

Rev.C Apr.-2026

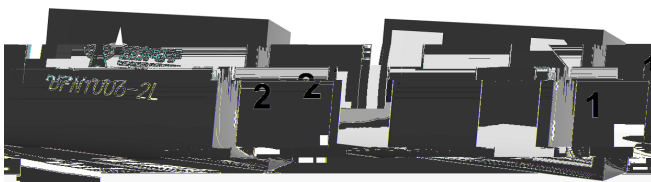
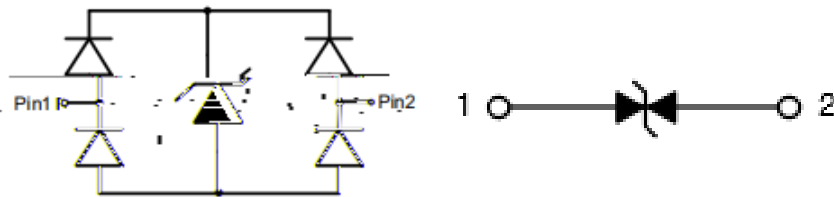
DFN1006-2L ESD  
 DFN1006-2L Plastic Package 1-Line,Bi-directional , ESD Protection Diode.

1ns 20KV IEC61000-4-2 4 ESD

Ultra small package, Response Time is Typically<1ns, ESD>20kV per Human Body Model,IEC61000-4-2 Level 4 ESD Protection,HF Product.

MP3

Suitable for cellular phones audio,MP3 players, Digital cameras, Portable devices, mobile telephone and other users.



See Marking Instructions.

| Parameter                                       | Symbol    | Rating   | Unit |
|-------------------------------------------------|-----------|----------|------|
| Peak Pulse Power( $t_p = 8/20 \text{ s}$ )      | $P_{PK}$  | 60       | W    |
| Peak Pulse Current( $t_p = 8/20 \text{ s}$ )    | $I_{PP}$  | 3.5      | A    |
| ESD according to IEC61000-4-2 air discharge     | $V_{ESD}$ | $\pm 20$ | KV   |
| ESD according to IEC61000-4-2 contact discharge |           | $\pm 15$ |      |
| Junction temperature                            | $T_J$     | -55~+125 |      |
| Storage Temperature                             | $T_{STG}$ | -55~+150 |      |

| Parameter                               | Symbol    | Test Conditions                            | Min | Typ  | Max | Unit |
|-----------------------------------------|-----------|--------------------------------------------|-----|------|-----|------|
| Reverse maximum working voltage         | $V_{RWM}$ |                                            |     |      | 3.3 | V    |
| Reverse leakage current                 | $I_R$     | $V_{RWM} = 3.3V$                           |     |      | 100 | nA   |
| Reverse breakdown voltage <sup>1)</sup> | $V_{BR}$  | $I_T = 1mA$                                | 4.2 |      |     | V    |
| Clamping voltage                        | $V_C$     | $I_{PP} = 3.5A \quad t_p = 8/20 \text{ s}$ |     | 15   |     | V    |
| Clamping voltage(TLP)                   |           | $I_{PP} = 16A \quad T_p = 100ns$           |     |      | 15  | V    |
| Dynamic Resistance                      | $R_{dyn}$ | $T_P = 100ns$                              |     | 0.55 |     |      |
| Junction Capacitance                    | $C_J$     | $V_R = 0V \quad f = 1MHz$                  |     | 0.3  | 0.5 | pF   |

Notes:

 1)  $V_{BR}$  is measured with a pulse test current  $I_T$  at an ambient temperature of 25 .

Fig.1 Peak Pulse Power Rating Curve



Fig.2 Pulse Derating Curve



Fig.3 Pulse Waveform-8/20 $\mu$ s

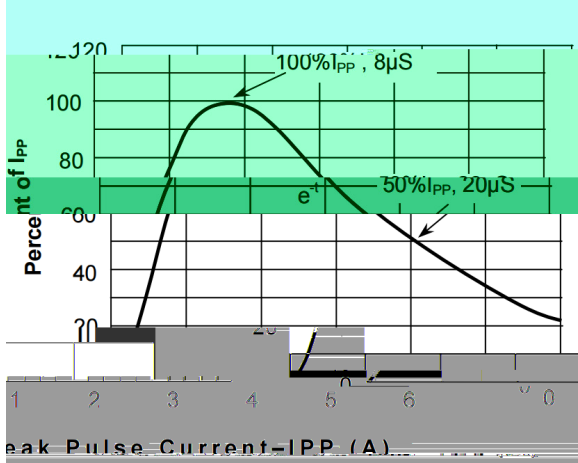


Fig.4 Clamping Voltage vs Ipp

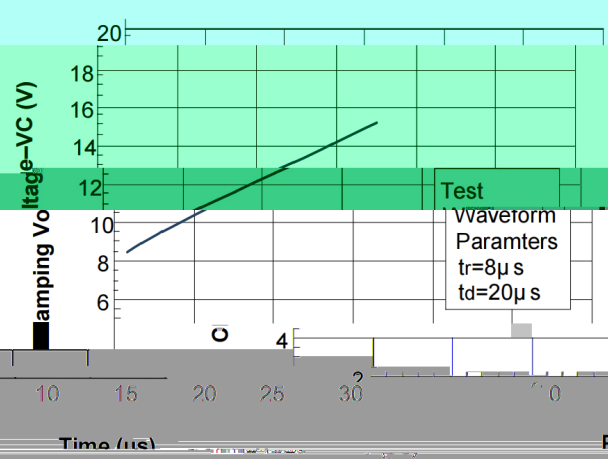


Figure5: Positive Clamping voltage (TLP)

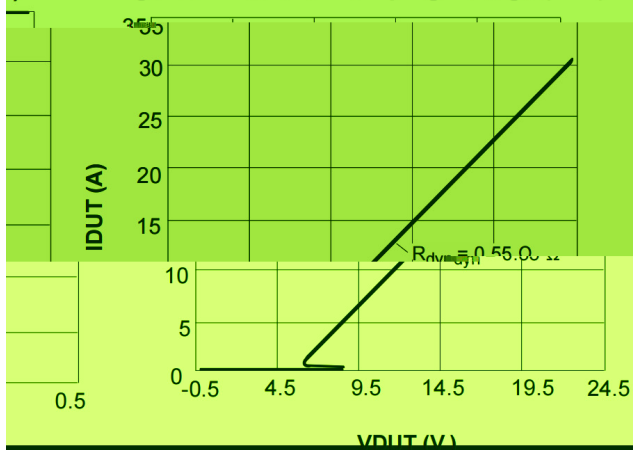
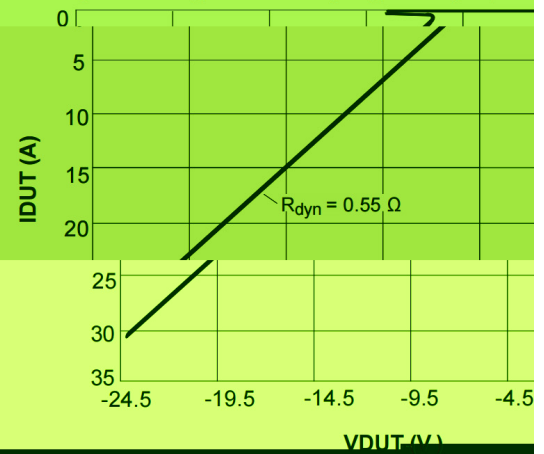
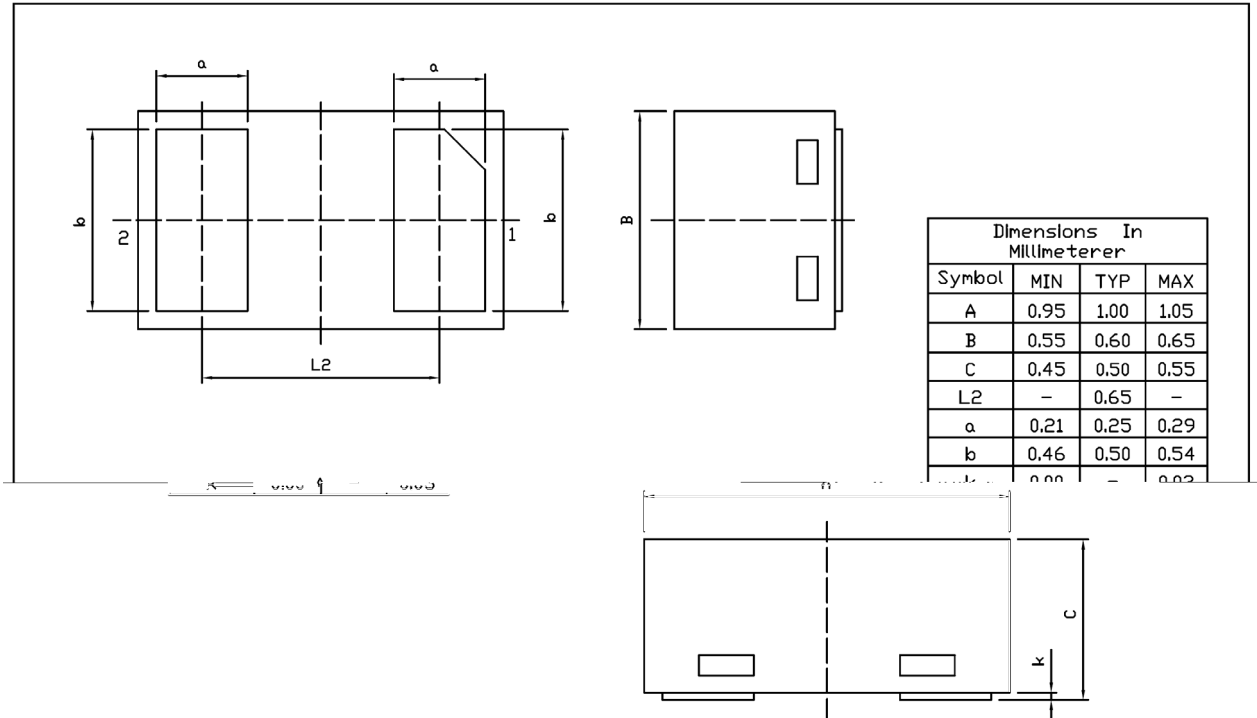


Figure6: Negative Clamping voltage (TLP)

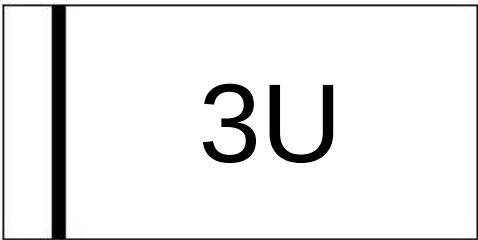


DFN1006-2L

Unit:mm



Rev.01 202108

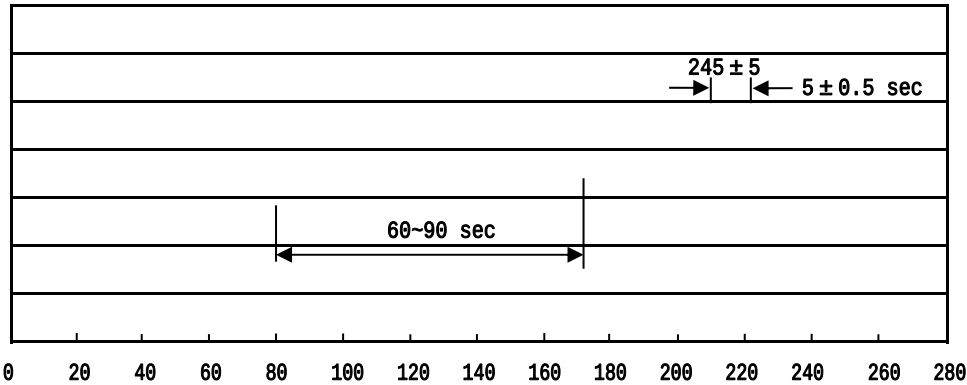


3U

Note

3U      Product Type Code

Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- 1

150 180

60 90sec;

1.Preheating:150~180 , Time:60~90sec.
- 2

245±5

5±0.5sec;

2.Peak Temp.:245±5 , Duration:5±0.5sec.
- 3

2 10 /sec.

3. Cooling Speed: 2~10 /sec.

260±5                      10±1 sec.                      Temp.:260±5                      Time:10±1 sec

/ REEL

| Package Type | Units      |                 |                 |                       |                 | Dimension (unit mm <sup>3</sup> ) |             |             |
|--------------|------------|-----------------|-----------------|-----------------------|-----------------|-----------------------------------|-------------|-------------|
|              | Units/Reel | Reels/Inner Box | Units/Inner Box | Inner Boxes/Outer Box | Units/Outer Box | Reel                              | Inner Box   | Outer Box   |
| DFN1006-2L   | 10,000     | 10              | 100,000         | 6                     | 600,000         | 7" ×8                             | 180×120×180 | 390×385×205 |