

/ Descriptions

DFN1006-2L ESD

DFN1006-2L Plastic Package ESD Protection Diode.

/ Features

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.

/ Applications

MP3

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

/ Equivalent Circuit**/ Pinning****/ Marking**

See Marking Instructions.

/ Absolute Maximum Ratings

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	

/ Electrical Characteristics($T_a=25^\circ C$)

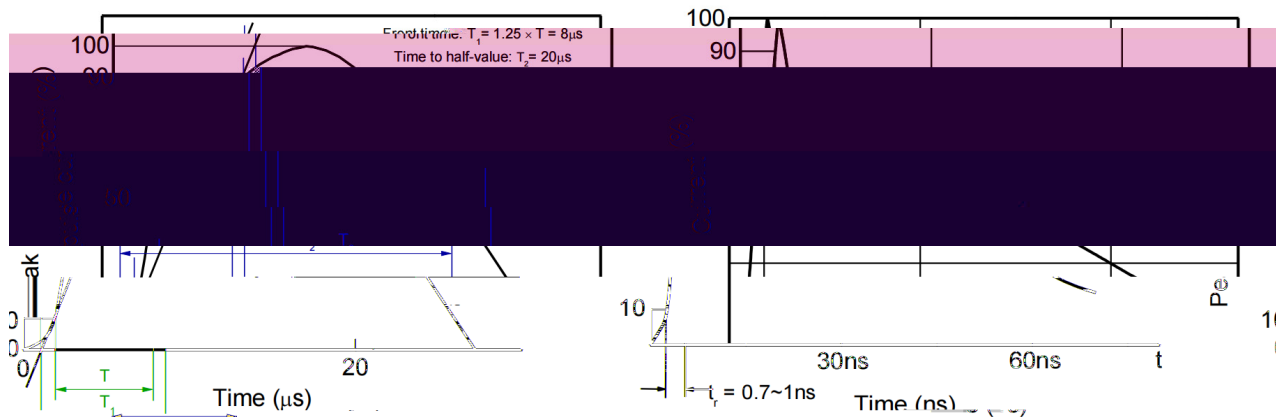
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse maximum working voltage	V_{RWM}				3.3	V
Reverse leakage current	I_R	$V_{RWM} = \pm 3.3V$			± 0.1	μA
Reverse breakdown voltage ¹⁾	V_{BR}	$I_T = 1mA$	5.0		6.8	V
Clamping voltage ²⁾	V_C	$I_{PP} = 1A \quad t_p = 8/20\mu s$			9.8	V
		$I_{PP} = 5.5A \quad t_p = 8/20\mu s$			12.5	V
Junction capacitance	C_J	$V_R = 0V \quad f = 1MHz$			15	pF

Notes:

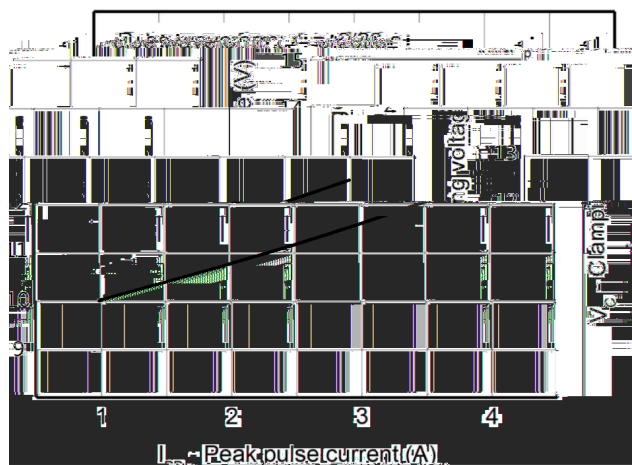
1) V_{BR} is measured with a pulse test current I_T at an ambient temperature of $25^\circ C$.

2) Non-repetitive current pulse, according to IEC61000-4-5.

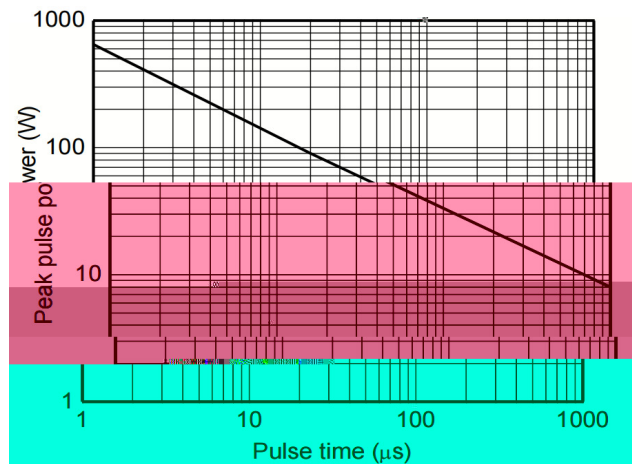
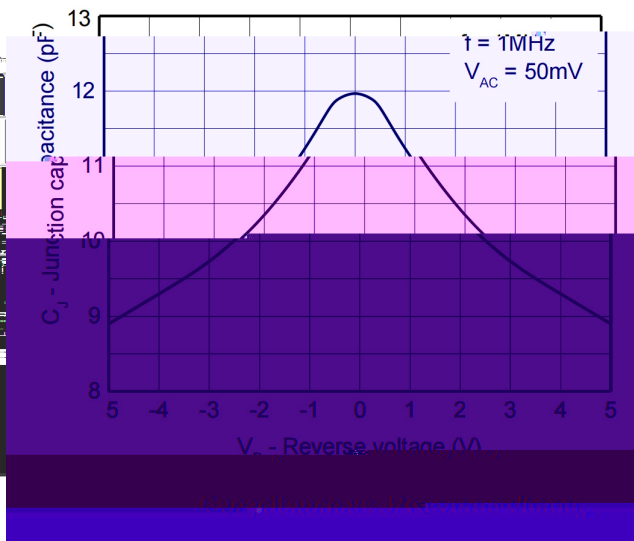
Electrical Characteristic Curve



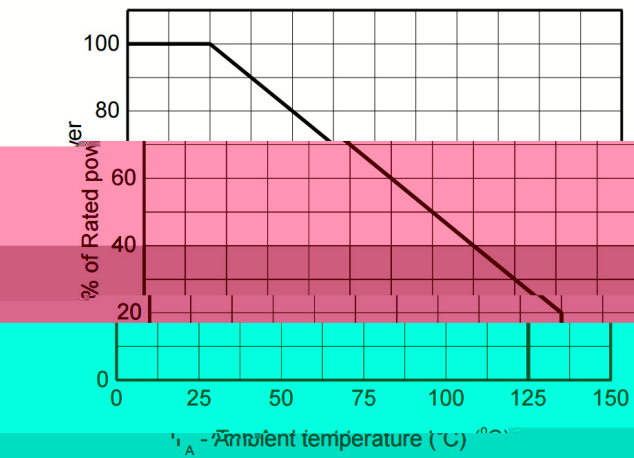
9/20-15 waveform per IEC61000-4-5 Contact discharge current waveform per IEC61000-4-2



Clamping voltage vs. Peak pulse current

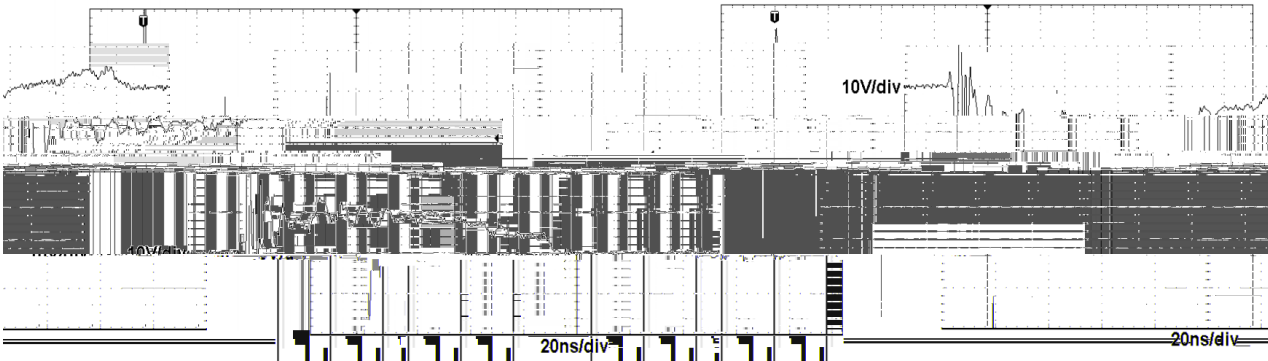


Power vs. Pulse time



Power vs. Ambient temperature

/ Electrical Characteristic Curve



ESD clamping
ESD clamping

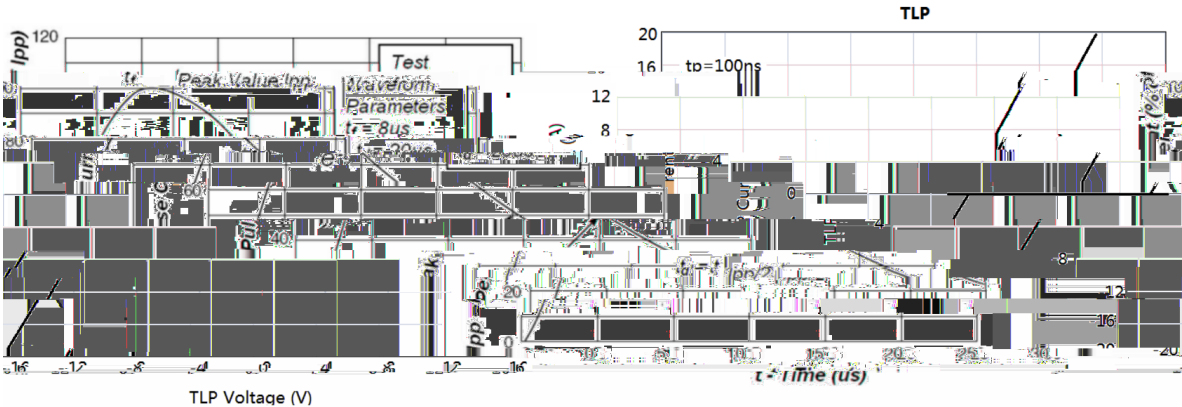
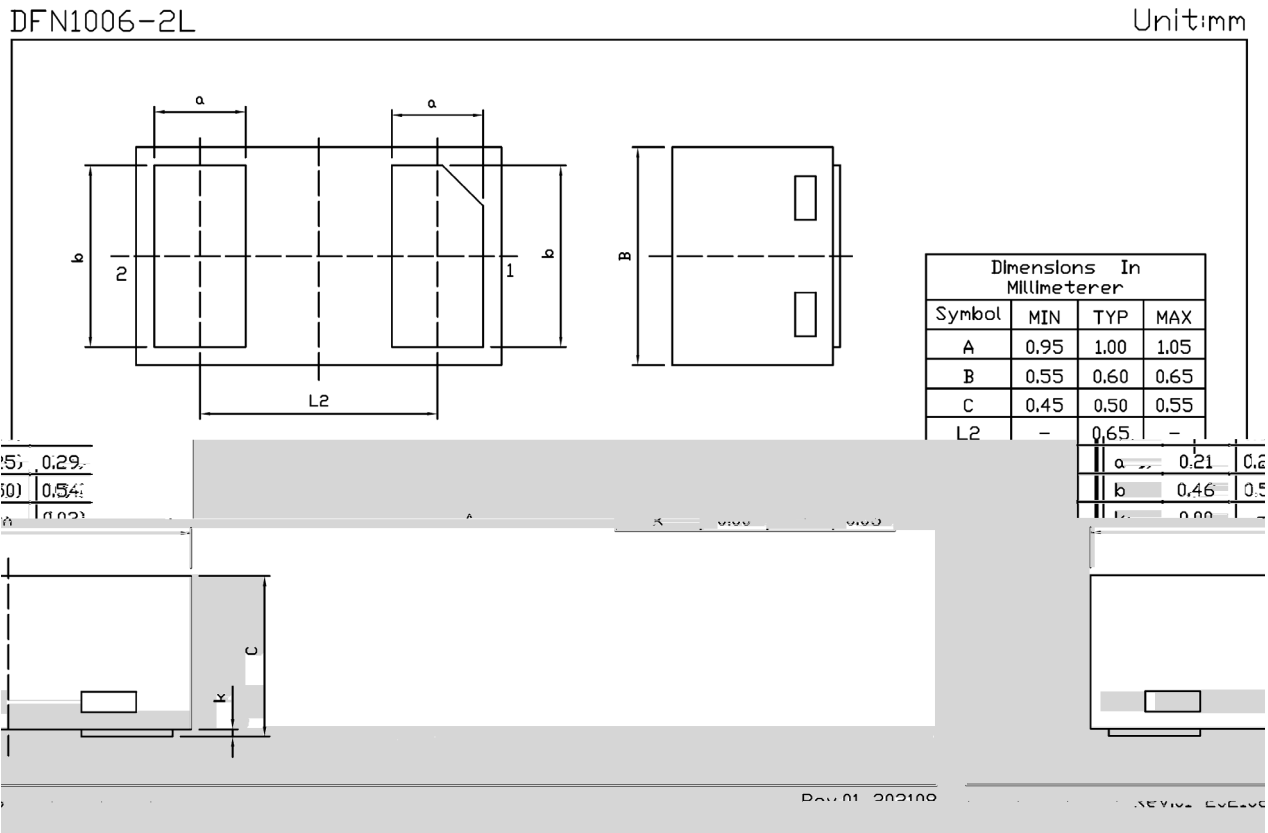


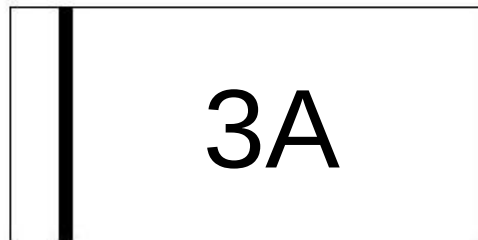
Fig4.TLP Measurement

Fig3.Pulse Waveform

/ Package Dimensions



/ Marking Instructions

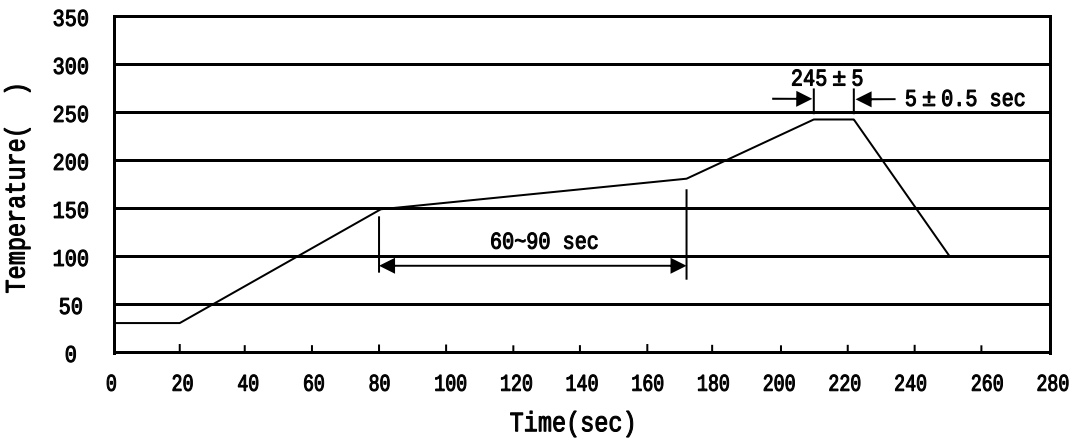


3A

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.

/ Resistance to Soldering Heat Test Conditions

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

/ Packaging SPEC.

/ 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

/ Notices