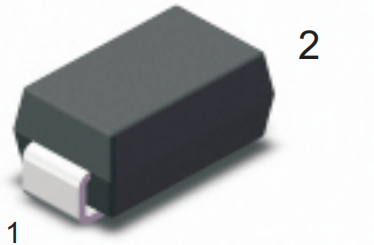


### FEATURES

- Total power dissipation: Max. 1.5 W.
- Wide zener reverse voltage range 3.6V to 200V.
- 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



Top View  
Simplified outline SMA and symbol

### PINNING

| PIN | DESCRIPTION |
|-----|-------------|
| 1   | Cathode     |
| 2   | Anode       |

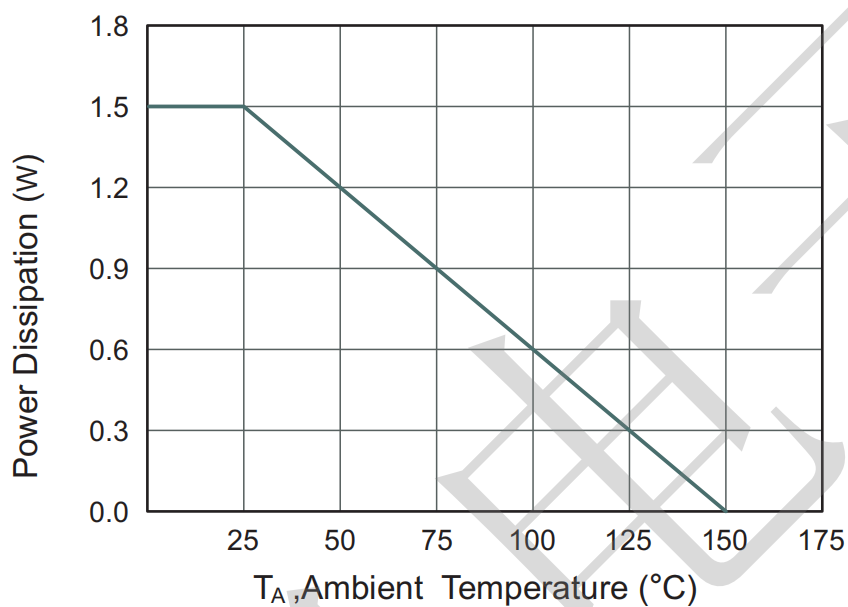


### Absolute Maximum Ratings And Characteristics Ta = ( 25°C)

| Parameter                                  | Symbol                                                   | Value           | Unit |
|--------------------------------------------|----------------------------------------------------------|-----------------|------|
| Power Dissipation at T <sub>A</sub> =25°C  | P <sub>D</sub>                                           | 1.5             | W    |
| Forward Voltage at I <sub>F</sub> = 200 mA | V <sub>F</sub>                                           | 1.5             | V    |
| Junction Temperature Range                 | T <sub>J</sub>                                           | - 55 ~ + 150    | °C   |
| Storage Temperature Range                  | T <sub>S</sub>                                           | - 55 to + 150   | °C   |
| Typical Thermal Resistance <sup>(1)</sup>  | R <sub>θJA</sub><br>R <sub>θJC</sub><br>R <sub>θJL</sub> | 100<br>20<br>25 | °C/W |

(1) P.C.B. mounted with 0.2" X 0.2" (5 X 5 mm) copper pad areas.

**Fig.1 Maximum Continuous Power Derating**



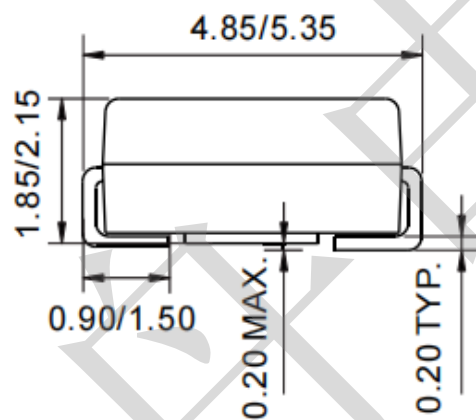
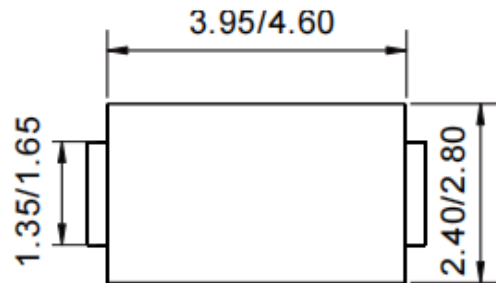
Characteristics at  $T_a = 25^\circ\text{C}$

| Type       | Marking | Zener Voltage Range <sup>(1)</sup>    |         |         | I <sub>ZT</sub> | Dynamic Impedance                     | Reverse Current |                   | Admissible Zener Current |
|------------|---------|---------------------------------------|---------|---------|-----------------|---------------------------------------|-----------------|-------------------|--------------------------|
|            |         | V <sub>ZT</sub> (at I <sub>ZT</sub> ) |         |         |                 | Z <sub>ZT</sub> (at I <sub>ZT</sub> ) | I <sub>R</sub>  | at V <sub>R</sub> |                          |
|            |         | Min (V)                               | Nom (V) | Max (V) |                 | (mA)                                  | Max (Ω)         | Max (μA)          |                          |
| SMAZ3V6-TP | 914B    | 3.42                                  | 3.6     | 3.78    | 104.2           | 9.0                                   | 75              | 1                 | 416                      |
| SMAZ3V9-TP | 915B    | 3.70                                  | 3.9     | 4.10    | 96.1            | 7.5                                   | 25              | 1                 | 384                      |
| SMAZ4V3-TP | 916B    | 4.08                                  | 4.3     | 4.52    | 87.2            | 6.0                                   | 5               | 1                 | 348                      |
| SMAZ4V7-TP | 917B    | 4.46                                  | 4.7     | 4.94    | 79.8            | 5.0                                   | 5               | 1.5               | 319                      |
| SMAZ5V1-TP | 918B    | 4.84                                  | 5.1     | 5.36    | 73.5            | 4.0                                   | 5               | 2                 | 294                      |
| SMAZ5V6-TP | 919B    | 5.32                                  | 5.6     | 5.88    | 66.9            | 2.0                                   | 5               | 3                 | 267                      |
| SMAZ6V2-TP | 920B    | 5.89                                  | 6.2     | 6.51    | 60.5            | 2.0                                   | 5               | 4                 | 241                      |
| SMAZ6V8-TP | 921B    | 6.46                                  | 6.8     | 7.14    | 55              | 2.5                                   | 5               | 5.2               | 220                      |
| SMAZ7V5-TP | 922B    | 7.12                                  | 7.5     | 7.88    | 50              | 3.0                                   | 5               | 6                 | 200                      |
| SMAZ8V2-TP | 923B    | 7.79                                  | 8.2     | 8.61    | 45.7            | 3.5                                   | 5               | 6.5               | 182                      |
| SMAZ9V1-TP | 924B    | 8.60                                  | 9.1     | 9.56    | 41.2            | 4.0                                   | 5               | 7                 | 164                      |
| SMAZ10-TP  | 925B    | 9.50                                  | 10      | 10.5    | 37.5            | 4.5                                   | 5               | 8                 | 150                      |
| SMAZ11-TP  | 926B    | 10.4                                  | 11      | 11.6    | 34              | 5.5                                   | 1               | 8.4               | 136                      |
| SMAZ12-TP  | 927B    | 11.4                                  | 12      | 12.6    | 31.2            | 6.5                                   | 1               | 9                 | 125                      |
| SMAZ13-TP  | 928B    | 12.35                                 | 13      | 14.1    | 28.8            | 7.0                                   | 1               | 9.9               | 115                      |
| SMAZ15-TP  | 929B    | 13.8                                  | 15      | 15.8    | 25              | 9.0                                   | 1               | 11.4              | 100                      |
| SMAZ16-TP  | 930B    | 15.2                                  | 16      | 16.8    | 23.4            | 10                                    | 1               | 12.2              | 93                       |
| SMAZ18-TP  | 931B    | 16.8                                  | 18      | 19.2    | 21              | 12                                    | 1               | 13.7              | 83                       |
| SMAZ20-TP  | 932B    | 19.0                                  | 20      | 21.2    | 19              | 14                                    | 1               | 15.2              | 75                       |
| SMAZ22-TP  | 933B    | 20.8                                  | 22      | 23.3    | 17              | 18                                    | 1               | 16.7              | 68                       |
| SMAZ24-TP  | 934B    | 22.8                                  | 24      | 25.2    | 16              | 19                                    | 1               | 18.2              | 62                       |
| SMAZ27-TP  | 935B    | 25.3                                  | 27      | 28.9    | 14              | 23                                    | 1               | 20.6              | 55                       |
| SMAZ30-TP  | 936B    | 28.2                                  | 30      | 32.0    | 12.5            | 26                                    | 1               | 23                | 50                       |
| SMAZ33-TP  | 937B    | 31.3                                  | 33      | 34.9    | 11.4            | 33                                    | 1               | 25                | 45                       |
| SMAZ36-TP  | 938B    | 34.2                                  | 36      | 37.9    | 10.4            | 38                                    | 1               | 27                | 41                       |
| SMAZ39-TP  | 939B    | 37.2                                  | 39      | 41.5    | 9.6             | 45                                    | 1               | 30                | 38                       |
| SMAZ43-TP  | 940B    | 40.9                                  | 43      | 45.6    | 8.7             | 53                                    | 1               | 33                | 34                       |
| SMAZ47-TP  | 941B    | 44.9                                  | 47      | 49.8    | 8.0             | 67                                    | 1               | 36                | 31                       |
| SMAZ51-TP  | 942B    | 48.6                                  | 51      | 54.0    | 7.3             | 70                                    | 1               | 39                | 29                       |
| SMAZ56-TP  | 943B    | 53.6                                  | 56      | 58.8    | 6.7             | 86                                    | 1               | 42                | 26                       |
| SMAZ62-TP  | 944B    | 58.9                                  | 62      | 65.6    | 6.0             | 100                                   | 1               | 47                | 24                       |
| SMAZ68-TP  | 945B    | 64.6                                  | 68      | 71.7    | 5.5             | 120                                   | 1               | 52                | 22                       |
| SMAZ75-TP  | 946B    | 71.2                                  | 75      | 78.8    | 5.0             | 140                                   | 1               | 57                | 20                       |
| SMAZ82-TP  | 947B    | 77.9                                  | 82      | 87.0    | 4.6             | 160                                   | 1               | 62                | 18                       |
| SMAZ91-TP  | 948B    | 86.0                                  | 91      | 96.0    | 4.1             | 200                                   | 1               | 69                | 16                       |
| SMAZ100-TP | 949B    | 95.0                                  | 100     | 105     | 3.7             | 250                                   | 1               | 76                | 15                       |
| SMAZ110-TP | 950B    | 104                                   | 110     | 116     | 3.4             | 300                                   | 1               | 84                | 13                       |
| SMAZ120-TP | 951B    | 114                                   | 120     | 127     | 3.1             | 380                                   | 1               | 91                | 12                       |
| SMAZ130-TP | 952B    | 125                                   | 130     | 142     | 2.9             | 450                                   | 1               | 100               | 11                       |
| SMAZ150-TP | 953B    | 140                                   | 150     | 157     | 2.5             | 600                                   | 1               | 114               | 10                       |
| SMAZ160-TP | 954B    | 152                                   | 160     | 168     | 2.3             | 700                                   | 1               | 121.6             | 9.0                      |
| SMAZ180-TP | 955B    | 168                                   | 180     | 189     | 2.1             | 900                                   | 1               | 136.8             | 8.0                      |
| SMAZ200-TP | 956B    | 189                                   | 200     | 211     | 1.9             | 1200                                  | 1               | 152               | 7.0                      |

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

**Package Outline Dimensions** (unit:mm)

**SMA**



**Mounting Pad Layout** (unit: mm)

