

BRES05V0X1C2ZA

Rev.A Jan.-2023

/ Descriptions

DFN0603 ESD

DFN0603 Plastic Package 1-Line,Bi-directional , ESD Protection Diode.

/ Features

1ns

20KV

IEC61000-4-2

4

ESD

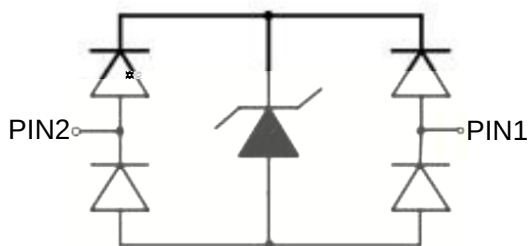
Ultra small package, Response Time is Typically < 1 ns, ESD > 20 kV per Human Body Model,IEC61000-4-2 Level 4 ESD Protection,HF Product.

/ Applications

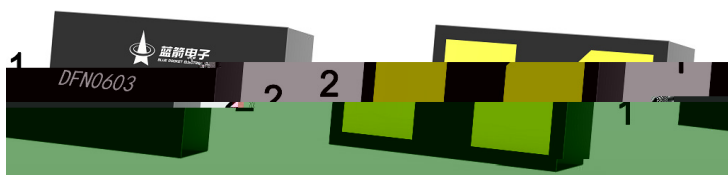
MP3

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

Parameter	Symbol	Rating	Unit
Peak Pulse Power($t_p = 8/20\mu s$)	P_{PK}	56	W
Peak Pulse Current($t_p = 8/20\mu s$)	I_{PP}	4	A
ESD according to IEC61000-4-2 air discharge	V_{ESD}	± 20	KV
ESD according to IEC61000-4-2 contact discharge		± 20	
Junction temperature	T_J	125	
Storage Temperature	T_{STG}	-55~+150	

/ Electrical Characteristics($T_a=25^\circ C$)

Definitions of electrical characteristics

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse maximum working voltage	V_{RWM}				5.0	V
Reverse leakage current	I_R	$V_{RWM} = 5.0V$			100	nA
Reverse breakdown voltage ¹⁾	V_{BR}	$I_T=1mA$	6.0			V
Clamping voltage ²⁾	V_{CL}	$I_{PP} = 1A \quad t_p = 8/20\mu s$			10	V
		$I_{PP} = 4A \quad t_p = 8/20\mu s$			14	V
Junction Capacitance	C_J	$V_R = 0V \quad f = 1MHz$		0.20	0.40	pF

Notes:

1) V_{BR} is measured with a pulse test current I_T at an ambient temperature of $25^\circ C$.

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

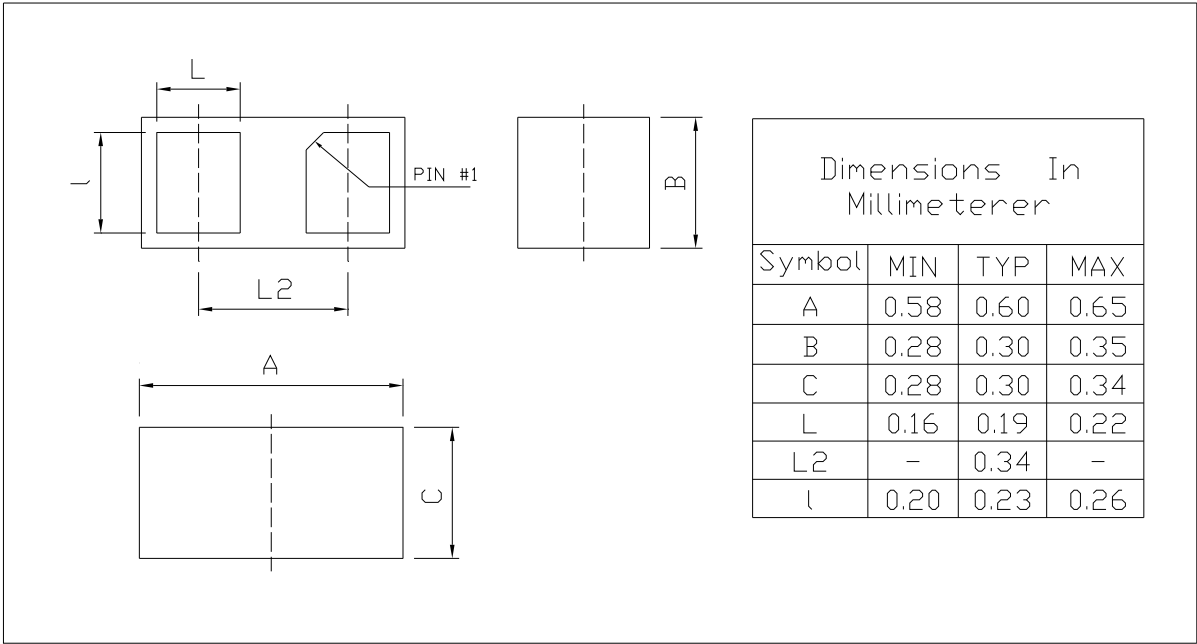


/ Electrical Characteristics (T_{amb}=25°C)

/ Package Dimensions

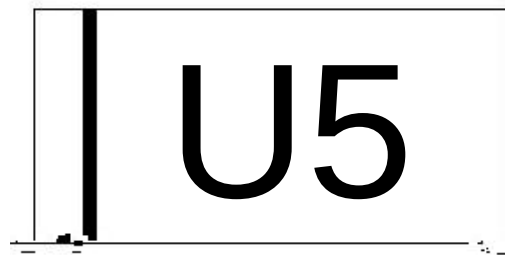
DFN0603

Unit:mm



Rev.02 202102

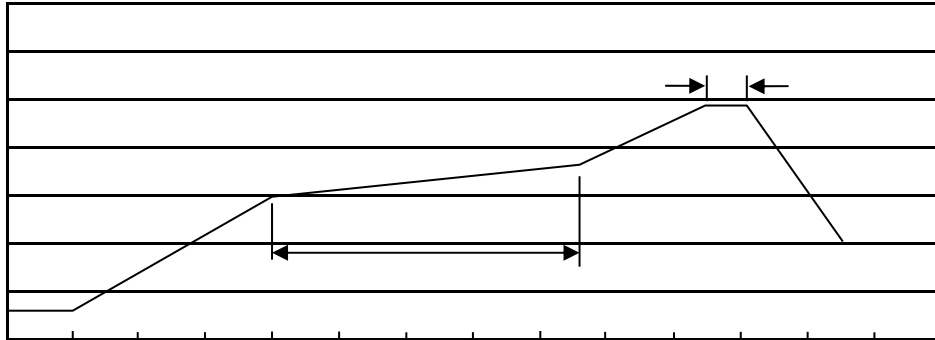
/ Marking Instructions



U5

Note

U5 Product Type

() / 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

Package Type	Units					Dimension (unit mm ³)		
	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 ×8	210×205×205	445×230×435

/ Notices