

Rev.E Dec.-2024

DFN1006-2L ESD
 DFN1006-2L Plastic Package ESD Protection Diode.

1ns 30KV IEC61000-4-2 4 ESD

Ultra small package, Response Time is Typically < 1 ns, ESD > 30 kV 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.



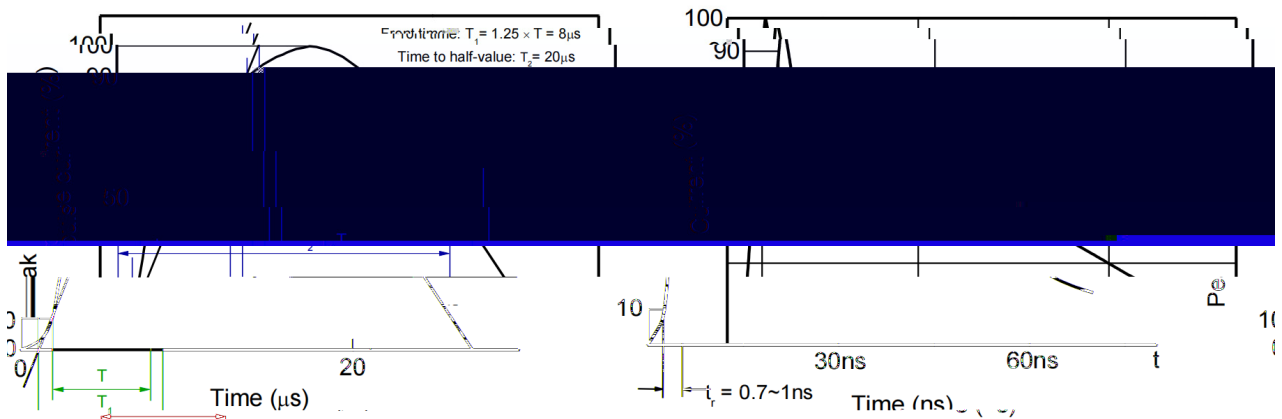
See Marking Instructions.

Parameter	Symbol	Rating	Unit
Peak pulse power ($t_p = 8/20\mu s$)	P_K	69	W
Peak pulse current ($t_p = 8/20\mu s$)	I_{PP}	5.5	A
ESD according to IEC61000-4-2 air discharge	V_{ESD}	± 30	KV
ESD according to IEC61000-4-2 contact discharge		± 30	
Junction temperature	T_J	150	
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	$V_{RWM} = \pm 3.3V$			± 0.1	μA
Reverse breakdown voltage ¹⁾	V_{BR}	$I_T = 1mA$	5.0		6.8	V
Clamping voltage ²⁾	V_C	$I_{PP} = 1A \quad t_p = 8/20\mu s$			9.8	V
		$I_{PP} = 5.5A \quad t_p = 8/20\mu s$			12.5	V
Junction capacitance	C_J	$V_R = 0V \quad f = 1MHz$			15	pF

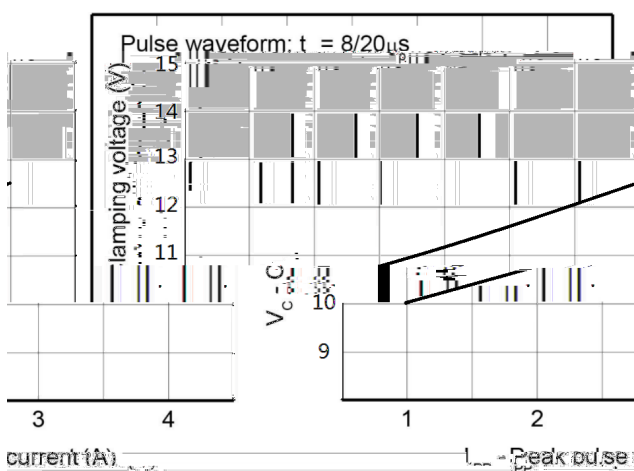
Notes:

- 1) V_{BR} is measured with a pulse test current I_T at an ambient temperature of 25 .
- 2) Non-repetitive current pulse, according to IEC61000-4-5.



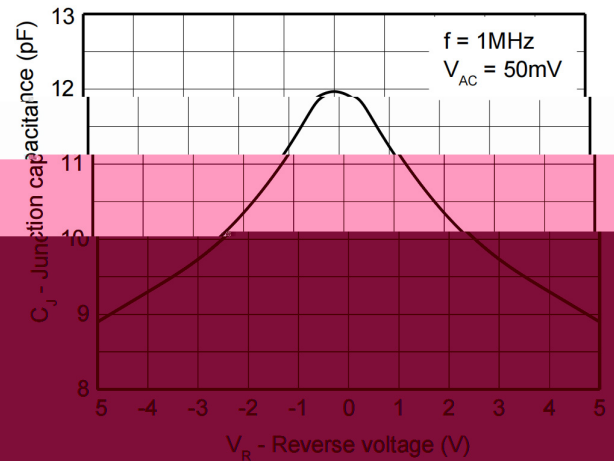
8/20μs waveform per IEC61000-4-5

Contact discharge current waveform per IEC61000-4-2

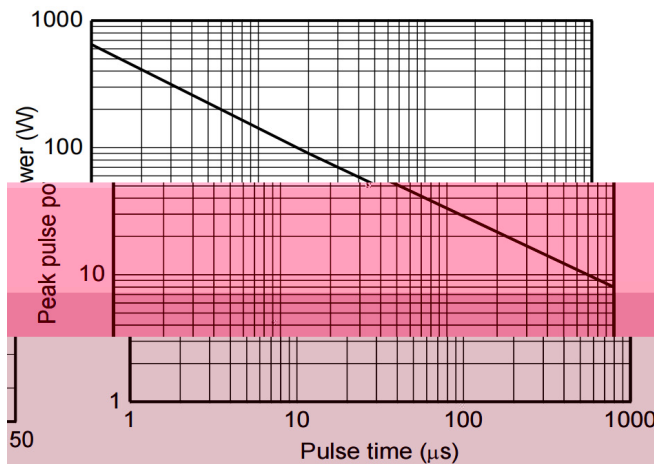


Peak pulse current

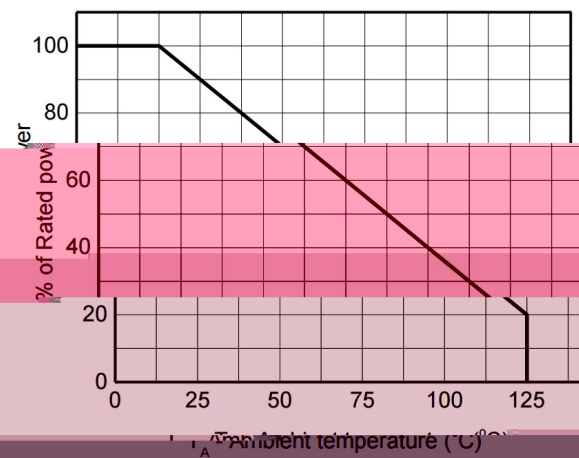
Clamping voltage vs. Peak pulse current



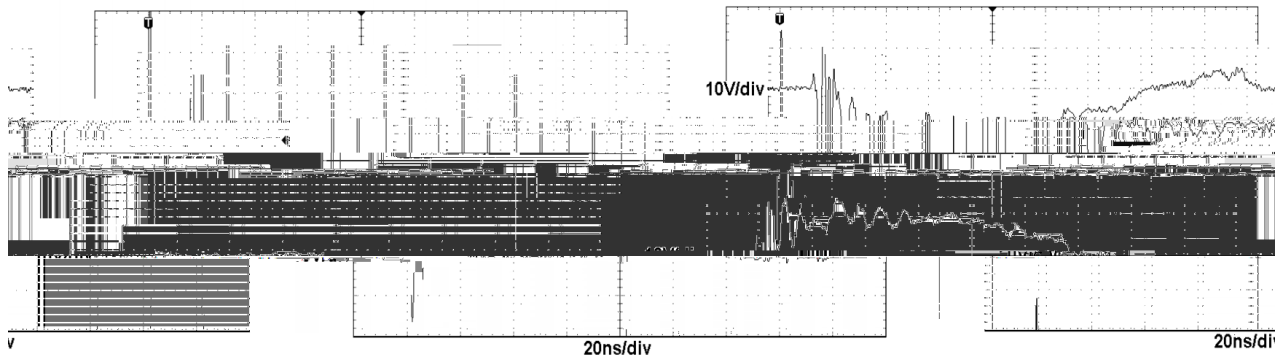
Capacitance vs. Reverse voltage



Non-repetitive peak pulse power vs. Pulse time



Power derating vs. Ambient temperature



ing

ESD clamping

ESD clamp

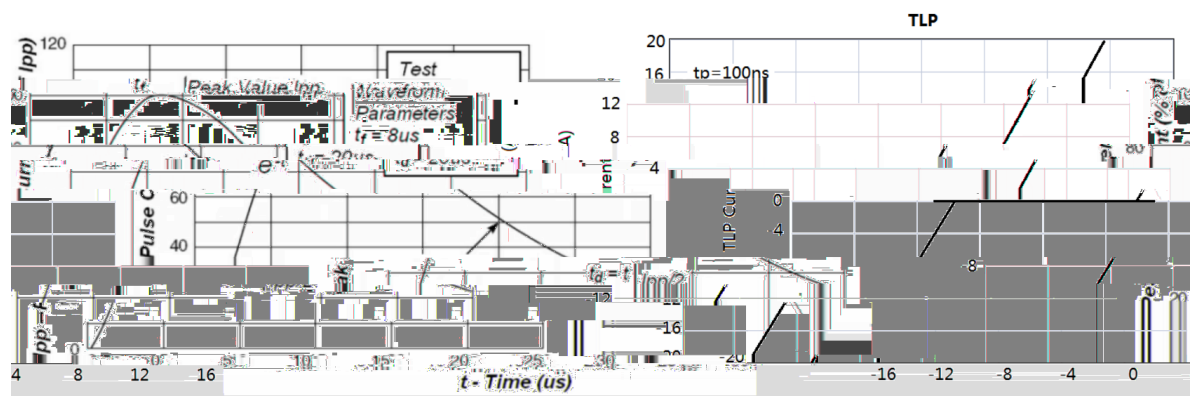
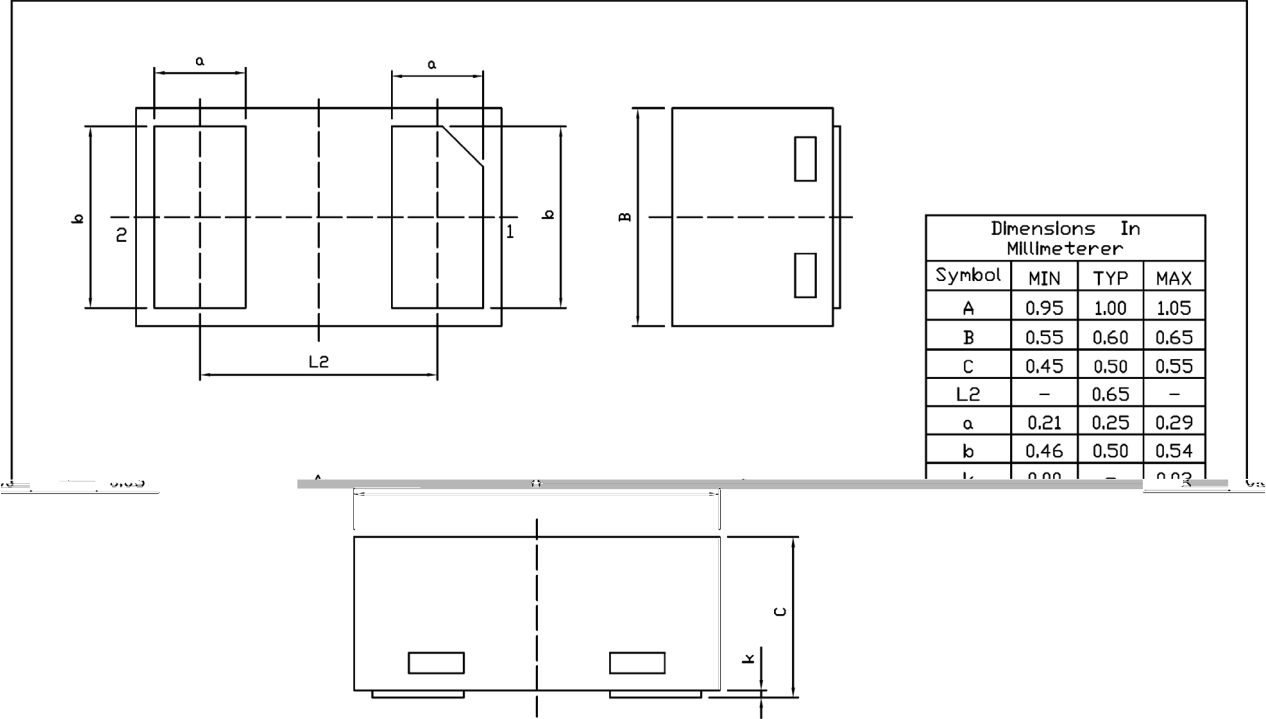


Fig3. Pulse Waveform

Fig4.TLP Measureme

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Unit:mm



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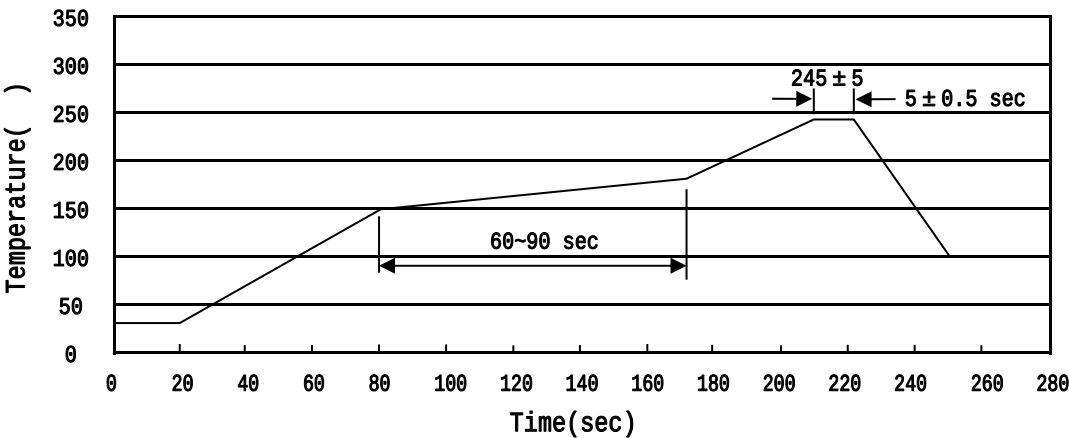


3A

Note

3A 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 ³)		
	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