

Description

- DFN1006-2L Plastic Package 1-Line
- Bi-directional
- ESD Protection Diode

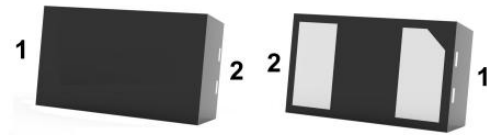
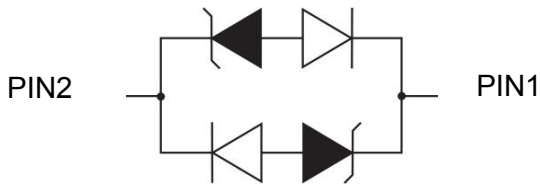
Features

- Ultra small package
- Response Time is Typically < 1 ns
- ESD > 20 kV per Human Body Model
- IEC61000-4-2 Level 4 ESD Protection
- Qualified to AEC-Q101 Standards for High Reliability
- Halogen-free Product

Applications

- 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



Absolute Maximum Ratings(Ta=25°C)

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	°C
Storage Temperature	T_{STG}	-55~+150	°C

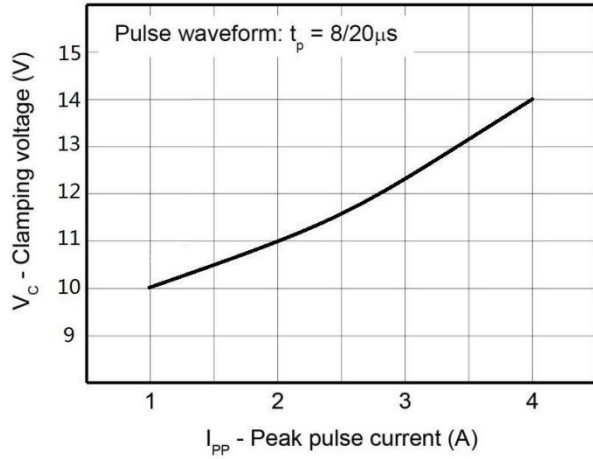
Electrical Characteristics(Ta=25°C)
Definitions of electrical characteristics

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

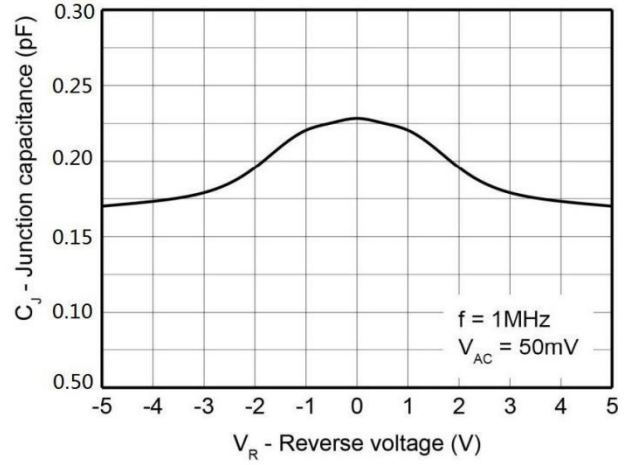
Notes:

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

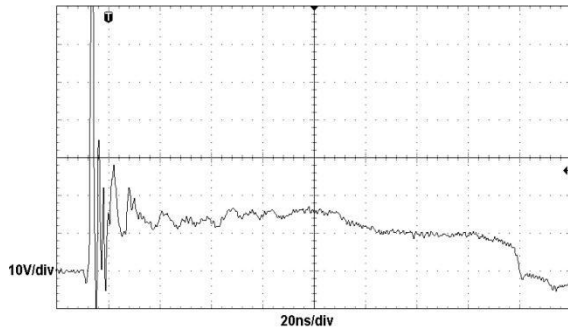
Electrical Characteristic Curve



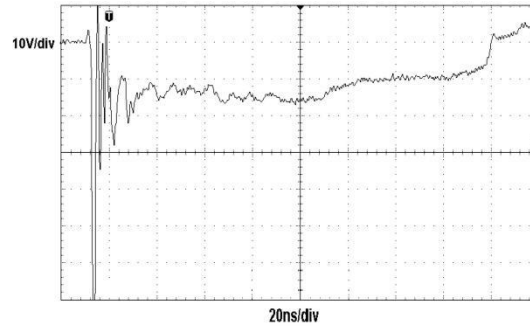
Clamping voltage vs. Peak pulse current



Capacitance vs. Reverse voltage

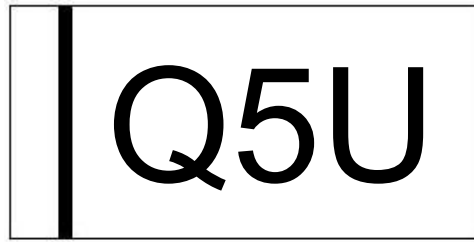


ESD clamping
(+8kV contact discharge per IEC61000-4-2)



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

Marking Instructions



Note :

Q: Automobile halogen-free product Code

5U: Product Type

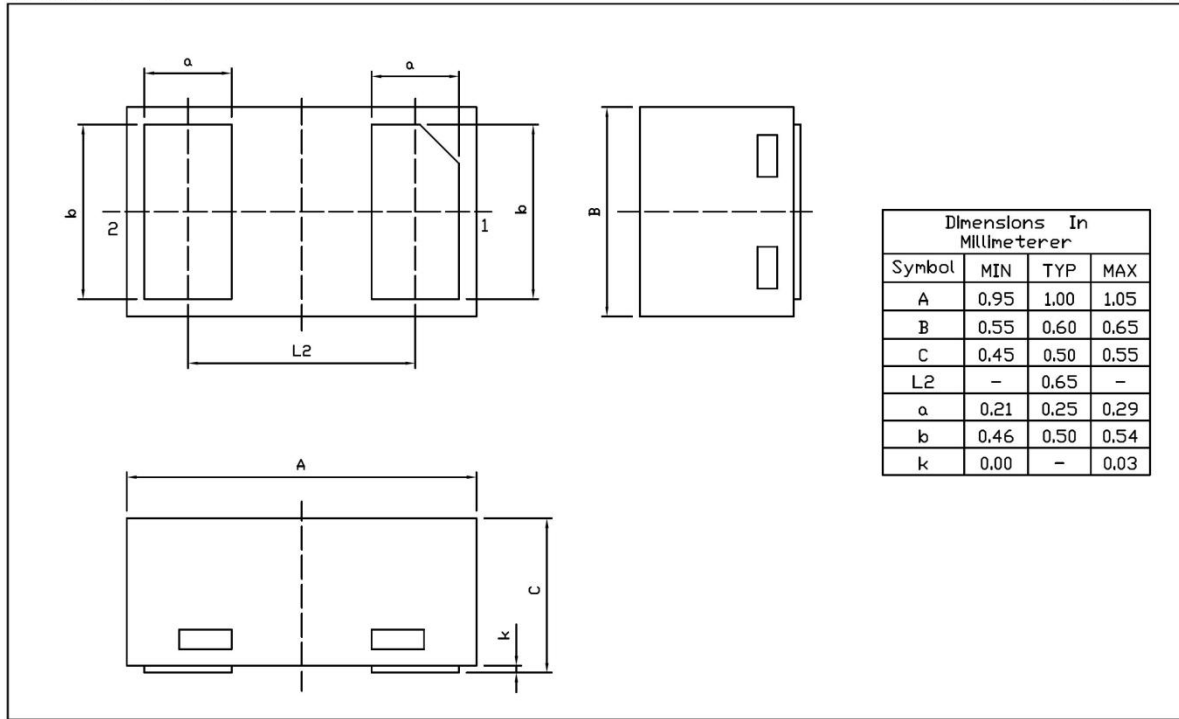
Packaging SPEC.

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
DFN1006-2L	10,000	10	100,000	6	600,000	7" ×8	180×120×180	390×385×205

Package Outline Dimensions

DFN1006-2L

Unit:mm



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