

MM3Z2V0~MM3Z75



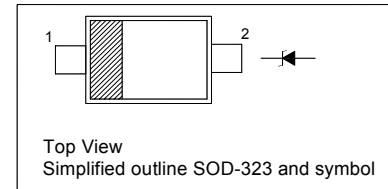
Silicon Planar Zener Diodes

Features

- Total power dissipation : max. 300 mW
- Small plastic package suitable for surface mounted design
- Tolerance approximately $\pm 5\%$

PINNING

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



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

| Parameter | Symbol | Value | Unit |
|---------------------------|------------------|---------------|------------------|
| Power Dissipation | P_{tot} | 300 | mW |
| Junction Temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{stg} | - 55 to + 150 | $^\circ\text{C}$ |

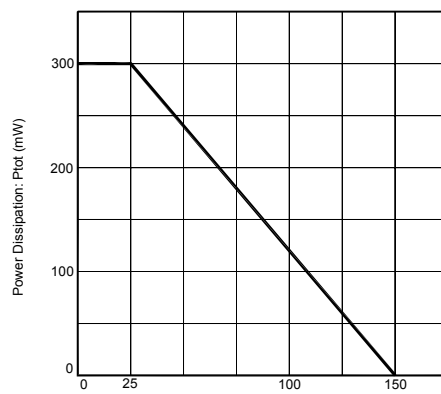
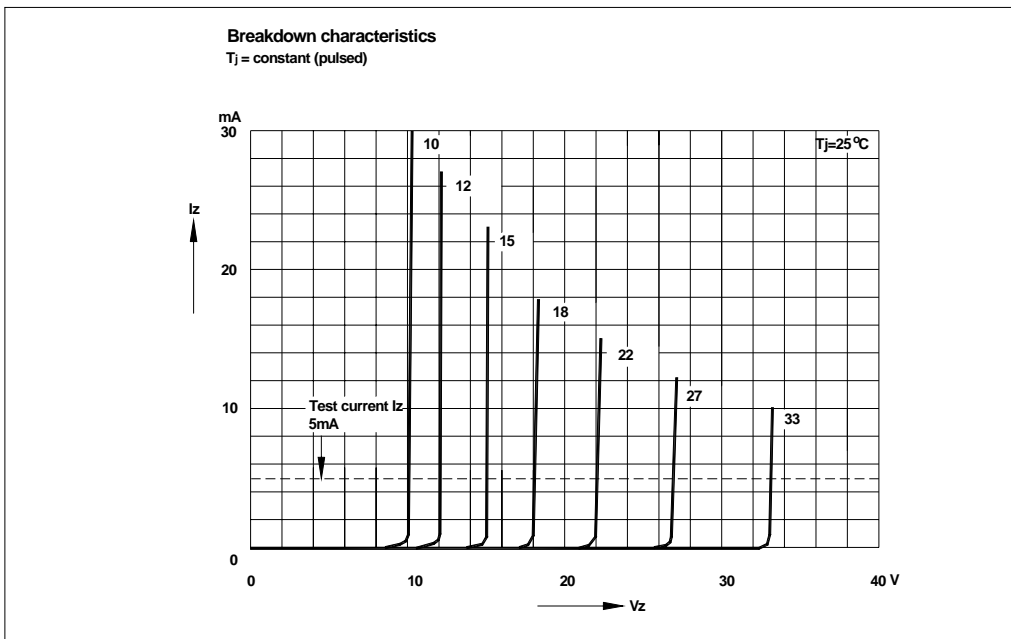
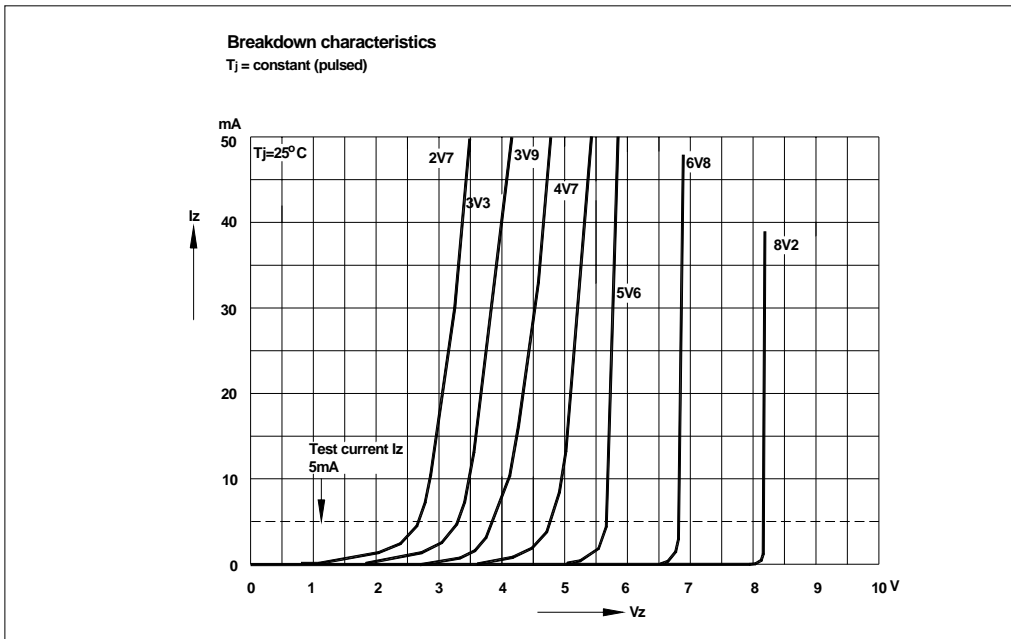
Characteristics at $T_a = 25^\circ\text{C}$

| Parameter | Symbol | Max. | Unit |
|--|-----------------------|------|--------------------|
| Thermal Resistance Junction to Ambient Air | $R_{\theta\text{JA}}$ | 417 | $^\circ\text{C/W}$ |
| Forward Voltage at $I_F = 10\text{ mA}$ | V_F | 0.9 | V |

Characteristics at $T_a = 25\text{ °C}$

| Type | Marking Code | Zener Voltage Range ¹⁾ | | | Dynamic Impedance | | Reverse Leakage Current | |
|---------|--------------|-----------------------------------|----------------|-------------------|-----------------------------|-------------------|-------------------------------|---------------|
| | | V_{znom} V | I_{zT} mA | for V_{zT} V | Z_{zT} (Max.) Ω | at I_{zT} mA | I_R (Max.) μA | at V_R V |
| MM3Z2V0 | B0 | 2.0 | 5 | 1.8...2.15 | 100 | 5 | 120 | 0.5 |
| MM3Z2V2 | C0 | 2.2 | 5 | 2.08...2.33 | 100 | 5 | 120 | 0.7 |
| MM3Z2V4 | 1C | 2.4 | 5 | 2.28...2.56 | 100 | 5 | 120 | 1 |
| MM3Z2V7 | 1D | 2.7 | 5 | 2.5...2.9 | 110 | 5 | 120 | 1 |
| MM3Z3V0 | 1E | 3.0 | 5 | 2.8...3.2 | 120 | 5 | 50 | 1 |
| MM3Z3V3 | 1F | 3.3 | 5 | 3.1...3.5 | 130 | 5 | 20 | 1 |
| MM3Z3V6 | 1H | 3.6 | 5 | 3.4...3.8 | 130 | 5 | 10 | 1 |
| MM3Z3V9 | 1J | 3.9 | 5 | 3.7...4.1 | 130 | 5 | 5 | 1 |
| MM3Z4V3 | 1K | 4.3 | 5 | 4...4.6 | 130 | 5 | 5 | 1 |
| MM3Z4V7 | 1M | 4.7 | 5 | 4.4...5 | 130 | 5 | 2 | 1 |
| MM3Z5V1 | 1N | 5.1 | 5 | 4.8...5.4 | 130 | 5 | 2 | 1.5 |
| MM3Z5V6 | 1P | 5.6 | 5 | 5.2...6 | 80 | 5 | 1 | 2.5 |
| MM3Z6V2 | 1R | 6.2 | 5 | 5.8...6.6 | 50 | 5 | 1 | 3 |
| MM3Z6V8 | 1X | 6.8 | 5 | 6.4...7.2 | 30 | 5 | 0.5 | 3.5 |
| MM3Z7V5 | 1Y | 7.5 | 5 | 7...7.9 | 30 | 5 | 0.5 | 4 |
| MM3Z8V2 | 1Z | 8.2 | 5 | 7.7...8.7 | 30 | 5 | 0.5 | 5 |
| MM3Z9V1 | 2A | 9.1 | 5 | 8.5...9.6 | 30 | 5 | 0.5 | 6 |
| MM3Z10 | 2B | 10 | 5 | 9.4...10.6 | 30 | 5 | 0.1 | 7 |
| MM3Z11 | 2C | 11 | 5 | 10.4...11.6 | 30 | 5 | 0.1 | 8 |
| MM3Z12 | 2D | 12 | 5 | 11.4...12.7 | 35 | 5 | 0.1 | 9 |
| MM3Z13 | 2E | 13 | 5 | 12.4...14.1 | 35 | 5 | 0.1 | 10 |
| MM3Z15 | 2F | 15 | 5 | 13.8...15.6 | 40 | 5 | 0.1 | 11 |
| MM3Z16 | 2H | 16 | 5 | 15.3...17.1 | 40 | 5 | 0.1 | 12 |
| MM3Z18 | 2J | 18 | 5 | 16.8...19.1 | 45 | 5 | 0.1 | 13 |
| MM3Z20 | 2K | 20 | 5 | 18.8...21.2 | 50 | 5 | 0.1 | 15 |
| MM3Z22 | 2M | 22 | 5 | 20.8...23.3 | 55 | 5 | 0.1 | 17 |
| MM3Z24 | 2N | 24 | 5 | 22.8...25.6 | 60 | 5 | 0.1 | 19 |
| MM3Z27 | 2P | 27 | 5 | 25.1...28.9 | 70 | 2 | 0.1 | 21 |
| MM3Z30 | 2R | 30 | 5 | 28...32 | 80 | 2 | 0.1 | 23 |
| MM3Z33 | 2X | 33 | 5 | 31...35 | 80 | 2 | 0.1 | 25 |
| MM3Z36 | 2Y | 36 | 5 | 34...38 | 90 | 2 | 0.1 | 27 |
| MM3Z39 | 2Z | 39 | 2.5 | 37...41 | 100 | 2 | 2 | 30 |
| MM3Z43 | 3A | 43 | 2.5 | 40...46 | 130 | 2 | 2 | 33 |
| MM3Z47 | 3B | 47 | 2.5 | 44...50 | 150 | 2 | 2 | 36 |
| MM3Z51 | 3C | 51 | 2.5 | 48...54 | 180 | 2 | 1 | 39 |
| MM3Z56 | 3D | 56 | 2.5 | 52...60 | 180 | 2 | 1 | 43 |
| MM3Z62 | 3E | 62 | 2.5 | 58...66 | 200 | 2 | 0.2 | 47 |
| MM3Z68 | 3F | 68 | 2.5 | 64...72 | 250 | 2 | 0.2 | 52 |
| MM3Z75 | 3H | 75 | 2.5 | 70...79 | 300 | 2 | 0.2 | 57 |

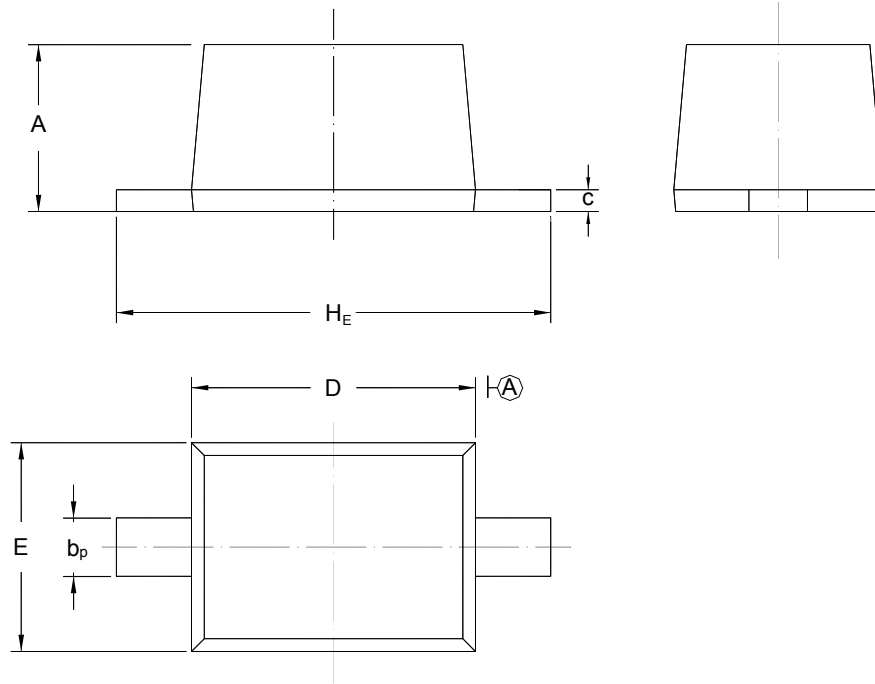
¹⁾ V_z is tested with pulses (20 ms).



PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-323



| UNIT | A | b_p | C | D | E | H_E |
|------|--------------|--------------|--------------|--------------|--------------|--------------|
| mm | 1.10 0.80 | 0.40 0.25 | 0.15 0.10 | 1.80 1.60 | 1.35 1.15 | 2.80 2.30 |