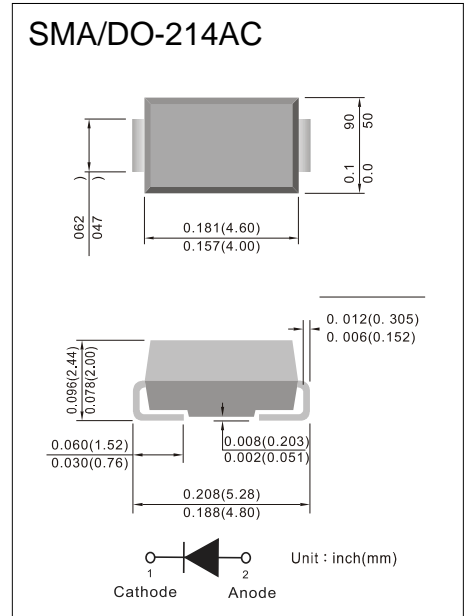


Features

- Glass passivated chip
- Built-in strain relief
- Low inductance
- High peak reverse power dissipation
- Low reverse leakage
- For use in stabilizing and clipping with high power rating
- Comply with RoHS standard, halogen-free

Mechanical Data

- package:SMA/DO-214AC
- Terminal: All external surfaces are corrosion resistant with readily solderable leads
- Polarity: Cathode line denotes the cathode end
- Epoxy: UL 94V-0 rate flame retardant
- Mounting Position : Any



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

| PARAMETER | SYMBOL | Value | UNIT |
|---|-----------|--------------|------------------------|
| DC power dissipation at $T_L=75^{\circ}\text{C}$, measure at zero lead length (Note 1) derate above 75°C | P_D | 1.5 | Watts |
| | | 20 | mW/ $^{\circ}\text{C}$ |
| | I_{FSM} | 10 | A |
| Operating junction temperature range | T_J | -155 to +150 | $^{\circ}\text{C}$ |
| Storage temperature range | T_{STG} | -155 to +150 | $^{\circ}\text{C}$ |

Note 1: Mounted on Cu-Pad size 5mm x 5mm x 1.6mm on PCB

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

| Part Number | Nominal Zener Voltage | | Maximum Zener Impedance | | | Maximum Reverse Leakage Current | | Maximum DC | Marking Code |
|-------------|-----------------------|----------|-------------------------|-----------------|----------|---------------------------------|-------|------------|--------------|
| | $V_Z@I_{ZT}$ | I_{ZT} | $Z_{ZT}@I_{ZT}$ | $Z_{ZK}@I_{ZK}$ | I_{ZK} | $I_R@V_R$ | | I_{ZM} | |
| | (V) | (mA) | (Ω) | (Ω) | (mA) | (μA) | (V) | (mA) | |
| SMA5913A | 3.3 | 113.6 | 10 | 500 | 1.0 | 100 | 1.0 | 454 | 913A |
| SMA5914A | 3.6 | 104.2 | 9.0 | 500 | 1.0 | 75 | 1.0 | 416 | 914A |
| SMA5915A | 3.9 | 96.1 | 7.5 | 500 | 1.0 | 25 | 1.0 | 384 | 915A |
| SMA5916A | 4.3 | 87.2 | 6.0 | 500 | 1.0 | 5.0 | 1.0 | 348 | 916A |
| SMA5917A | 4.7 | 79.8 | 5.0 | 500 | 1.0 | 5.0 | 1.5 | 319 | 917A |
| SMA5918A | 5.1 | 73.5 | 4.0 | 500 | 1.0 | 5.0 | 2.0 | 294 | 918A |
| SMA5919A | 5.6 | 66.9 | 2.0 | 500 | 1.0 | 5.0 | 3.0 | 267 | 919A |
| SMA5920A | 6.2 | 60.5 | 2.0 | 200 | 1.0 | 5.0 | 4.0 | 241 | 920A |
| SMA5921A | 6.8 | 55.1 | 2.5 | 200 | 1.0 | 50 | 5.2 | 220 | 921A |
| SMA5922A | 7.5 | 50.0 | 3.0 | 400 | 0.5 | 50 | 6.0 | 200 | 922A |
| SMA5923A | 8.2 | 45.7 | 3.5 | 400 | 0.5 | 50 | 6.5 | 182 | 923A |
| SMA5924A | 9.1 | 41.2 | 4.0 | 500 | 0.5 | 50 | 7.0 | 164 | 924A |
| SMA5925A | 10 | 37.5 | 4.5 | 500 | 0.25 | 50 | 8.0 | 150 | 925A |
| SMA5926A | 11 | 34.1 | 5.5 | 550 | 0.25 | 50 | 8.4 | 136 | 926A |
| SMA5927A | 12 | 31.2 | 6.5 | 550 | 0.25 | 1.0 | 9.1 | 125 | 927A |
| SMA5928A | 13 | 28.8 | 7.0 | 550 | 0.25 | 1.0 | 9.9 | 115 | 928A |
| SMA5929A | 15 | 25.0 | 9.0 | 600 | 0.25 | 1.0 | 11.4 | 100 | 929A |
| SMA5930A | 16 | 23.4 | 10 | 600 | 0.25 | 1.0 | 12.2 | 93 | 930A |
| SMA5931A | 18 | 20.8 | 12 | 650 | 0.25 | 1.0 | 13.7 | 83 | 931A |
| SMA5932A | 20 | 18.7 | 14 | 650 | 0.25 | 1.0 | 15.2 | 75 | 932A |
| SMA5933A | 22 | 17.0 | 17.5 | 650 | 0.25 | 1.0 | 16.7 | 68 | 933A |
| SMA5934A | 24 | 15.6 | 19 | 700 | 0.25 | 1.0 | 18.2 | 62 | 934A |
| SMA5935A | 27 | 13.9 | 23 | 700 | 0.25 | 1.0 | 20.6 | 55 | 935A |
| SMA5936A | 30 | 12.5 | 26 | 750 | 0.25 | 1.0 | 22.8 | 50 | 936A |
| SMA5937A | 33 | 11.4 | 33 | 800 | 0.25 | 1.0 | 25.1 | 45 | 937A |
| SMA5938A | 36 | 10.4 | 38 | 850 | 0.25 | 1.0 | 27.4 | 41 | 938A |
| SMA5939A | 39 | 9.6 | 45 | 900 | 0.25 | 1.0 | 29.7 | 38 | 939A |
| SMA5940A | 43 | 8.7 | 53 | 950 | 0.25 | 1.0 | 32.7 | 34 | 940A |
| SMA5941A | 47 | 8.0 | 67 | 1000 | 0.25 | 1.0 | 35.8 | 31 | 941A |
| SMA5942A | 51 | 7.3 | 70 | 1100 | 0.25 | 1.0 | 38.8 | 29 | 942A |
| SMA5943A | 56 | 6.7 | 86 | 1300 | 0.25 | 1.0 | 42.6 | 26 | 943A |
| SMA5944A | 62 | 6.0 | 100 | 1500 | 0.25 | 1.0 | 47.1 | 24 | 944A |
| SMA5945A | 68 | 5.5 | 120 | 1700 | 0.25 | 1.0 | 51.7 | 22 | 945A |
| SMA5946A | 75 | 5.0 | 140 | 2000 | 0.25 | 1.0 | 56.0 | 20 | 946A |
| SMA5947A | 82 | 4.6 | 160 | 2500 | 0.25 | 1.0 | 62.2 | 18 | 947A |
| SMA5948A | 91 | 4.1 | 200 | 3000 | 0.25 | 1.0 | 69.2 | 16 | 948A |
| SMA5949A | 100 | 3.7 | 250 | 3100 | 0.25 | 1.0 | 76.0 | 15 | 949A |
| SMA5950A | 110 | 3.4 | 300 | 4000 | 0.25 | 1.0 | 83.6 | 13 | 950A |
| SMA5951A | 120 | 3.1 | 380 | 4500 | 0.25 | 1.0 | 91.2 | 12 | 951A |
| SMA5952A | 130 | 2.9 | 450 | 5000 | 0.25 | 1.0 | 98.8 | 11 | 952A |
| SMA5953A | 150 | 2.5 | 600 | 6000 | 0.25 | 1.0 | 114.0 | 10 | 953A |
| SMA5954A | 160 | 2.3 | 700 | 6500 | 0.25 | 1.0 | 121.6 | 9.0 | 954A |
| SMA5955A | 180 | 2.1 | 900 | 7000 | 0.25 | 1.0 | 136.8 | 8.0 | 955A |
| SMA5956A | 200 | 1.9 | 1200 | 8000 | 0.25 | 1.0 | 152.0 | 7.0 | 956A |
| SMA5957A | 240 | 1.5 | 1600 | 9000 | 0.25 | 1.0 | 182.4 | 6.0 | 957A |

Notes: Suffix " A " indicates $\pm 10\%$ tolerance, suffix " B " indicates $\pm 5.0\%$ tolerance.

When the model suffix is "A", the product screen printing suffix is "A",

When the model suffix is "B", the product screen printing suffix is "B".



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

FIG. 1 STEADY STATE POWER DERATING

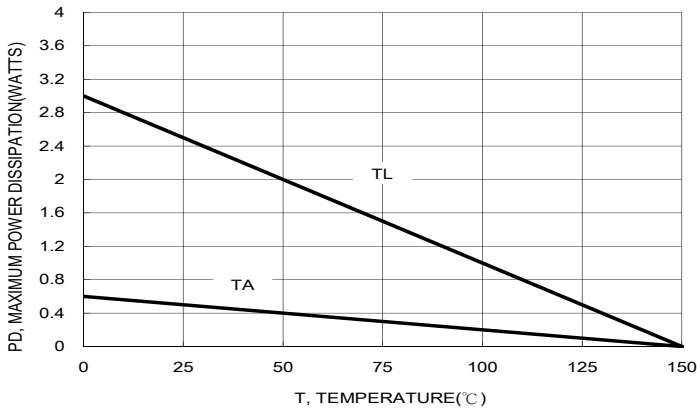


FIG. 2 $V_z = 12$ THRU 68 VOLTS

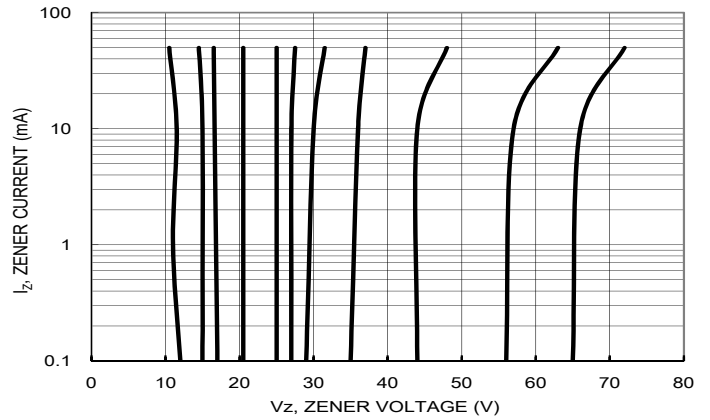


FIG. 3 ZENER VOLTAGE 12 TO 68 VOLTS

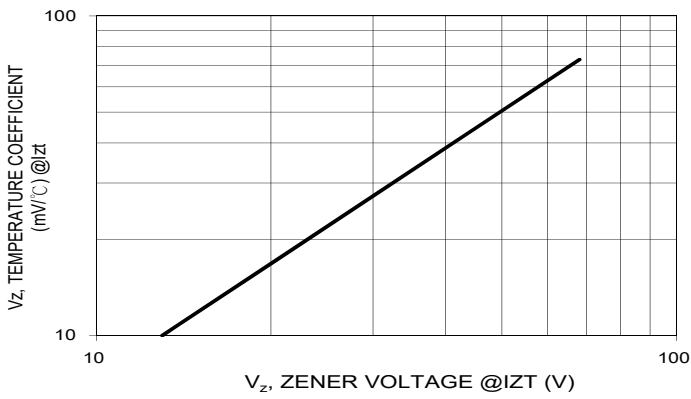


FIG. 4 EFFECT OF ZENER VOLTAGE

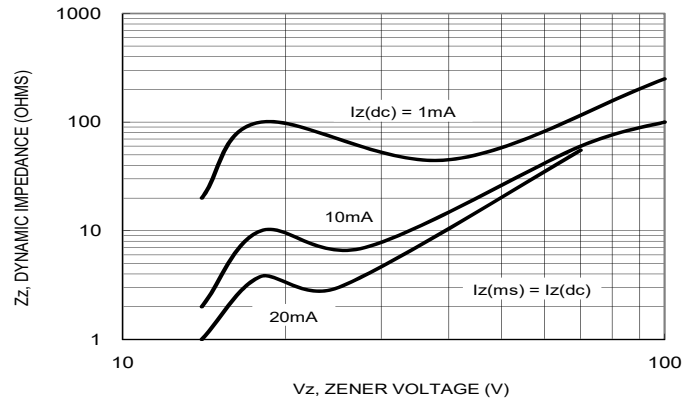


FIG. 5 CAPACITANCE CURVE

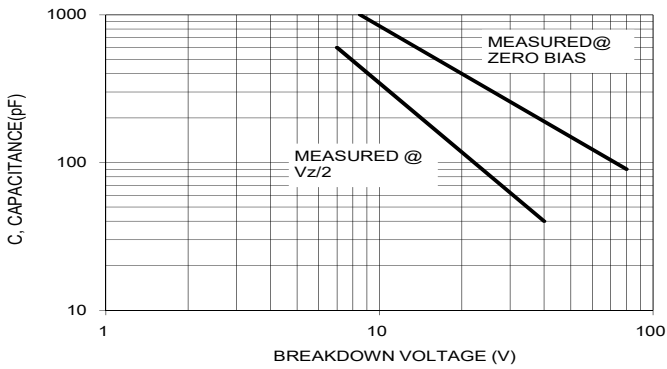


FIG. 6 TYPICAL PULSE RATING CURVE

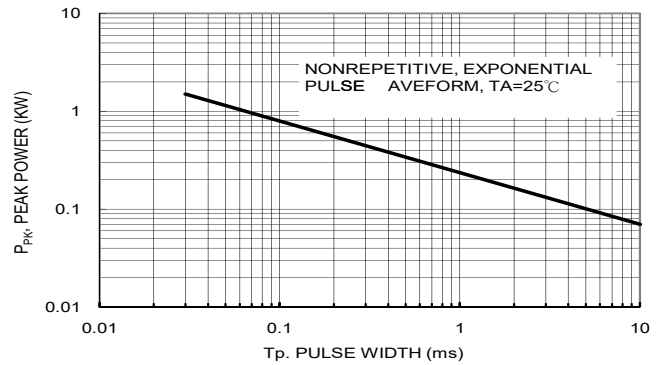


FIG. 7 PULSE WAVEFORM

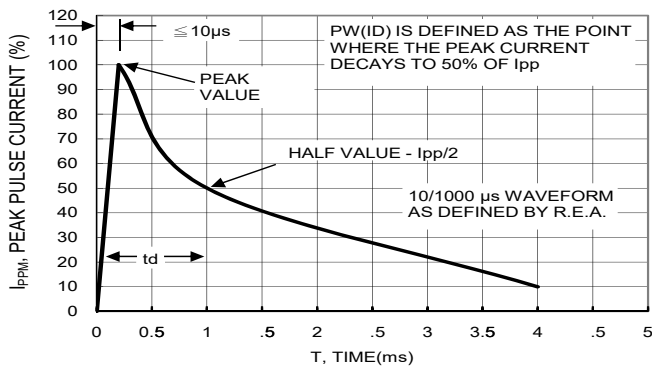
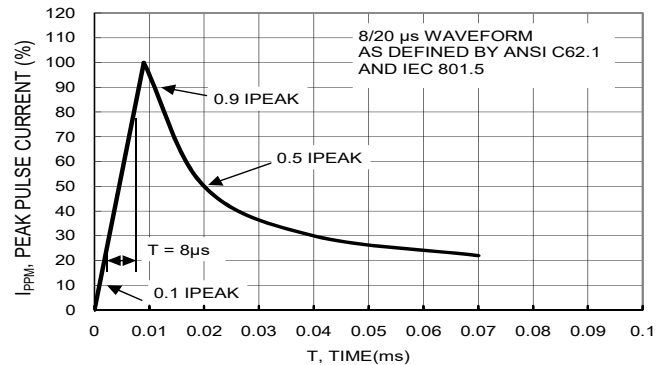


FIG. 8 PULSE WAVEFORM



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