

Description

This is working voltage 5V 1-Line,Bi-directional,ESD protection diode in a DFN0603 package

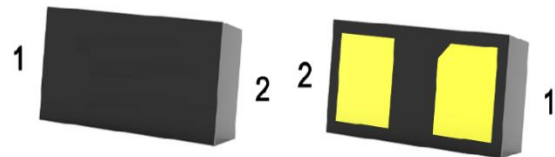
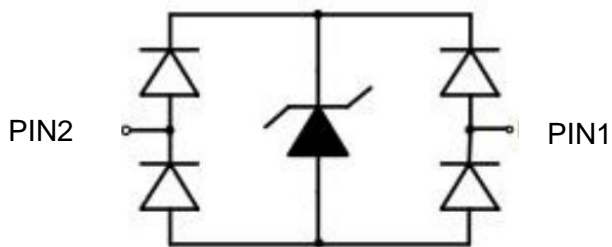
Applications

- Suitable for cellular phones audio
- MP3 players
- Digital cameras
- Portable devices
- Mobile telephone and other users

Features

- Ultra small package
- Response time is typically < 1 ns
- ESD > 20 kV per human body model
- IEC61000-4-2 Level 4 ESD Protection
- Halogen-free product

Equivalent Circuit & Pinning



Marking

See Marking Instructions.

Absolute Maximum Ratings(Ta=25℃)

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	℃

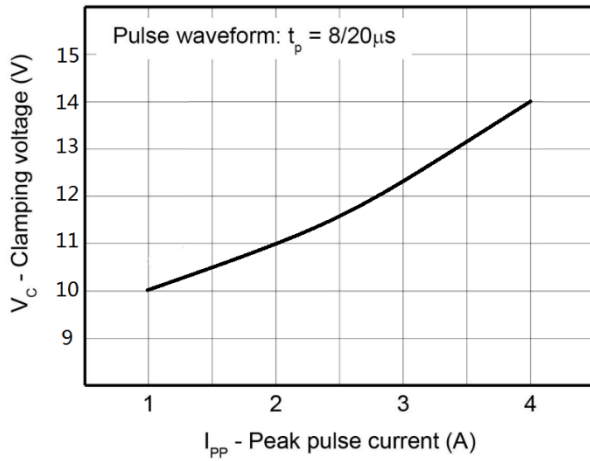
Electrical Characteristics (Ta=25℃)

Parameter	Symbol	Test Conditions	Min	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}	$I_{PP} = 1A$ $t_p = 8/20\mu s$		10	V	
		$I_{PP} = 4A$ $t_p = 8/20\mu s$		14	V	
Junction Capacitance	C_J	$V_R = 0V$ $f = 1MHz$		0.20	0.40	pF

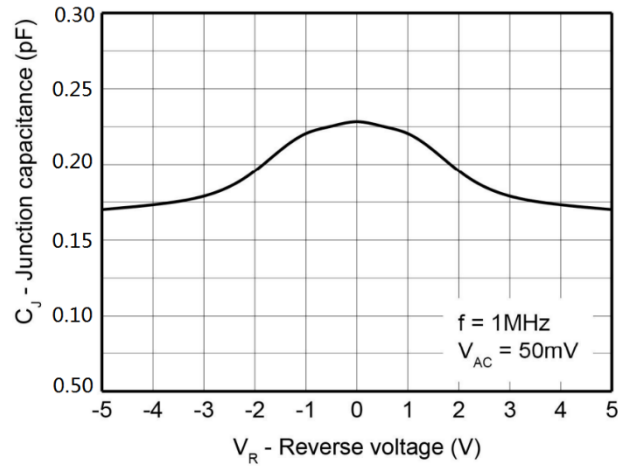
Notes:

- 1) V_{BR} is measured with a pulse test current I_T at an ambient temperature of 25℃.
- 2) Non-repetitive current pulse, according to IEC61000-4-5.

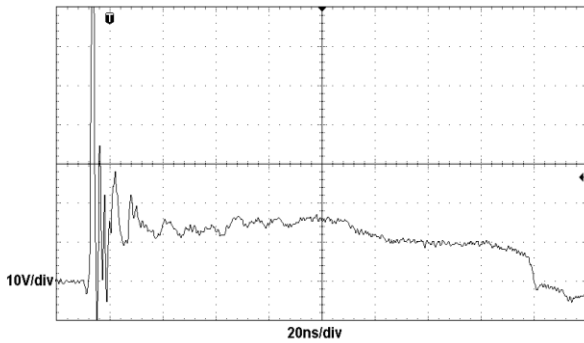
Electrical Characteristic Curve(Ta=25°C)



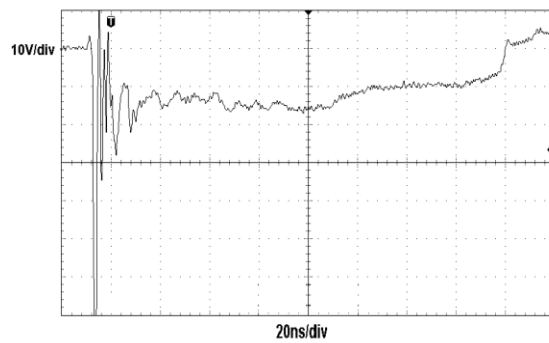
Clamping voltage vs. Peak pulse current



Capacitance vs. Reverse voltage

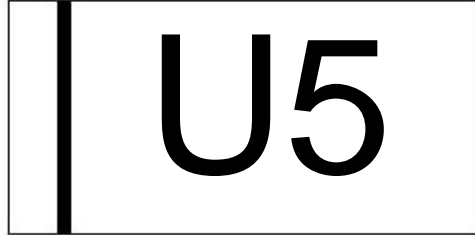


ESD clamping
(+8kV contact discharge per IEC61000-4-2)



ESD clamping
(-8kV contact discharge per IEC61000-4-2)

Marking Information



Note:

U5: Product Type.

Packaging SPEC

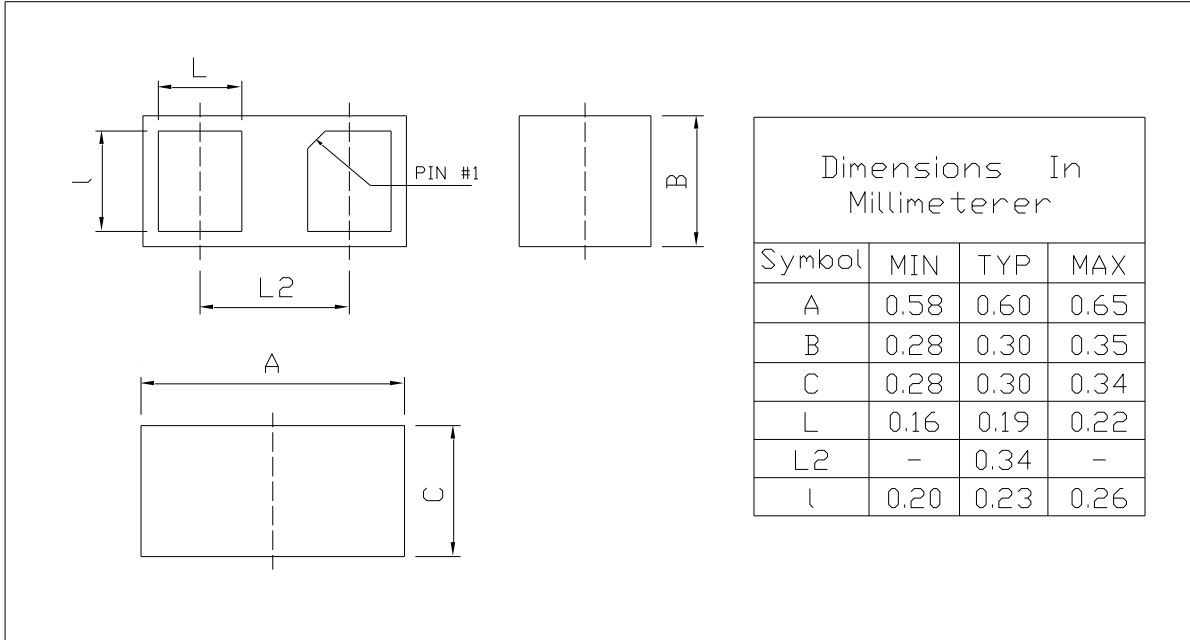
REEL

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" x8	210x205x205	445x230x435

Package Dimensions

DFN0603

Unit:mm



Rev.02 202102