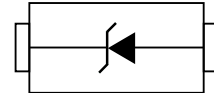


**Description**

The PZ1D4V2H is packaged in a SOD-123 surface mount package that has a power dissipation of 500mW. They are designed to provide voltage regulation protection and are especially attractive in situations where space is at a premium.



**Feature**

- Standard zener breakdown voltage range 5.1V
- SOD-123 package
- Steady state power rating of 500mW
- ESD rating of class 3(>16kV)per human body model
- RoHS compliant transient

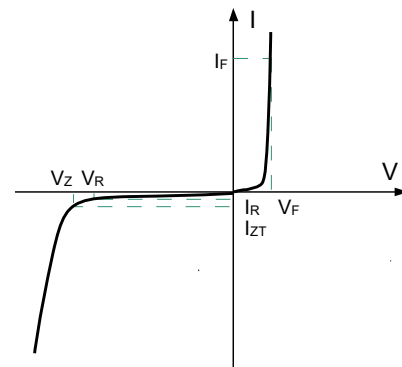
**Applications**

- Cellular phones
- Hand held portables
- High density PC boards

**Mechanical Characteristics**

- Lead finish:100% matte Sn(Tin)
- Mounting position: Any
- Qualified max reflow temperature:260°C
- Device meets MSL 1 requirements
- Pure tin plating: 7 ~ 17 um
- Pin flatness : ≤3mil

**Electronics Parameter**



**Electrical characteristics per line@( unless otherwise specified)**

| Parameter               | Symbol          | Conditions                   | Min. | Typ. | Max. | Units |
|-------------------------|-----------------|------------------------------|------|------|------|-------|
| Reverse Zener Voltage   | V <sub>Z</sub>  | I <sub>ZT</sub> = 5mA        |      | 5.1  |      | V     |
| Maximum Zener Impedance | Z <sub>ZT</sub> | I <sub>ZT</sub> = 5mA        | -    | -    | 55   | Ω     |
| Maximum Zener Impedance | Z <sub>ZK</sub> | I <sub>ZK</sub> =0.5mA       | -    | -    | 500  | Ω     |
| Reverse Leakage Current | I <sub>R</sub>  | V <sub>R</sub> =4.2V         | -    | -    | 20   | μA    |
| Forward Voltage         | V <sub>F</sub>  | I <sub>F</sub> = 100mA       | -    | -    | 1.25 | V     |
| Max.Capacitance         | C               | V <sub>R</sub> =4V, f = 1MHz | -    | -    | 300  | pF    |

## Absolute maximum rating@25°C

| Rating                                      | Symbol          | Value       | Units |
|---|-----------------|-------------|-------|
| Total Device Dissipation FR-5 Board(Note 1) | $P_D$           | 500         | mW    |
| Thermal Resistance,Junction-to-Ambient      | $R_{\theta JA}$ | 340         | °C/W  |
| Storage Temperature                         | $T_J, T_{STG}$  | -65 to +150 | °C    |

## Typical Characteristics

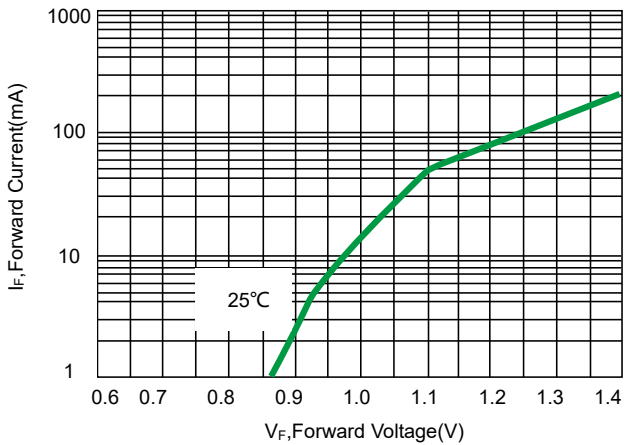


Fig 1. Typical Forward Voltage

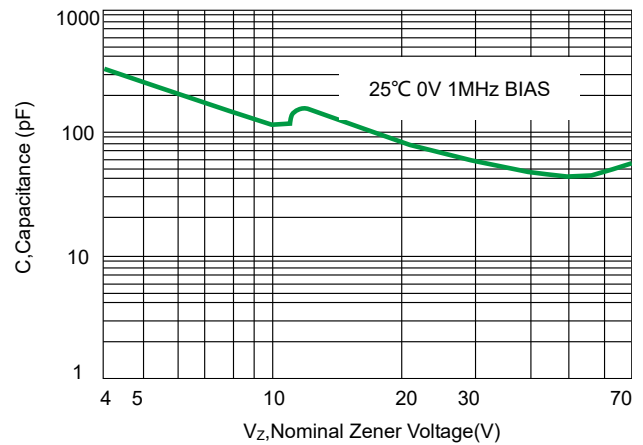


Fig 2. Typical Capacitance

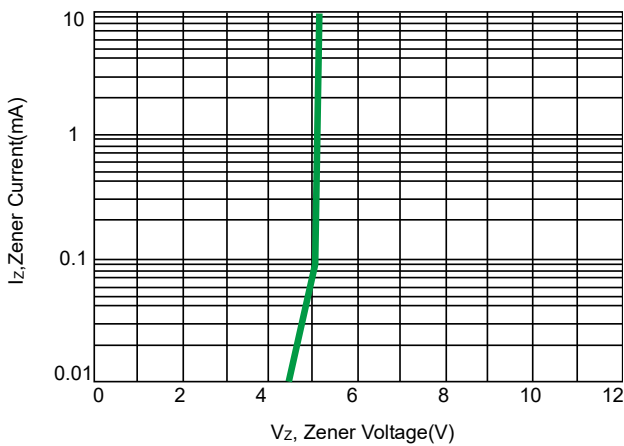


Fig 3. Zener Voltage versus Zener Current

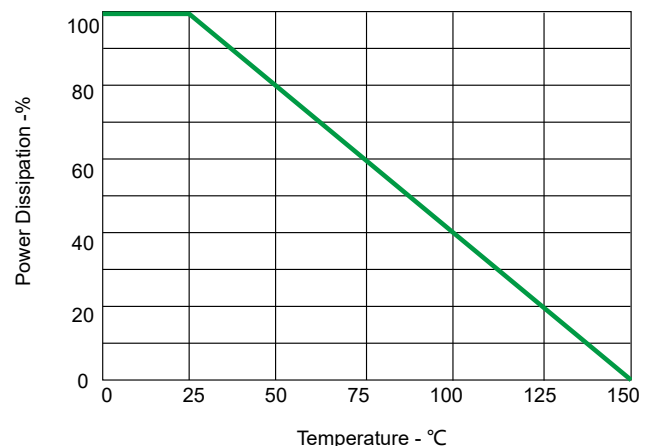
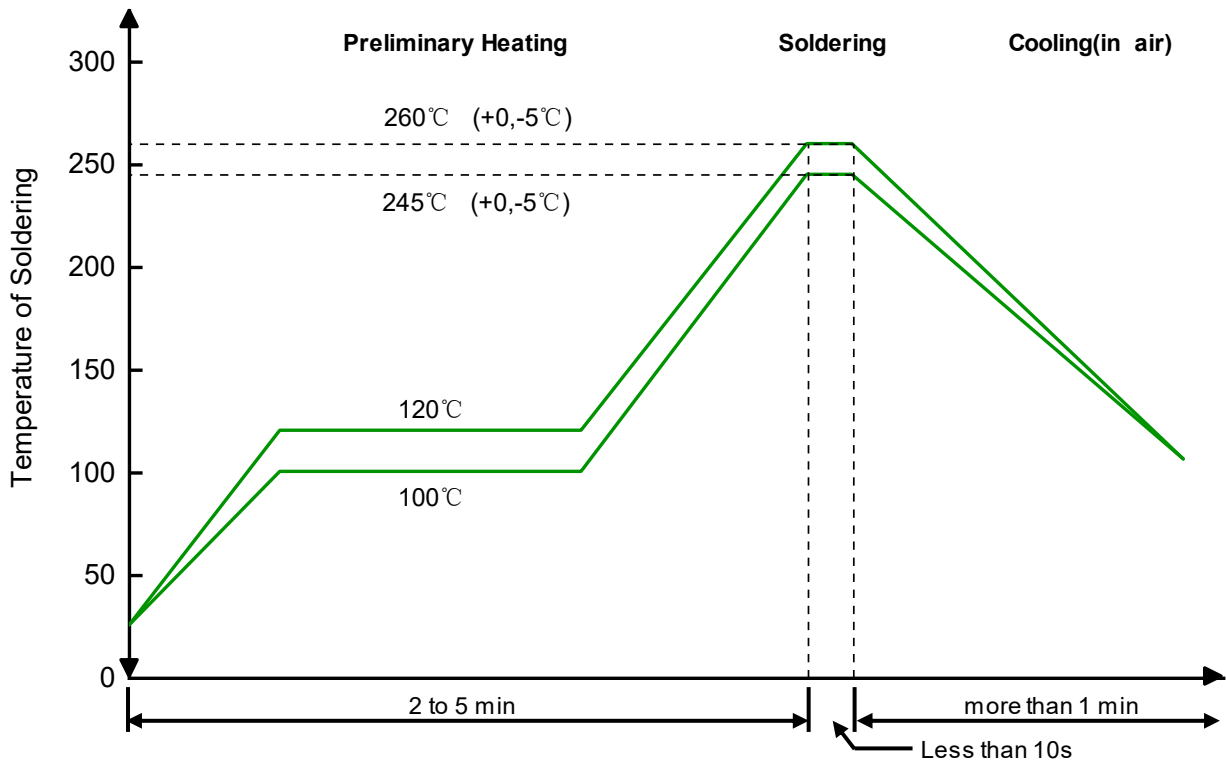


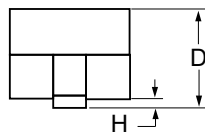
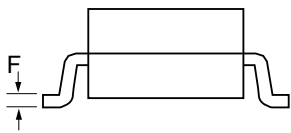
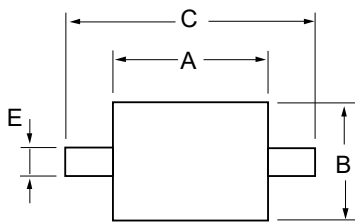
Fig 4. Steady State Power Detating

Solder Reflow Recommendation

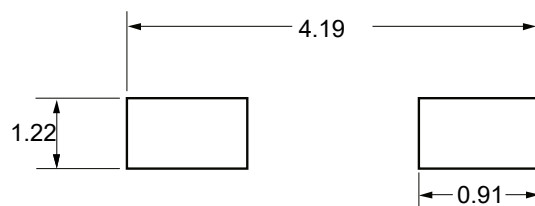


Remark: Pb free for 260°C; Pb for 245°C.

Product dimension (SOD-123)



| Dim | Inches |       | Millimeters |      |
|-----|--------|-------|-------------|------|
|     | MIN    | MAX   | MIN         | MAX  |
| A   | 0.100  | 0.112 | 2.54        | 2.84 |
| B   | 0.055  | 0.071 | 1.40        | 1.80 |
| C   | 0.140  | 0.152 | 3.56        | 3.86 |
| D   | 0.037  | 0.053 | 0.94        | 1.35 |
| E   | 0.020  | 0.028 | 0.51        | 0.71 |
| F   | -      | 0.006 | -           | 0.15 |
| H   | 0.000  | 0.004 | 0.00        | 0.10 |

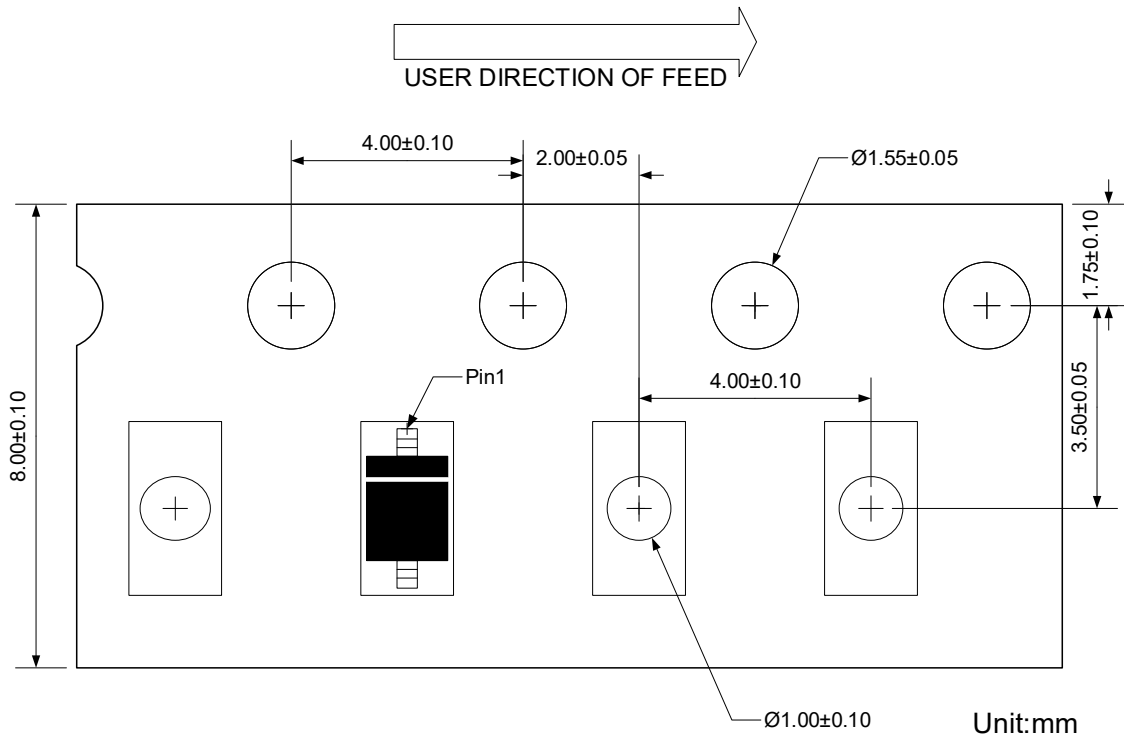


Unit:mm


Ordering information

| Device   | Package           | Shipping           |
|----------|-------------------|--------------------|
| PZ1D4V2H | SOD-123 (Pb-Free) | 3000 / Tape & Reel |

Load with information




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