

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

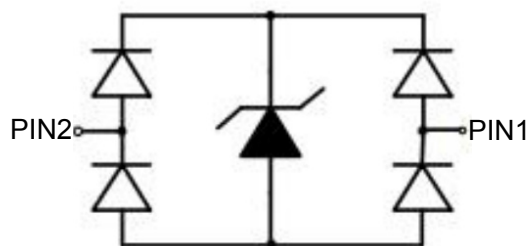
Ultra small package, Response Time is Typically < 1 ns, ESD > 20 kV per Human Body Model,IEC61000-4-2 Level 4 ESD Protection,HF Product.

/ Applications

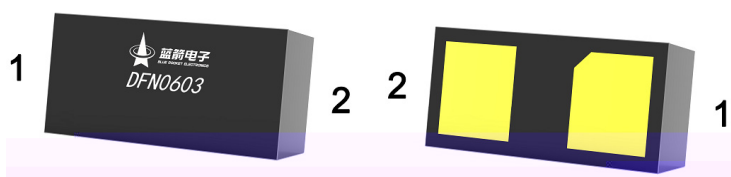
MP3

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($t_p = 8/20 \text{ s}$)	P_{PK}	56	W
Peak Pulse Current($t_p = 8/20 \text{ s}$)	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	

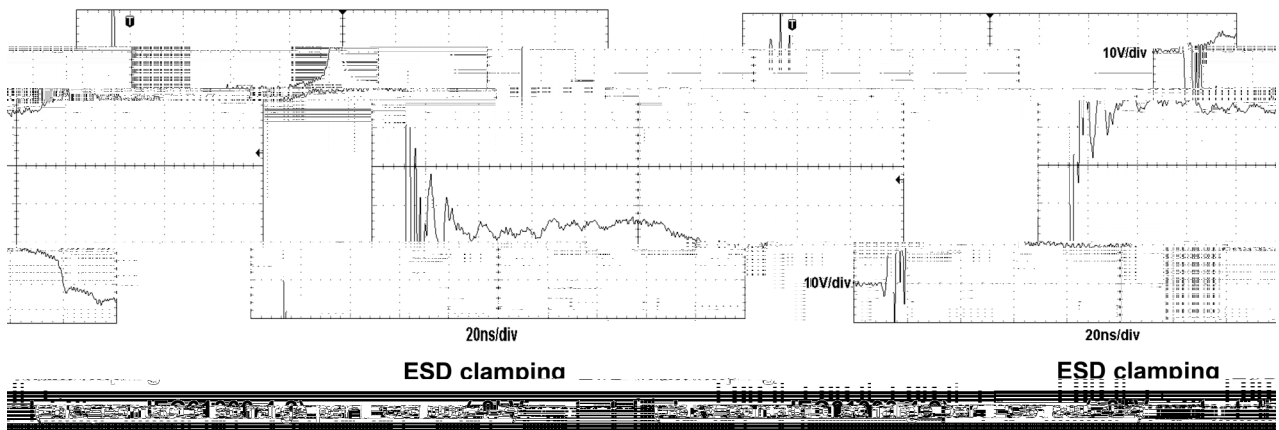
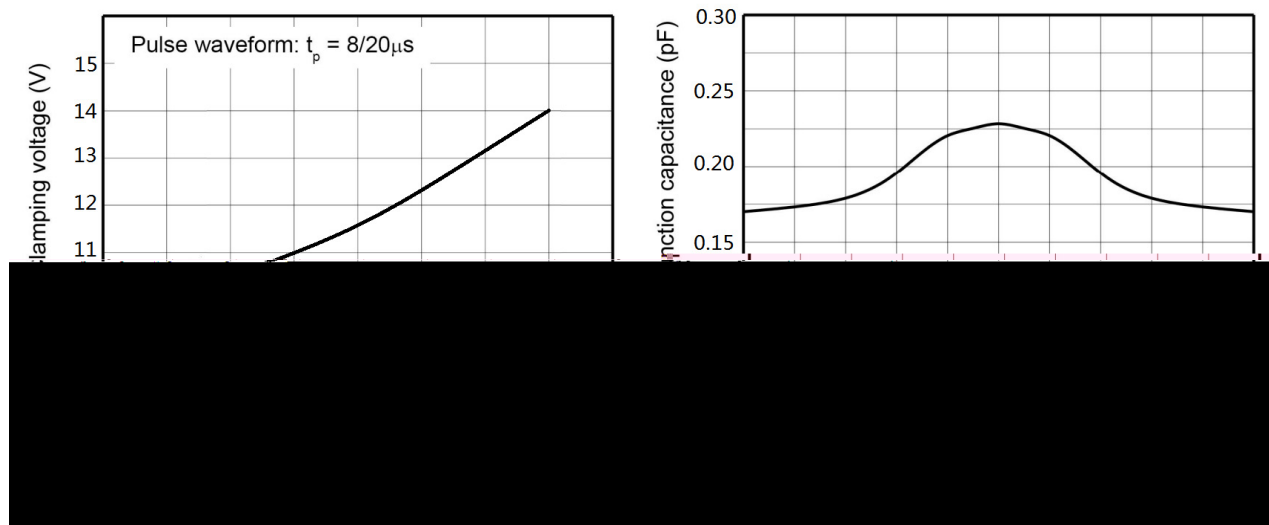
/ Electrical Characteristics($T_a=25^\circ\text{C}$)

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}	$I_{PP} = 1A \quad t_p = 8/20 \text{ s}$			10	V
		$I_{PP} = 4A \quad t_p = 8/20 \text{ s}$			14	V
Junction Capacitance	C_J	$V_R = 0V \quad f = 1MHz$		0.20	0.40	pF

V_{BR} is measured with a pulse test current I_T at an ambient temperature of 25°C .

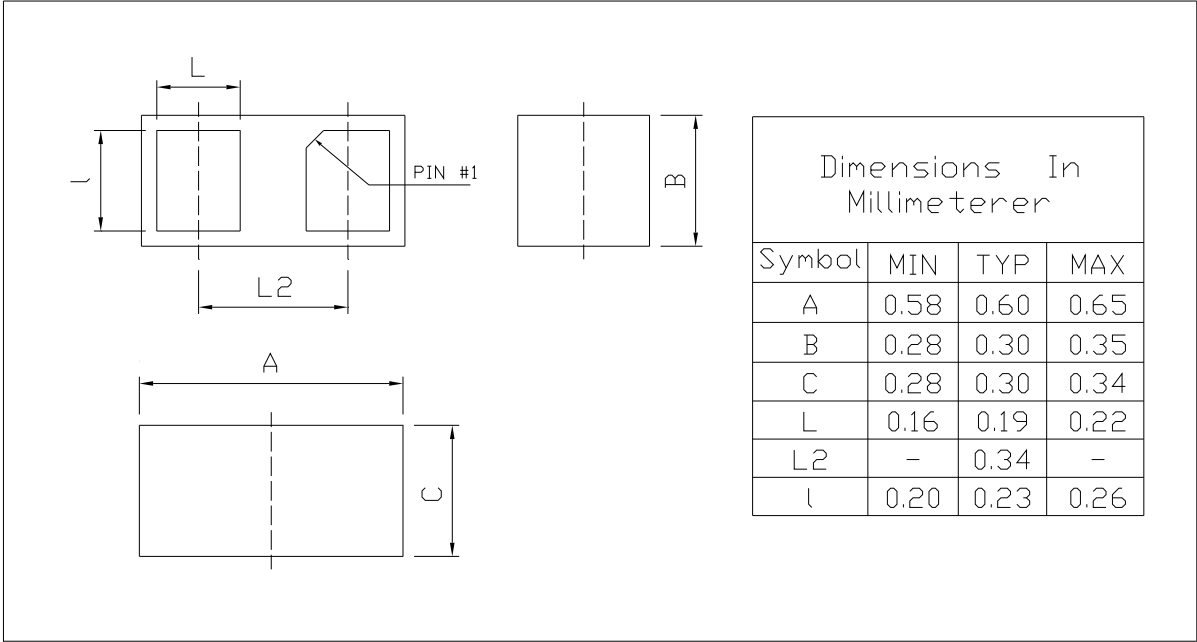
/ Electrical Characteristic Curve(Ta=25)



/ Package Dimensions

DFN0603

Unit:mm



Rev.02 202102

/ **Marking Instructions**

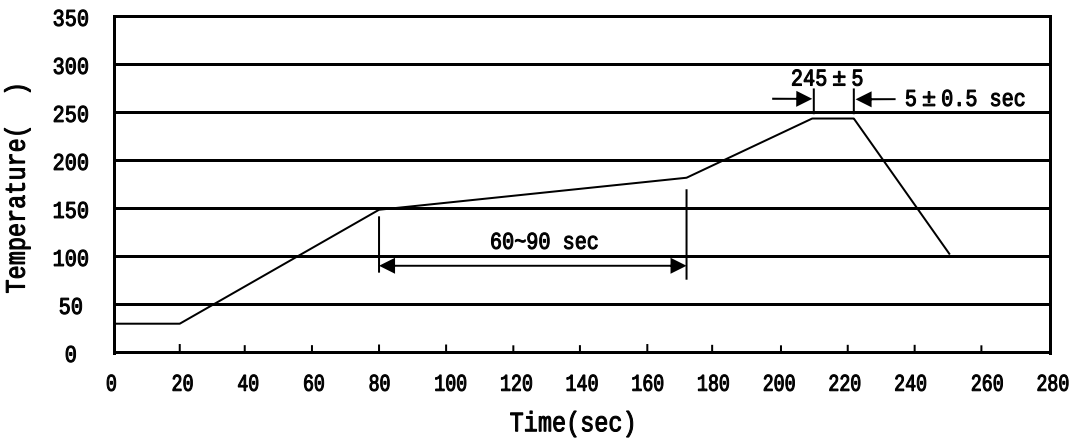


U5

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

/ Packaging SPEC.

/ REEL

Package Type	Units					Dimension (unit mm ³)		
DFN0603	15,000	10	150,000	4	600,000	7 ×8	210×205×205	445×230×435

/ Notices