

Silicon Planar Zener Diodes

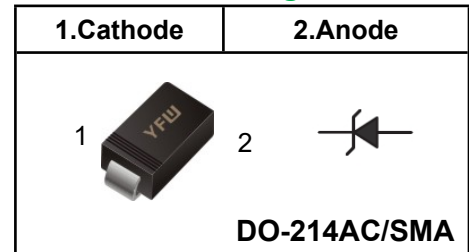
FEATURES

- ◆ Total power dissipation: Max. 1.5 W.
- ◆ Wide zener reverse voltage range 3.3V to 240V.
- ◆ Small plastic package suitable for surface mounted design.
- ◆ Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- ◆ Case: DO-214AC/SMA
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026
- ◆ Approx. Weight: 0.07g / 0.002oz

Pinning

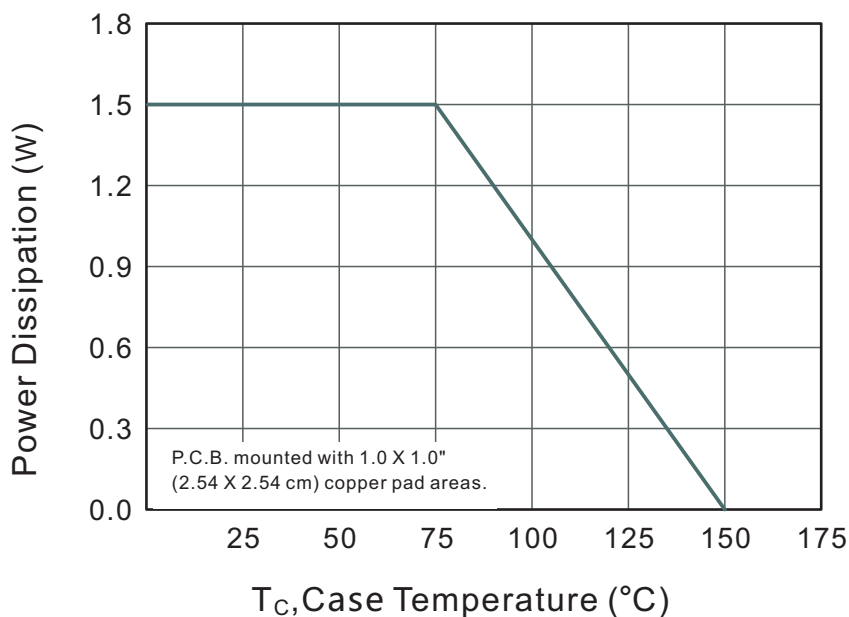


Absolute Maximum Ratings And Characteristics (Ta = 25 °C)

| Parameter | Symbol | Value | Unit |
|--------------------------------|----------------------|------------|-----------|
| Power Dissipation at TL=75°C | P_D | 1.5 | W |
| Forward Voltage at IF = 200 mA | V_F | 1.5 | 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 $T_a = 25^\circ\text{C}$

| Type (note1) | Marking (note1) | Zener Voltage Range (note2) | | | | Dynamic Impedance | Reverse Current | | Admissible Zener Current |
|-----------------|--------------------|-----------------------------|---------|---------|-------------|-------------------------|-----------------------|----------|--------------------------|
| | | V_{ZT} (at I_{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) |
| 1SMA5913B | 913B | 3.13 | 3.3 | 3.47 | 113.6 | 10 | 100 | 1 | 454 |
| 1SMA5914B | 914B | 3.42 | 3.6 | 3.78 | 104.2 | 9.0 | 75 | 1 | 416 |
| 1SMA5915B | 915B | 3.70 | 3.9 | 4.10 | 96.1 | 7.5 | 25 | 1 | 384 |
| 1SMA5916B | 916B | 4.08 | 4.3 | 4.52 | 87.2 | 6.0 | 5 | 1 | 348 |
| 1SMA5917B | 917B | 4.46 | 4.7 | 4.94 | 79.8 | 5.0 | 5 | 1.5 | 319 |
| 1SMA5918B | 918B | 4.84 | 5.1 | 5.36 | 73.5 | 4.0 | 5 | 2 | 294 |
| 1SMA5919B | 919B | 5.32 | 5.6 | 5.88 | 66.9 | 2.0 | 5 | 3 | 267 |
| 1SMA5920B | 920B | 5.89 | 6.2 | 6.51 | 60.5 | 2.0 | 5 | 4 | 241 |
| 1SMA5921B | 921B | 6.46 | 6.8 | 7.14 | 55 | 2.5 | 5 | 5.2 | 220 |
| 1SMA5922B | 922B | 7.12 | 7.5 | 7.88 | 50 | 3.0 | 5 | 6 | 200 |
| 1SMA5923B | 923B | 7.79 | 8.2 | 8.61 | 45.7 | 3.5 | 5 | 6.5 | 182 |
| 1SMA5924B | 924B | 8.60 | 9.1 | 9.56 | 41.2 | 4.0 | 5 | 7 | 164 |
| 1SMA5925B | 925B | 9.50 | 10 | 10.5 | 37.5 | 4.5 | 5 | 8 | 150 |
| 1SMA5926B | 926B | 10.4 | 11 | 11.6 | 34 | 5.5 | 1 | 8.4 | 136 |
| 1SMA5927B | 927B | 11.4 | 12 | 12.6 | 31.2 | 6.5 | 1 | 9 | 125 |
| 1SMA5928B | 928B | 12.35 | 13 | 14.1 | 28.8 | 7.0 | 1 | 9.9 | 115 |
| 1SMA5929B | 929B | 13.8 | 15 | 15.8 | 25 | 9.0 | 1 | 11.4 | 100 |
| 1SMA5930B | 930B | 15.2 | 16 | 16.8 | 23.4 | 10 | 1 | 12.2 | 93 |
| 1SMA5931B | 931B | 16.8 | 18 | 19.2 | 21 | 12 | 1 | 13.7 | 83 |
| 1SMA5932B | 932B | 19.0 | 20 | 21.2 | 19 | 14 | 1 | 15.2 | 75 |
| 1SMA5933B | 933B | 20.8 | 22 | 23.3 | 17 | 18 | 1 | 16.7 | 68 |
| 1SMA5934B | 934B | 22.8 | 24 | 25.2 | 16 | 19 | 1 | 18.2 | 62 |
| 1SMA5935B | 935B | 25.3 | 27 | 28.9 | 14 | 23 | 1 | 20.6 | 55 |
| 1SMA5936B | 936B | 28.2 | 30 | 32.0 | 12.5 | 26 | 1 | 23 | 50 |
| 1SMA5937B | 937B | 31.3 | 33 | 34.9 | 11.4 | 33 | 1 | 25 | 45 |
| 1SMA5938B | 938B | 34.2 | 36 | 37.9 | 10.4 | 38 | 1 | 27 | 41 |
| 1SMA5939B | 939B | 37.2 | 39 | 41.5 | 9.6 | 45 | 1 | 30 | 38 |
| 1SMA5940B | 940B | 40.9 | 43 | 45.6 | 8.7 | 53 | 1 | 33 | 34 |
| 1SMA5941B | 941B | 44.9 | 47 | 49.8 | 8.0 | 67 | 1 | 36 | 31 |
| 1SMA5942B | 942B | 48.6 | 51 | 54.0 | 7.3 | 70 | 1 | 39 | 29 |
| 1SMA5943B | 943B | 53.6 | 56 | 58.8 | 6.7 | 86 | 1 | 42 | 26 |
| 1SMA5944B | 944B | 58.9 | 62 | 65.6 | 6.0 | 100 | 1 | 47 | 24 |
| 1SMA5945B | 945B | 64.6 | 68 | 71.7 | 5.5 | 120 | 1 | 52 | 22 |
| 1SMA5946B | 946B | 71.2 | 75 | 78.8 | 5.0 | 140 | 1 | 57 | 20 |
| 1SMA5947B | 947B | 77.9 | 82 | 87.0 | 4.6 | 160 | 1 | 62 | 18 |
| 1SMA5948B | 948B | 86.0 | 91 | 96.0 | 4.1 | 200 | 1 | 69 | 16 |
| 1SMA5949B | 949B | 95.0 | 100 | 105 | 3.7 | 250 | 1 | 76 | 15 |
| 1SMA5950B | 950B | 104 | 110 | 116 | 3.4 | 300 | 1 | 84 | 13 |
| 1SMA5951B | 951B | 114 | 120 | 127 | 3.1 | 380 | 1 | 91 | 12 |
| 1SMA5952B | 952B | 125 | 130 | 142 | 2.9 | 450 | 1 | 100 | 11 |
| 1SMA5953B | 953B | 140 | 150 | 157 | 2.5 | 600 | 1 | 114 | 10 |
| 1SMA5954B | 954B | 152 | 160 | 168 | 2.3 | 700 | 1 | 121.6 | 9.0 |
| 1SMA5955B | 955B | 168 | 180 | 189 | 2.1 | 900 | 1 | 136.8 | 8.0 |
| 1SMA5956B | 956B | 189 | 200 | 211 | 1.9 | 1200 | 1 | 152 | 7.0 |
| 1SMA5957B | 957B | 228 | 240 | 252 | 1.5 | 1600 | 1 | 182.4 | 6.0 |

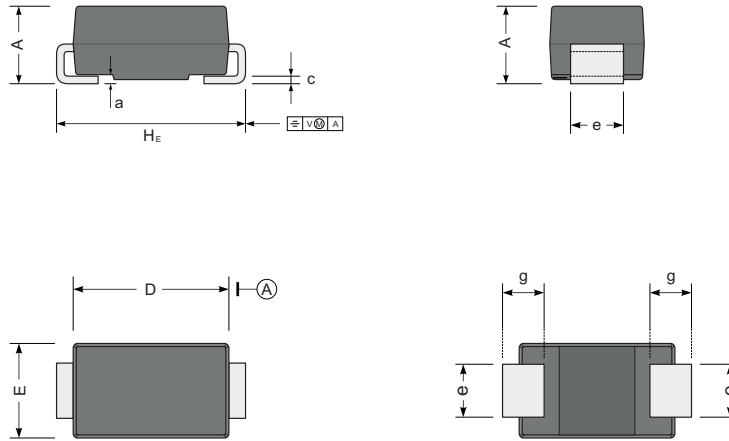
(1) Suffix "A" indicates $\pm 10\%$ tolerance, Suffix "B" indicates $\pm 5\%$ tolerance

(2) V_{ZT} is tested with pulses (20 ms)

Package Outline

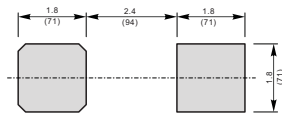
DO-214AC SMA

Plastic surface mounted package; 2 leads



| UNIT | | A | D | E | H _E | c | e | g | a |
|------|-----|------|-----|------|----------------|------|-----|-----|-----|
| mm | max | 2.42 | 4.5 | 2.80 | 5.2 | 0.31 | 1.6 | 1.5 | 0.3 |
| | min | 1.98 | 4.0 | 2.54 | 4.7 | 0.15 | 1.3 | 0.9 | |
| mil | max | 96 | 181 | 110 | 205 | 12 | 63 | 59 | 12 |
| | min | 78 | 157 | 100 | 185 | 6 | 51 | 35 | |

The recommended mounting pad size



Unit : $\frac{\text{mm}}{\text{(mil)}}$

Summary of Packing Options

| Package | Packing Description | Packing Quantity | Industry Standard |
|--------------|---------------------|------------------|-------------------|
| DO-214AC SMA | Tape/Reel, 11" reel | 5000 | EIA-481-1 |
| | Tape/Reel, 7" reel | 2000 | 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\(佑风微\)](#)