

# BRES3V3L1B2Z

Rev.C Oct.-2022

## / Descriptions

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DFN0603 Plastic Package ESD Protection Diode.

## / Features

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Ultra small package, Response Time is Typically < 1 ns, ESD > 30KV per Human Body Model,IEC61000 4 2 Level 4 ESD Protection,HF Product.

## / Applications

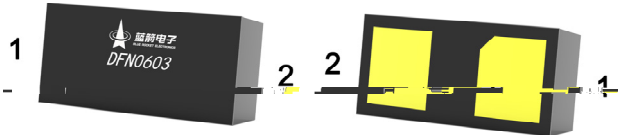
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Suitable for cellular phones audio,MP3 players, Digital cameras, Portable devices, mobile telephone and other users.

## / Equivalent Circuit



## / Pinning



## / Marking

See Marking Instructions.

**/ Absolute Maximum Ratings(Ta=25 )**

Parameter	Symbol	Rating	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	$V_{ESD}$	$\pm 30$	KV
ESD according to IEC61000-4-2 contact discharge		$\pm 30$	
Junction temperature	$T_J$	150	
Storage temperature	$T_{STG}$	-55~+150	

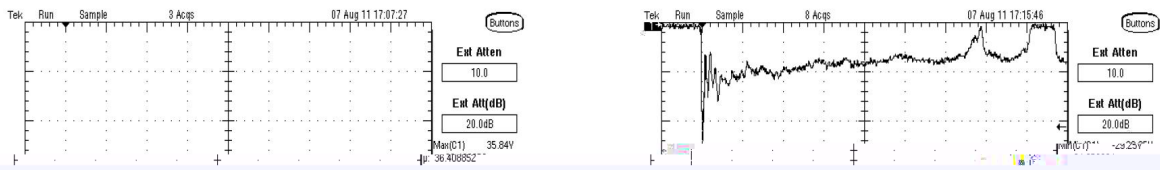
**/ Electrical Characteristics(Ta=25 )**

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse maximum working voltage	$V_{RWM}$				3.3	V
Reverse leakage current	$I_R$	$V_{RWM} = 3.3V$			0.1	$\mu A$
Reverse breakdown voltage <sup>1)</sup>	$V_{BR}$	$I_T = 1mA$	5.0		6.8	V
Clamping voltage <sup>2)</sup>	$V_C$	$I_{PP} = 1A \quad t_p = 8/20\mu s$			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 .
- 2) Non-repetitive current pulse, according to IEC61000-4-5.

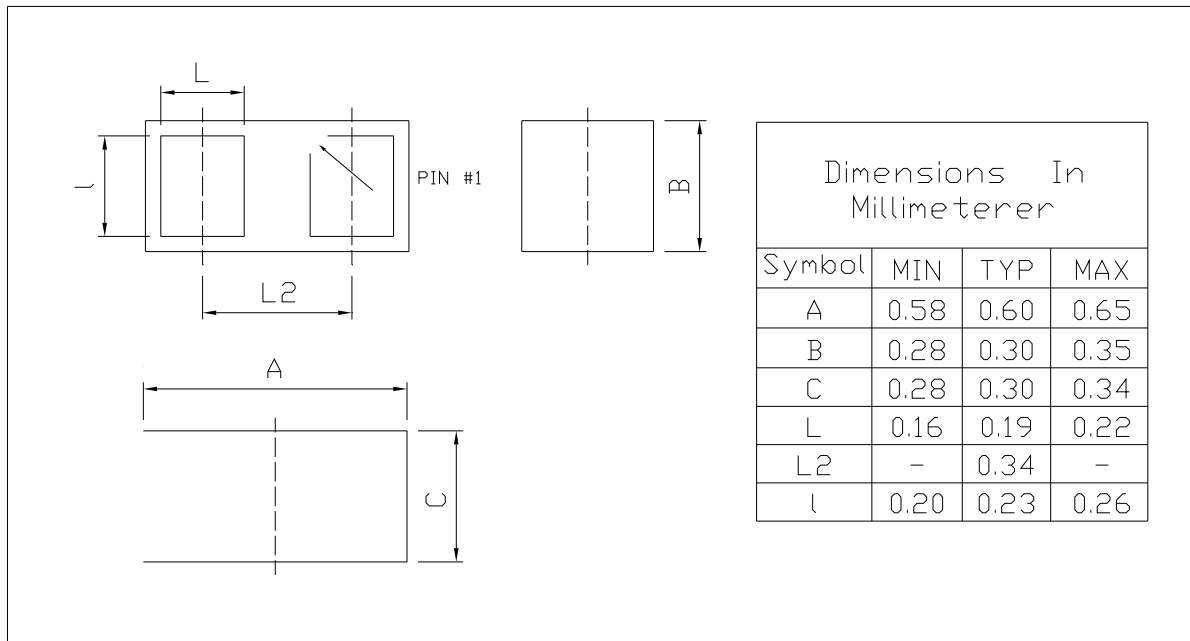
/ **Electrical Characteristic Curve**



**/ Package Dimensions**

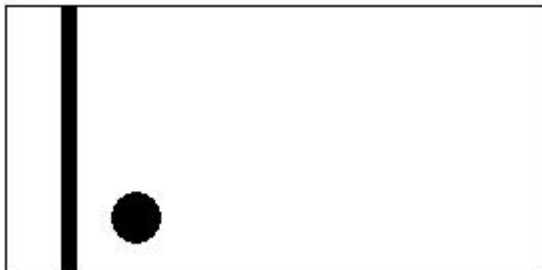
DFN0603

Unit:mm



Rev.02 202102

**/ Marking Instructions**



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Note

H      Product Type

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

**( ) / Temperature Profile for IR Reflow Soldering(Pb-Free)**


**Note:**

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

**/ Resistance to Soldering Heat Test Conditions**

260..5	10..1 sec.	Temp.:260±5	Time:10±1 sec
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**/ Packaging SPEC.**

/ REEL