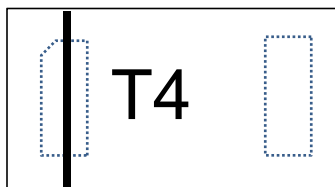
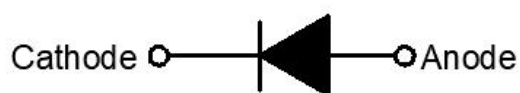


## Features

- Fast Switching Speed
- Low Leakage Current
- Low power losses, high efficiency
- High surge capability
- RoHS Compliant

## Appearance & Symbo



T4=Marking Code

## Mechanica Characteristics

- Package: DFN1006-2L
- Lead Finish:Matte Tin
- Case Material: “Green” Molding Compound.
- UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 3 per J-STD-020
- Tape Reel :10000pcs

## Applications

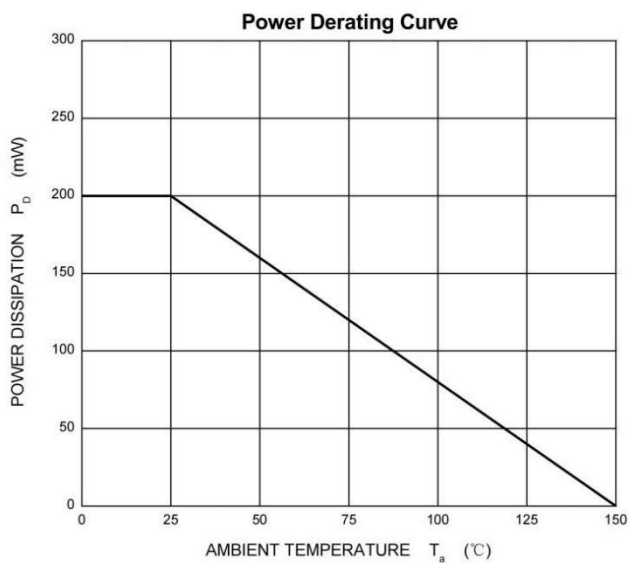
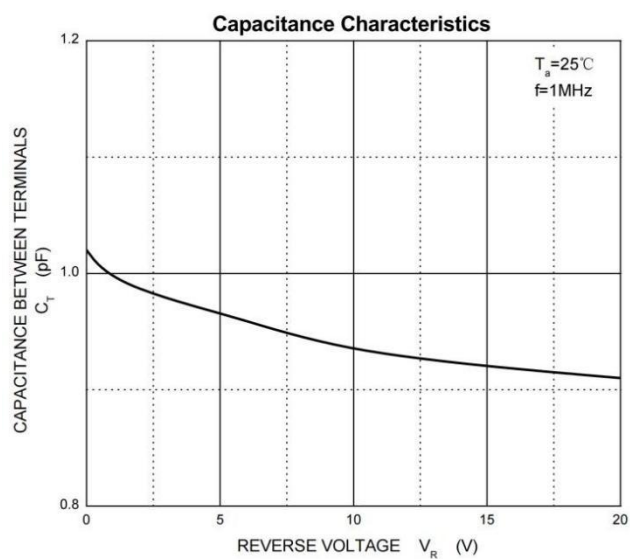
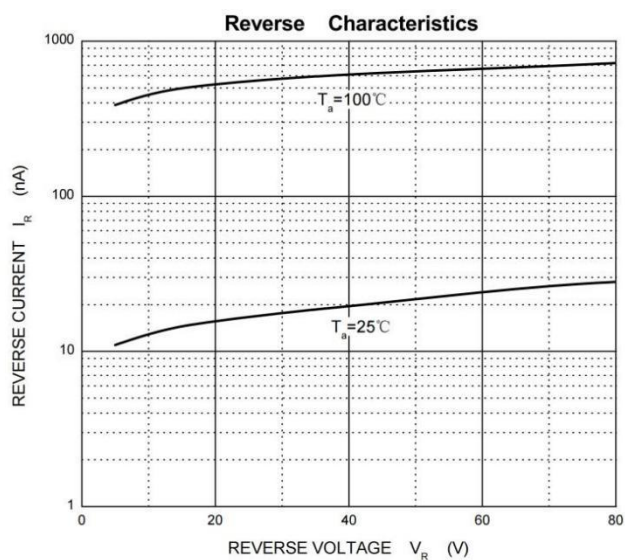
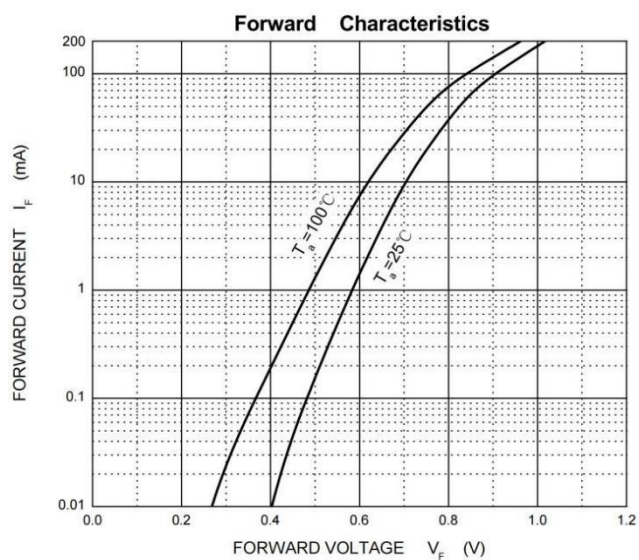
- Electronic computer
- Pulse
- Switching circuit

**Absolute Maximum Ratings** (T=25°C, RH=45%-75%, unless otherwi

| Parameters                                        | Symbol          | Value      | Unit |
|---------------------------------------------------|-----------------|------------|------|
| Peak reverse voltage                              | $V_{RM}$        | 100        | V    |
| Continuous Reverse voltage                        | $V_R$           | 75         | V    |
| Average rectified output current                  | $I_O$           | 150        | mA   |
| Repetitive peak forward current                   | $I_{FM}$        | 300        | mA   |
| Non-repetitive Peak Forward Surge Current@t=8.3ms | $I_{FSM}$       | 2          | A    |
| Power Dissipation                                 | $P_D$           | 200        | mW   |
| Thermal Resistance Junction to Ambient            | $R_{\theta JA}$ | 625        | °C/W |
| Junction temperature Range                        | $T_J$           | -55 ~ +150 | °C   |
| Storage Temperature                               | $T_{STG}$       | -55 ~ +150 | °C   |

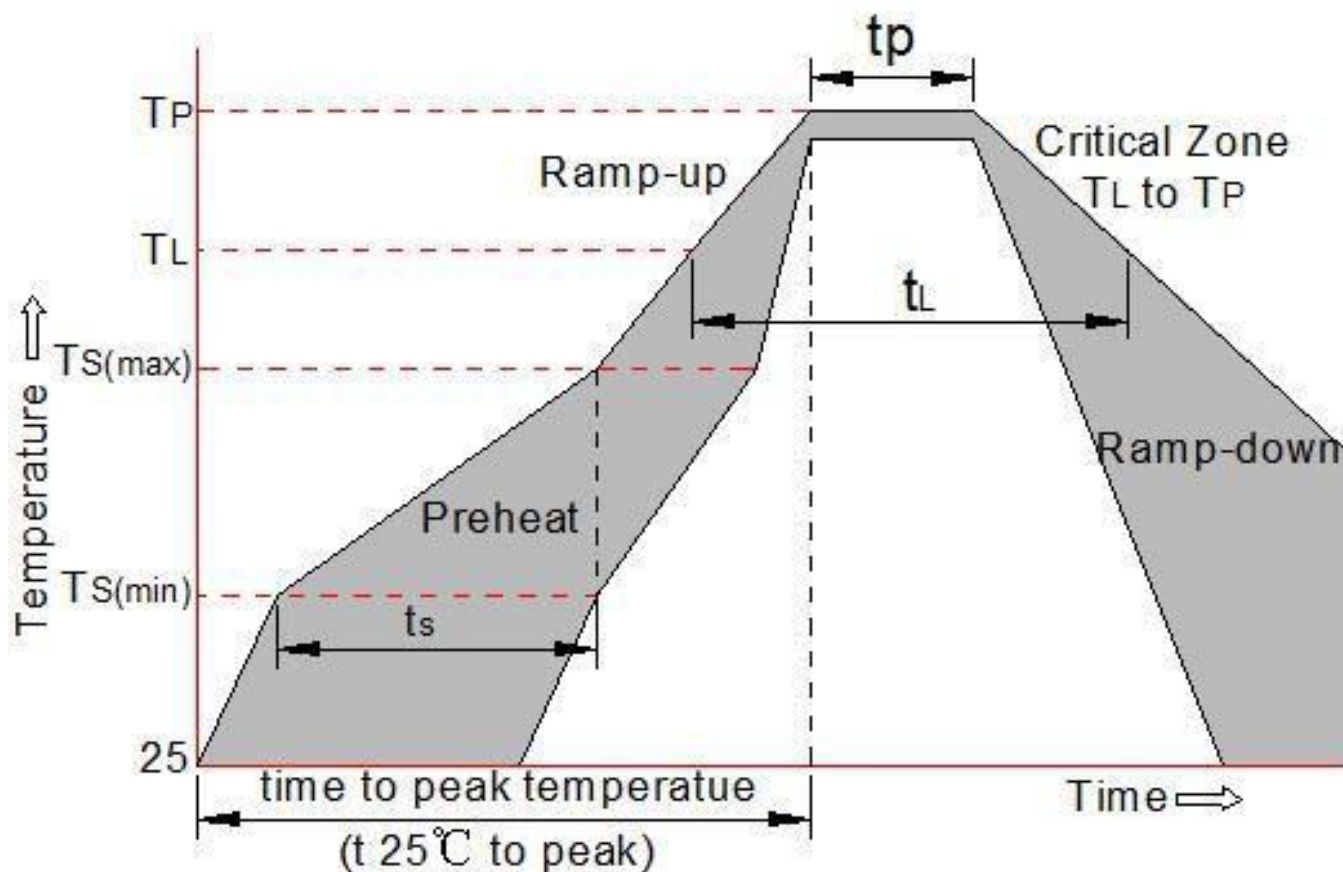
| Parameter                 | Symbol   | Test Condition                                                    | Min | Max   | Unit |
|---------------------------|----------|-------------------------------------------------------------------|-----|-------|------|
| Reverse Breakdown Voltage | $V_{BR}$ | $I_R = 100\mu A$                                                  | 100 |       | V    |
|                           |          | $I_R = 5\mu A$                                                    | 75  |       |      |
| Reverse Leakage Current   | $I_R$    | $V_R = 20V$                                                       |     | 25    | nA   |
|                           |          | $V_R = 75V$                                                       |     | 1     | uA   |
| Forward Voltage           | $V_F$    | $I_F = 1.0mA$                                                     |     | 0.715 | V    |
|                           |          | $I_F = 10mA$                                                      |     | 0.855 |      |
|                           |          | $I_F = 50mA$                                                      |     | 1     |      |
|                           |          | $I_F = 150mA$                                                     |     | 1.25  |      |
| Junction Capacitance      | $C_J$    | $V_R = 0, f = 1.0MHz$                                             |     | 2     | pF   |
| Reverse Recovery Time     | $t_{rr}$ | $I_F = I_R = 10mA,$<br>$I_{rr} = 0.1 \times I_R, R_L = 100\Omega$ |     | 4     | ns   |

## Typical Characteristics

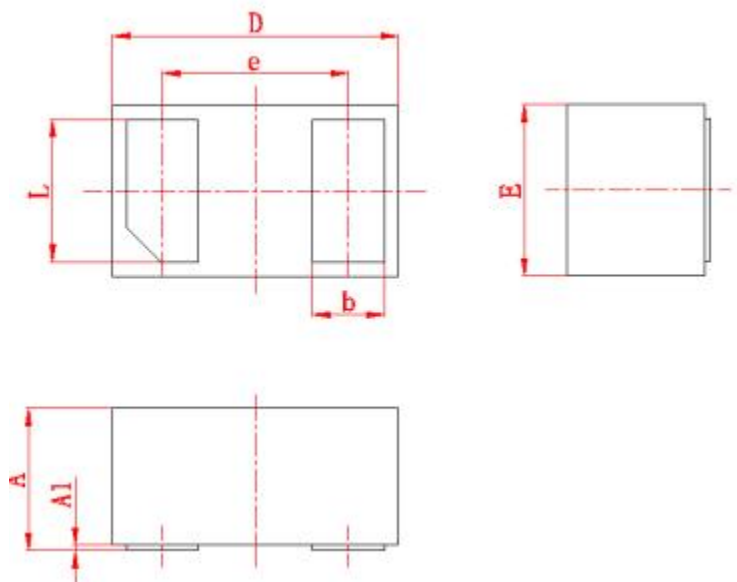


## Soldering parameters

| Reflow Condition                                        |                                   | Pb-Free assembly<br>see as bellow |
|---------------------------------------------------------|-----------------------------------|-----------------------------------|
| Pre Heat                                                | -Temperature Min ( $T_{s(min)}$ ) | +150°C                            |
|                                                         | -Temperature Max( $T_{s(max)}$ )  | +200°C                            |
|                                                         | -Time (Min to Max) ( $t_s$ )      | 60-180 secs.                      |
| Average ramp up rate (Liquid us Temp ( $T_L$ ) to peak) |                                   | 3°C/sec. Max                      |
| $T_{s(max)}$ to $T_L$ - Ramp-up Rate                    |                                   | 3°C/sec. Max                      |
| Reflow                                                  | -Temperature( $T_L$ ) (Liquid us) | +217°C                            |
|                                                         | -Temperature( $t_L$ )             | 60-150 secs.                      |
| Peak Temp ( $T_p$ )                                     |                                   | +260(+0/-5)°C                     |
| Time within 5°C of actual Peak Temp ( $t_p$ )           |                                   | 30 secs. Max                      |
| Ramp-down Rate                                          |                                   | 6°C/sec. Max                      |
| Time 25°C to Peak Temp ( $T_p$ )                        |                                   | 8 min. Max                        |
| Do not exceed                                           |                                   | +260°C                            |

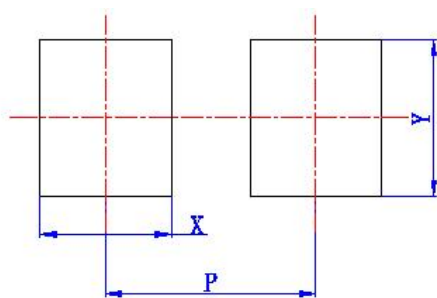


## Package mechanical data



| Symbol | Dimension in Millimeters |      |
|--------|--------------------------|------|
|        | min                      | max  |
| A      | 0.4                      | 0.5  |
| A1     | 0                        | 0.05 |
| D      | 0.9                      | 1.1  |
| E      | 0.55                     | 0.65 |
| e      | (0.65)                   |      |
| b      | 0.2                      | 0.3  |
| L      | 0.34                     | 0.55 |

## Suggested Land Pattern



| Symbol | Dimension in Millimeters |
|--------|--------------------------|
|        | typ                      |
| X      | (0.5)                    |
| Y      | (0.7)                    |
| P      | (0.8)                    |