

Silicon Planar Zener Diodes

FEATURES

- ◆ Total power dissipation: Max. 1 W.
- ◆ Wide zener reverse voltage range 3.3V to 330V.
- ◆ Small plastic package suitable for surface mounted design.
- ◆ Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- ◆ Case: SMAF
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026
- ◆ Approx. Weight: 27mg /0.00086oz

Pinning

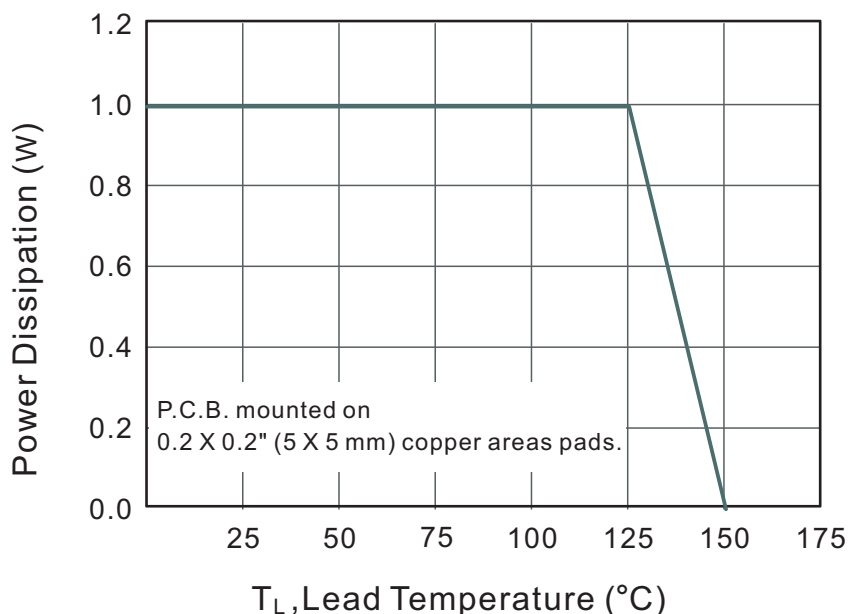


Absolute Maximum Ratings And Characteristics (Ta = 25 °C)

| Parameter | Symbol | Value | Unit |
|--------------------------------|----------------------|------------|-----------|
| Power Dissipation at TL=75°C | P_D | 1 | W |
| Forward Voltage at IF = 200 mA | V_F | 1.2 | V |
| Junction Temperature Range | T_J | 55 ~ +150 | °C |
| Storage Temperature Range | T_s | -55 ~ +150 | °C |

(1) Thermal resistance from junction to ambient at P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper areas pads.

Fig.1 Maximum Continuous Power Derating



Characteristics at Ta = 25°C

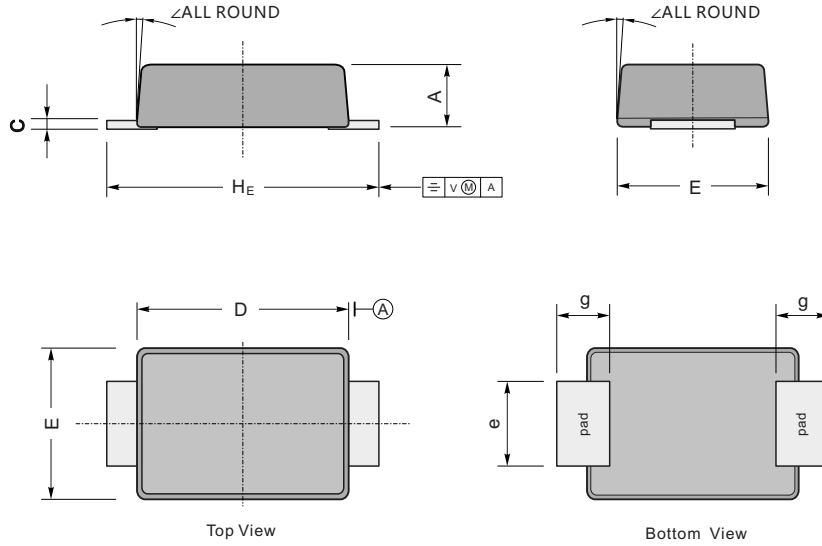
| Type | Marking | Zener Voltage Range ⁽¹⁾ | | | I _{ZT} | Dynamic Impedance | Reverse Current | | Admissible Zener Current |
|------------|---------|--|-----------|-----------|-----------------|-------------------|--|----------------|--------------------------|
| | | V _{ZT} (at I _{ZT}) | | | | | Z _{zT} (at I _{ZT}) | I _R | |
| | | Min (V) | Nom (V) | Max (V) | (mA) | Max (Ω) | Max (μA) | (V) | I _{ZM} (mA) |
| 1SMAF4728A | 728A | 3.10 | 3.3 | 3.50 | 75 | 10 | 100 | 1 | 285 |
| 1SMAF4729A | 729A | 3.40 | 3.6 | 3.80 | 69 | 10 | 100 | 1 | 263 |
| 1SMAF4730A | 730A | 3.70 | 3.9 | 4.10 | 64 | 9.0 | 50 | 1 | 243 |
| 1SMAF4731A | 731A | 4.06 | 4.3 | 4.56 | 58 | 9.0 | 25 | 1 | 219 |
| 1SMAF4732A | 732A | 4.50 | 4.7 | 4.93 | 53 | 8.0 | 10 | 1 | 203 |
| 1SMAF4733A | 733A | 4.84 | 5.1 | 5.36 | 49 | 7.0 | 10 | 1 | 186 |
| 1SMAF4734A | 734A | 5.32 | 5.6 | 5.92 | 45 | 5.0 | 10 | 2 | 170 |
| 1SMAF4735A | 735A | 5.86 | 6.2 | 6.51 | 41 | 2.0 | 10 | 3 | 154 |
| 1SMAF4736A | 736A | 6.46 | 6.8 | 7.18 | 37 | 3.5 | 10 | 4 | 140 |
| 1SMAF4737A | 737A | 7.12 | 7.5 | 7.88 | 34 | 4.0 | 10 | 5 | 127 |
| 1SMAF4738A | 738A | 7.79 | 8.2 | 8.67 | 31 | 4.5 | 10 | 6 | 116 |
| 1SMAF4739A | 739A | 8.60 | 9.1 | 9.59 | 28 | 5.0 | 10 | 7 | 104 |
| 1SMAF4740A | 740A | 9.50 | 10 | 10.5 | 25 | 7.0 | 10 | 7 | 95 |
| 1SMAF4741A | 741A | 10.4 | 11 | 11.6 | 23 | 8.0 | 5 | 8 | 86 |
| 1SMAF4742A | 742A | 11.4 | 12 | 12.6 | 21 | 9.0 | 5 | 9 | 79 |
| 1SMAF4743A | 743A | 12.4 | 13 | 14.1 | 19 | 10 | 5 | 10 | 71 |
| 1SMAF4744A | 744A | 13.8 | 15 | 15.8 | 17 | 14 | 5 | 11 | 63 |
| 1SMAF4745A | 745A | 15.2 | 16 | 17.1 | 16 | 16 | 5 | 12 | 58 |
| 1SMAF4746A | 746A | 16.8 | 18 | 19.2 | 14 | 20 | 5 | 13 | 52 |
| 1SMAF4747A | 747A | 19.0 | 20 | 21.2 | 13 | 22 | 5 | 15 | 47 |
| 1SMAF4748A | 748A | 20.8 | 22 | 23.3 | 12 | 23 | 5 | 17 | 43 |
| 1SMAF4749A | 749A | 22.8 | 24 | 26.0 | 11 | 25 | 5 | 18 | 38 |
| 1SMAF4750A | 750A | 25.3 | 27 | 28.9 | 9.5 | 35 | 5 | 21 | 35 |
| 1SMAF4751A | 751A | 28.2 | 30 | 32.0 | 8.5 | 40 | 5 | 23 | 31 |
| 1SMAF4752A | 752A | 31.3 | 33 | 34.9 | 7.5 | 45 | 5 | 25 | 28 |
| 1SMAF4753A | 753A | 34.2 | 36 | 37.9 | 7.0 | 50 | 5 | 27 | 26 |
| 1SMAF4754A | 754A | 37.2 | 39 | 41.5 | 6.5 | 60 | 5 | 30 | 24 |
| 1SMAF4755A | 755A | 40.9 | 43 | 45.6 | 6.0 | 70 | 1 | 32 | 22 |
| 1SMAF4756A | 756A | 44.9 | 47 | 49.8 | 5.5 | 80 | 1 | 35 | 20 |
| 1SMAF4757A | 757A | 48.6 | 51 | 54.0 | 5.0 | 95 | 1 | 38 | 18 |
| 1SMAF4758A | 758A | 53.6 | 56 | 58.8 | 4.5 | 110 | 1 | 42 | 17 |
| 1SMAF4759A | 759A | 58.9 | 62 | 65.6 | 4.0 | 125 | 1 | 47 | 15 |
| 1SMAF4760A | 760A | 64.6 | 68 | 71.7 | 3.7 | 150 | 1 | 52 | 14 |
| 1SMAF4761A | 761A | 71.2 | 75 | 78.8 | 3.3 | 175 | 1 | 56 | 12 |
| 1SMAF4762A | 762A | 77.9 | 82 | 87.0 | 3.0 | 200 | 1 | 62 | 11 |
| 1SMAF4763A | 763A | 86.0 | 91 | 96.0 | 2.8 | 250 | 1 | 69 | 10 |
| 1SMAF4764A | 764A | 95.0 | 100 | 105 | 2.5 | 350 | 1 | 76 | 9.5 |
| 1SMAF4765A | 765A | 104 | 110 | 116 | 2.3 | 450 | 1 | 84 | 8.6 |
| 1SMAF4766A | 766A | 114 | 120 | 127 | 2.0 | 550 | 1 | 91 | 7.8 |
| 1SMAF4767A | 767A | 125 | 135 | 142 | 1.9 | 700 | 1 | 100 | 7.0 |
| 1SMAF4768A | 768A | 140 | 150 | 157 | 1.7 | 900 | 1 | 110 | 6.3 |
| 1SMAF4769A | 769A | 155 | 165 | 172 | 1.6 | 1100 | 1 | 120 | 5.8 |
| 1SMAF4770A | 770A | 170 | 180 | 191 | 1.4 | 1200 | 1 | 135 | 5.2 |
| 1SMAF4771A | 771A | 189 | 200 | 211 | 1.2 | 1400 | 1 | 150 | 4.7 |
| 1SMAF4772A | 772A | 209 | 220 | 231 | 1.0 | 1600 | 1 | 165 | 4.3 |
| 1SMAF4773A | 773A | 229 | 240 | 251 | 1.0 | 1800 | 1 | 180 | 3.9 |
| 1SMAF4774A | 774A | 249 | 260 | 271 | 1.0 | 2000 | 1 | 190 | 3.7 |
| 1SMAF4775A | 775A | 269 | 280 | 291 | 1.0 | 2100 | 1 | 205 | 3.4 |
| 1SMAF4776A | 776A | 289 | 300 | 315 | 1.0 | 2300 | 1 | 230 | 3.1 |
| 1SMAF4777A | 777A | 313 | 330 | 346 | 1.0 | 2500 | 1 | 250 | 2.8 |

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

Package Outline

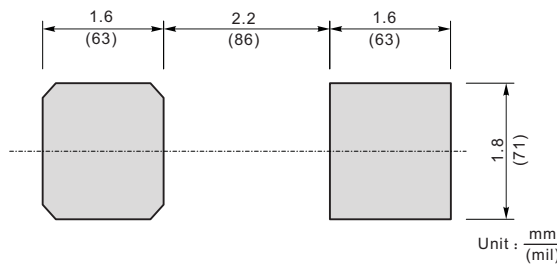
SMAF

Plastic surface mounted package; 2 leads



| UNIT | | A | C | D | E | e | g | H_E | \angle |
|------|-----|-----|------|-----|-----|-----|-----|-------|----------|
| mm | max | 1.1 | 0.20 | 3.7 | 2.7 | 1.6 | 1.2 | 4.9 | 7° |
| | min | 0.9 | 0.12 | 3.3 | 2.4 | 1.3 | 0.8 | 4.4 | |
| mil | max | 43 | 7.9 | 146 | 106 | 63 | 47 | 193 | |
| | min | 35 | 4.7 | 130 | 94 | 51 | 31 | 173 | |

The recommended mounting pad size



Summary of Packing Options

| Package | Packing Description | Packing Quantity | Industry Standard |
|---------|---------------------|------------------|-------------------|
| SMAF | Tape/Reel, 13" reel | 10000 | EIA-481-1 |
| | Tape/Reel, 7" reel | 3000 | EIA-481-1 |

单击下面可查看定价，库存，交付和生命周期等信息

[>>YFW\(佑风微\)](#)