## Features

Miniaturized packaging size suitable for high-density applications:
nom 0.039″ x 0.024″ (1.0x0.6mm)

Standard Capacitance 25 pF

Low Clamping Voltage:$V_C$=11V@$I_{PP}$=8A

Reverse Working (Stand-off) Voltage: 5V

Low Leakage current

Response Time is Typically < 1 ns

5BU

## Applications

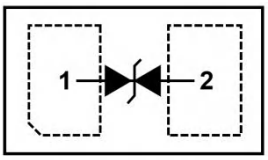
Smartphones, tablet computers

Blu-ray and DVD recorders and players

Video equipment and accessories



DFN1006-2L(Pb-Free)




Schematic Diagram

## Absolute Maximum Rating

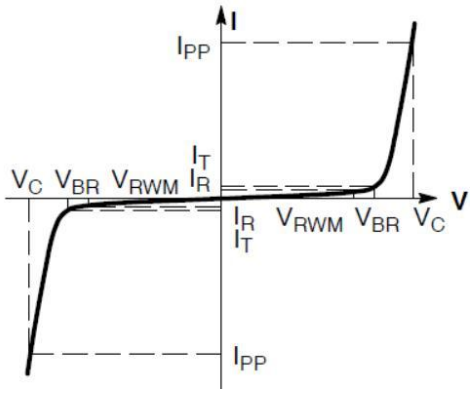
| Parameter | Symbol | Value | Unit |
|---|---|---|---|
| Peak pulse power (tp = 8/20μs) | $P_{PK}$ | 88 | W |
| ESD according to IEC61000-4-2 air discharge | $V_{ESD}$ | ±20 | kV |
| ESD according to IEC61000-4-2 contact discharge | $V_{ESD}$ | ±20 | kV |
| Operating Temperature Range | $T_J$ | -40~85 | ℃ |
| Storage temperature | $T_{STG}$ | -55~150 | ℃ |

## Electrical Characteristics (TA=25°C unless otherwise specified)

| Parameter | Symbol | Test Condition | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Reverse Stand-off Voltage | $VR_{WM}$ | | | | 5.0 | V |
| Reverse Breakdown Voltage | VBR | $I_T$=1mA | 7.0 | | 9.0 | V |
| Reverse Leakage Current | IR | $V_{RWM}$=5.0V | | | 100 | nA |
| Clamping Voltage | Vc | $I_{PP}$=1A ,tp=8/20us | | | 12 | V |
| | | $I_{PP}$=4A ,tp=8/20us | | | 22 | |
| Junction Capacitance | Cj | Between I/O $V_R$=0V, f =1MHz, | | 0.35 | 0.4 | pF |

## Electrical Parameters (TA = 25°C unless otherwise noted)

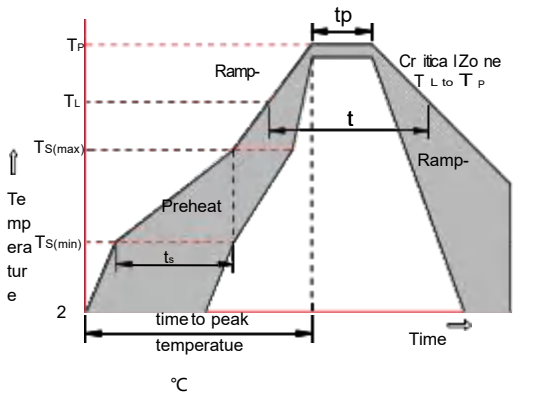
| Symbol | Parameter |
|---|---|
| $I_{PP}$ | Maximum Reverse Peak Pulse Current |
| $V_C$ | Clamping Voltage @ $I_{PP}$ |
| $V_{RWM}$ | Working Peak Reverse Voltage |
| $I_R$ | Maximum Reverse Leakage Current @ $V_{RWM}$ |
| $I_T$ | Test Current |
| $V_{BR}$ | Breakdown Voltage @ $I_T$ |
| $P_{PK}$ | Peak Power Dissipation |
| C | Max. Capacitance @ $V_R$ = 0 and freq.=1 MHz |



## Soldering parameters

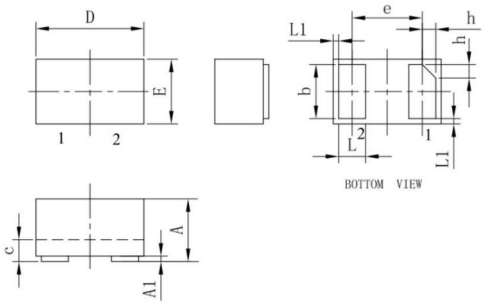
| Reflow Condition | | Pb-Free assembly (see as bellow) |
|---|---|---|
| Pre Heat | -Temperature Min ($T_{s(min)}$) | +150℃ |
| | -Temperature Max($T_{s(max)}$) | +200℃ |
| | -Time (Min to Max) (ts) | 60-180 secs. |
| Average ramp up rate (Liquid us Temp ($T_L$) to peak) | | 3℃/sec. Max |
| $T_{s(max)}$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

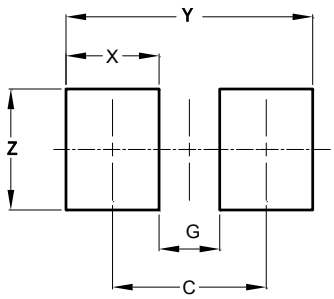
**FIG5:** Reflow condition




## Package Dimensions & Suggested Pad Layout

DFN1006-2L



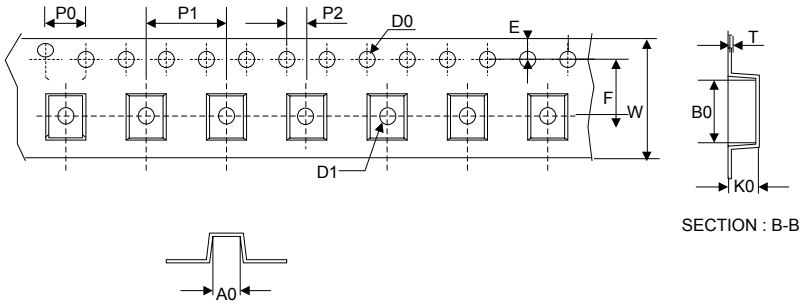

**DFN1006-2L**

| | Millimeters | | | Inches | | |
|---|---|---|---|---|---|---|
| | Min. (mm) | Typ. (mm) | Max. (mm) | Min. (mm) | Typ. (mm) | Max. (mm) |
| A | 0.45 | 0.50 | 0.55 | 0.018 | 0.020 | 0.022 |
| A1 | 0.00 | 0.02 | 0.05 | 0.000 | 0.001 | 0.002 |
| b | 0.45 | 0.50 | 0.55 | 0.018 | 0.020 | 0.022 |
| c | 0.12 | 0.15 | 0.18 | 0.005 | 0.006 | 0.007 |
| D | 0.95 | 1.00 | 1.05 | 0.037 | 0.039 | 0.041 |
| e | 0.59BSC | | | 0.026BSC | | |
| E | 0.55 | 0.60 | 0.65 | 0.022 | 0.024 | 0.026 |
| L | 0.25 | 0.30 | 0.35 | 0.010 | 0.012 | 0.013 |
| L1 | 0.05REF | | | 0.002REF | | |
| h | 0.07 | 0.12 | 0.17 | 0.003 | 0.005 | 0.007 |

| Dimensions | Value (in mm) |
|---|---|
| C | 0.70 |
| G | 0.30 |
| X | 0.40 |
| Y | 1.10 |
| Z | 0.65 |

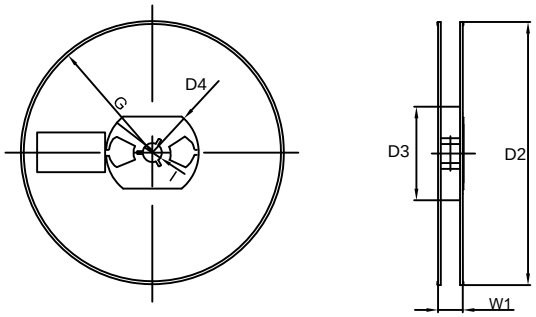
## Tape & rell specification

Tape




| Symbol | Dimension (mm) |
|---|---|
| P0 | 4.00±0.20 |
| P1 | 2.00±0.20 |
| P2 | 1.55±0.20 |
| D0 | 1.55±0.20 |
| D1 | 0.40±0.20 |
| E | 1.55±0.25 |
| F | 3.60±0.20 |
| W | 8.00±0.20 |
| A0 | 1.00±0.20 |
| B0 | 1.40±0.20 |
| K0 | 0.75±0.20 |
| T | 0.20±0.20 |

7” Reel




| | |
|---|---|
| D2 | 177.0±5.0 |
| D3 | 55Min. |
| D4 | R24.6±2.0 |
| G | R82.0±2.0 |
| I | 13.0±2.0 |
| W1 | 10.20±3.0 |
| Quantity: 3000PCS | |