

### Description

This is working voltage 24V ESD diode 2-pin lead-less package in a DFN1006-2L package.

### Applications

- Cellular Handsets and Accessories
- Personal Digital Assistants
- Notebooks and Handhelds
- Portable Instrumentation, Digital Cameras
- Peripherals, Audio Players, Industrial Equipment

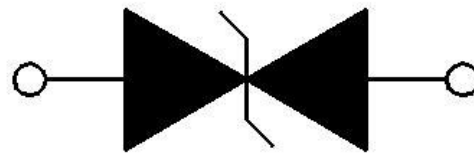
### Features

- 2-pin lead-less package
- Junction capacitance (Max value: 20pF)
- Peak Pulse Current (8/20 $\mu$ s):5A
- IEC61000-4-2 (ESD)  $\pm$ 20kV (air),  $\pm$ 15kV (contact)
- Low clamping voltage
- Low leakage current
- Working voltages:24V
- RoHS Compliant

### Mechanical Characteristics

- Package: DFN1006-2L
- Lead Finish:Matte Tin
- Case Material: “Green” Molding Compound
- UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 3 per J-STD-020
- Tape Reel :10000pcs

### Appearance & Symbol



Bi-directional

**Absolute Maximum Ratings (T=25°C, RH=45%-75%, unless otherwise noted )**

Parameters	Symbol	Value	Unit
Peak Pulse Power (tp=8/20μs waveform)	P <sub>PP</sub>	300	W
Peak Pulse Current (8/20μs)	I <sub>PP</sub>	5	A
ESD per IEC 61000-4-2 (Air)	V <sub>ESD</sub>	±20	KV
ESD per IEC 61000-4-2 (Contact)		±15	
Operating Temperature Range	T <sub>J</sub>	-55 to +125	°C
Storage Temperature Range	T <sub>stg</sub>	-55 to +150	°C

**Electrical Characteristics (T=25°C, RH=45%-75%, unless otherwise noted)**

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V <sub>RWM</sub>				24	V
Reverse Breakdown Voltage	V <sub>BR</sub>	I <sub>R</sub> = 1mA	27		31	V
Reverse Leakage Current	I <sub>R</sub>	V <sub>R</sub> = 24V			0.2	uA
Clamping voltage	V <sub>C</sub>	I <sub>PP</sub> = 1A, T <sub>P</sub> =8/20us			40	V
Clamping voltage	V <sub>C</sub>	I <sub>PP</sub> = 5A, T <sub>P</sub> =8/20us			60	V
Junction capacitance	C <sub>J</sub>	V <sub>R</sub> =0V, f=1MHz			20	pF

Typical Characteristics

FIG1: Power rating derating curve

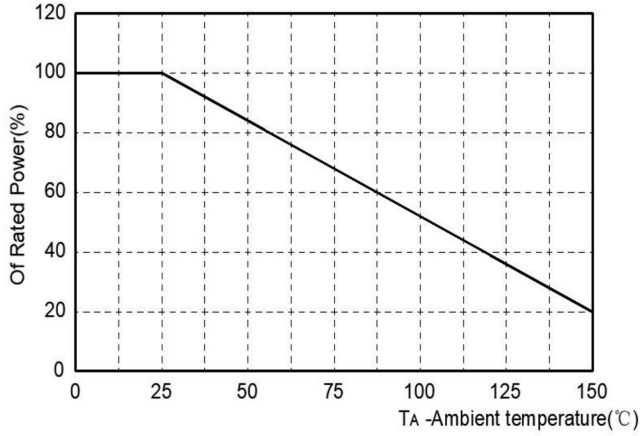


FIG2: pulse Waveform

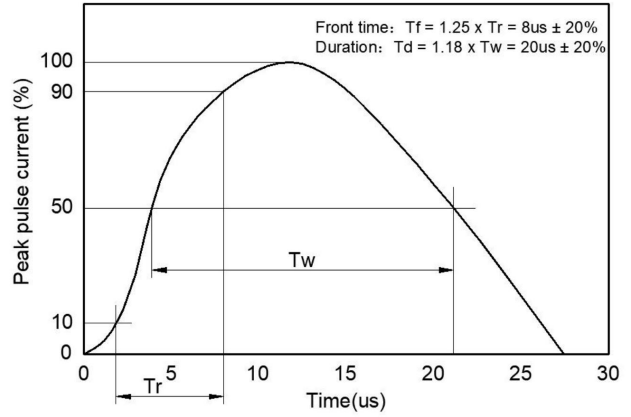


FIG3: Capacitance between terminals characteristics

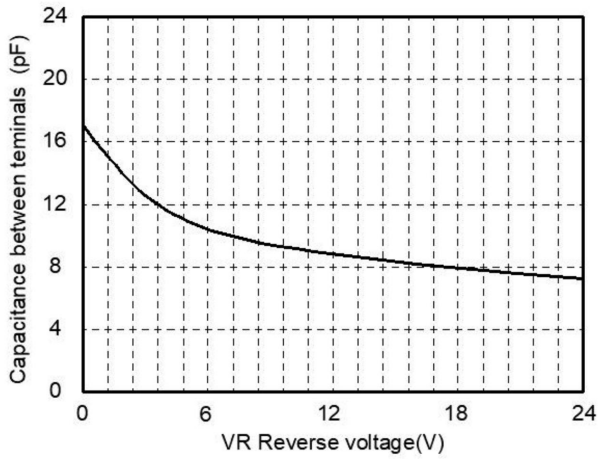
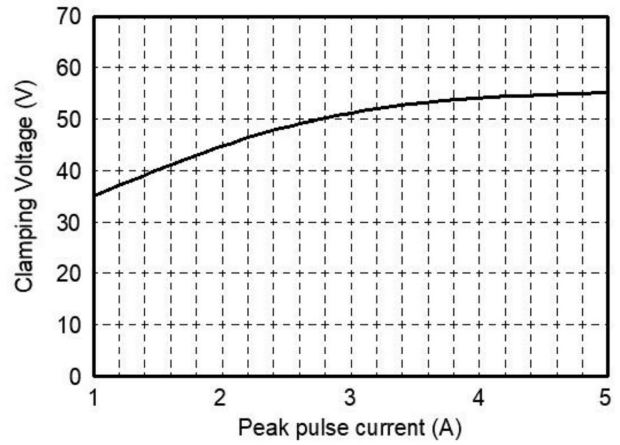
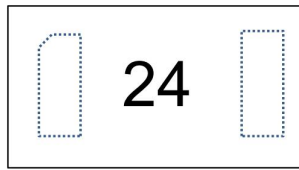


FIG4: Clamping Voltage vs. Peak Pulse Current

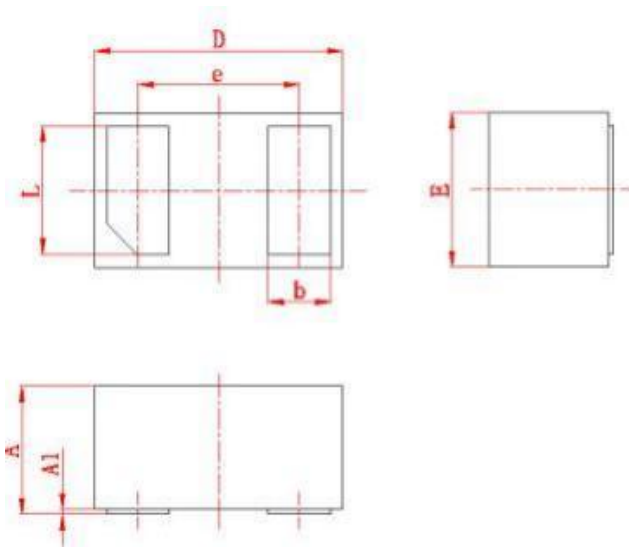


Marking Information



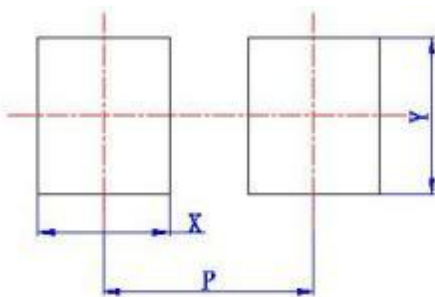
24=Marking Code

Package mechanical data



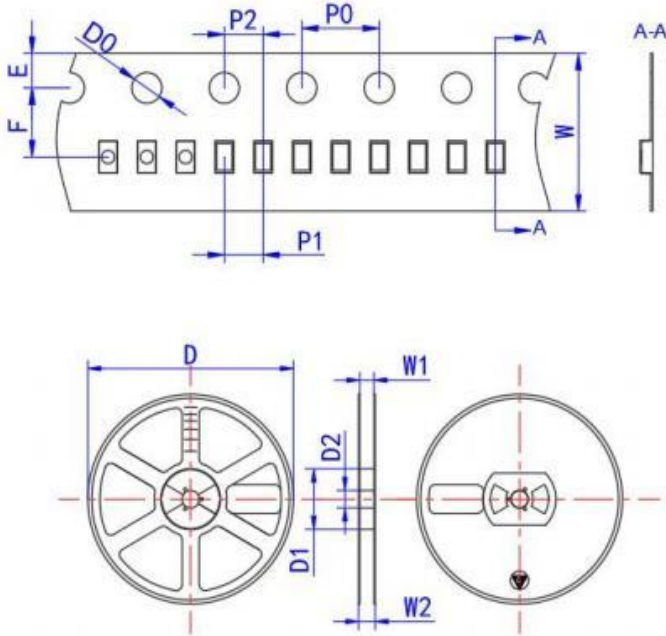
Symbol	Dimension in Millimeters	
	min	max
A	0.4	0.5
A1	0	0.05
D	0.9	1.1
E	0.55	0.65
e	(0.65)	
b	0.2	0.3
L	0.34	0.55

Suggested Land Pattern



Symbol	Dimension in Millimeters
	typ
X	(0.5)
Y	(0.7)
P	(0.8)

Tape & reel specification - DFN1006



Symbol	Dimension in Millimeters
<b>Tape</b>	
D0	1.50+0.10/-0.00
E	1.75±0.10
F	3.50±0.10
P0	4.00±0.10
P1	2.00±0.10
P2	2.00±0.10
W	8.00+0.3/-0.1
<b>Reel</b>	
D	178.0±2.00
D1	54.40±1.00
D2	13.00±1.00
W1	9.50±1.00
W2	12.30±1.00