/ Revised record

版本	修订日期	有修订的页码	修订涉及的内容	拟制	审核
A	2020.09.15	ALL	参照 LX LS3202V7-1N 首次制定	庞隆基	陈逸晞
A	2021-6-28	ALL	DFN1006A-2L 改封装为 DFN1006-2L 删除极性说明	黄超	庞隆基

/ Descriptions

DFN1006-2L 塑封封装单线程双向 ESD 保护二极管。
DFN1006-2L Plastic Package 1-Line,Bi-directional , ESD Protection Diode.

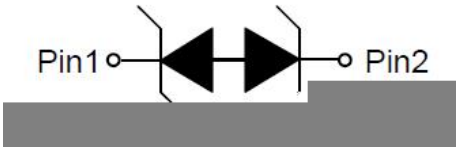
/ Features

- Stand-off voltage: ±7V Max.
- Transient protection for each line according to
  IEC61000-4-2(ESD): ±30kV (contact)
  IEC61000-4-4 (EFT): 40A (5/50ns)
  IEC61000-4-5(surge): 6A (8/20μs)
- Ultra-low capacitance: C_J = 10pF typ.
- Low leakage current:
- Low clamping voltage: V_{CL} =12.0V typ. @ I_{PP} = 16A (TLP)
- Solid-state silicon technology
- HF Product

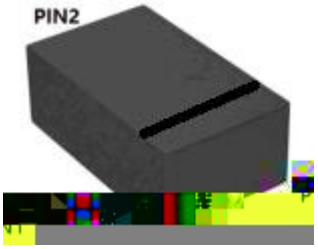
/ Applications

- Cellular handsets
- USB V_{BUS} and CC Line Protection
- Microphone Line Protection
- GPIO Protection

/ Equivalent Circuit



/ Pinning

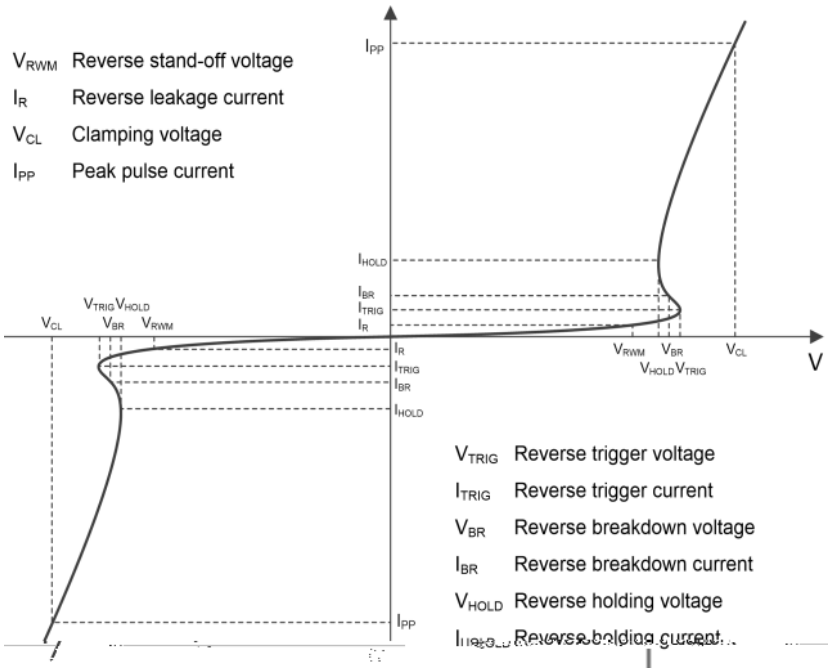


/ Marking

见印章说明。See Marking Instructions.

参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Peak Pulse Power(t_p = 8/20μs)	P_{PK}	78	W

/ Electrical Characteristics(Ta=25)



Definitions of electrical characteristics

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse maximum working voltage	V_{RWM}				±7	V
Reverse leakage current	I_R	V_{RWM} =7V			100	nA
Reverse breakdown voltage	V_{BR}	I_{BR}=1mA	7.2		10.5	V
Reverse holding voltage	V_{HOLD}	I_{HOLD}=50mA	7.2		10.5	V
Clamping voltage [1]	V_{CL}	I_{PP}=16A t_p=100ns		12.0		V
Dynamic resistance [1]	R_{DYN}			0.27		Ω
Clamping voltage [2]	V_{CL}	V_{ESD}= 8kV		12.0		V
Clamping voltage [3]	V_{CL}	I_{PP} = 1A t_p = 8/20μs		8	10	V
		I_{PP} = 6A t_p = 8/20μs		11	13	V
Junction Capacitance	C_J	V_R = 0V f = 1MHz		10	13	pF
	C_J	V_R = 7V f = 1MHz		8	11	pF

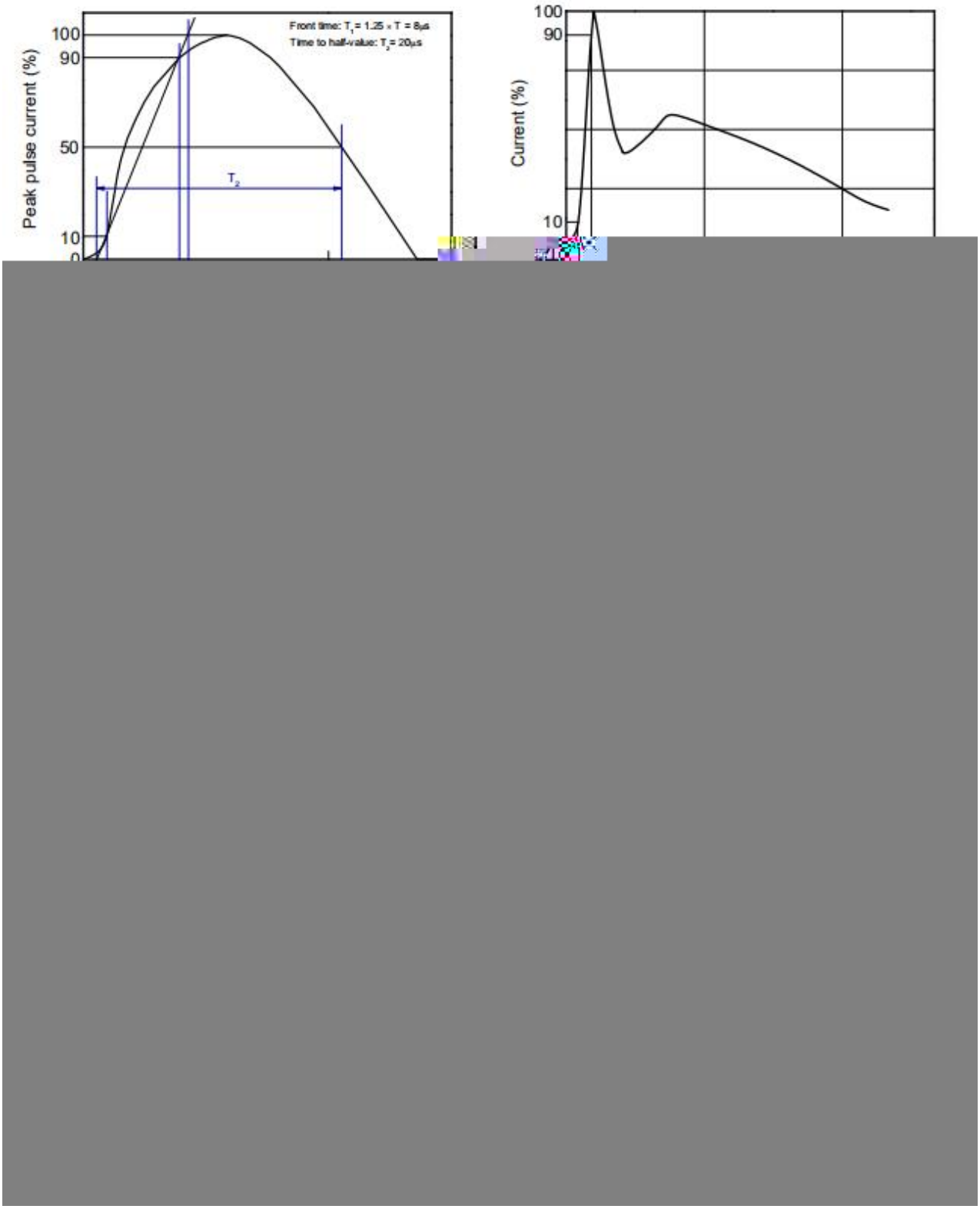
Notes:

1) TLP parameter: Z0 = 50Ω, tp = 100ns, tr = 2ns, averaging window from 60ns to 80ns. RDYN is calculated from 4A to 16A.

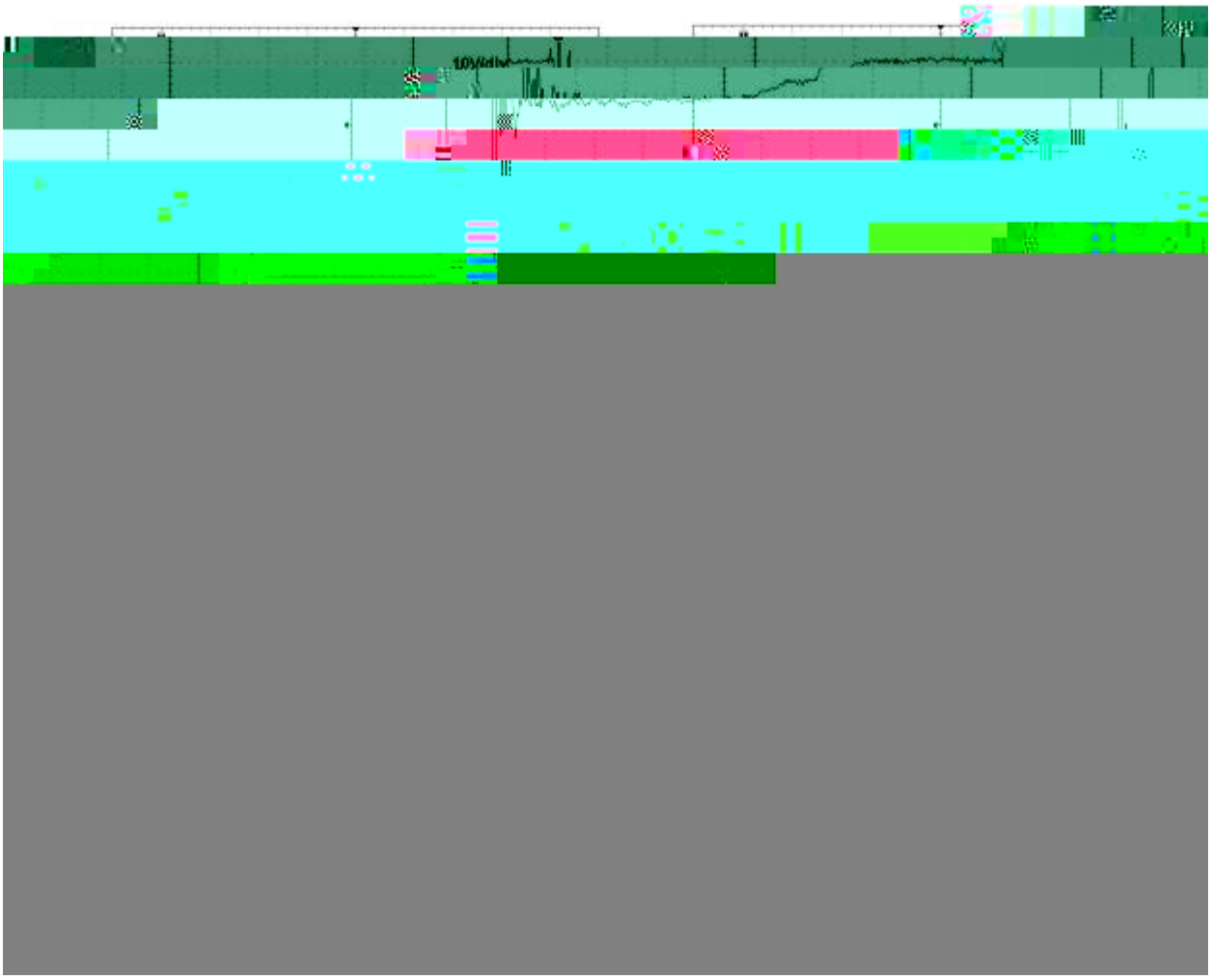
2) Contact discharge mode, according to IEC61000-4-2.

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

/ Electrical Characteristic Curve(Ta=25)

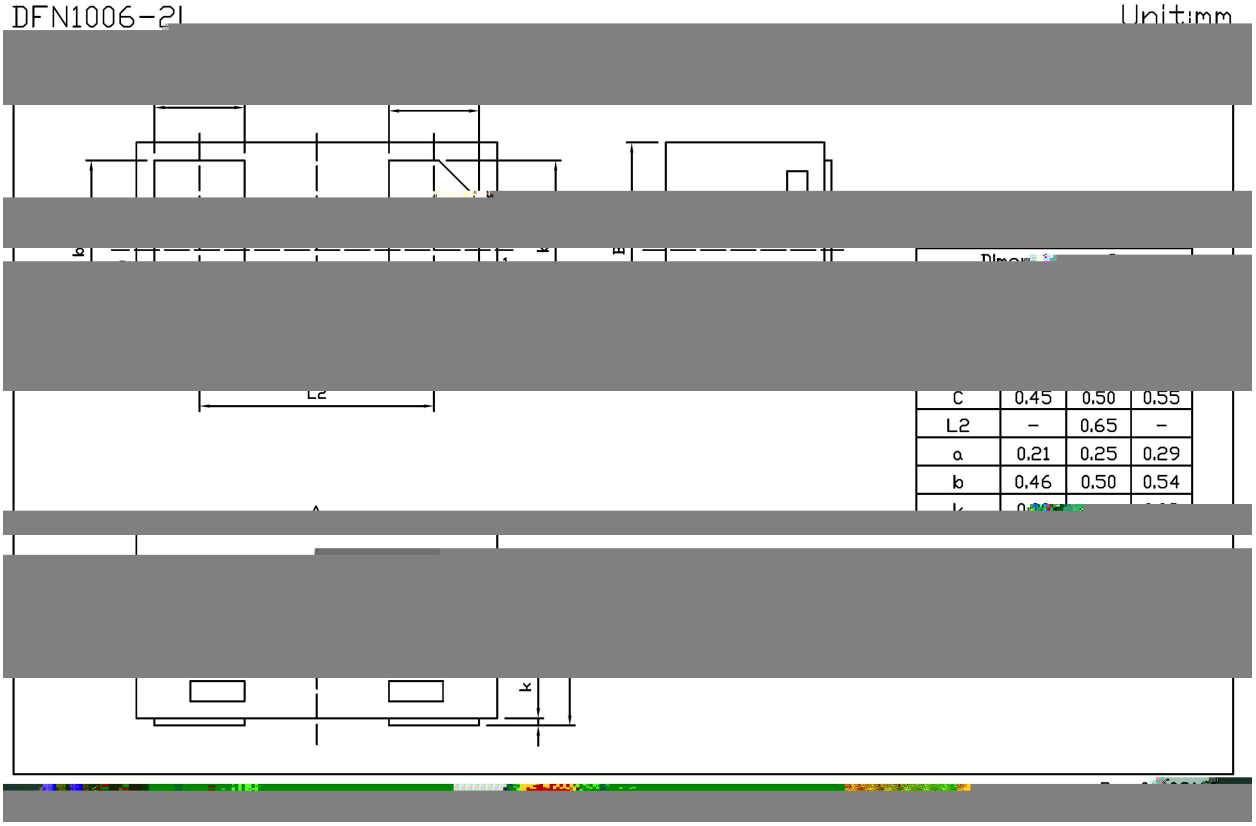


/ Electrical Characteristic Curve(Ta=25)



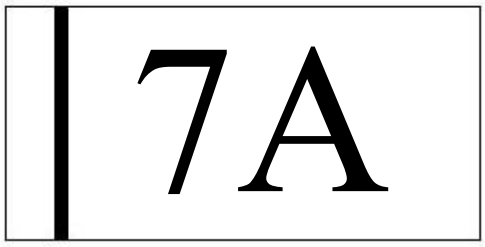
/ Package Dimensions

DFN1006-2L Unit:mm



C	0.45	0.50	0.55
L2	–	0.65	–
a	0.21	0.25	0.29
b	0.46	0.50	0.54

/ Marking Instructions



说明：

7A： 为型号代码

Note：

7A： Product Type.

( ) / 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