

OM SENI

ESD73011N

1-Line, Bi-directional, Ultra-low Capacitance Transient Voltage Suppressors

Features

- Ultra small package: 1.0x0.6x0.5mm
- Low operating voltage: $\pm 5V$
- Low clamping voltage
- 2-pin leadless package
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
Air discharge: $\pm 20kV$
Contact discharge: $\pm 15kV$
 - IEC61000-4-5 (Lightning) 5A (8/20 μs)
- RoHS Compliant
- Lead Finish: NiPdAu

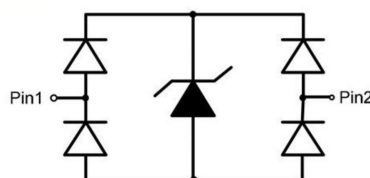
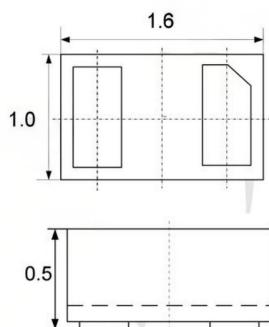
Mechanical Characteristics

- Package: DFN1006-2 (0402)
- Lead Finish: Matte Tin
- Case Material: "Green" Molding Compound.
- Moisture Sensitivity: Level 3 per J-STD-020
- Terminal Connections: See Diagram Below
- Shipping Qty @10000/7Inch Tape & Reel

Applications

- USB 2.0 and USB 3.0
- HDMI 1.3 and HDMI 1.4
- SATA and eSATA
- DVI
- IEEE 1394
- PCI Express
- Portable Electronics
- Notebooks

Dimensions and Pin Configuration



Marking: S1

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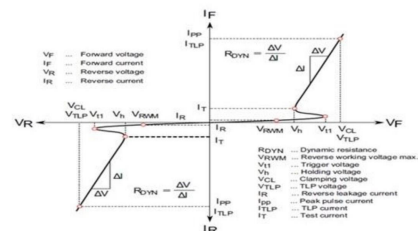
Absolute Maximum Ratings (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	Ppk	35	W
Peak Pulse Current (8/20μs)	I _{PP}	5	A
ESD per IEC 61000-4-2 (Air)	VESD	±20	kV
ESD per IEC 61000-4-2 (Contact)		±15	
Operating Temperature Range	T _J	-55 to +125	°C
Storage Temperature Range	T _{stg}	-55 to +150	°C

Electrical Characteristics (TA=25°C unless otherwise specified)

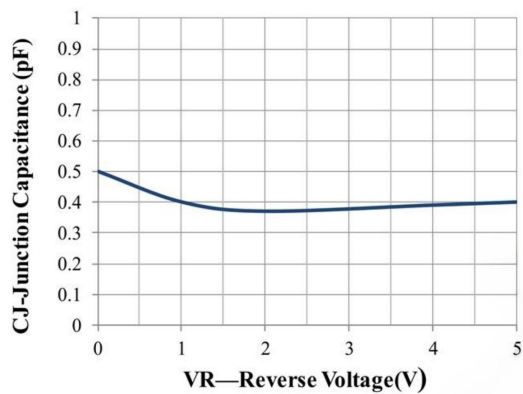
Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	V _{RWM}			5	V	
Breakdown Voltage	V _{BR}	8.0			V	I _T = 1mA
Holding Voltage	V _h	2.6		4.0	V	I _T = 100mA
Reverse Leakage Current	I _R			0.2	μA	V _{RWM} = 5.0 V
Clamping Voltage	V _C		5		V	I _{PP} = 1A (8 x 20μs pulse)
Clamping Voltage	V _C		6	8	V	I _{PP} = 5 A (8 x 20μs pulse)
Junction Capacitance	C _J		0.5		pF	V _R = 0V, f = 1MHz

Symbol	Parameter
I _T	Test Current
I _{PP}	Maximum Reverse Peak Pulse Current
V _C	Clamping Voltage @I _C

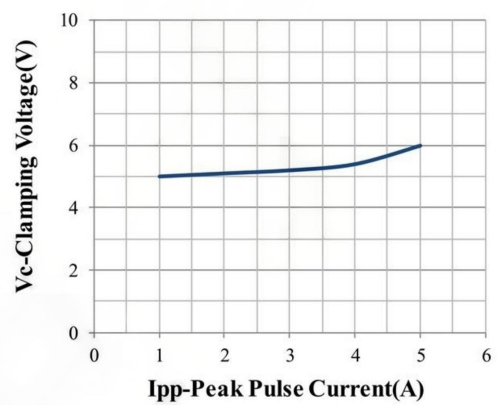


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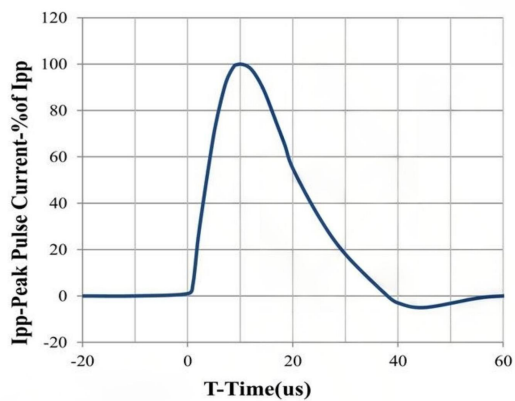
Typical Performance Characteristics ($T_A=25^\circ\text{C}$ unless otherwise Specified)



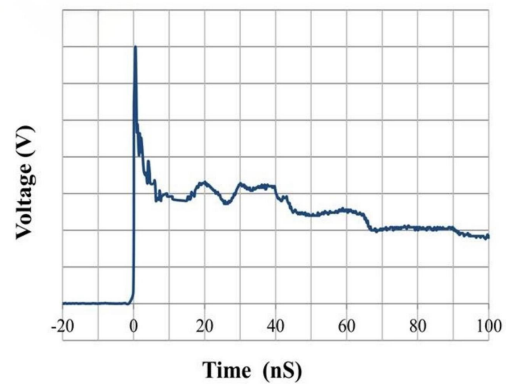
Junction Capacitance vs. Reverse Voltage



Clamping Voltage vs. Peak Pulse Current

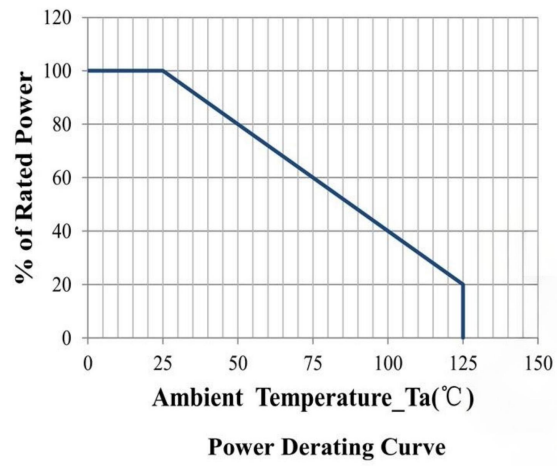


8 X 20us Pulse Waveform



IEC61000-4-2 Pulse Waveform

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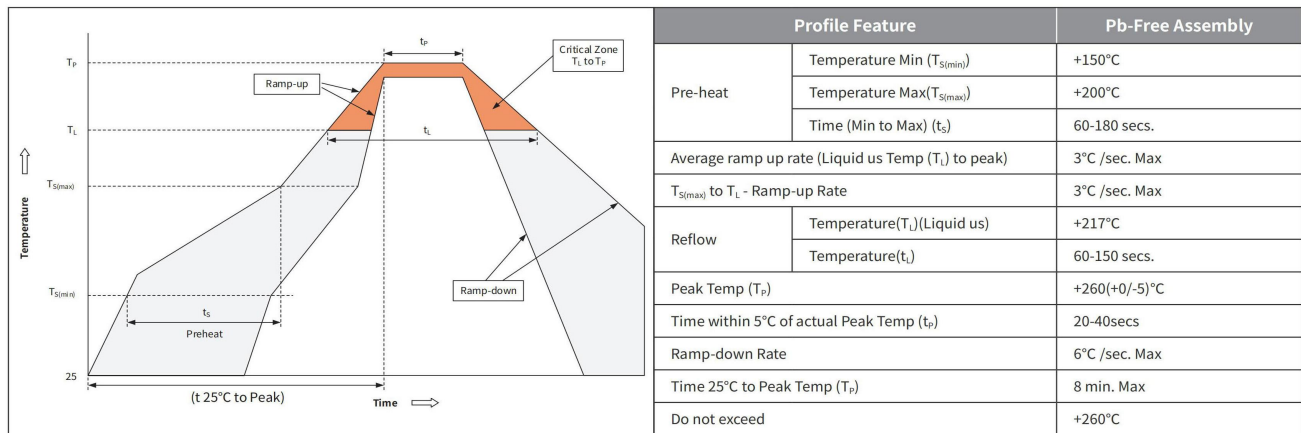


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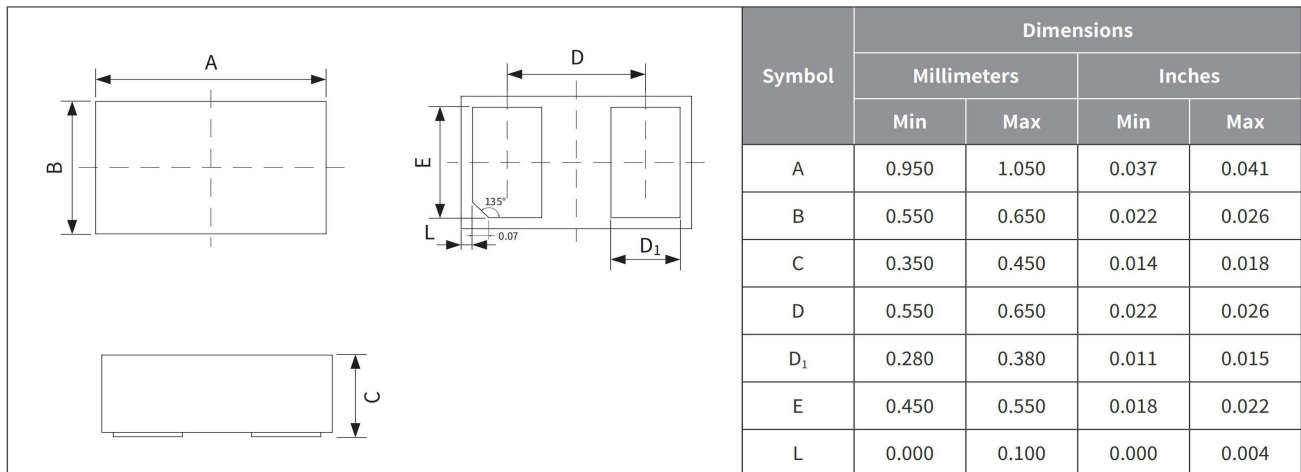
Ordering Information

PREFERRED P/N	PACKAGE	SIZE(mm)	DELIVERY MODE	MPQ(PCS)
	DFN1006-2L	1.00×0.60×0.37	7" REEL	10,000

Recommended Soldering Conditions



Package Outline Dimensions (DFN1006-2L)



Suggested Pad Layout

