MS | 772A | 209 | 220 | 231 | 1.0 | 1600 | 1 | 165 | 4.3 |
| 1SMA4773A-MS | 773A | 229 | 240 | 251 | 1.0 | 1800 | 1 | 180 | 3.9 |
| 1SMA4774A-MS | 774A | 249 | 260 | 271 | 1.0 | 2000 | 1 | 190 | 3.7 |
| 1SMA4775A-MS | 775A | 269 | 280 | 291 | 1.0 | 2100 | 1 | 205 | 3.4 |
| 1SMA4776A-MS | 776A | 289 | 300 | 315 | 1.0 | 2300 | 1 | 230 | 3.1 |
| 1SMA4777A-MS | 777A | 313 | 330 | 346 | 1.0 | 2500 | 1 | 250 | 2.8 |

(1) VZT is tested with pulses (20 ms)

PACKAGE MECHANICAL DATA



SMA

| Ref. | Dimensions | | | |
|------|-------------|-------|--------|-------|
| | Millimeters | | Inches | |
| | Min. | Max. | Min. | Max. |
| A | 4.25 | 4.65 | 0.167 | 0.183 |
| B | 2.50 | 2.90 | 0.098 | 0.114 |
| C | 1.35 | 1.65 | 0.053 | 0.065 |
| D | 0.76 | 1.52 | 0.030 | 0.060 |
| E | 4.93 | 5.28 | 0.194 | 0.208 |
| F | 0.051 | 0.203 | 0.002 | 0.008 |
| G | 0.15 | 0.31 | 0.006 | 0.012 |
| H | 1.98 | 2.41 | 0.078 | 0.095 |
| J | 6.50 | | 0.256 | |
| K | | 2.30 | | 0.090 |
| L | 1.70 | | 0.067 | |

REEL SPECIFICATION

| P/N | PKG | QTY |
|--------------|-----|------|
| 1SMA47XXA-MS | SMA | 2000 |

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