

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 $\pm 5\%$



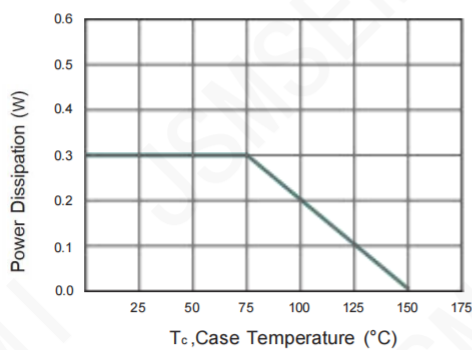
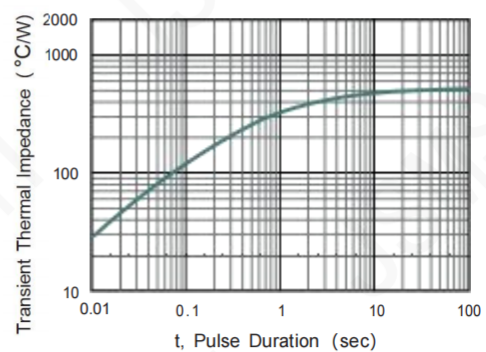
SOD-323W

MECHANICAL DATA

- ◆ Case: SOD-323W
- ◆ Weight: 5.48mg

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

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

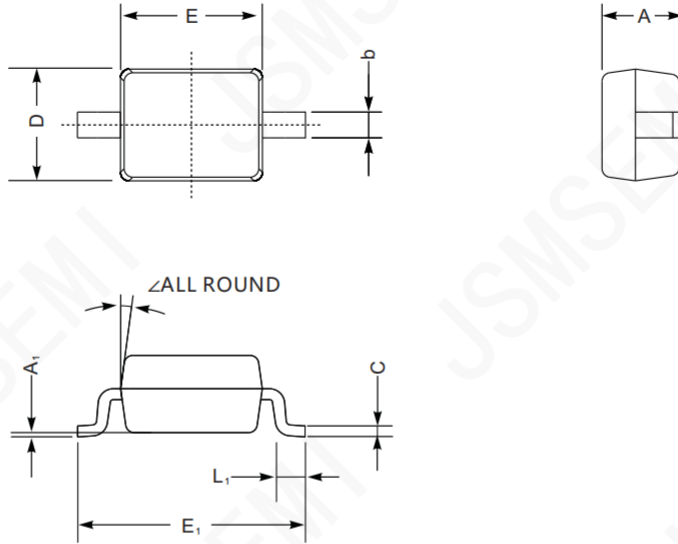
Fig. 1 Maximum Continuous Power Derating

Fig. 2 Typical Transient Thermal Impedance


Characteristics at Ta = 25°C

| Type | Marking | Zener Voltage Range (20ms) | | | I _{ZT} (mA) | Dynamic Impedance Z _{ZT} (at I _{ZT}) Max (Ω) | Reverse Current | |
|----------|---------|---------------------------------------|---------|---------|-------------------------|--|----------------------------|--------------------------|
| | | V _{ZT} (at I _{ZT}) | | | | | I _r Max (μA) | at V _R (V) |
| | | Min (V) | Nom (V) | Max (V) | | | | |
| MM3Z2V0W | B0 | 1.8 | 2.0 | 2.15 | 5 | 100 | 120 | 0.5 |
| MM3Z2V2W | C0 | 2.08 | 2.2 | 2.33 | 5 | 100 | 120 | 0.7 |
| MM3Z2V4W | 1C | 2.28 | 2.4 | 2.56 | 5 | 100 | 120 | 1 |
| MM3Z2V7W | 1D | 2.5 | 2.7 | 2.9 | 5 | 110 | 120 | 1 |
| MM3Z3V0W | 1E | 2.8 | 3.0 | 3.2 | 5 | 120 | 50 | 1 |
| MM3Z3V3W | 1F | 3.1 | 3.3 | 3.5 | 5 | 130 | 20 | 1 |
| MM3Z3V6W | 1H | 3.4 | 3.6 | 3.8 | 5 | 130 | 10 | 1 |
| MM3Z3V9W | 1J | 3.7 | 3.9 | 4.1 | 5 | 130 | 5 | 1 |
| MM3Z4V3W | 1K | 4 | 4.3 | 4.6 | 5 | 130 | 5 | 1 |
| MM3Z4V7W | 1M | 4.4 | 4.7 | 5 | 5 | 130 | 2 | 1 |
| MM3Z5V1W | 1N | 4.8 | 5.1 | 5.4 | 5 | 130 | 2 | 1.5 |
| MM3Z5V6W | 1P | 5.2 | 5.6 | 6 | 5 | 80 | 1 | 2.5 |
| MM3Z6V2W | 1R | 5.8 | 6.2 | 6.6 | 5 | 50 | 1 | 3 |
| MM3Z6V8W | 1X | 6.4 | 6.8 | 7.2 | 5 | 30 | 0.5 | 3.5 |
| MM3Z7V5W | 1Y | 7 | 7.5 | 7.9 | 5 | 30 | 0.5 | 4 |
| MM3Z8V2W | 1Z | 7.7 | 8.2 | 8.7 | 5 | 30 | 0.5 | 5 |
| MM3Z9V1W | 2A | 8.5 | 9.1 | 9.6 | 5 | 30 | 0.5 | 6 |
| MM3Z10W | 2B | 9.4 | 10 | 10.6 | 5 | 30 | 0.1 | 7 |
| MM3Z11W | 2C | 10.4 | 11 | 11.6 | 5 | 30 | 0.1 | 8 |
| MM3Z12W | 2D | 11.4 | 12 | 12.7 | 5 | 35 | 0.1 | 9 |
| MM3Z13W | 2E | 12.4 | 13 | 14.1 | 5 | 35 | 0.1 | 10 |
| MM3Z15W | 2F | 13.8 | 15 | 15.6 | 5 | 40 | 0.1 | 11 |
| MM3Z16W | 2H | 15.3 | 16 | 17.1 | 5 | 40 | 0.1 | 12 |
| MM3Z18W | 2J | 16.8 | 18 | 19.1 | 5 | 45 | 0.1 | 13 |
| MM3Z20W | 2K | 18.8 | 20 | 21.2 | 5 | 50 | 0.1 | 15 |
| MM3Z22W | 2M | 20.8 | 22 | 23.3 | 5 | 55 | 0.1 | 17 |
| MM3Z24W | 2N | 22.8 | 24 | 25.6 | 5 | 60 | 0.1 | 19 |
| MM3Z27W | 2P | 25.1 | 27 | 28.9 | 2 | 70 | 0.1 | 21 |
| MM3Z30W | 2R | 28 | 30 | 32 | 2 | 80 | 0.1 | 23 |
| MM3Z33W | 2X | 31 | 33 | 35 | 2 | 80 | 0.1 | 25 |
| MM3Z36W | 2Y | 34 | 36 | 38 | 2 | 90 | 0.1 | 27 |
| MM3Z39W | 2Z | 37 | 39 | 41 | 2 | 100 | 0.1 | 30 |
| MM3Z43W | 3A | 40 | 43 | 46 | 2 | 130 | 0.1 | 33 |
| MM3Z47W | 3B | 44 | 47 | 50 | 2 | 150 | 0.1 | 36 |
| MM3Z51W | 3C | 48 | 51 | 54 | 2 | 180 | 0.1 | 39 |
| MM3Z56W | 3D | 52 | 56 | 60 | 2 | 200 | 0.1 | 43 |
| MM3Z62W | 3E | 58 | 62 | 66 | 2 | 215 | 0.1 | 47 |
| MM3Z68W | 3F | 64 | 68 | 72 | 2 | 240 | 0.1 | 52 |
| MM3Z75W | 3H | 70 | 75 | 79 | 2 | 265 | 0.1 | 56 |

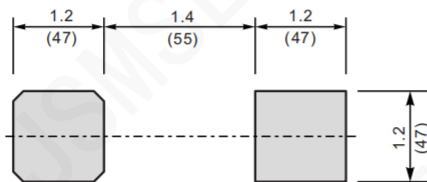
Package Information

SOD-323W



| 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



Unit: $\frac{\text{mm}}{\text{mil}}$