

/ 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

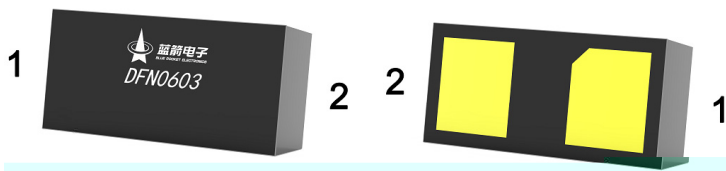
MP3

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

Parameter	Symbol	Rating	Unit
Peak pulse power ($t_p = 8/20\mu\text{s}$)	P_K	35	W
Peak pulse current ($t_p = 8/20\mu\text{s}$)	I_{PP}	5.5	A
ESD according to IEC61000-4-2 air discharge	V_{ESD}	± 30	KV
ESD according to IEC61000-4-2 contact discharge		± 30	
Junction temperature	T_J	150	
Storage temperature	T_{STG}	-55~+150	

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

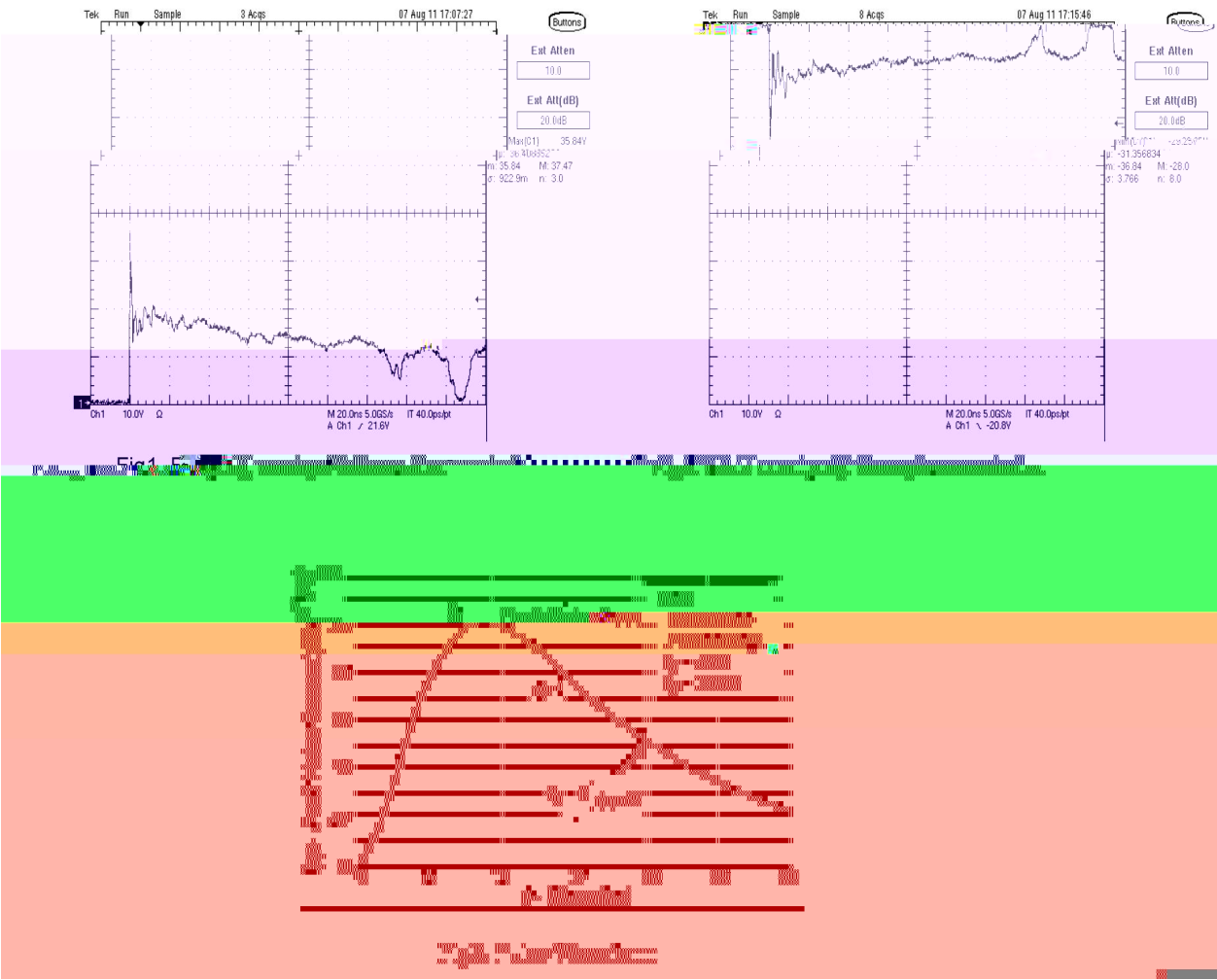
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse maximum working voltage	V_{RWM}				5.0	V
Reverse leakage current	I_R	$V_{RWM} = 5V$			0.5	μA
		$V_{RWM} = 3.5V$			0.3	μA
Reverse breakdown voltage ¹⁾	V_{BR}	$I_T = 1\text{mA}$	5.6			V
Clamping voltage ²⁾	V_C	$I_{PP} = 1A$ $t_p = 8/20\mu\text{s}$			9.8	V
		$I_{PP} = 5.5A$ $t_p = 8/20\mu\text{s}$			12.5	V
Junction capacitance	C_J	$V_R = 0V$ $f = 1\text{MHz}$			15	pF

Notes:

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

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

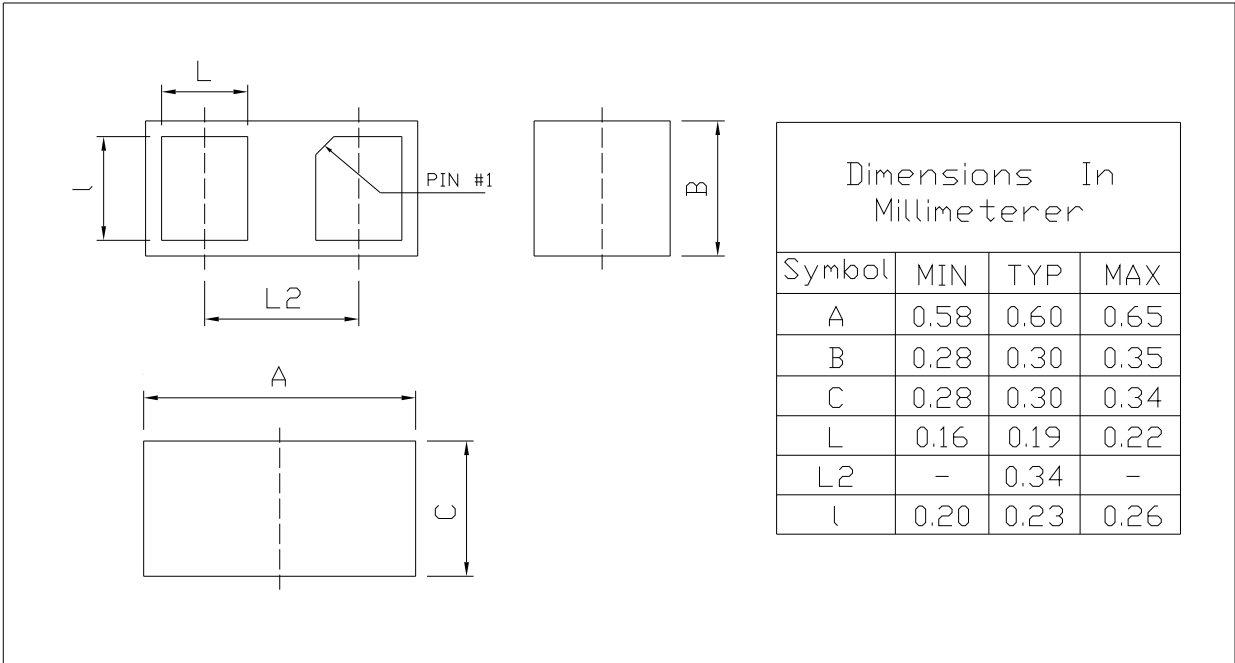
/ Electrical Characteristic Curve



/ Package Dimensions

DFN0603

Unit:mm



Rev.02 202102

BRES5V0L1B2ZAQ

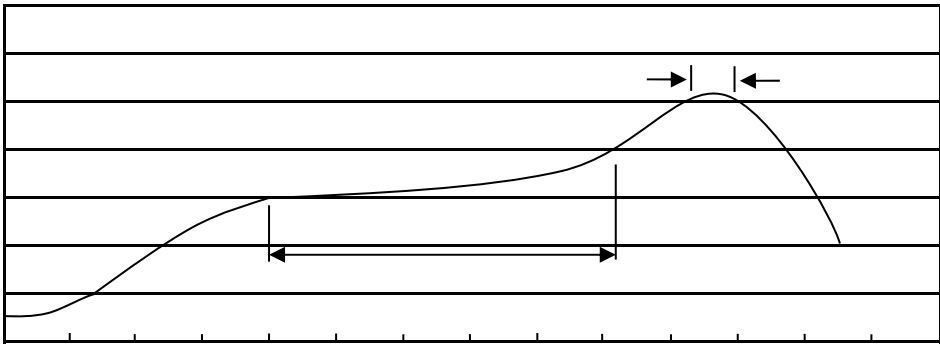
Rev.B Oct.-2023



蓝箭电子
BLUE ROCKET ELECTRONICS

DATA SHEET

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



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 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	445×435×230

/ Notices