

**描述 / Descriptions**

DFN0603 塑封封装 ESD 保护二极管。

DFN0603 Plastic Package ESD Protection Diode.

特征 / Features

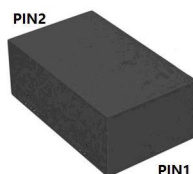
超小封装，正常响应时间小于 1ns，防静电等级达到 3 级（16KV 以上），符合 IEC61000-4-2 的 4 级 ESD 保护项目。无卤产品。

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. 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。

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

内部等效电路 / Equivalent Circuit**引脚排列 / Pinning****放大及印章代码 / h_{FE} Classifications & 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}				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°C.

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



电参数曲线图 / Electrical Characteristic Curve

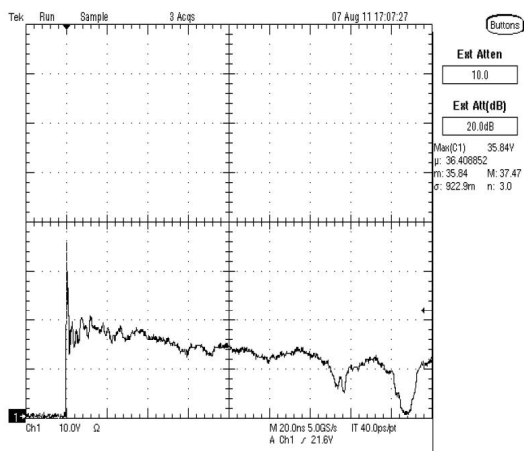


Fig1. ESD Clamping Voltage Screenshot

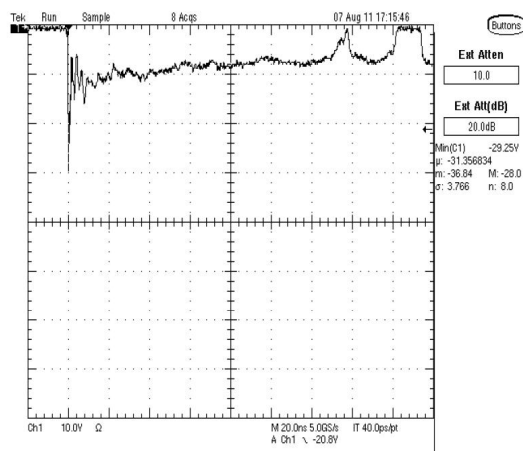


Fig2. ESD Clamping Voltage Screenshot

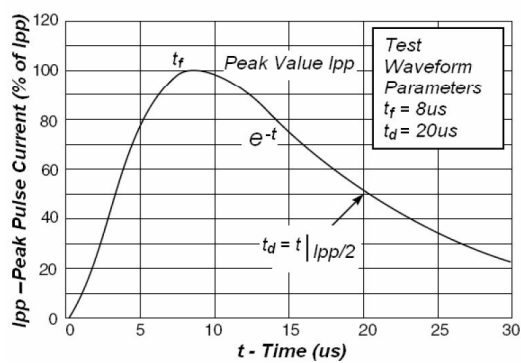
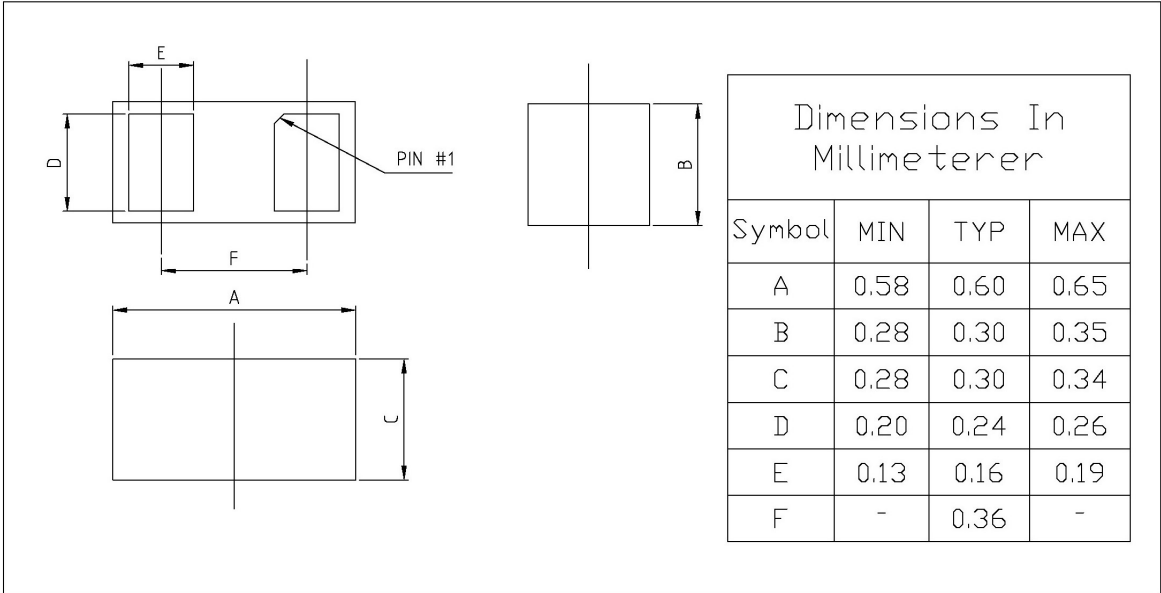


Fig3. Pulse Waveform

外形尺寸图 / Package Dimensions

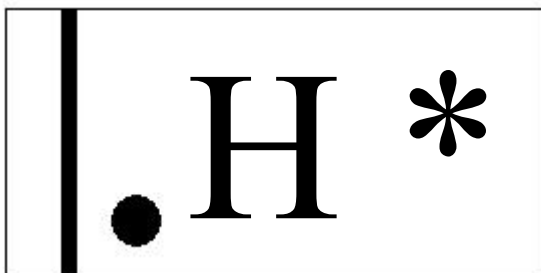
DFN0603-2L

Unit:mm





印章说明 / Marking Instructions



说明：

H：为型号代码

*：为生产批号代码，随生产批号变化

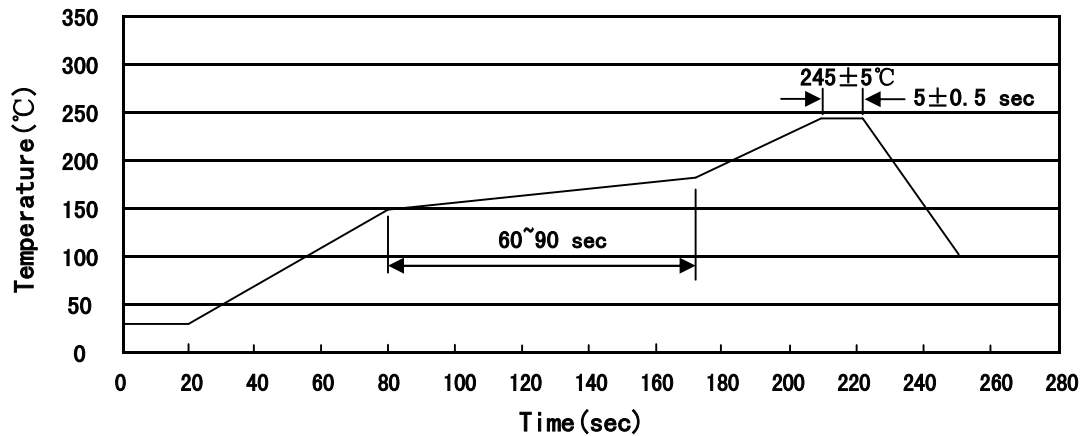
Note：

H：Product Type.

*：Lot No. Code,code change with Lot No.



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 ~ 180°C，时间 60 ~ 90sec;
- 2、峰值温度 245±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:150~180°C, Time:60~90sec.
- 2.Peak Temp.:245±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
DFN0603-2L	15,000	10	150,000	6	900,000	7" ×8	180×120×180	390×385×205

使用说明 / Notices