

BRES5V0F1U2Z-02

Rev.C Jun.-2018

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，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, IEC61000-4-2 Level 4 ESD Protection .
HF Product.

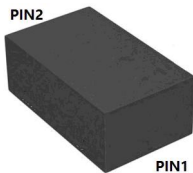
用途 / Applications

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



PIN1:Cathode

PIN2:Anode

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_{PK}	80	W
ESD according to IEC61000-4-2 air discharge	V_{ESD}	± 15	KV
ESD according to IEC61000-4-2 contact discharge		± 8	
Operating Temperature Range	T_J	-55~+125	°C
Storage Temperature Range	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	$V_{RWM} = 5V$		30	200	nA
Forward voltage	V_F	$I_F = 15mA$			1.2	V
Reverse breakdown voltage ¹⁾	V_{BR}	$I_T = 1mA$	6			V
Clamping voltage ²⁾	V_C	$I_{PP} = 1A$ $t_p = 8/20\mu s$			9	V
		$I_{PP} = 5A$ $t_p = 8/20\mu s$			16	V
Junction Capacitance	C_J	$V_R = 0V$ $f = 1MHz$		0.5	0.6	pF

Notes:

Stresses exceeding Maximum Ratings may damage the device. Maximum Rating are stress ratings only. Functional operation above the Recommended Operating Conditions is not implied. Extended exposure to stresses above the Recommended Operating Conditions may affect device reliability.

- V_{BR} is measured with a pulse test current I_T at an ambient temperature of 25°C
- Surge current waveform per Figure 1.

电参数曲线图 / Electrical Characteristic Curve

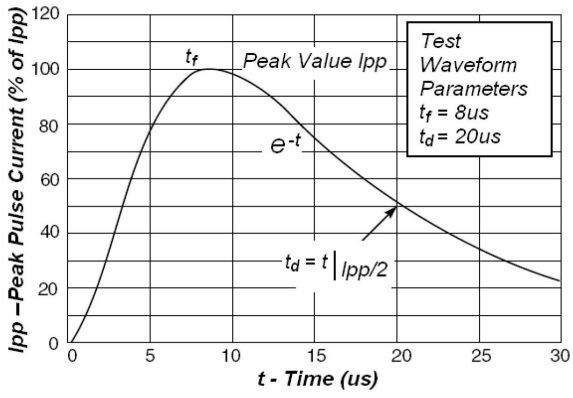


Fig1. Pulse Waveform

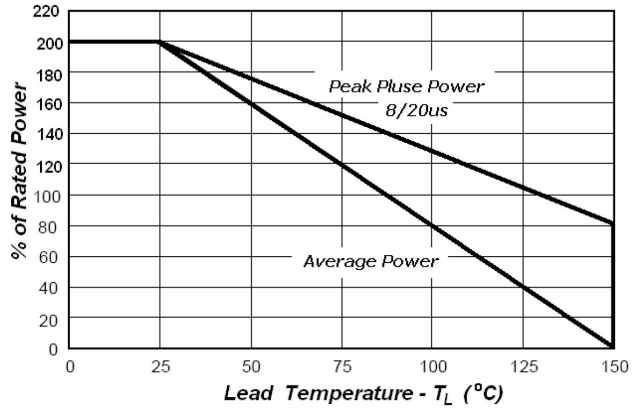
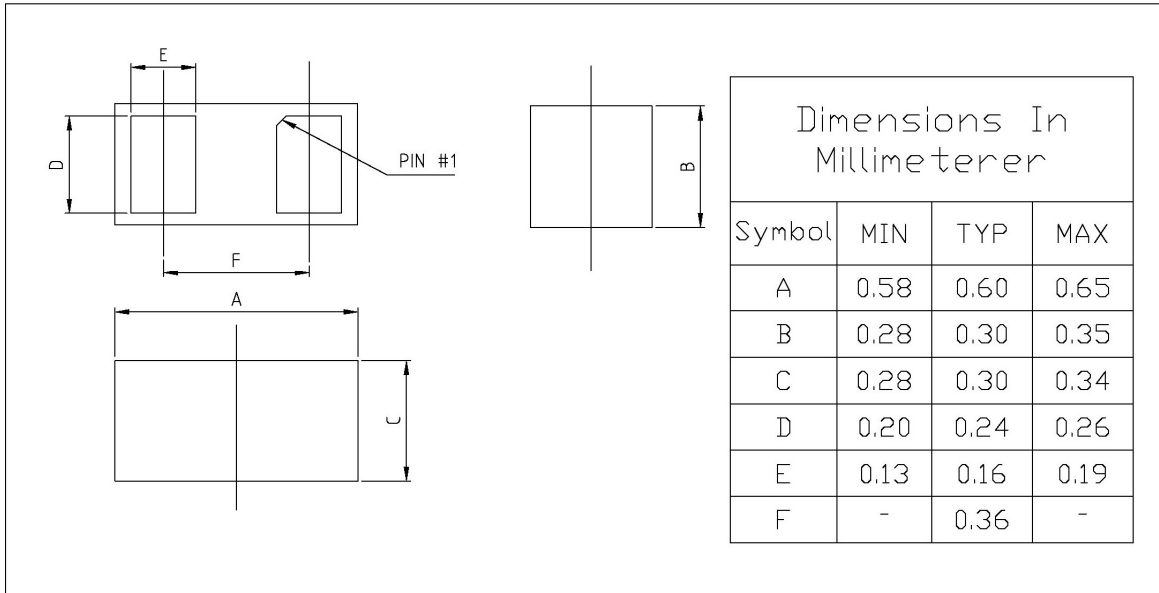


Fig2. Power Derating Curve

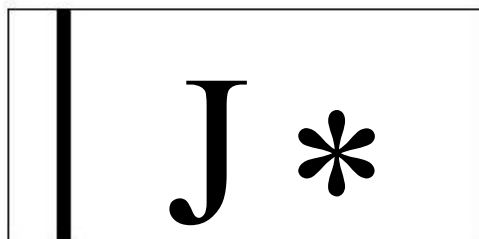
外形尺寸图 / Package Dimensions

DFN0603-2L

Unit:mm



印章说明 / Marking Instructions



说明：

J： 为型号代码

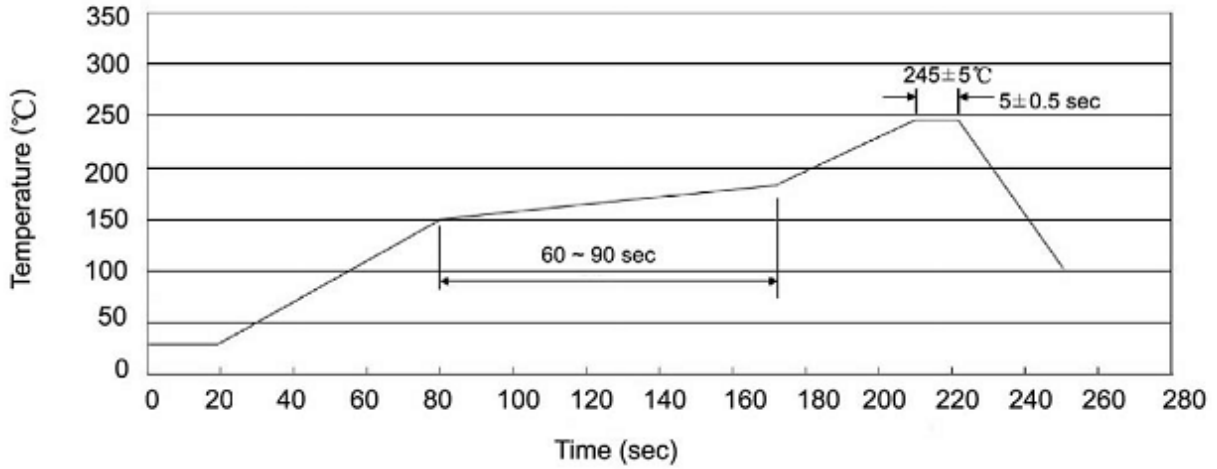
*： 为生产批号代码，随生产批号变化

Note：

J： Product Type.

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

波峰焊温度曲线图(无铅) / Temperature Profile for Dip 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" x8	180×120×180	390×385×205

使用说明 / Notices