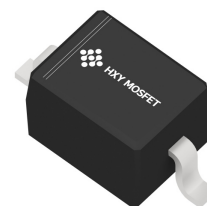




Features

- Total power dissipation: Max.300mW
- Wide zenerreverse voltage range 2.0V to 75V
- Small plastic package suitable for surface mounted design
- Tolerance approximately $\pm 5\%$



SOD-323



Package Marking and Ordering Information

| Product ID | Pack | Marking | Qty(PCS) |
|------------|---------|---------|----------|
| HMM3ZxxT1G | SOD-323 | XX | 3000 |

XX=Device code, see table on page2 the marking code.

The marking bar indicates the cathode.

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

| Characteristic | Symbol | Value | Unit |
|---|-----------------|------------|----------------------|
| Forward voltage @ $I_F=10\text{mA}$ | V_F | 0.9 | V |
| Power Dissipation | P_D | 300 | mW |
| Thermal Resistance, Junction to Ambient Air | $R_{\theta JA}$ | 417 | $^{\circ}\text{C/W}$ |
| Junction Temperature | T_j | 150 | $^{\circ}\text{C}$ |
| Storage Temperature Range | T_{stg} | -55 ~ +150 | $^{\circ}\text{C}$ |

Notes: Device mounted on ceramic PCB;5.0mm×7.0mm with pad areas 35 mm²



Electrical Characteristics (Ta=25°C unless otherwise specified)

| Type | Marking | Zener Voltage Range ⁽¹⁾ | | | | | Dynamic Impedance | Reverse Current | |
|-------------|---------|--|-----------|-----------|-----------------|---------|--|-----------------|-------------------|
| | | V _{ZT} (at I _{ZT}) | | | I _{ZT} | | Z _{ZT} (at I _{ZT}) | I _R | at V _R |
| | | Min (V) | Nom (V) | Max (V) | (mA) | Max (Ω) | Max (μA) | (V) | |
| HMM3Z2V0T1G | B0 | 1.8 | 2.0 | 2.15 | 5 | 100 | 120 | 0.5 | |
| HMM3Z2V2T1G | C0 | 2.08 | 2.2 | 2.33 | 5 | 100 | 120 | 0.7 | |
| HMM3Z2V4T1G | 1C | 2.28 | 2.4 | 2.56 | 5 | 100 | 120 | 1 | |
| HMM3Z2V7T1G | 1D | 2.5 | 2.7 | 2.9 | 5 | 110 | 120 | 1 | |
| HMM3Z3V0T1G | 1E | 2.8 | 3.0 | 3.2 | 5 | 120 | 50 | 1 | |
| HMM3Z3V3T1G | 1F | 3.1 | 3.3 | 3.5 | 5 | 130 | 20 | 1 | |
| HMM3Z3V6T1G | 1H | 3.4 | 3.6 | 3.8 | 5 | 130 | 10 | 1 | |
| HMM3Z3V9T1G | 1J | 3.7 | 3.9 | 4.1 | 5 | 130 | 5 | 1 | |
| HMM3Z4V3T1G | 1K | 4 | 4.3 | 4.6 | 5 | 130 | 5 | 1 | |
| HMM3Z4V7T1G | 1M | 4.4 | 4.7 | 5 | 5 | 130 | 2 | 1 | |
| HMM3Z5V1T1G | 1N | 4.8 | 5.1 | 5.4 | 5 | 130 | 2 | 1.5 | |
| HMM3Z5V6T1G | 1P | 5.2 | 5.6 | 6 | 5 | 80 | 1 | 2.5 | |
| HMM3Z6V2T1G | 1R | 5.8 | 6.2 | 6.6 | 5 | 50 | 1 | 3 | |
| HMM3Z6V8T1G | 1X | 6.4 | 6.8 | 7.2 | 5 | 30 | 0.5 | 3.5 | |
| HMM3Z7V5T1G | 1Y | 7 | 7.5 | 7.9 | 5 | 30 | 0.5 | 4 | |
| HMM3Z8V2T1G | 1Z | 7.7 | 8.2 | 8.7 | 5 | 30 | 0.5 | 5 | |
| HMM3Z9V1T1G | 2A | 8.5 | 9.1 | 9.6 | 5 | 30 | 0.5 | 6 | |
| HMM3Z10VT1G | 2B | 9.4 | 10 | 10.6 | 5 | 30 | 0.1 | 7 | |
| HMM3Z11VT1G | 2C | 10.4 | 11 | 11.6 | 5 | 30 | 0.1 | 8 | |
| HMM3Z12VT1G | 2D | 11.4 | 12 | 12.7 | 5 | 35 | 0.1 | 9 | |
| HMM3Z13VT1G | 2E | 12.4 | 13 | 14.1 | 5 | 35 | 0.1 | 10 | |
| HMM3Z15VT1G | 2F | 13.8 | 15 | 15.6 | 5 | 40 | 0.1 | 11 | |
| HMM3Z16VT1G | 2H | 15.3 | 16 | 17.1 | 5 | 40 | 0.1 | 12 | |
| HMM3Z18VT1G | 2J | 16.8 | 18 | 19.1 | 5 | 45 | 0.1 | 13 | |
| HMM3Z20VT1G | 2K | 18.8 | 20 | 21.2 | 5 | 50 | 0.1 | 15 | |
| HMM3Z22VT1G | 2M | 20.8 | 22 | 23.3 | 5 | 55 | 0.1 | 17 | |
| HMM3Z24VT1G | 2N | 22.8 | 24 | 25.6 | 5 | 60 | 0.1 | 19 | |
| HMM3Z27VT1G | 2P | 25.1 | 27 | 28.9 | 2 | 70 | 0.1 | 21 | |
| HMM3Z30VT1G | 2R | 28 | 30 | 32 | 2 | 80 | 0.1 | 23 | |
| HMM3Z33VT1G | 2X | 31 | 33 | 35 | 2 | 80 | 0.1 | 25 | |
| HMM3Z36VT1G | 2Y | 34 | 36 | 38 | 2 | 90 | 0.1 | 27 | |
| HMM3Z39VT1G | 2Z | 37 | 39 | 41 | 2 | 100 | 0.1 | 30 | |
| HMM3Z43VT1G | 3A | 40 | 43 | 46 | 2 | 130 | 0.1 | 33 | |
| HMM3Z47VT1G | 3B | 44 | 47 | 50 | 2 | 150 | 0.1 | 36 | |
| HMM3Z51VT1G | 3C | 48 | 51 | 54 | 2 | 180 | 0.1 | 39 | |
| HMM3Z56VT1G | 3D | 52 | 56 | 60 | 2 | 200 | 0.1 | 43 | |
| HMM3Z62VT1G | 3E | 58 | 62 | 66 | 2 | 215 | 0.1 | 47 | |
| HMM3Z68VT1G | 3F | 64 | 68 | 72 | 2 | 240 | 0.1 | 52 | |
| HMM3Z75VT1G | 3H | 70 | 75 | 79 | 2 | 265 | 0.1 | 56 | |

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



Typical Characteristics

Fig.1 Maximum Continuous Power Derating

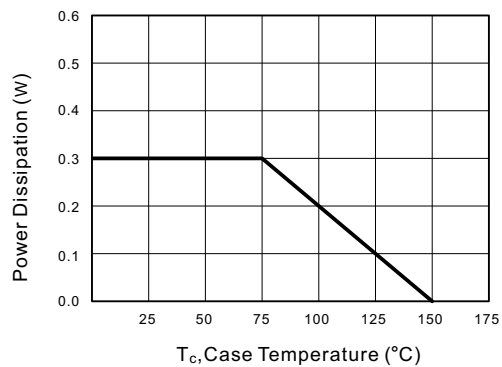
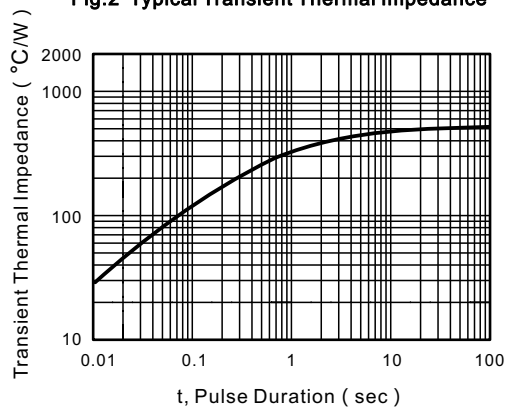
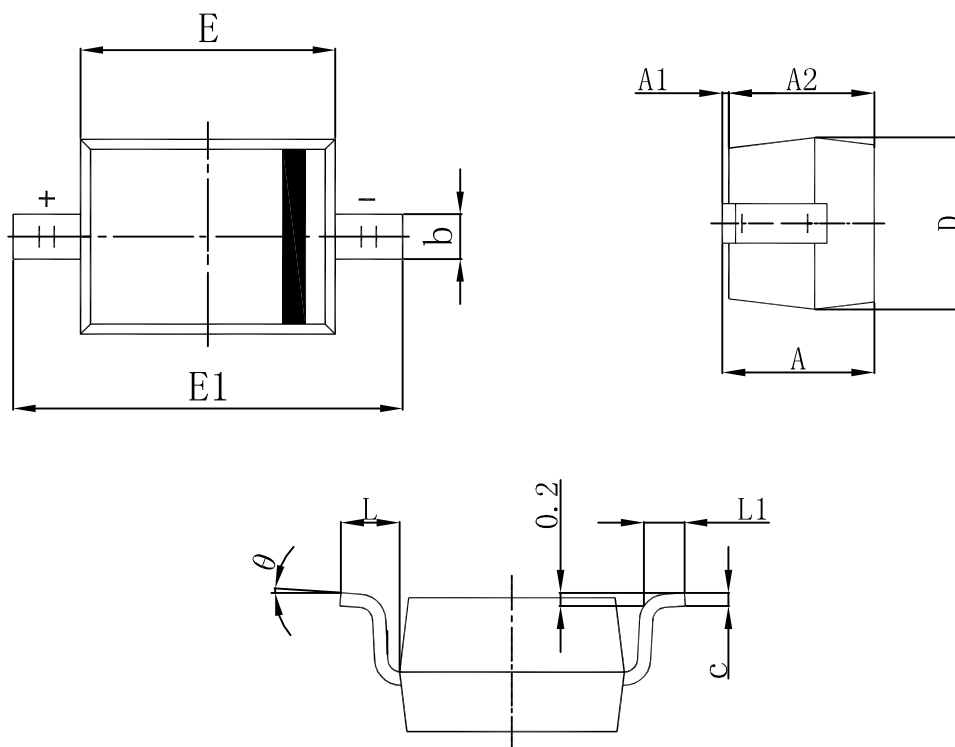


Fig.2 Typical Transient Thermal Impedance





SOD-323 Package Outline Dimensions



| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|--------|---------------------------|-------|----------------------|-------|
| | Min | Max | Min | Max |
| A | | 1.100 | | 0.043 |
| A1 | 0.000 | 0.100 | 0.000 | 0.004 |
| A2 | 0.800 | 1.000 | 0.031 | 0.039 |
| b | 0.250 | 0.350 | 0.010 | 0.014 |
| c | 0.080 | 0.150 | 0.003 | 0.006 |
| D | 1.200 | 1.400 | 0.047 | 0.055 |
| E | 1.600 | 1.800 | 0.063 | 0.071 |
| E1 | 2.500 | 2.750 | 0.098 | 0.108 |
| L | 0.475 REF | | 0.019 REF | |
| L1 | 0.250 | 0.400 | 0.010 | 0.016 |
| θ | 0° | 8° | 0° | 8° |



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