/ Descriptions

DFN0603 ESD

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

/ Features

1ns 20KV IEC61000-4-2 4 ESD

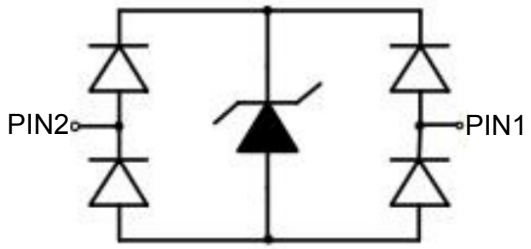
Ultra small package, Response Time is Typically < 1 ns, ESD > 20 kV per Human Body Model,IEC61000−4−2 Level 4 ESD Protection,HF Product.

/ Applications

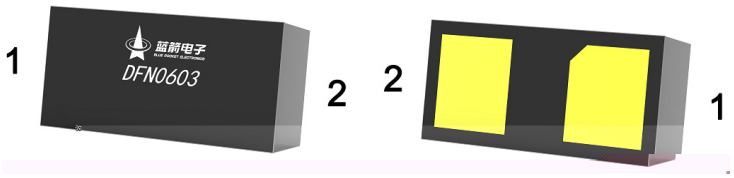
MP3

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 = 8/20μs)	P_{PK}	56	W
Peak Pulse Current(t_p = 8/20μs)	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	

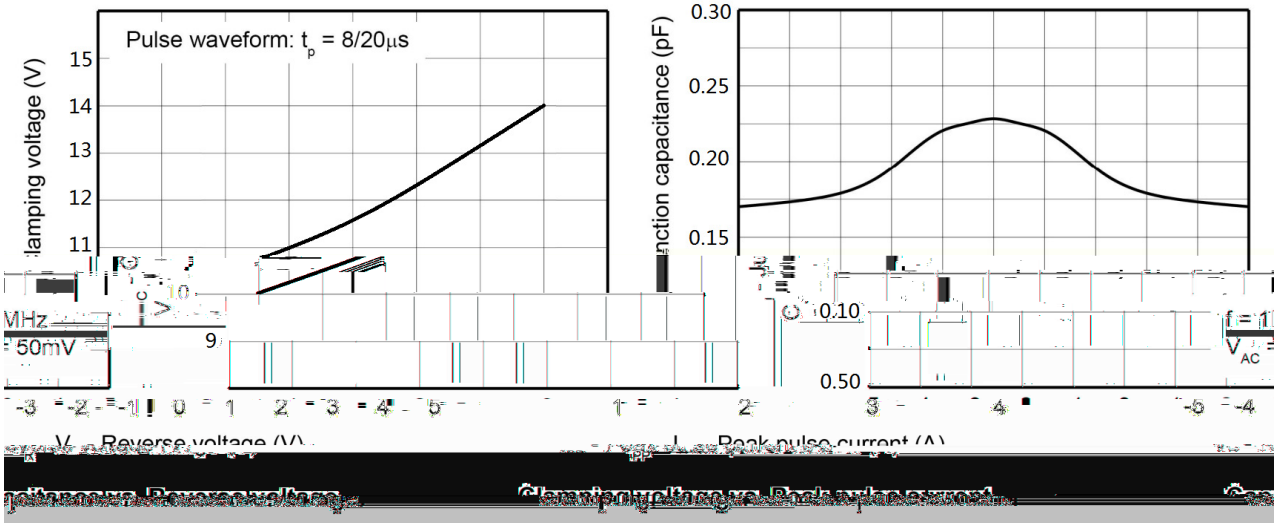
/ Electrical Characteristics(Ta=25)

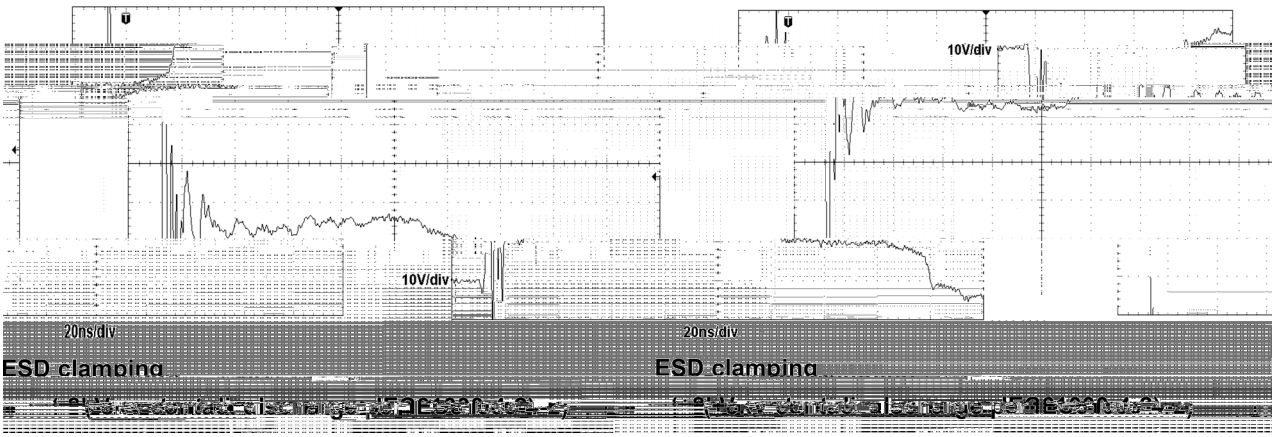
Definitions of electrical characteristics

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

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

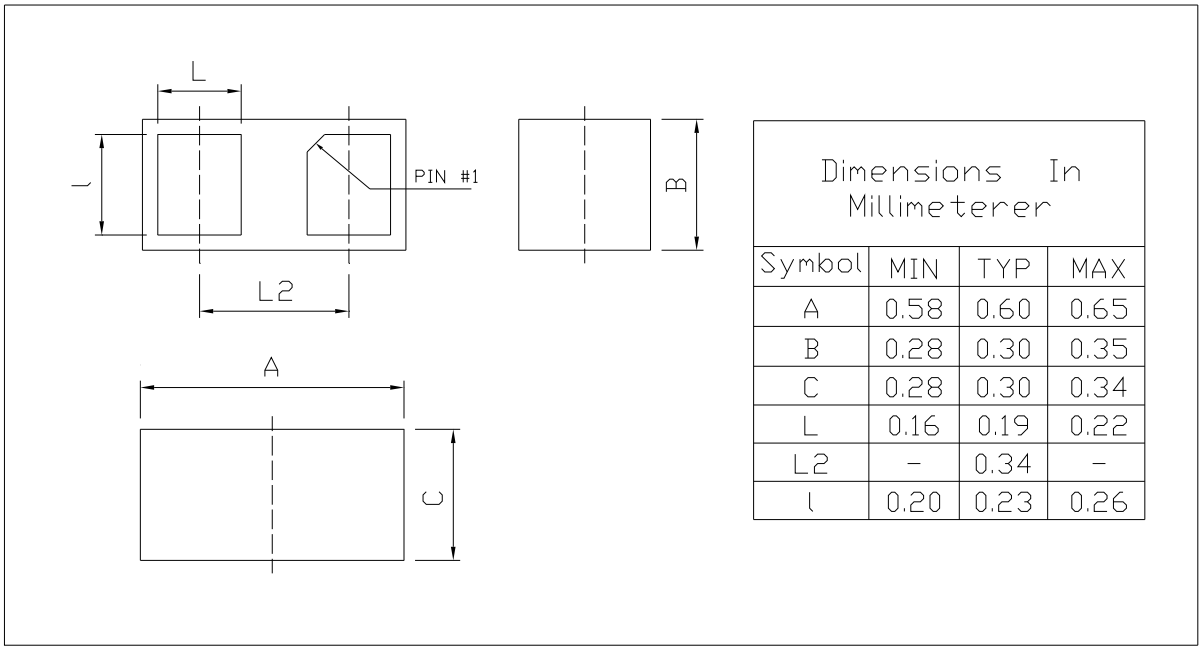
/ Electrical Characteristic Curve(Ta=25)





/ Package Dimensions

DFN0603 Unit:mm



Dimensions In Millimeterer			
Symbol	MIN	TYP	MAX
A	0.58	0.60	0.65
B	0.28	0.30	0.35
C	0.28	0.30	0.34
L	0.16	0.19	0.22
L2	-	0.34	-
l	0.20	0.23	0.26

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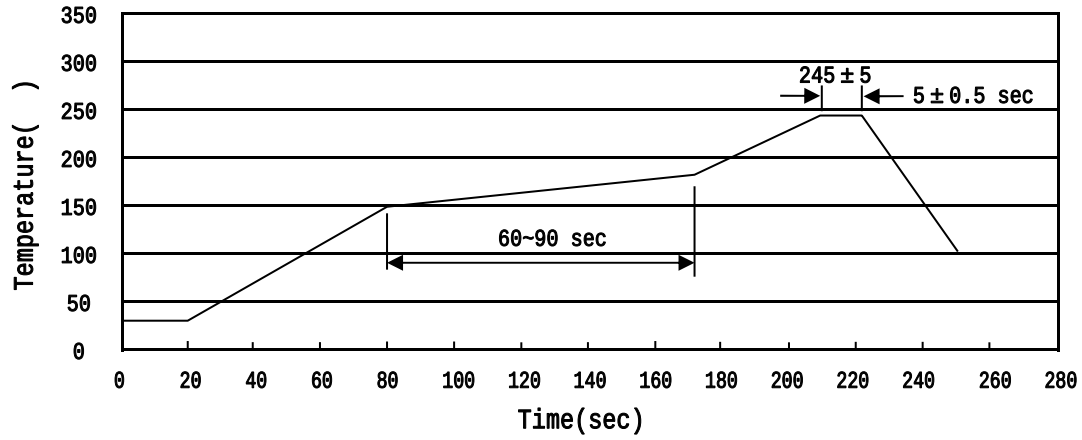
/ Marking Instructions

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 mm³)
	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