

/ 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。

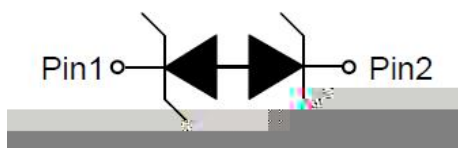
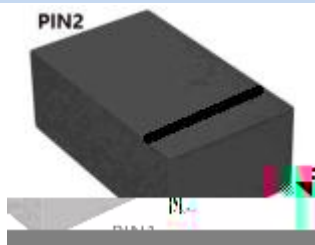
DFN1006-2L Plastic Package 1-Line,Bi-directional , ESD Protection Diode.

/ Features

- ◆ Stand-off voltage: $\pm 7V$ Max.
- ◆ Transient protection for each line according to
 - IEC61000-4-2(ESD): $\pm 30kV$ (contact)
 - IEC61000-4-4 (EFT): 40A (5/50ns)
 - IEC61000-4-5(surge): 6A (8/20 μs)
- ◆ 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

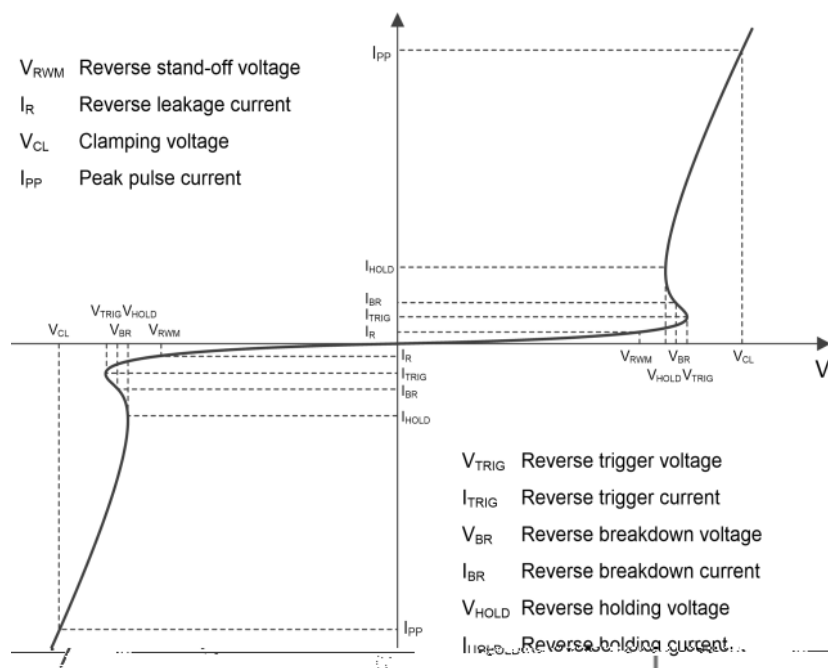
/ Applications

- ◆ 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($t_p = 8/20\mu s$)	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}	$I_{PP} = 1A$ $t_p = 8/20\mu s$		8	10	V
		$I_{PP} = 6A$ $t_p = 8/20\mu s$		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

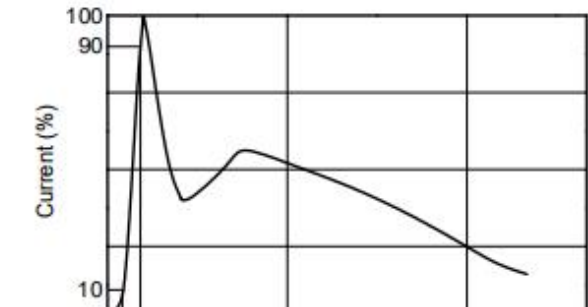
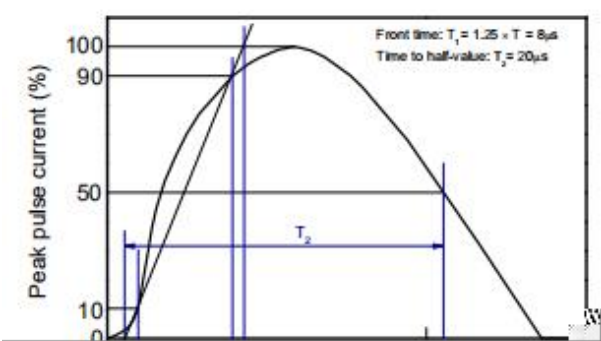
Notes:

1) TLP parameter: $Z_0 = 50\Omega$, $t_p = 100ns$, $t_r = 2ns$, averaging window from 60ns to 80ns. R_{DYN} is calculated from 4A to 16A.

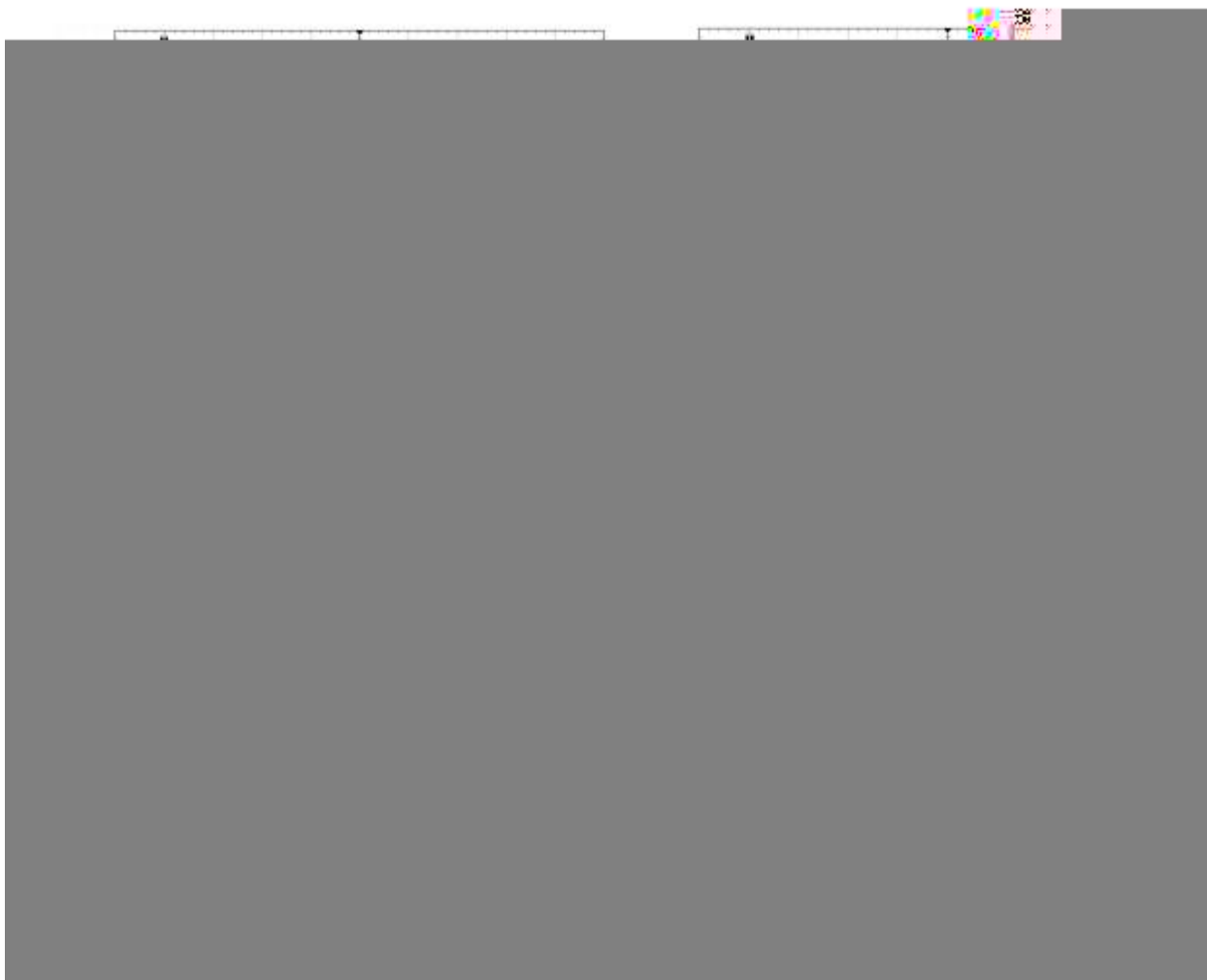
2) Contact discharge mode, according to IEC61000-4-2.

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

/ Electrical Characteristic Curve(Ta=25)

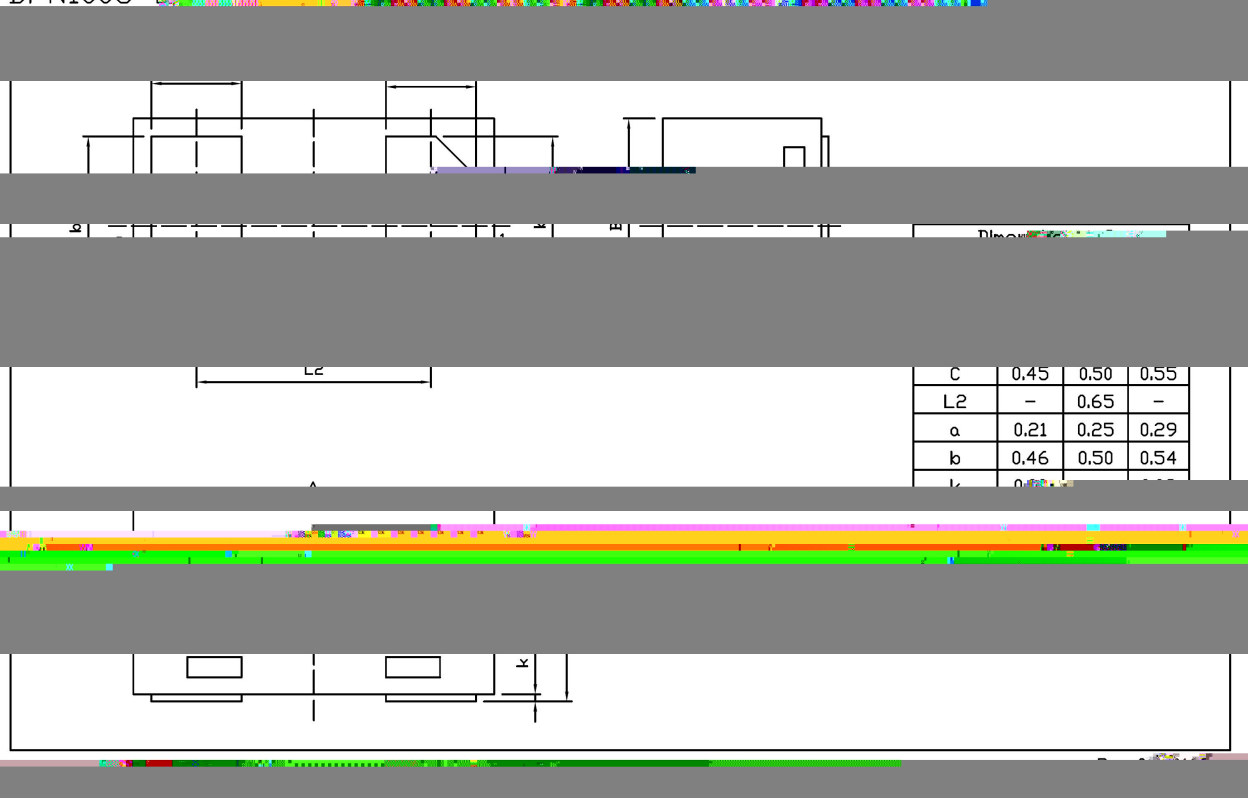


/ Electrical Characteristic Curve(Ta=25)

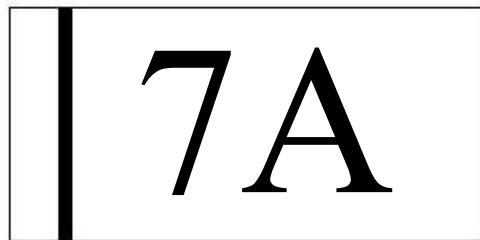


/ Package Dimensions

DFN1006-2L Unit:mm



/ 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;
- 2 245±5°C 5±0.5sec;
- 3 2 10°C/sec.

- 1.Preheating:150~180°C, Time:60~90sec.
- 2.Peak Temp.:245±5°C, Duration:5±0.5sec.
3. Cooling Speed: 2~10°C/sec.

/ Resistance to Soldering Heat Test Conditions

260±5°C

10±1 sec.

Temp.:260±5°C

Time:10±1 sec