/ 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.

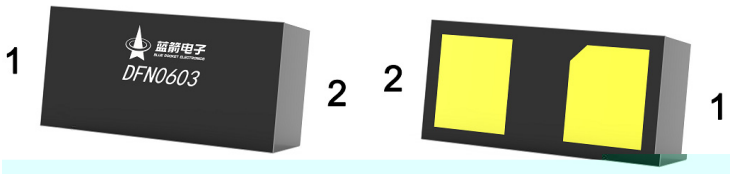
/ Applications

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 = 8/20μs)	P_K	35	W
Peak pulse current (t_p = 8/20μs)	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(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	uA
		V_{RWM} = 3.5V			0.3	uA
Reverse breakdown voltage[1)]	V_{BR}	I_T = 1mA	5.6			V
Clamping voltage [2)]	V_C	I_{PP} = 1A t_p = 8/20μs			9.8	V
		I_{PP} = 5.5A t_p = 8/20μs			12.5	V
Junction capacitance	C_J	V_R = 0V f = 1MHz			15	pF

Notes:

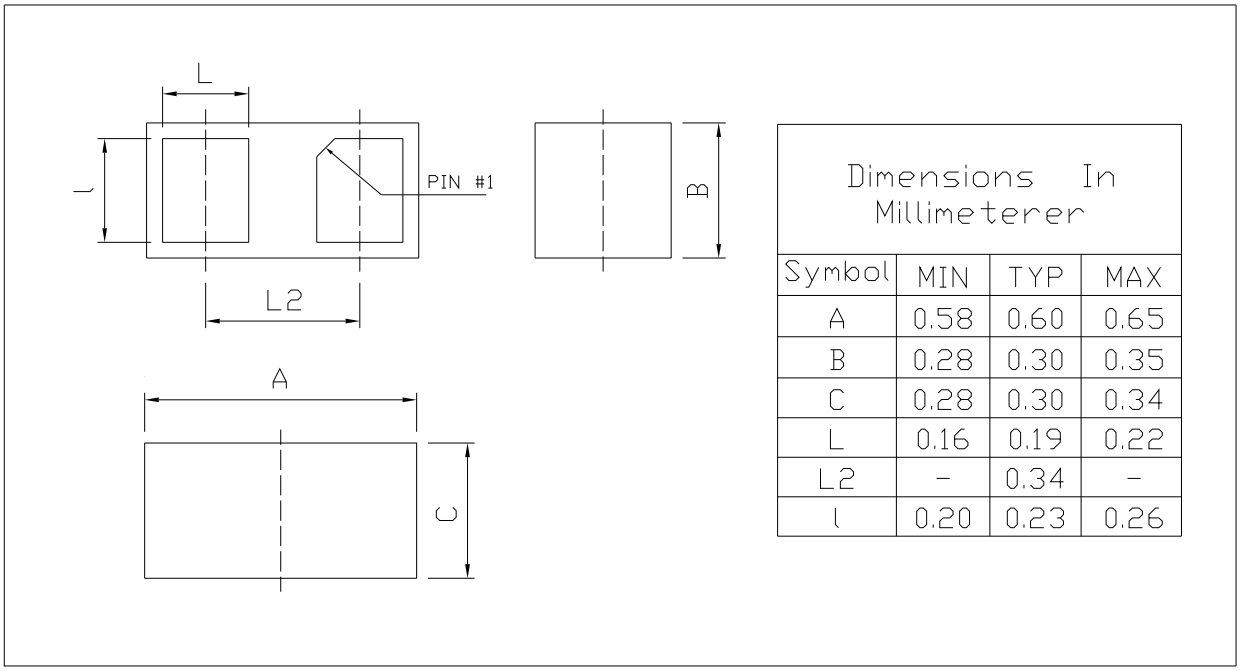
1) V_{BR} is measured with a pulse test current IT at an ambient temperature of 25 .

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

/ Electrical Characteristic Curve

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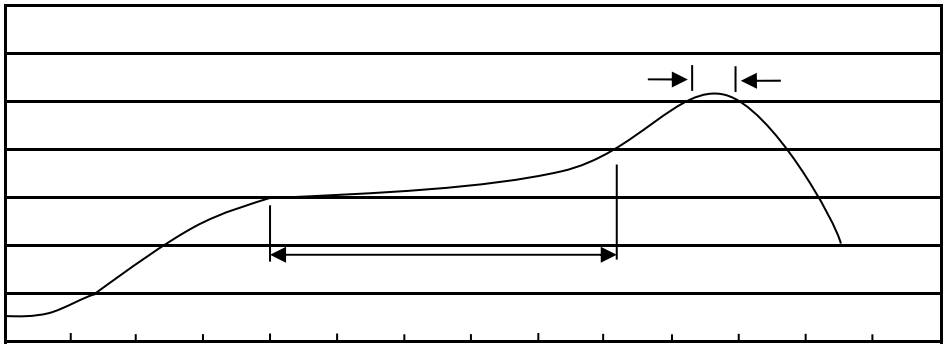
( ) / Temperature Profile for IR Reflow Soldering(Pb-Free)



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 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	445×435×230

/ Notices