

# BRESD5V0L1B2ZAQ

Rev.B Oct.-2023

## / Descriptions

DFN0603          ESD  
DFN0603 Plastic Package ESD Protection Diode.

## / Features

1ns                                  30KV                                  IEC61000-4-2    4    ESD  
AEC-Q101  
Ultra small package, Response Time is Typically < 1 ns, ESD > 30 kV per Human Body Model, IEC61000-4-2 Level 4 ESD Protection, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

## / Applications

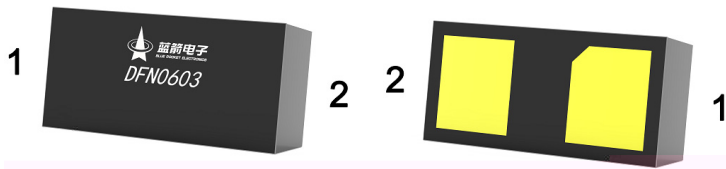
MP3

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

## / Equivalent Circuit



## / Pinning



## / Marking

See Marking Instructions.

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

Parameter	Symbol	Rating	Unit
Peak pulse power ( $t_p = 8/20\mu s$ )	$P_K$	35	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	

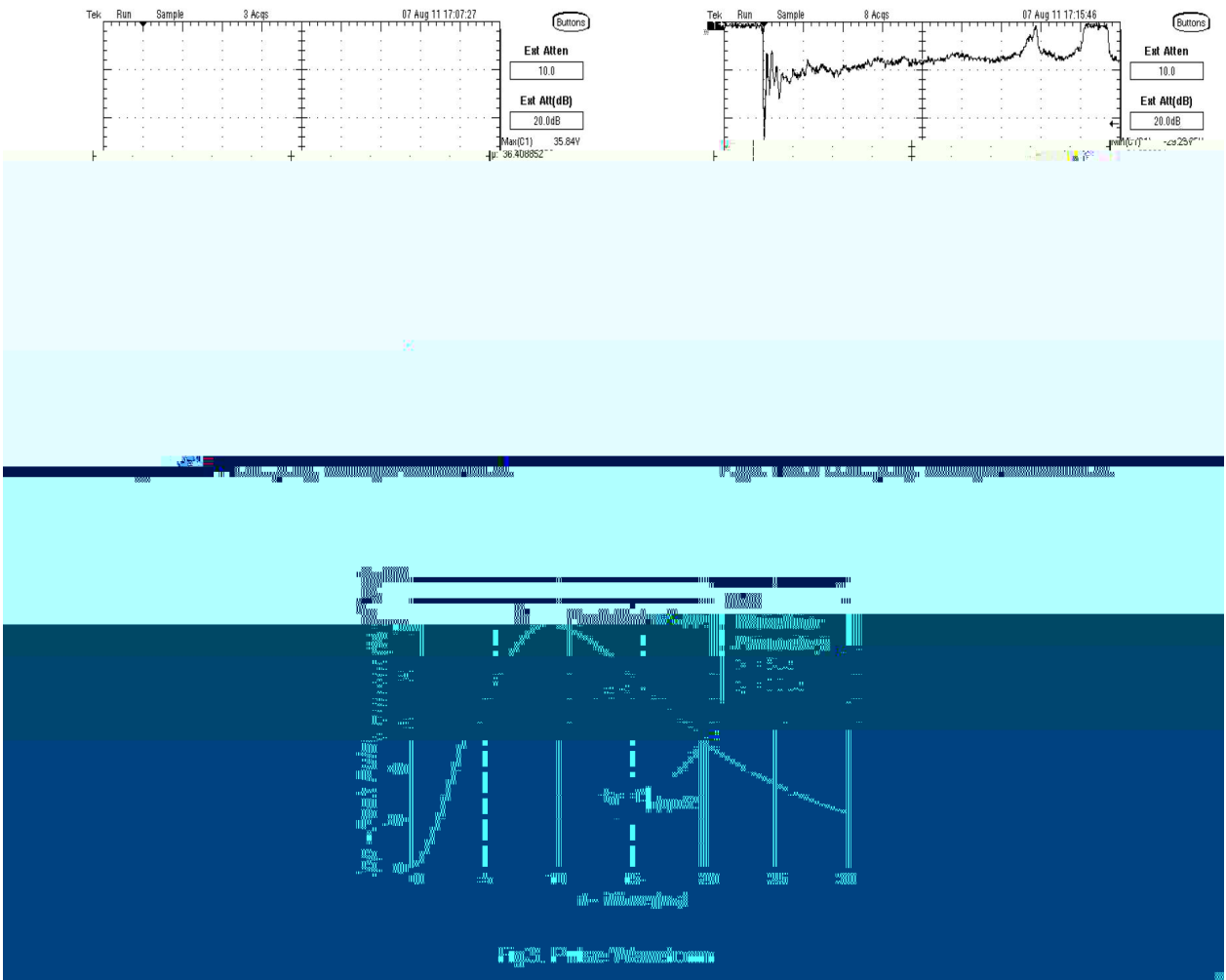
**/ Electrical Characteristics(Ta=25 )**

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse maximum working voltage	$V_{RWM}$				5.0	V
Reverse leakage current	$I_R$	$V_{RWM} = 5V$			0.5	$\mu A$
		$V_{RWM} = 3.5V$			0.3	$\mu A$
Reverse breakdown voltage <sup>1)</sup>	$V_{BR}$	$I_T = 1mA$	5.6			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



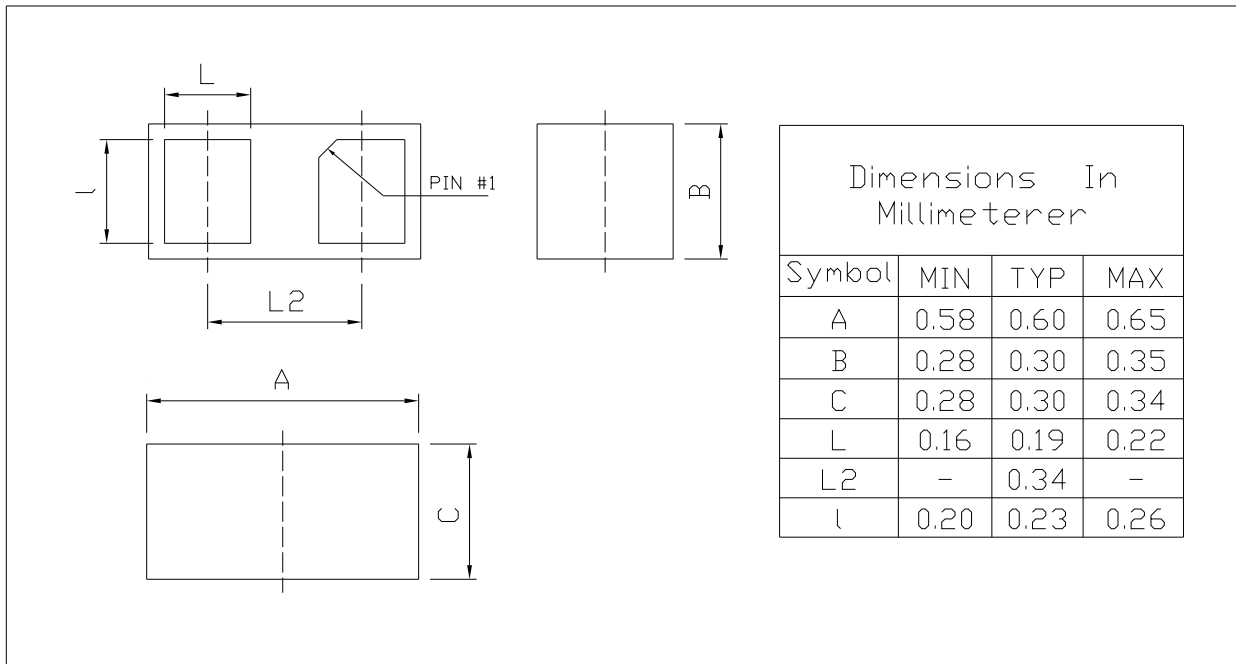
# BRES5V0L1B2ZAQ

Rev.B Oct.-2023

## / Package Dimensions

DFN0603

Unit:mm



Rev.02 202102

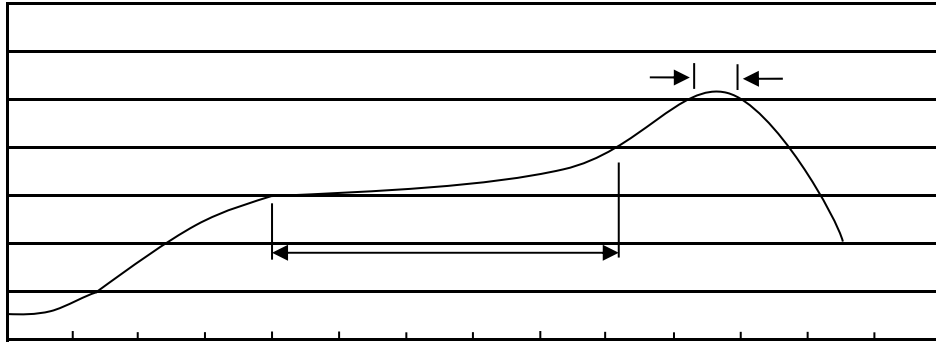
# BRES5V0L1B2ZAQ

Rev.B Oct.-2023



DATA SHEET

( ) /



**Note:**

- 1            150 200            60 120sec;    1.Preheating:150~200 , Time:60~120sec.
- 2            255±5                    5±0.5sec;    2.Peak Temp.:255±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

**/ Packaging SPEC.**

/ REEL

Package Type	Units					Dimension (unit mm <sup>3</sup> )		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
DFN0603	15,000	10	150,000	4	600,000	7 x8	210x205x205	445x435x230

**/ Notices**