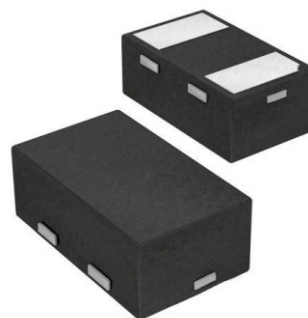


## Features

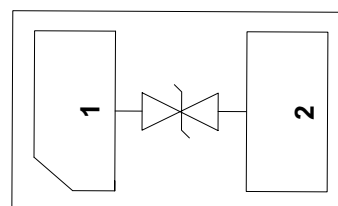
- Ultra low leakage: nA level
- Low operating voltage: 5V
- Low clamping voltage
- AEC-Q101 qualified
- Complies with following standards:
  - IEC 61000 -4-2 (ESD) immunity test
    - Air discharge:  $\pm 25\text{kV}$
    - Contact discharge:  $\pm 22\text{kV}$
  - IEC61000 -4-5 (Lightning) 4A (8/20  $\mu\text{s}$ )
- RoHS Compliant

## DFN1006-2



## Application

- Cellular Handsets and Accessories
- Display Ports
- MDDI Ports
- USB Ports
- Digital Visual Interface(DVI)
- PCI Express and Serial SATA Ports
- 
- 



Circuit and Pin Schematic

## MechanicalData

- Package:DFN1006-2
- Lead Finish: Matte Tin
- Case Material: "Green " Molding Compound.
- Moisture Sensitivity: Level 1 per J- STD -020
- Marking Information: 21

## Absolute Maximum Ratings ( $T_A=25^\circ\text{C}$ unless otherwise specified)

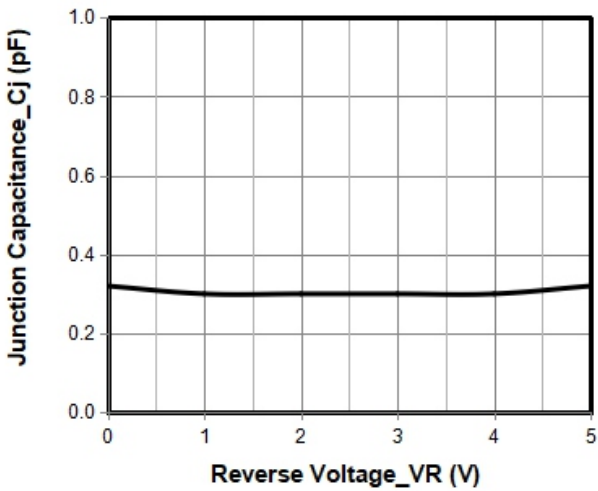
Parameter	Symbol	Value	Unit
Peak Pulse Power(8/20 $\mu\text{s}$ )	$P_{pk}$	100	W
Peak Pulse Current(8/20 $\mu\text{s}$ )	$I_{pp}$	4	A
ESD per IEC 61000-4-2 (Air)	$V_{ESD}$	$\pm 25$	kV
ESD per IEC 61000-4-2 (Contact)		$\pm 22$	
Operating Temperature Range	$T_J$	-55 to +125	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-55 to +150	$^\circ\text{C}$

# ESDN2L1006C5V01R

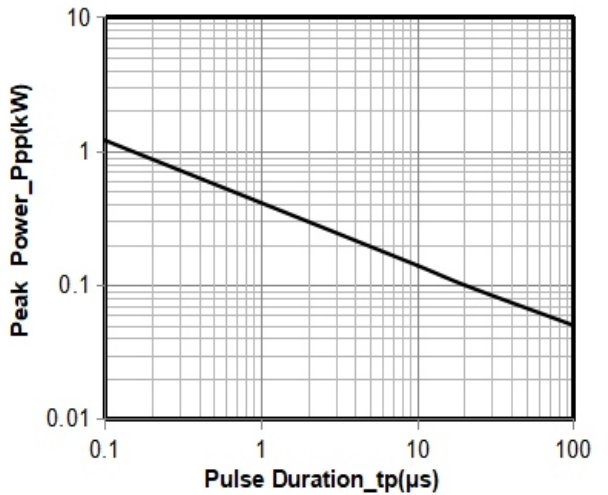
## Electrical Characteristics (TA=25°C unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	VRWM			5	V	
Breakdown Voltage	VBR	6.5			V	IT = 1mA
Reverse Leakage Current	IR			0.2	μA	VRWM = 5V
Clamping Voltage	VC			12	V	I <sub>PP</sub> = 1A (8 x 20μs pulse)
Clamping Voltage	VC			25	V	I <sub>PP</sub> = 4A (8 x 20μs pulse)
Junction Capacitance	CJ		0.3	0.5	pF	VR = 0V, f = 1MHz

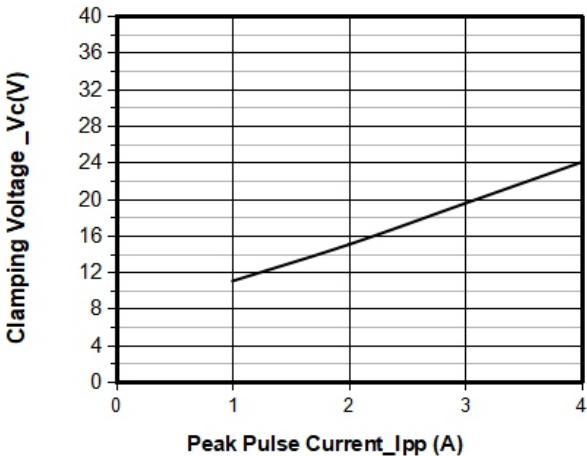
## Typical Performance Characteristics (TA=25°C unless otherwise Specified)



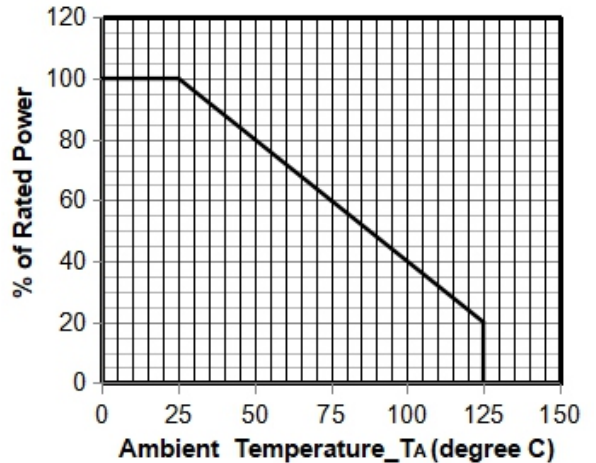
Junction Capacitance vs. Reverse Voltage



Peak Pulse Power vs. Pulse Time

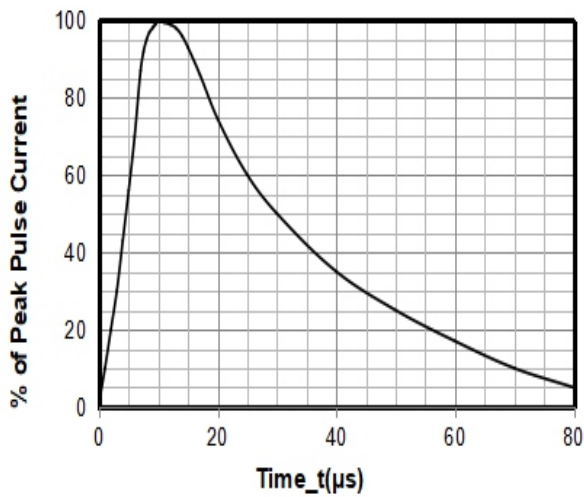


Clamping Voltage vs. Peak Pulse Current

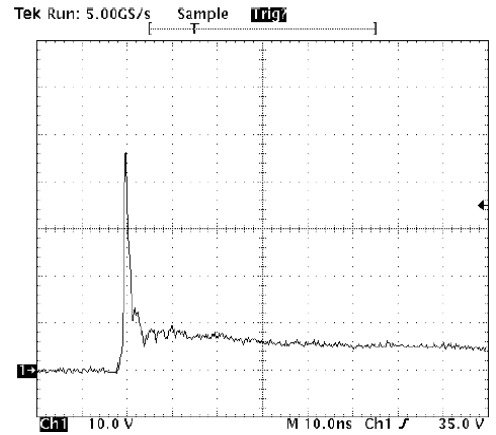


Power Derating Curve

# ESDN2L1006C5V01R



8 X 20µs Pulse Waveform

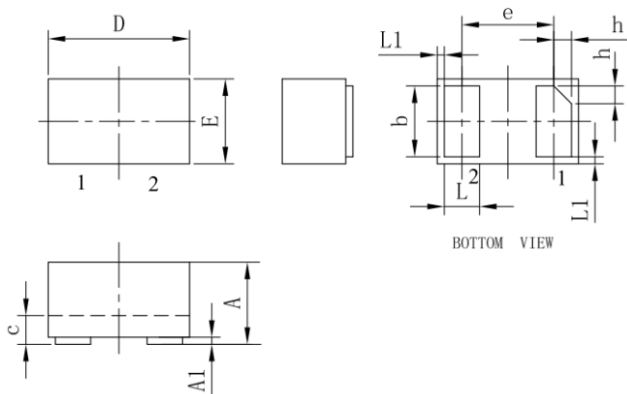


Note: Data is taken with a 10x attenuator

ESD Clamping Voltage

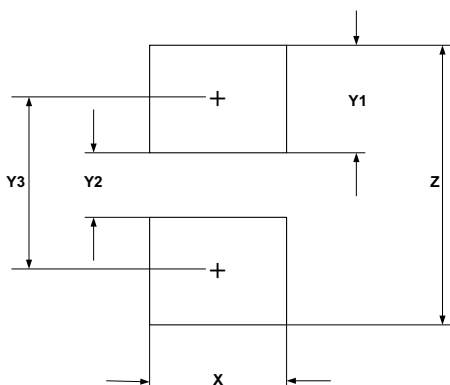
8 kV Contact per IEC61000-4-2

## DFN1006-2 Package Outline Drawing



SYM	DIMENSIONS					
	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.45	0.50	0.55	0.018	0.020	0.022
A1	0.00	0.02	0.05	0.000	0.001	0.002
b	0.45	0.50	0.55	0.018	0.020	0.022
c	0.12	0.15	0.18	0.005	0.006	0.007
D	0.95	1.00	1.05	0.037	0.039	0.041
e	0.65 BSC			0.026 BSC		
E	0.55	0.60	0.65	0.022	0.024	0.026
L	0.20	0.25	0.30	0.008	0.010	0.012
L1	0.05REF			0.002REF		
h	0.07	0.12	0.17	0.003	0.005	0.007

## Suggested Land Pattern



SYM	DIMENSIONS	
	MILLIMETERS	INCHES
X	0.60	0.024
Y1	0.50	0.020
Y2	0.30	0.012
Y3	0.80	0.032
Z	1.30	0.052

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