

描述 / Descriptions

DFN1006-2L 塑封封装 ESD 保护二极管。
DFN1006-2L Plastic Package ESD Protection Diode.

特征 / Features

超小封装，正常响应时间小于 1ns，防静电等级达到 3 级（16KV 以上），符合 IEC61000-4-2 的 4 级 ESD 保护项目，符合 AEC-Q101 标准高可靠性要求，无卤产品。

Ultra small package, Response Time is Typically < 1 ns, ESD Rating of Class 3 (> 16 kV) per Human Body Model, IEC61000-4-2 Level 4 ESD Protection, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

用途 / Applications

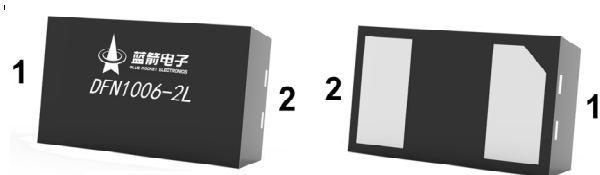
适用于手机音频、MP3 播放器、数码相机、便携式设备、移动电话等用户端，满足汽车应用的严格要求。

Suitable for cellular phones audio, MP3 players, Digital cameras, Portable devices, mobile telephone and other users, Meet the stringent requirements of automotive applications.

内部等效电路 / Equivalent Circuit



引脚排列 / Pinning



印章代码 / Marking

见印章说明。See Marking Instructions.

极限参数 / Absolute Maximum Ratings(Ta=25°C)

参数 Parameter	符号 Symbol	数值 Rating	单位 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}	± 15	KV
ESD according to IEC61000-4-2 contact discharge		± 8	
Junction temperature	T_J	150	°C
Storage temperature	T_{STG}	-55~+150	°C

电性能参数 / Electrical Characteristics(Ta=25°C)

参数 Parameter	符号 Symbol	测试条件 Test Conditions	最小值 Min	典型值 Typ	最大值 Max	单位 Unit
Reverse maximum working voltage	V_{RWM}				5.0	V
Reverse leakage current	I_R	$V_{RWM} = 5V$			0.5	μA
		$V_{RWM} = 3.5V$			0.3	μA
Reverse breakdown voltage ¹⁾	V_{BR}	$I_T = 1mA$	5.6			V
Clamping voltage ²⁾	V_C	$I_{PP} = 1A$ $t_p = 8/20\mu s$			9.8	V
		$I_{PP} = 5.5A$ $t_p = 8/20\mu s$			12.5	V
Junction capacitance	C_J	$V_R = 0V$ $f = 1MHz$			15	pF

Notes:

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

电参数曲线图 / Electrical Characteristic Curve

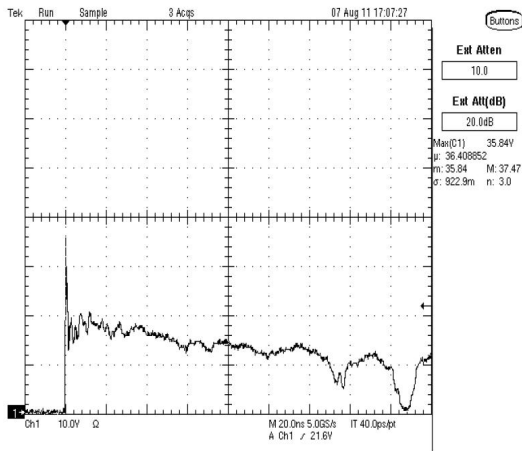


Fig1. ESD Clamping Voltage Screenshot

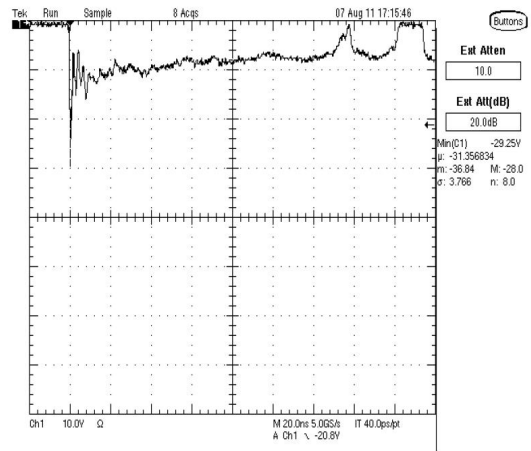


Fig2. ESD Clamping Voltage Screenshot

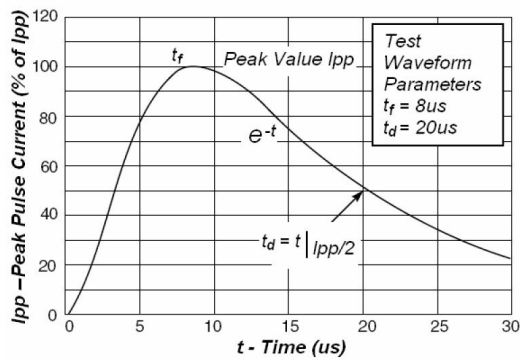
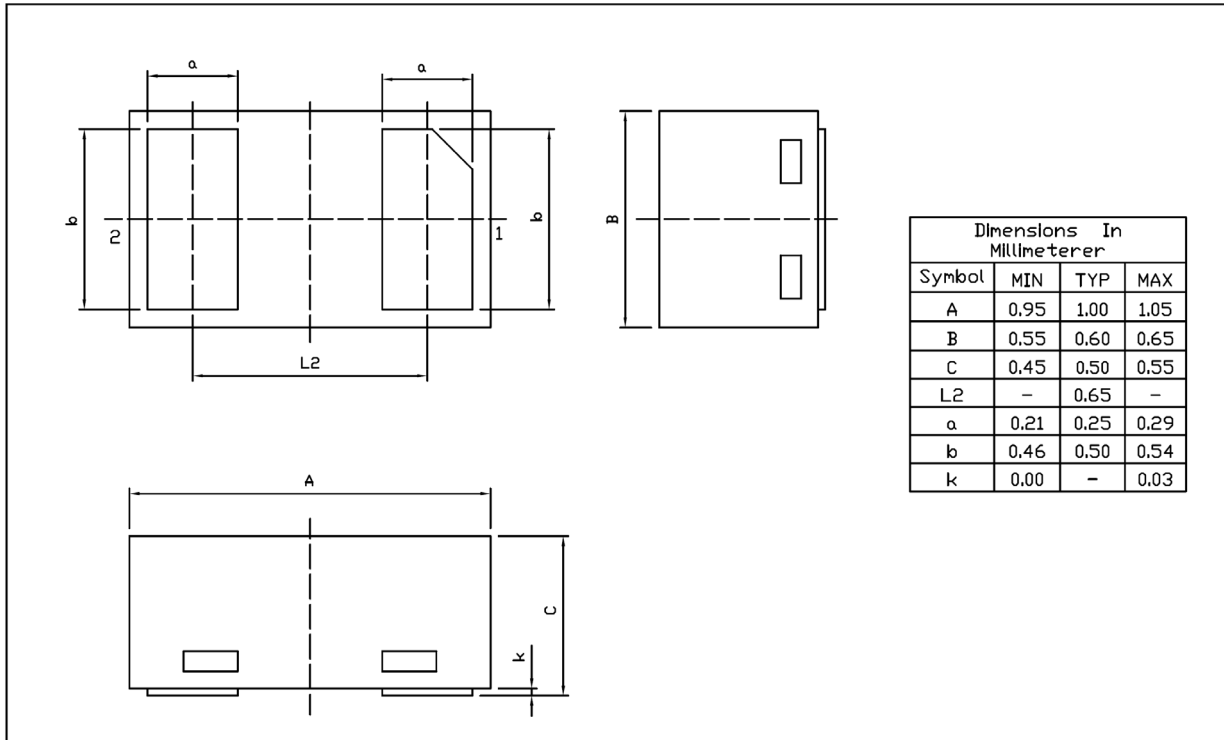


Fig3. Pulse Waveform

外形尺寸图 / Package Dimensions

DFN1006-2L

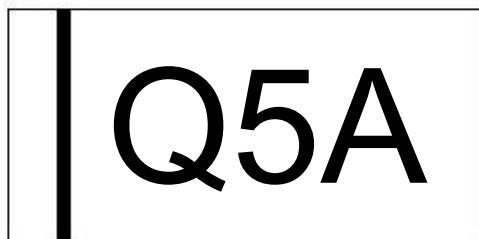
Unit:mm



Dimensions In Millimeterer			
Symbol	MIN	TYP	MAX
A	0.95	1.00	1.05
B	0.55	0.60	0.65
C	0.45	0.50	0.55
L2	-	0.65	-
a	0.21	0.25	0.29
b	0.46	0.50	0.54
k	0.00	-	0.03

Rev.01 202108

印章说明 / Marking Instructions



说明：

Q： 为汽车无卤产品标识

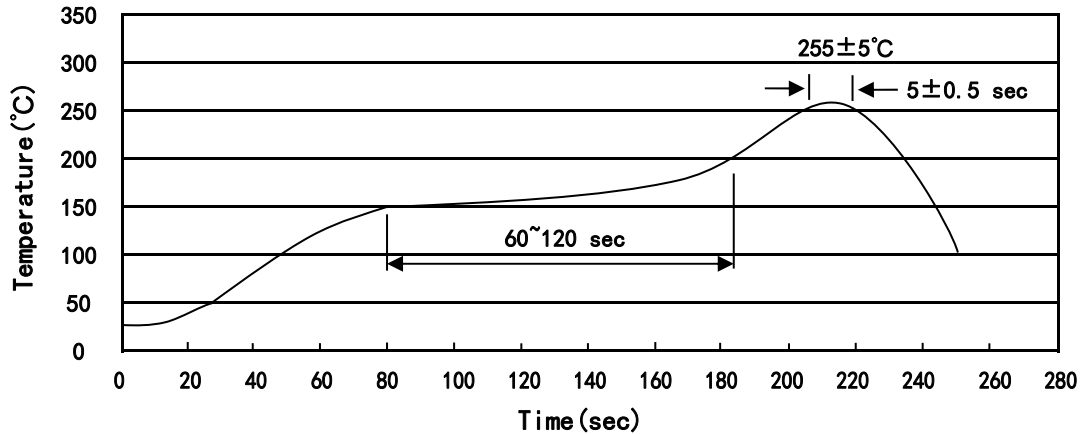
5A： 为型号代码

Note：

Q: Automobile halogen-free product Code

5A: Product Type

回流焊温度曲线图(无铅) / Temperature Profile for IR Reflow Soldering(Pb-Free)



说明：

- 1、预热温度 150~200°C，时间 60~120sec;
- 2、峰值温度 255±5°C，时间持续为 5±0.5sec;
- 3、焊接制程冷却速度为 2~10°C/sec.

Note:

- 1.Preheating:150~200°C, Time:60~120sec.
- 2.Peak Temp.:255±5°C, Duration:5±0.5sec.
3. Cooling Speed: 2~10°C/sec.

耐焊接热试验条件 / Resistance to Soldering Heat Test Conditions

温度：260±5°C

时间：10±1 sec.

Temp.:260±5°C

Time:10±1 sec

包装规格 / Packaging SPEC.

卷盘包装 / REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
DFN1006-2L	10,000	10	100,000	6	600,000	7" ×8	180×120×180	390×385×205

使用说明 / Notices