

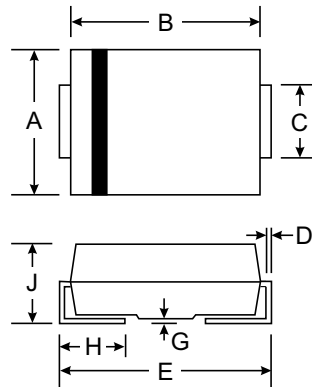
**VOLTAGE RANGE: 3.3V - 100V**  
**POWER: 1.0Watts**

### Features

- Complete voltage range 3.3 to 100 volts
- High peak reverse power dissipation
- High reliability
- Low leakage current
- Standard zener voltage tolerance is  $\pm 5\%$ .

### Mechanical Data

- Case: SMA/DO-214AC, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.064 grams (approx.)



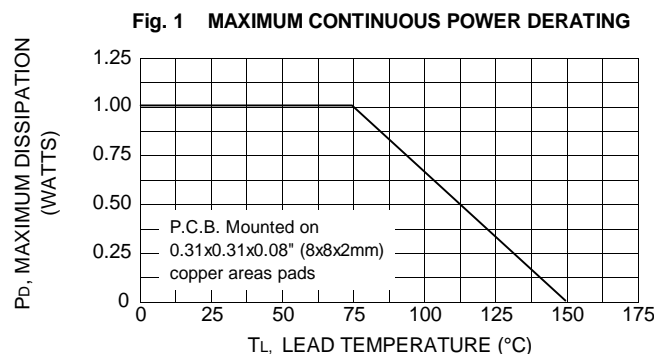
| SMA(DO-214AC)        |      |      |
|----------------------|------|------|
| Dim                  | Min  | Max  |
| A                    | 2.29 | 2.92 |
| B                    | 4.00 | 4.60 |
| C                    | 1.27 | 1.63 |
| D                    | 0.15 | 0.31 |
| E                    | 4.80 | 5.59 |
| G                    | 0.10 | 0.20 |
| H                    | 0.76 | 1.52 |
| J                    | 2.01 | 2.62 |
| All Dimensions in mm |      |      |

### Maximum Ratings $T_A = 25^\circ\text{C}$ unless otherwise specified

| Rating   | Symbol | Value         | Unit             |
|--|--------|---------------|------------------|
| DC Power Dissipation at $T_L = 75^\circ\text{C}$ (Note1) | $P_D$  | 1.0           | W                |
| Maximum Forward Voltage at $I_F = 200\text{ mA}$         | $V_F$  | 1.2           | V                |
| Junction Temperature Range                               | $T_J$  | - 55 to + 150 | $^\circ\text{C}$ |
| Storage Temperature Range                                | $T_s$  | - 55 to + 150 | $^\circ\text{C}$ |

**Note :**

(1) P.C.B. Mounted on 0.31x0.31x0.08" (8x8x2mm) copper areas pads.





## ELECTRICAL CHARACTERISTICS Rating at 25 °C ambient temperature unless otherwise specified

| Type      | Nominal Zener Voltage |      | Maximum Zener Impedance |           |      | Maximum Reverse Leakage Current |      | Maximum DC Zener Current | Maximum Surge Current |
|-----------|-----------------------|------|-------------------------|-----------|------|---------------------------------|------|--------------------------|-----------------------|
|           | Vz @ IzT              | IzT  | ZzT @ IzT               | Zzk @ Izk | Izk  | IR @ VR                         |      | IzM                      | IRM <sup>(2)</sup>    |
|           | (V)                   | (mA) | (Ω)                     | (Ω)       | (mA) | (μA)                            | (V)  | (mA)                     | (mApk)                |
| 1SMA4728A | 3.3                   | 76.0 | 10                      | 400       | 1.0  | 100                             | 1.0  | 276                      | 1380                  |
| 1SMA4729A | 3.6                   | 69.0 | 10                      | 400       | 1.0  | 100                             | 1.0  | 252                      | 1260                  |
| 1SMA4730A | 3.9                   | 64.0 | 9.0                     | 400       | 1.0  | 50                              | 1.0  | 234                      | 1190                  |
| 1SMA4731A | 4.3                   | 58.0 | 9.0                     | 400       | 1.0  | 10                              | 1.0  | 217                      | 1070                  |
| 1SMA4732A | 4.7                   | 53.0 | 8.0                     | 500       | 1.0  | 10                              | 1.0  | 193                      | 970                   |
| 1SMA4733A | 5.1                   | 49.0 | 7.0                     | 550       | 1.0  | 10                              | 1.0  | 178                      | 890                   |
| 1SMA4734A | 5.6                   | 45.0 | 5.0                     | 600       | 1.0  | 10                              | 2.0  | 162                      | 810                   |
| 1SMA4735A | 6.2                   | 41.0 | 2.0                     | 700       | 1.0  | 10                              | 3.0  | 146                      | 730                   |
| 1SMA4736A | 6.8                   | 37.0 | 3.5                     | 700       | 1.0  | 50                              | 4.0  | 133                      | 660                   |
| 1SMA4737A | 7.5                   | 34.0 | 4.0                     | 700       | 0.5  | 50                              | 5.0  | 121                      | 605                   |
| 1SMA4738A | 8.2                   | 31.0 | 4.5                     | 700       | 0.5  | 50                              | 6.0  | 110                      | 550                   |
| 1SMA4739A | 9.1                   | 28.0 | 5.0                     | 700       | 0.5  | 50                              | 7.0  | 100                      | 500                   |
| 1SMA4740A | 10                    | 25.0 | 7.0                     | 700       | 0.25 | 50                              | 7.6  | 91                       | 454                   |
| 1SMA4741A | 11                    | 23.0 | 8.0                     | 700       | 0.25 | 50                              | 8.4  | 83                       | 414                   |
| 1SMA4742A | 12                    | 21.0 | 9.0                     | 700       | 0.25 | 5.0                             | 9.1  | 76                       | 380                   |
| 1SMA4743A | 13                    | 19.0 | 10                      | 700       | 0.25 | 5.0                             | 9.9  | 69                       | 344                   |
| 1SMA4744A | 15                    | 17.0 | 14                      | 700       | 0.25 | 5.0                             | 11.4 | 61                       | 305                   |
| 1SMA4745A | 16                    | 15.5 | 16                      | 700       | 0.25 | 5.0                             | 12.2 | 57                       | 285                   |
| 1SMA4746A | 18                    | 14.0 | 20                      | 750       | 0.25 | 5.0                             | 13.7 | 50                       | 250                   |
| 1SMA4747A | 20                    | 12.5 | 22                      | 750       | 0.25 | 5.0                             | 15.2 | 45                       | 225                   |
| 1SMA4748A | 22                    | 11.5 | 23                      | 750       | 0.25 | 5.0                             | 16.7 | 41                       | 205                   |
| 1SMA4749A | 24                    | 10.5 | 25                      | 750       | 0.25 | 5.0                             | 18.2 | 38                       | 190                   |
| 1SMA4750A | 27                    | 9.5  | 35                      | 750       | 0.25 | 5.0                             | 20.6 | 34                       | 170                   |
| 1SMA4751A | 30                    | 8.5  | 40                      | 1000      | 0.25 | 5.0                             | 22.8 | 30                       | 150                   |
| 1SMA4752A | 33                    | 7.5  | 45                      | 1000      | 0.25 | 5.0                             | 25.1 | 27                       | 135                   |
| 1SMA4753A | 36                    | 7.0  | 50                      | 1000      | 0.25 | 5.0                             | 27.4 | 25                       | 125                   |
| 1SMA4754A | 39                    | 6.5  | 60                      | 1000      | 0.25 | 5.0                             | 29.7 | 23                       | 115                   |
| 1SMA4755A | 43                    | 6.0  | 70                      | 1500      | 0.25 | 5.0                             | 32.7 | 22                       | 110                   |
| 1SMA4756A | 47                    | 5.5  | 80                      | 1500      | 0.25 | 5.0                             | 35.8 | 19                       | 95                    |
| 1SMA4757A | 51                    | 5.0  | 95                      | 1500      | 0.25 | 5.0                             | 38.8 | 18                       | 90                    |
| 1SMA4758A | 56                    | 4.5  | 110                     | 2000      | 0.25 | 5.0                             | 42.6 | 16                       | 80                    |
| 1SMA4759A | 62                    | 4.0  | 125                     | 2000      | 0.25 | 5.0                             | 47.1 | 14                       | 70                    |
| 1SMA4760A | 68                    | 3.7  | 150                     | 2000      | 0.25 | 5.0                             | 51.7 | 13                       | 65                    |
| 1SMA4761A | 75                    | 3.3  | 175                     | 2000      | 0.25 | 5.0                             | 56.0 | 12                       | 60                    |
| 1SMA4762A | 82                    | 3.0  | 200                     | 3000      | 0.25 | 5.0                             | 62.2 | 11                       | 55                    |
| 1SMA4763A | 91                    | 2.8  | 250                     | 3000      | 0.25 | 5.0                             | 69.2 | 10                       | 50                    |
| 1SMA4764A | 100                   | 2.5  | 350                     | 3000      | 0.25 | 5.0                             | 76.0 | 9.0                      | 45                    |

**Notes :**

(1) The type number listed have a standard tolerance on the nominal zener voltage of  $\pm 5\%$ .



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