

Description

This is working voltage 3.3V ESD protection diode 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

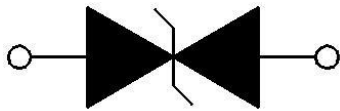
Features

- 2-pin lead-less package
- Low junction capacitance (Max value: 20pF)
- Peak Pulse Current (8/20 μ s) Max: 8A
- IEC61000-4-2 (ESD) \pm 30kV (air), \pm 30kV (contact)
- Low clamping voltage
- Low leakage current
- RoHS Compliant

Mechanical Characteristics

- 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

Equivalent Circuit & Pinning



Bi-directional



Marking

Marking : B1

Absolute Maximum Ratings(Ta=25℃)

Parameters	Symbol	Value	Unit
Peak Pulse Power (tp=8/20μs waveform)	PPP	85	W
Peak Pulse Current (8/20μs)	IPP	8	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	VESD	±30 ±30	KV
Operating Temperature Range	TJ	-55 to +125	°C
Storage Temperature Range	Tstg	-55 to +150	°C

Electrical Characteristics (Ta=25℃)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	VRWM				3.3	V
Reverse Breakdown Voltage	VBR	IR = 1mA	3.5		5.5	V
Reverse Leakage Current	IR	VR = 3.3V			0.5	uA
Clamping voltage	VC	IPP = 1A,TP=8/20us			6	V
Clamping voltage	VC	IPP = 8A,TP=8/20us			11	V
Junction capacitance	CJ	VR =0V,f =1MHz		10	20	pF

Typical Characteristics

FIG1: Power rating derating curve

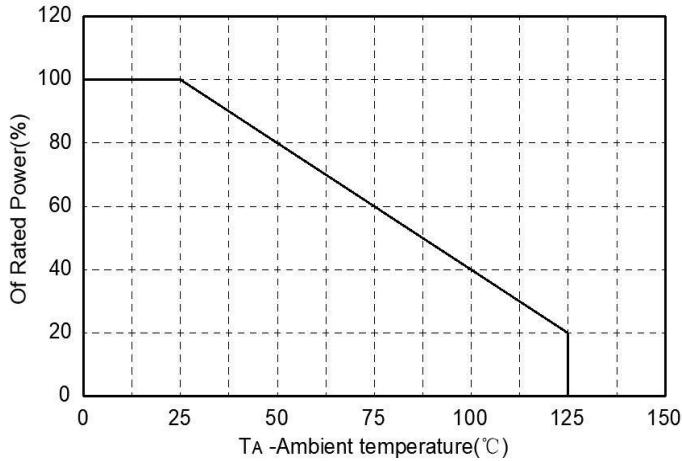


FIG2: pulse Waveform

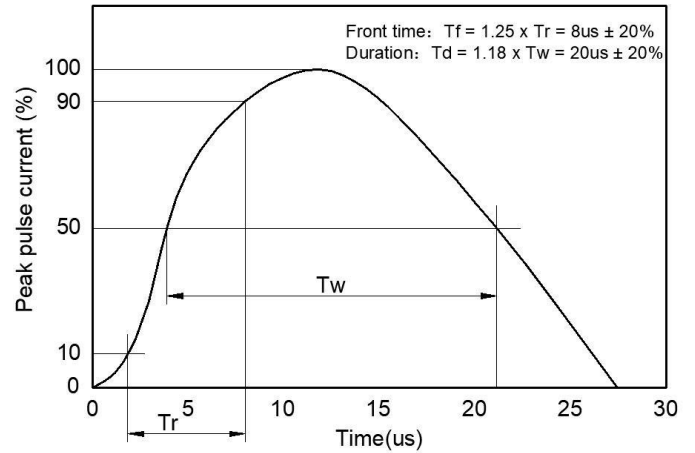


FIG3: Capacitance between terminals characteristics

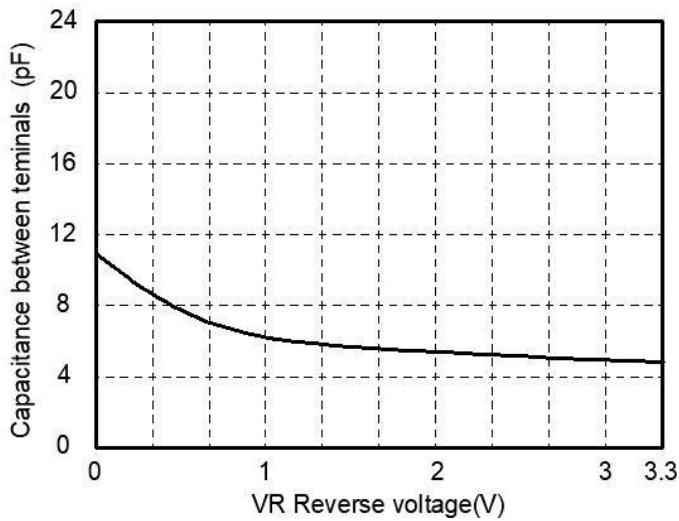
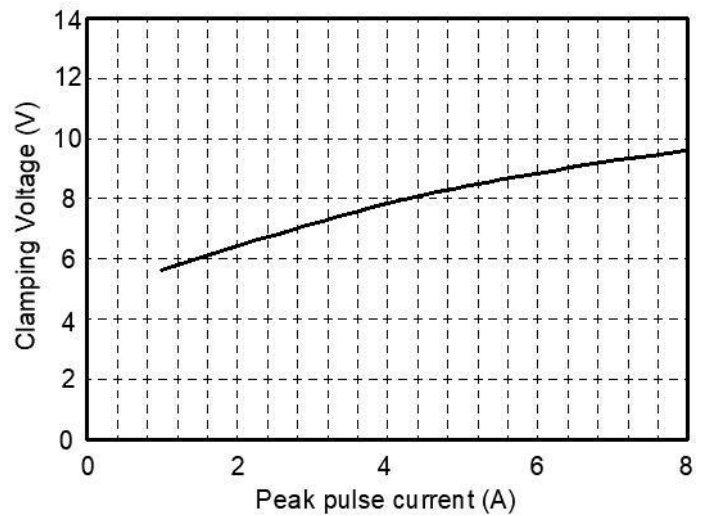
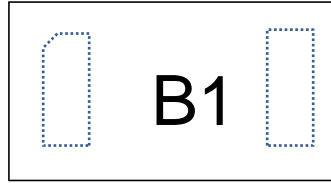


FIG4: Clamping Voltage vs. Peak Pulse Current

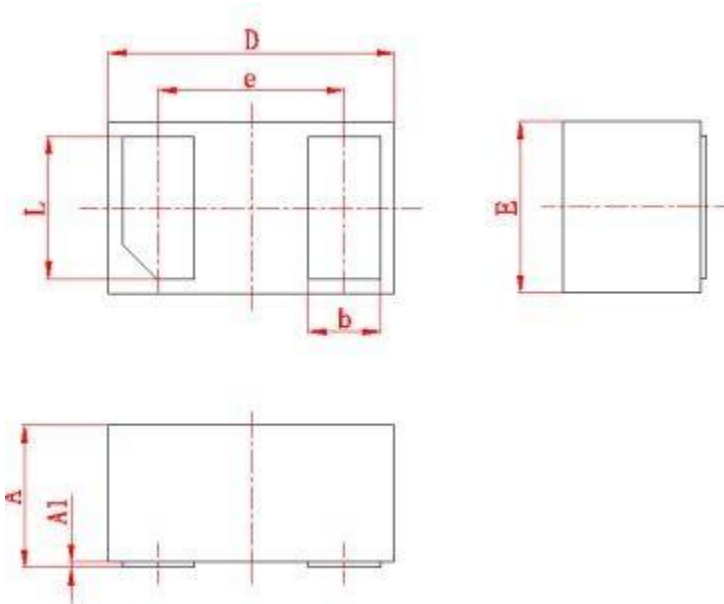


Marking Information



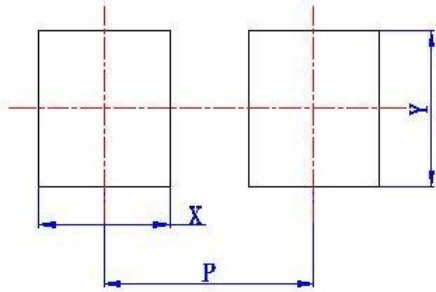
B1=Marking Code

Package mechanical data



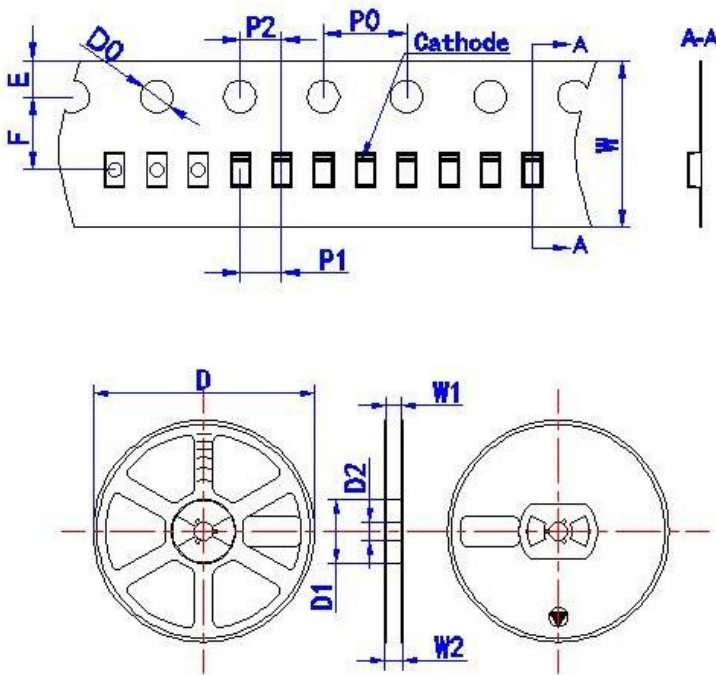
Symbol	Dimension in Millimeters	
	min	max
A	0.4	0.5
A1	0	0.05
D	0.9	1.1
E	0.55	0.65
e	(0.65)	
b	0.2	0.3
L	0.34	0.55

Suggested Land Pattern



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

Tape & reel specification - DFN1006-2L



Symbol	Dimension in Millimeters
Tape	
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
Reel	
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