

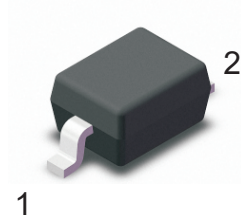


MM3Z2V0B-MM3Z75B

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 $\pm 2\%$

SOD-323



1

2



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 ⁽¹⁾ | $R_{\theta JA}$ | 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.

Characteristics at Ta=25°C

| Type | Marking | Zener Voltage Range ⁽¹⁾ | | | I _{ZT} | Dynamic Impedance | Reverse Current | |
|----------|---------|---------------------------------------|---------|---------|-----------------|---------------------------------------|-----------------|-------------------|
| | | V _{ZT} (at I _{ZT}) | | | | Z _{ZT} (at I _{ZT}) | I _R | at V _R |
| | | Min (V) | Nom (V) | Max (V) | (mA) | Max (Ω) | Max (μA) | (V) |
| MM3Z2V0B | 2B0 | 1.96 | 2.0 | 2.04 | 5 | 100 | 120 | 0.5 |
| MM3Z2V2B | 2C0 | 2.16 | 2.2 | 2.24 | 5 | 100 | 120 | 0.7 |
| MM3Z2V4B | 2WX | 2.35 | 2.4 | 2.45 | 5 | 100 | 120 | 1 |
| MM3Z2V7B | 2W1 | 2.65 | 2.7 | 2.75 | 5 | 110 | 120 | 1 |
| MM3Z3V0B | 2W2 | 2.94 | 3.0 | 3.06 | 5 | 120 | 50 | 1 |
| MM3Z3V3B | 2W3 | 3.23 | 3.3 | 3.37 | 5 | 130 | 20 | 1 |
| MM3Z3V6B | 2W4 | 3.53 | 3.6 | 3.67 | 5 | 130 | 10 | 1 |
| MM3Z3V9B | 2W5 | 3.82 | 3.9 | 3.98 | 5 | 130 | 5 | 1 |
| MM3Z4V3B | 2W6 | 4.21 | 4.3 | 4.39 | 5 | 130 | 5 | 1 |
| MM3Z4V7B | 2W7 | 4.61 | 4.7 | 4.79 | 5 | 130 | 2 | 1 |
| MM3Z5V1B | 2W8 | 5 | 5.1 | 5.2 | 5 | 130 | 2 | 1.5 |
| MM3Z5V6B | 2W9 | 5.49 | 5.6 | 5.71 | 5 | 80 | 1 | 2.5 |
| MM3Z6V2B | 2WA | 6.08 | 6.2 | 6.32 | 5 | 50 | 1 | 3 |
| MM3Z6V8B | 2WB | 6.66 | 6.8 | 6.94 | 5 | 30 | 0.5 | 3.5 |
| MM3Z7V5B | 2WC | 7.35 | 7.5 | 7.65 | 5 | 30 | 0.5 | 4 |
| MM3Z8V2B | 2WD | 8.04 | 8.2 | 8.36 | 5 | 30 | 0.5 | 5 |
| MM3Z9V1B | 2WE | 8.92 | 9.1 | 9.28 | 5 | 30 | 0.5 | 6 |
| MM3Z10B | 2WF | 9.8 | 10 | 10.2 | 5 | 30 | 0.1 | 7 |
| MM3Z11B | 2WG | 10.78 | 11 | 11.22 | 5 | 30 | 0.1 | 8 |
| MM3Z12B | 2WH | 11.76 | 12 | 12.24 | 5 | 35 | 0.1 | 9 |
| MM3Z13B | 2WI | 12.74 | 13 | 13.26 | 5 | 35 | 0.1 | 10 |
| MM3Z15B | 2WJ | 14.7 | 15 | 15.3 | 5 | 40 | 0.1 | 11 |
| MM3Z16B | 2WK | 15.68 | 16 | 16.32 | 5 | 40 | 0.1 | 12 |
| MM3Z18B | 2WL | 17.64 | 18 | 18.36 | 5 | 45 | 0.1 | 13 |
| MM3Z20B | 2WM | 19.6 | 20 | 20.4 | 5 | 50 | 0.1 | 15 |
| MM3Z22B | 2WN | 21.56 | 22 | 22.44 | 5 | 55 | 0.1 | 17 |
| MM3Z24B | 2WO | 23.52 | 24 | 24.48 | 5 | 60 | 0.1 | 19 |
| MM3Z27B | 2WP | 26.46 | 27 | 27.54 | 2 | 70 | 0.1 | 21 |
| MM3Z30B | 2WQ | 29.4 | 30 | 30.60 | 2 | 80 | 0.1 | 23 |
| MM3Z33B | 2WR | 32.34 | 33 | 33.66 | 2 | 80 | 0.1 | 25 |
| MM3Z36B | 2WS | 35.28 | 36 | 36.72 | 2 | 90 | 0.1 | 27 |
| MM3Z39B | 2WT | 38.22 | 39 | 39.78 | 2 | 100 | 0.1 | 30 |
| MM3Z43B | 2WU | 42.14 | 43 | 43.86 | 2 | 130 | 0.1 | 33 |
| MM3Z47B | 2WV | 46.06 | 47 | 47.94 | 2 | 150 | 0.1 | 36 |
| MM3Z51B | 2WW | 49.98 | 51 | 52.02 | 2 | 180 | 0.1 | 39 |
| MM3Z56B | 2WY | 54.88 | 56 | 57.12 | 2 | 200 | 0.1 | 43 |
| MM3Z62B | 2WZ | 60.76 | 62 | 63.24 | 2 | 215 | 0.1 | 47 |
| MM3Z68B | 2WZ1 | 66.64 | 68 | 69.36 | 2 | 240 | 0.1 | 52 |
| MM3Z75B | 2WZ2 | 73.5 | 75 | 76.5 | 2 | 265 | 0.1 | 56 |

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

Typical Characteristics

Fig.1 Maximum Continuous Power Derating

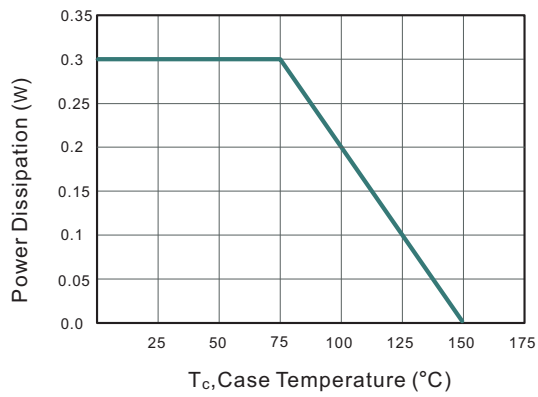
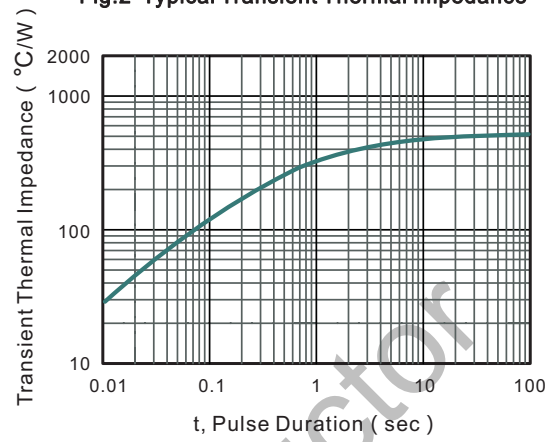


Fig.2 Typical Transient Thermal Impedance

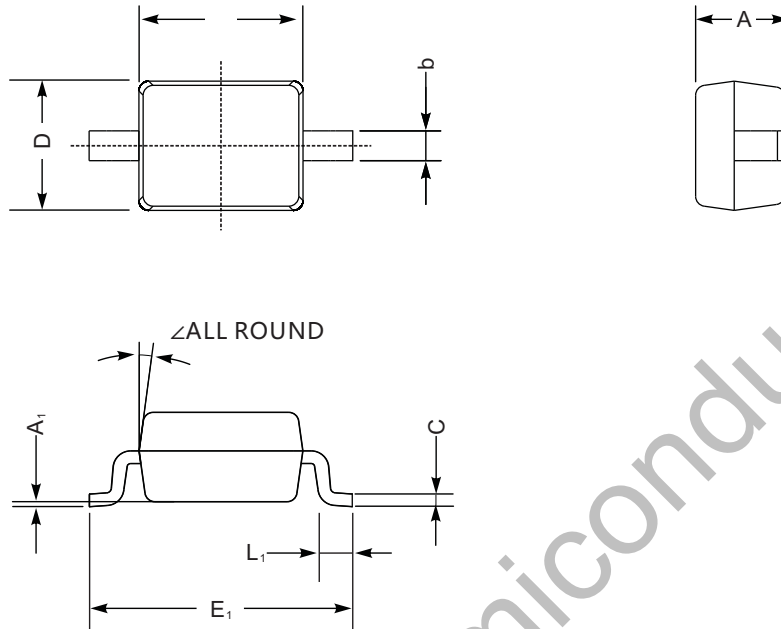


WildGoose Semiconductor

Package Dimension

SOD-323

Unit: mm



SOD-323 mechanical data

| UNIT | | A | C | D | E | E ₁ | b | L ₁ | A ₁ | ∠ |
|------|-----|-----|------|-----|-----|----------------|------|----------------|----------------|----|
| 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

