

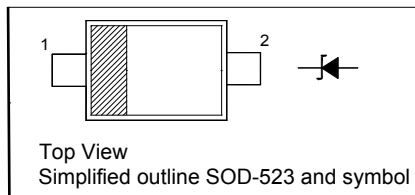
## SILICON PLANAR ZENER DIODES

### Features

- Standard Zener Breakdown Voltage Range  
2.0 V to 75 V
- Steady State Power Rating of 200 mW

### PINNING

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



### Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )

| Parameter                              | Symbol         | Value         | Unit             |
|--|----------------|---------------|------------------|
| Total Device Dissipation               | $P_{tot}$      | 200           | mW               |
| Junction and Storage Temperature Range | $T_j, T_{stg}$ | - 65 to + 150 | $^\circ\text{C}$ |

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

| Parameter                                  | Symbol | Max. | Unit |
|--|--------|------|------|
| Forward Voltage<br>at $I_F = 10\text{ mA}$ | $V_F$  | 0.9  | V    |



**CHINA BASE**  
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**SOD-523**



**MM5Z2V0-MM5Z75**

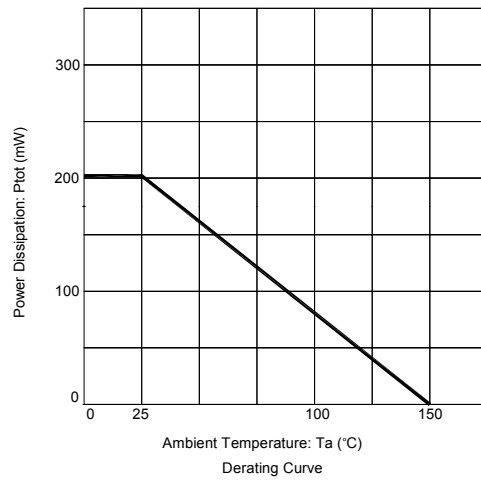
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**MM5Z2V0~MM5Z75**

| Type    | Marking Code | Zener Voltage <sup>1)</sup> |      |      |                    | Zener Impedance |                 |                    | Leakage Current |                   |
|---------|--------------|-----------------------------|------|------|--------------------|-----------------|-----------------|--------------------|-----------------|-------------------|
|         |              | V <sub>ZT</sub> (V)         |      |      | at I <sub>ZT</sub> | Z <sub>ZT</sub> | Z <sub>ZK</sub> | at I <sub>ZK</sub> | I <sub>R</sub>  | at V <sub>R</sub> |
|         |              | Min.                        | Nom. | Max. | mA                 | Ω               | Ω               | mA                 | μA              | V                 |
| MM5Z2V0 | RD           | 1.8                         | 2.0  | 2.15 | 5                  | 100             | -               | -                  | 120             | 0.5               |
| MM5Z2V2 | RE           | 2.08                        | 2.2  | 2.33 | 5                  | 100             | -               | -                  | 120             | 0.7               |
| MM5Z2V4 | Z7           | 2.2                         | 2.4  | 2.6  | 5                  | 100             | 1000            | 1                  | 120             | 1                 |
| MM5Z2V7 | A8           | 2.5                         | 2.7  | 2.9  | 5                  | 100             | 1000            | 1                  | 120             | 1                 |
| MM5Z3V0 | B8           | 2.8                         | 3.0  | 3.2  | 5                  | 100             | 1000            | 1                  | 50              | 1                 |
| MM5Z3V3 | C8           | 3.1                         | 3.3  | 3.5  | 5                  | 95              | 1000            | 1                  | 20              | 1                 |
| MM5Z3V6 | D8           | 3.4                         | 3.6  | 3.8  | 5                  | 90              | 1000            | 1                  | 10              | 1                 |
| MM5Z3V9 | E8           | 3.7                         | 3.9  | 4.1  | 5                  | 90              | 1000            | 1                  | 5               | 1                 |
| MM5Z4V3 | F8           | 4                           | 4.3  | 4.6  | 5                  | 90              | 1000            | 1                  | 5               | 1                 |
| MM5Z4V7 | G8           | 4.4                         | 4.7  | 5    | 5                  | 80              | 800             | 1                  | 2               | 1                 |
| MM5Z5V1 | H8           | 4.8                         | 5.1  | 5.4  | 5                  | 60              | 500             | 1                  | 2               | 1.5               |
| MM5Z5V6 | I8           | 5.2                         | 5.6  | 6    | 5                  | 40              | 200             | 1                  | 1               | 2.5               |
| MM5Z6V2 | J8           | 5.8                         | 6.2  | 6.6  | 5                  | 10              | 100             | 1                  | 1               | 3                 |
| MM5Z6V8 | K8           | 6.4                         | 6.8  | 7.2  | 5                  | 15              | 160             | 1                  | 0.5             | 3.5               |
| MM5Z7V5 | L8           | 7                           | 7.5  | 7.9  | 5                  | 15              | 160             | 1                  | 0.5             | 4                 |
| MM5Z8V2 | M8           | 7.7                         | 8.2  | 8.7  | 5                  | 15              | 160             | 1                  | 0.5             | 5                 |
| MM5Z9V1 | N8           | 8.5                         | 9.1  | 9.6  | 5                  | 15              | 160             | 1                  | 0.5             | 6                 |
| MM5Z10  | O8           | 9.4                         | 10   | 10.6 | 5                  | 20              | 160             | 1                  | 0.1             | 7                 |
| MM5Z11  | P8           | 10.4                        | 11   | 11.6 | 5                  | 20              | 160             | 1                  | 0.1             | 8                 |
| MM5Z12  | Q8           | 11.4                        | 12   | 12.7 | 5                  | 25              | 80              | 1                  | 0.1             | 9                 |
| MM5Z13  | R8           | 12.4                        | 13   | 14.1 | 5                  | 30              | 80              | 1                  | 0.1             | 10                |
| MM5Z15  | S8           | 14.3                        | 15   | 15.8 | 5                  | 30              | 80              | 1                  | 0.1             | 11                |
| MM5Z16  | T8           | 15.3                        | 16   | 17.1 | 2                  | 40              | 80              | 1                  | 0.1             | 12                |
| MM5Z18  | U8           | 16.8                        | 18   | 19.1 | 2                  | 45              | 80              | 1                  | 0.1             | 13                |
| MM5Z20  | V8           | 18.8                        | 20   | 21.2 | 2                  | 55              | 100             | 1                  | 0.1             | 15                |
| MM5Z22  | W8           | 20.8                        | 22   | 23.3 | 2                  | 55              | 100             | 1                  | 0.1             | 17                |
| MM5Z24  | X8           | 22.8                        | 24   | 25.6 | 2                  | 70              | 120             | 1                  | 0.1             | 19                |
| MM5Z27  | Y8           | 25.1                        | 27   | 28.9 | 2                  | 80              | 300             | 1                  | 0.1             | 21                |
| MM5Z30  | Z8           | 28                          | 30   | 32   | 2                  | 80              | 300             | 1                  | 0.1             | 23                |
| MM5Z33  | A9           | 31                          | 33   | 35   | 2                  | 80              | 300             | 1                  | 0.1             | 25                |
| MM5Z36  | B9           | 34                          | 36   | 38   | 2                  | 90              | 500             | 1                  | 0.1             | 27                |
| MM5Z39  | C9           | 37                          | 39   | 41   | 2                  | 130             | 500             | 1                  | 2               | 30                |
| MM5Z43  | D9           | 40                          | 43   | 46   | 1                  | 150             | 500             | 1                  | 2               | 33                |
| MM5Z47  | E9           | 44                          | 47   | 50   | 1                  | 170             | 500             | 1                  | 2               | 36                |
| MM5Z51  | F9           | 48                          | 51   | 54   | 1                  | 180             | 500             | 1                  | 1               | 39                |
| MM5Z56  | G9           | 52                          | 56   | 60   | 1                  | 200             | 500             | 1                  | 1               | 43                |
| MM5Z62  | H9           | 58                          | 62   | 66   | 1                  | 215             | 500             | 1                  | 0.2             | 47                |
| MM5Z68  | I9           | 64                          | 68   | 72   | 1                  | 240             | 500             | 1                  | 0.2             | 52                |
| MM5Z75  | J9           | 70                          | 75   | 79   | 1                  | 255             | 500             | 1                  | 0.2             | 57                |

<sup>1)</sup> Tested with pulses tp = 20 ms.

## MM5Z2V0~MM5Z75





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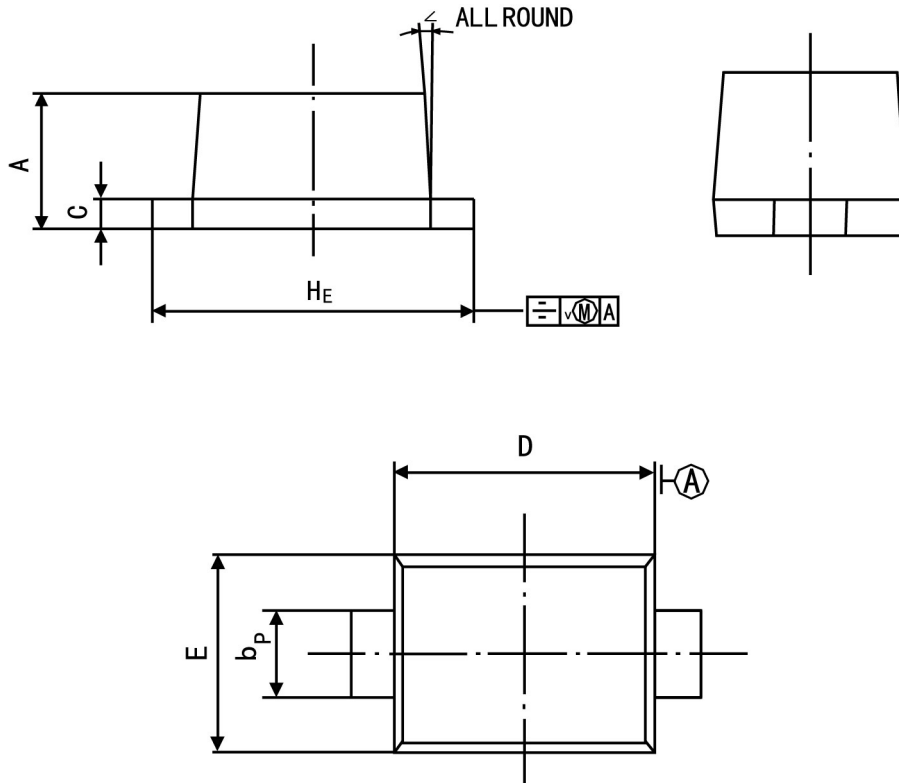
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**PACKAGE OUTLINE**

Plastic surface mounted package; 2 leads

SOD-523



| Symbol | Dimension in Millimeters |      |
|--------|--------------------------|------|
|        | Min                      | Max  |
| A      | 0.60                     | 0.70 |
| bp     | 0.30                     | 0.40 |
| C      | 0.100                    | 0.14 |
| D      | 1.15                     | 1.25 |
| E      | 0.75                     | 0.85 |
| HE     | 1.50                     | 1.70 |
| V      | —                        | 0.10 |
| ∠      | —                        | 5°   |