

# BRES3V3L1B2Z

Rev.C Oct.-2022

## 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 30KV 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 > 30KV per Human Body Model, IEC61000-4-2 Level 4 ESD Protection, HF Product.

## 用途 / Applications

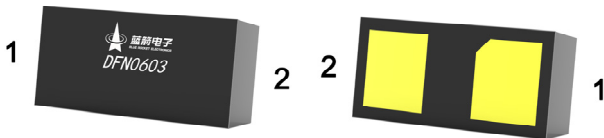
适用于手机音频、MP3 播放器、数码相机、便携式设备、移动电话等用户端。

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



## 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 <sub>K</sub>	69	W
Peak pulse current ( $t_p = 8/20\mu s$ )	I <sub>PP</sub>	5.5	A
ESD according to IEC61000-4-2 air discharge	V <sub>ESD</sub>	±30	KV
ESD according to IEC61000-4-2 contact discharge		±30	
Junction temperature	T <sub>J</sub>	150	°C
Storage temperature	T <sub>STG</sub>	-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 <sub>RWM</sub>				3.3	V
Reverse leakage current	I <sub>R</sub>	V <sub>RWM</sub> = 3.3V			0.1	uA
Reverse breakdown voltage <sup>1)</sup>	V <sub>BR</sub>	I <sub>T</sub> = 1mA	5.0		6.8	V
Clamping voltage <sup>2)</sup>	V <sub>C</sub>	I <sub>PP</sub> = 1A    t <sub>p</sub> = 8/20μs			9.8	V
		I <sub>PP</sub> = 5.5A    t <sub>p</sub> = 8/20μs			12.5	V
Junction capacitance	C <sub>J</sub>	V <sub>R</sub> = 0V    f = 1MHz			15	pF

Notes:

- 1) V<sub>BR</sub> is measured with a pulse test current I<sub>T</sub> 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**

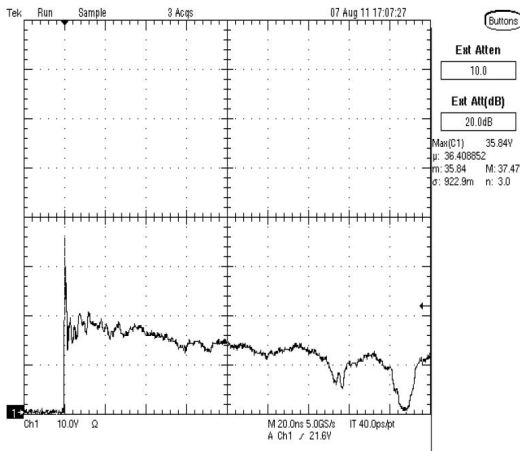


Fig1. ESD Clamping Voltage Screenshot

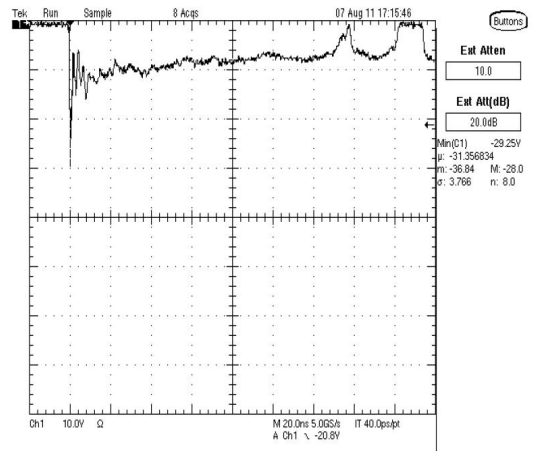


Fig2. ESD Clamping Voltage Screenshot

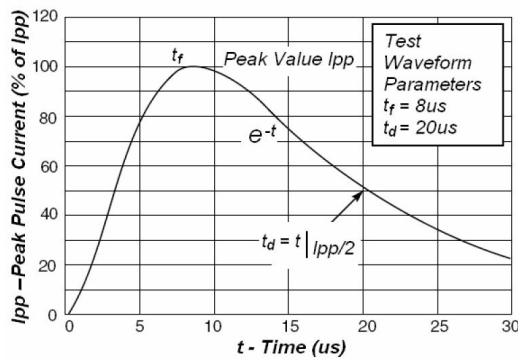
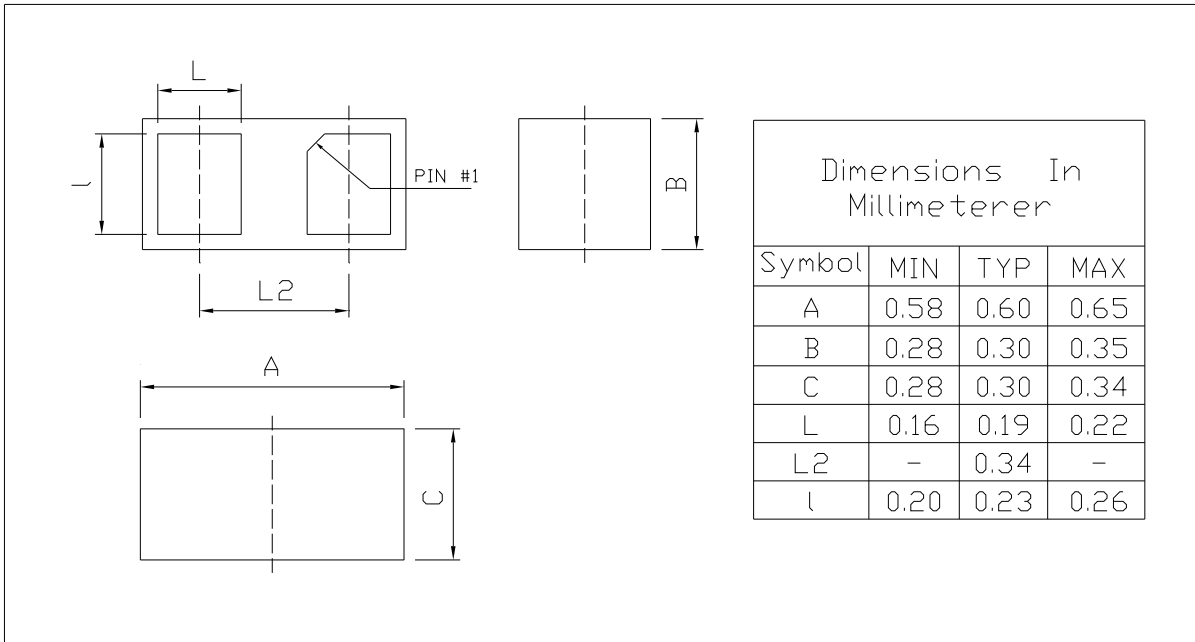


Fig3. Pulse Waveform

**外形尺寸图 / Package Dimensions**

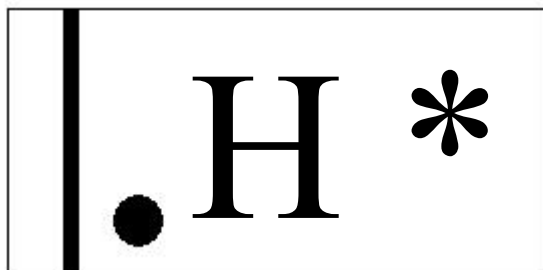
DFN0603

Unit:mm



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印章说明 / Marking Instructions



说明：

H： 为型号代码

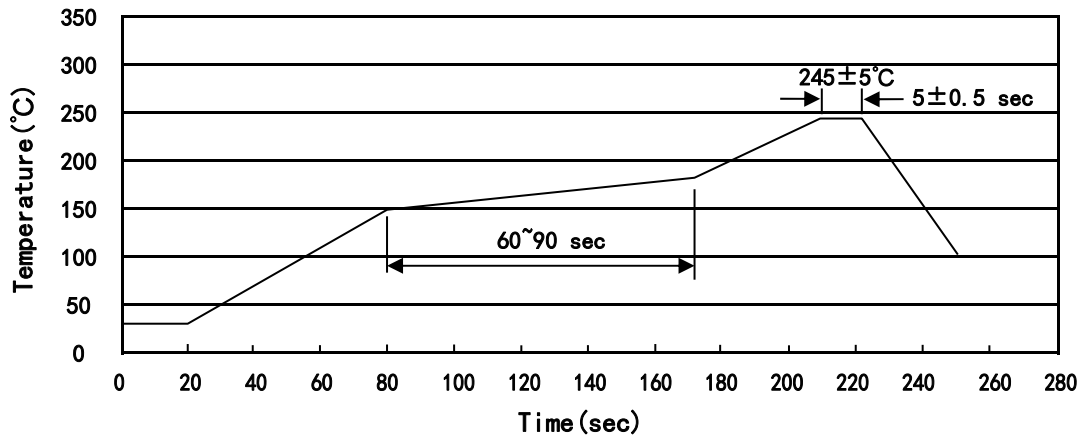
\*： 为生产批号代码，随生产批号变化

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 <sup>3</sup> )		
	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	4	600,000	7" ×8	210×205×205	445×230×435

**使用说明 / Notices**