

## FEATURES

- Total power dissipation: Max. 500mW.
- Wide zener reverse voltage range 2.0V to 75V.
- Small plastic package suitable for surface mounted design.
- Tolerance approximately  $\pm 2\%$

## MECHANICAL DATA

- Case: SOD-123
- Approx. Weight: 16mg/0.00056oz

## PINNING

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



Simplified outline SOD-123 and symbol

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

| Parameter                                          | SymBWo          | Value      | Unit                 |
|----------------------------------------------------|-----------------|------------|----------------------|
| Power Dissipation                                  | $P_{tot}$       | 500        | mW                   |
| Forward Voltage at $I_F = 10$ mA                   | $V_F$           | 0.9        | V                    |
| Typical thermal resistance junction to ambient (1) | $R_{\theta JA}$ | 340        | $^{\circ}\text{C/W}$ |
| Operating and Storage Temperature Range            | $T_j, T_{stg}$  | -55 ~ +150 | $^{\circ}\text{C}$   |

(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

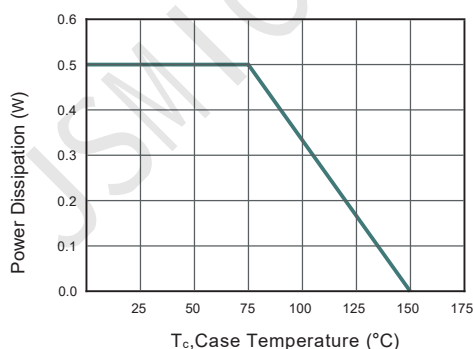
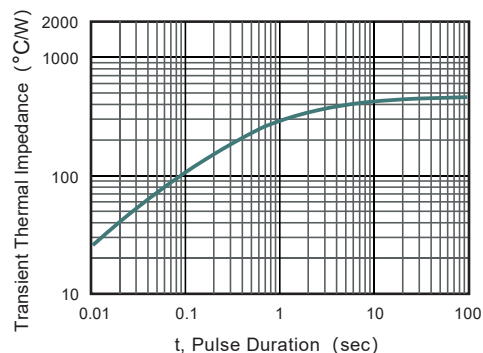


Fig.2 Typical Transient Thermal Impedance



**Characteristics at Ta = 25°C**

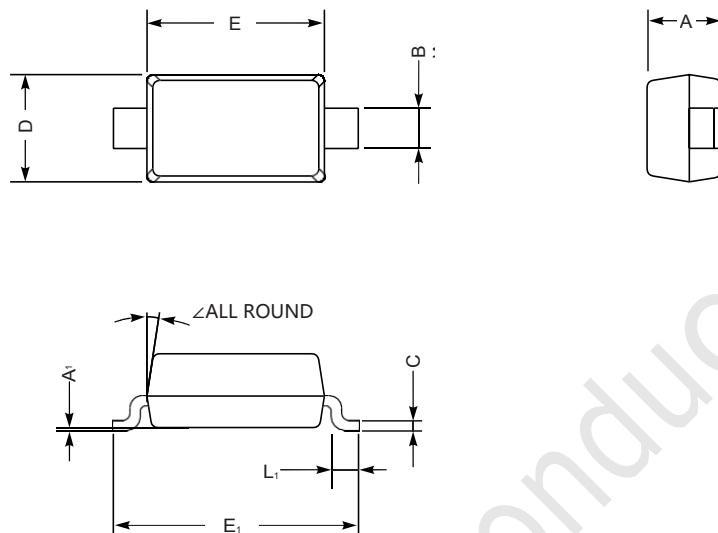
| Type      | Marking | Zener Voltage Range <sup>(1)</sup>    |         |         |                 | Dynamic Impedance                     | Reverse Current |                   |
|-----------|---------|---------------------------------------|---------|---------|-----------------|---------------------------------------|-----------------|-------------------|
|           |         | V <sub>ZT</sub> (at I <sub>ZT</sub> ) |         |         | 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)        | (V)               |
| MM1Z2V0BW | 4A      | 1.96                                  | 2       | 2.04    | 5               | 100                                   | 120             | 0.5               |
| MM1Z2V2BW | 4BW     | 2.16                                  | 2.2     | 2.24    | 5               | 100                                   | 120             | 0.7               |
| MM1Z2V4BW | 4C      | 2.35                                  | 2.4     | 2.45    | 5               | 100                                   | 120             | 1                 |
| MM1Z2V7BW | 4D      | 2.65                                  | 2.7     | 2.75    | 5               | 110                                   | 120             | 1                 |
| MM1Z3V0BW | 4E      | 2.94                                  | 3       | 3.06    | 5               | 120                                   | 50              | 1                 |
| MM1Z3V3BW | 4F      | 3.23                                  | 3.3     | 3.37    | 5               | 130                                   | 20              | 1                 |
| MM1Z3V6BW | 4H      | 3.53                                  | 3.6     | 3.67    | 5               | 130                                   | 10              | 1                 |
| MM1Z3V9BW | 4J      | 3.82                                  | 3.9     | 3.98    | 5               | 130                                   | 5               | 1                 |
| MM1Z4V3BW | 4K      | 4.21                                  | 4.3     | 4.39    | 5               | 130                                   | 5               | 1                 |
| MM1Z4V7BW | 4M      | 4.61                                  | 4.7     | 4.79    | 5               | 130                                   | 2               | 1                 |
| MM1Z5V1BW | 4N      | 5                                     | 5.1     | 5.20    | 5               | 130                                   | 2               | 1.5               |
| MM1Z5V6BW | 4P      | 5.49                                  | 5.6     | 5.71    | 5               | 80                                    | 1               | 2.5               |
| MM1Z6V2BW | 4R      | 6.08                                  | 6.2     | 6.32    | 5               | 50                                    | 1               | 3                 |
| MM1Z6V8BW | 4X      | 6.66                                  | 6.8     | 6.94    | 5               | 30                                    | 0.5             | 3.5               |
| MM1Z7V5BW | 4Y      | 7.35                                  | 7.5     | 7.65    | 5               | 30                                    | 0.5             | 4                 |
| MM1Z8V2BW | 4Z      | 8.04                                  | 8.2     | 8.36    | 5               | 30                                    | 0.5             | 5                 |
| MM1Z9V1BW | 5A      | 8.92                                  | 9.1     | 9.28    | 5               | 30                                    | 0.5             | 6                 |
| MM1Z10BW  | 5BW     | 9.8                                   | 10      | 10.2    | 5               | 30                                    | 0.1             | 7                 |
| MM1Z11BW  | 5C      | 10.78                                 | 11      | 11.22   | 5               | 30                                    | 0.1             | 8                 |
| MM1Z12BW  | 5D      | 11.76                                 | 12      | 12.24   | 5               | 35                                    | 0.1             | 9                 |
| MM1Z13BW  | 5E      | 12.74                                 | 13      | 13.26   | 5               | 35                                    | 0.1             | 10                |
| MM1Z15BW  | 5F      | 14.7                                  | 15      | 15.3    | 5               | 40                                    | 0.1             | 11                |
| MM1Z16BW  | 5H      | 15.68                                 | 16      | 16.32   | 5               | 40                                    | 0.1             | 12                |
| MM1Z18BW  | 5J      | 17.64                                 | 18      | 18.36   | 5               | 45                                    | 0.1             | 13                |
| MM1Z20BW  | 5K      | 19.6                                  | 20      | 20.4    | 5               | 50                                    | 0.1             | 15                |
| MM1Z22BW  | 5M      | 21.56                                 | 22      | 22.44   | 5               | 55                                    | 0.1             | 17                |
| MM1Z24BW  | 5N      | 23.52                                 | 24      | 24.48   | 5               | 60                                    | 0.1             | 19                |
| MM1Z27BW  | 5P      | 26.46                                 | 27      | 27.54   | 5               | 70                                    | 0.1             | 21                |
| MM1Z30BW  | 5R      | 29.4                                  | 30      | 30.6    | 5               | 80                                    | 0.1             | 23                |
| MM1Z33BW  | 5X      | 32.34                                 | 33      | 33.66   | 5               | 80                                    | 0.1             | 25                |
| MM1Z36BW  | 5Y      | 35.28                                 | 36      | 36.72   | 5               | 90                                    | 0.1             | 27                |
| MM1Z39BW  | 5Z      | 38.22                                 | 39      | 39.78   | 2.5             | 100                                   | 2               | 30                |
| MM1Z43BW  | 6A      | 42.14                                 | 43      | 43.86   | 2.5             | 130                                   | 2               | 33                |
| MM1Z47BW  | 6BW     | 46.06                                 | 47      | 47.94   | 2.5             | 150                                   | 2               | 36                |
| MM1Z51BW  | 6C      | 49.98                                 | 51      | 52.02   | 2.5             | 180                                   | 1               | 39                |
| MM1Z56BW  | 6D      | 54.88                                 | 56      | 57.12   | 2.5             | 180                                   | 1               | 43                |
| MM1Z62BW  | 6E      | 60.76                                 | 62      | 63.24   | 2.5             | 200                                   | 0.2             | 47                |
| MM1Z68BW  | 6F      | 66.64                                 | 68      | 69.36   | 2.5             | 250                                   | 0.2             | 52                |
| MM1Z75BW  | 6H      | 73.5                                  | 75      | 76.5    | 2.5             | 300                                   | 0.2             | 57                |

(1) V<sub>ZT</sub> is tested with pulses (20 ms)

# PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

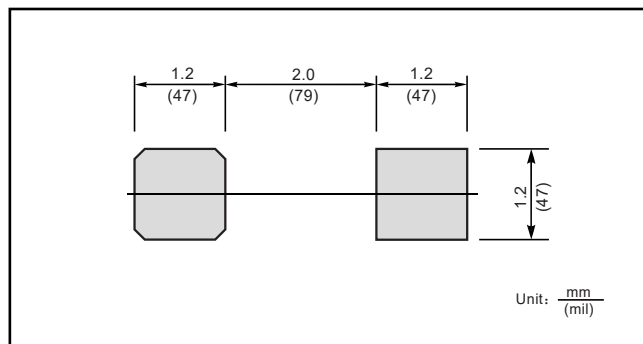
SOD-123



SOD-123 mechanical data

| UNIT |     | A   | C    | D   | E   | E <sub>1</sub> | L <sub>1</sub> | BW  | A <sub>1</sub> | ∠  |
|------|-----|-----|------|-----|-----|----------------|----------------|-----|----------------|----|
| mm   | max | 1.3 | 0.22 | 1.8 | 2.8 | 3.9            | 0.45           | 0.7 | 0.2            | 9° |
|      | min | 0.9 | 0.09 | 1.5 | 2.5 | 3.6            | 0.25           | 0.5 | —              |    |
| mil  | max | 51  | 8.7  | 71  | 110 | 154            | 18             | 28  | 8              |    |
|      | min | 35  | 3.5  | 59  | 98  | 142            | 10             | 20  | —              |    |

## The recommended mounting pad size



单击下面可查看定价，库存，交付和生命周期等信息

[>>JSMSEMI\(杰盛微\)](#)