

自主封測 品質把控 售後保障

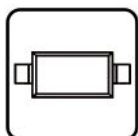
WEB | [WWW.TDSEMIC.COM](http://WWW.TDSEMIC.COM)



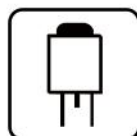
電源管理



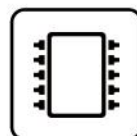
顯示驅動



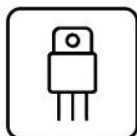
二三極管



LDO穩壓器



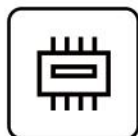
觸摸芯片



MOS管



運算放大器



存儲芯片



MCU



串口通信

### MM3Z22-TD

### 產品規格說明書

## MM3Z2V0-TD THRU MM3Z75-TD

### Silicon Planar Zener Diodes

#### FEATURES

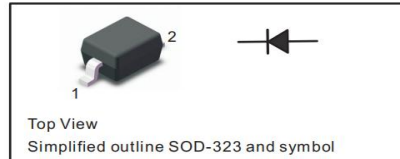
- Total power dissipation: Max. 300mW.
- Wide zener reverse voltage range 2.0V to 75V.
- Small plastic package suitable for surface mounted design.
- Tolerance approximately  $\pm 2\%$

#### MECHANICAL DATA

- Case: SOD-323
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 5.48mg / 0.00019oz

#### PINNING

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



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

| Parameter                                                     | Symbol          | Value      | Unit |
|---------------------------------------------------------------|-----------------|------------|------|
| Power Dissipation                                             | $P_{tot}$       | 300        | mW   |
| Forward Voltage at $I_F = 10$ mA                              | $V_F$           | 0.9        | V    |
| Typical thermal resistance junction to ambient <sup>(1)</sup> | $R_{\theta JA}$ | 417        | °C/W |
| Operating and Storage Temperature Range                       | $T_j, T_{stg}$  | -55 ~ +150 | °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

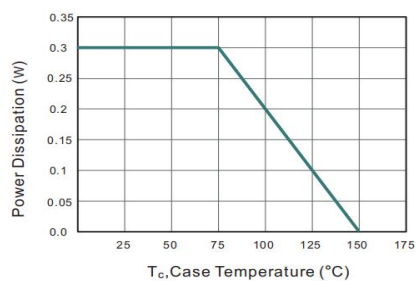
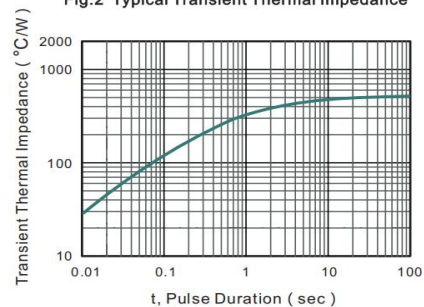


Fig.2 Typical Transient Thermal Impedance



## MM3Z2V0-TD THRU MM3Z75-TD

Characteristics at Ta = 25°C

| Type       | Marking | Zener Voltage Range <sup>(1)</sup>     |           |           | I <sub>ZT</sub> | Dynamic Impedance                      | Reverse 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 )      | ( V )             |
| MM3Z2V0-TD | 0B      | 1.96                                   | 2.0       | 2.04      | 5               | 100                                    | 120             | 0.5               |
| MM3Z2V2-TD | 0C      | 2.16                                   | 2.2       | 2.24      | 5               | 100                                    | 120             | 0.7               |
| MM3Z2V4-TD | C1      | 2.35                                   | 2.4       | 2.45      | 5               | 100                                    | 120             | 1                 |
| MM3Z2V7-TD | D1      | 2.65                                   | 2.7       | 2.75      | 5               | 110                                    | 120             | 1                 |
| MM3Z3V0-TD | E1      | 2.94                                   | 3.0       | 3.06      | 5               | 120                                    | 50              | 1                 |
| MM3Z3V3-TD | F1      | 3.23                                   | 3.3       | 3.37      | 5               | 130                                    | 20              | 1                 |
| MM3Z3V6-TD | H1      | 3.53                                   | 3.6       | 3.67      | 5               | 130                                    | 10              | 1                 |
| MM3Z3V9-TD | J1      | 3.82                                   | 3.9       | 3.98      | 5               | 130                                    | 5               | 1                 |
| MM3Z4V3-TD | K1      | 4.21                                   | 4.3       | 4.39      | 5               | 130                                    | 5               | 1                 |
| MM3Z4V7-TD | M1      | 4.61                                   | 4.7       | 4.79      | 5               | 130                                    | 2               | 1                 |
| MM3Z5V1-TD | N1      | 5                                      | 5.1       | 5.2       | 5               | 130                                    | 2               | 1.5               |
| MM3Z5V6-TD | P1      | 5.49                                   | 5.6       | 5.71      | 5               | 80                                     | 1               | 2.5               |
| MM3Z6V2-TD | R1      | 6.08                                   | 6.2       | 6.32      | 5               | 50                                     | 1               | 3                 |
| MM3Z6V8-TD | X1      | 6.66                                   | 6.8       | 6.94      | 5               | 30                                     | 0.5             | 3.5               |
| MM3Z7V5-TD | Y1      | 7.35                                   | 7.5       | 7.65      | 5               | 30                                     | 0.5             | 4                 |
| MM3Z8V2-TD | Z1      | 8.04                                   | 8.2       | 8.36      | 5               | 30                                     | 0.5             | 5                 |
| MM3Z9V1-TD | A2      | 8.92                                   | 9.1       | 9.28      | 5               | 30                                     | 0.5             | 6                 |
| MM3Z10-TD  | B2      | 9.8                                    | 10        | 10.2      | 5               | 30                                     | 0.1             | 7                 |
| MM3Z11-TD  | C2      | 10.78                                  | 11        | 11.22     | 5               | 30                                     | 0.1             | 8                 |
| MM3Z12-TD  | D2      | 11.76                                  | 12        | 12.24     | 5               | 35                                     | 0.1             | 9                 |
| MM3Z13-TD  | E2      | 12.74                                  | 13        | 13.26     | 5               | 35                                     | 0.1             | 10                |
| MM3Z15-TD  | F2      | 14.7                                   | 15        | 15.3      | 5               | 40                                     | 0.1             | 11                |
| MM3Z16-TD  | H2      | 15.68                                  | 16        | 16.32     | 5               | 40                                     | 0.1             | 12                |
| MM3Z18-TD  | J2      | 17.64                                  | 18        | 18.36     | 5               | 45                                     | 0.1             | 13                |
| MM3Z20-TD  | K2      | 19.6                                   | 20        | 20.4      | 5               | 50                                     | 0.1             | 15                |
| MM3Z22-TD  | M2      | 21.56                                  | 22        | 22.44     | 5               | 55                                     | 0.1             | 17                |
| MM3Z24-TD  | N2      | 23.52                                  | 24        | 24.48     | 5               | 60                                     | 0.1             | 19                |
| MM3Z27-TD  | P2      | 26.46                                  | 27        | 27.54     | 2               | 70                                     | 0.1             | 21                |
| MM3Z30-TD  | R2      | 29.4                                   | 30        | 30.60     | 2               | 80                                     | 0.1             | 23                |
| MM3Z33-TD  | X2      | 32.34                                  | 33        | 33.66     | 2               | 80                                     | 0.1             | 25                |
| MM3Z36-TD  | Y2      | 35.28                                  | 36        | 36.72     | 2               | 90                                     | 0.1             | 27                |
| MM3Z39-TD  | Z2      | 38.22                                  | 39        | 39.78     | 2               | 100                                    | 0.1             | 30                |
| MM3Z43-TD  | A3      | 42.14                                  | 43        | 43.86     | 2               | 130                                    | 0.1             | 33                |
| MM3Z47-TD  | B3      | 46.06                                  | 47        | 47.94     | 2               | 150                                    | 0.1             | 36                |
| MM3Z51-TD  | C3      | 49.98                                  | 51        | 52.02     | 2               | 180                                    | 0.1             | 39                |
| MM3Z56-TD  | D3      | 54.88                                  | 56        | 57.12     | 2               | 200                                    | 0.1             | 43                |
| MM3Z62-TD  | E3      | 60.76                                  | 62        | 63.24     | 2               | 215                                    | 0.1             | 47                |
| MM3Z68-TD  | F3      | 66.64                                  | 68        | 69.36     | 2               | 240                                    | 0.1             | 52                |
| MM3Z75-TD  | H3      | 73.5                                   | 75        | 76.5      | 2               | 265                                    | 0.1             | 56                |

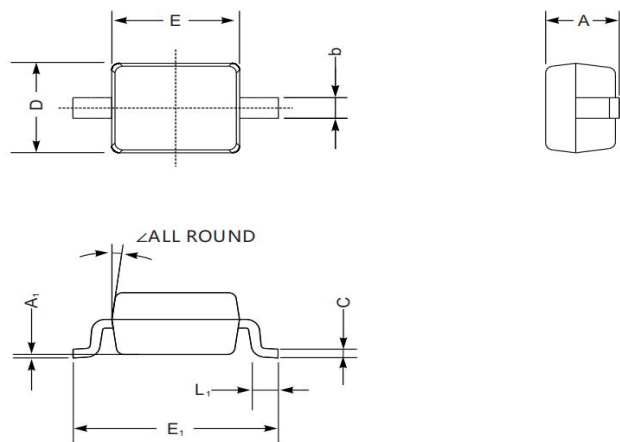
( 1 ) Vzr is tested with pulses (20 ms)

MM3Z2V0-TD THRU MM3Z75-TD

PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-323



SOD-323 mechanical data

| UNIT |     | A   | C    | D   | E   | E <sub>1</sub> | b    | L <sub>1</sub> | A <sub>1</sub> | ∠  |
|------|-----|-----|------|-----|-----|----------------|------|----------------|----------------|----|
| mm   | max | 1.1 | 0.15 | 1.4 | 1.8 | 2.75           | 0.4  | 0.45           | 0.2            | 9° |
|      | min | 0.8 | 0.08 | 1.2 | 1.4 | 2.55           | 0.25 | 0.2            | —              |    |
| mil  | max | 43  | 5.9  | 55  | 70  | 108            | 16   | 16             | 8              |    |
|      | min | 32  | 3.1  | 47  | 63  | 100            | 9.8  | 7.9            | —              |    |

The recommended mounting pad size

