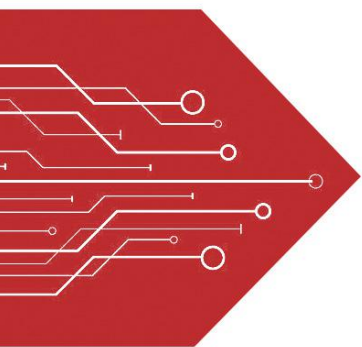


# MSKSEMI

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



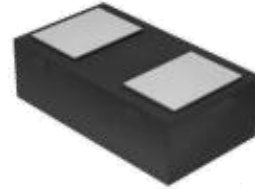
PLED

Product data sheet

## Features

- Ultra Low Capacitance: 0.30pF(typ.)
- Reverse Working Voltage: 5V
- IEC 61000-4-2 (ESD Air):  $\pm 20\text{kV}$   
IEC 61000-4-2 (ESD Contact):  $\pm 20\text{kV}$   
IEC 61000-4-5 (Lightning 8/20 $\mu\text{s}$ ): 5A

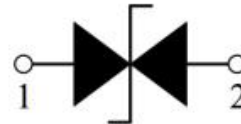
## 2. Pin Description



## Applications

- Smart Phone and Tablet PC
- TV and Set Top Box
- Wearable Devices
- PDA

## 4. Schematic Diagram



## Order Information

Type	Package	Size (mm)	Delivery Form	Delivery Quantity
ESD5311N-MS	DFN1006-2L	1.00x0.60x0.37	7" T&R	10,000

## Limiting Values( $T_A = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified)

Symbol	Parameter	Conditions	Min	Max	Unit
$V_{ESD}$	Electrostatic Discharge Voltage	IEC 61000-4-2; Contact Discharge	-	$\pm 20$	kV
		IEC 61000-4-2; Air Discharge	-	$\pm 20$	kV
$P_{PP}$	Peak Pulse Power	$t_P = 8/20\text{ }\mu\text{s}$	-	110	W
$I_{PPM}$	Rated Peak Pulse Current	$t_P = 8/20\text{ }\mu\text{s}$	-	5.0	A
$T_A$	Operating Temperature Range	-	-55	125	$^{\circ}\text{C}$
$T_{stg}$	Storage Temperature Range	-	-55	150	$^{\circ}\text{C}$

**Electrical Characteristics( $T_A = 25\text{ }^{\circ}\text{C}$  unless otherwise specified)**

Symbol	Parameter	Conditions	Min	Typ.	Max	Unit
$V_{RWM}$	Reverse Working Voltage	$T_A = 25\text{ }^{\circ}\text{C}$	-	-	5.0	V
$V_{BR}$	Breakdown Voltage	$I_R = 1\text{mA}; T_A = 25\text{ }^{\circ}\text{C}$	6.0	8.5	9.5	V
$I_R$	Reverse Leakage Current	$V_{RWM} = 5\text{V}; T_A = 25\text{ }^{\circ}\text{C}$	-	-	0.1	$\mu\text{A}$
$V_C$	Clamping Voltage	$I_{PP} = 1\text{A}, t_P = 8/20\mu\text{s}$	-	-	10	V
		$I_{PP} = 5.0\text{A}, t_P = 8/20\mu\text{s}$	-	-	22	V
$C_J$	Junction Capacitance	$V_R = 0\text{V}, f = 1\text{MHz}$	-	0.30	0.40	pF

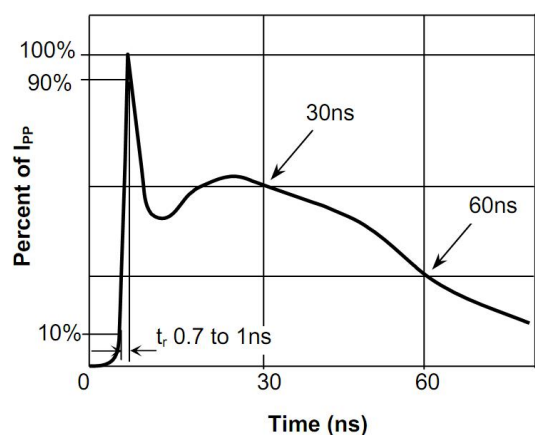
**Typical Characteristics**


Fig.1 Pulse Waveform-ESD (IEC61000-4-2)

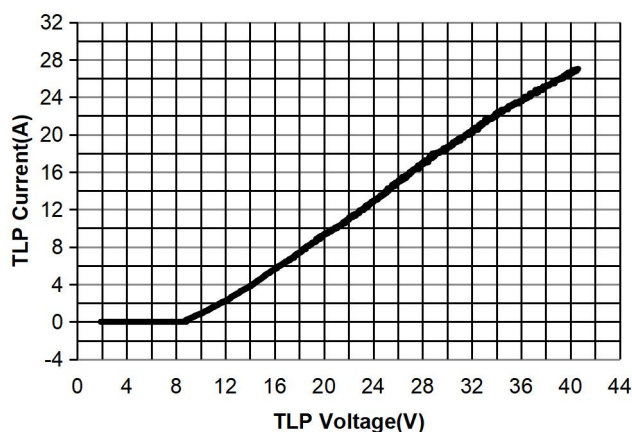


Fig.2 Transmission Line Pulse (TLP)

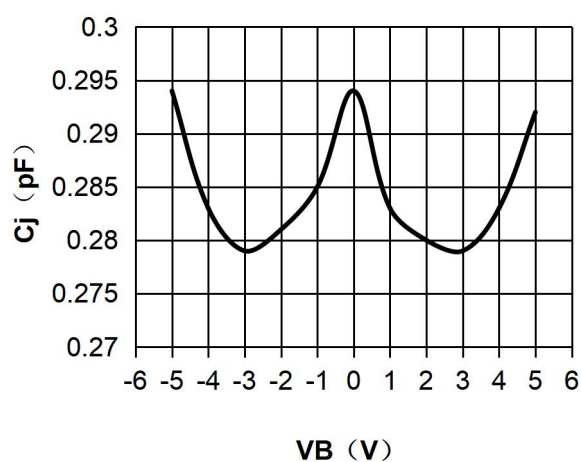


Fig.3 Capacitance vs. Reverse Voltage

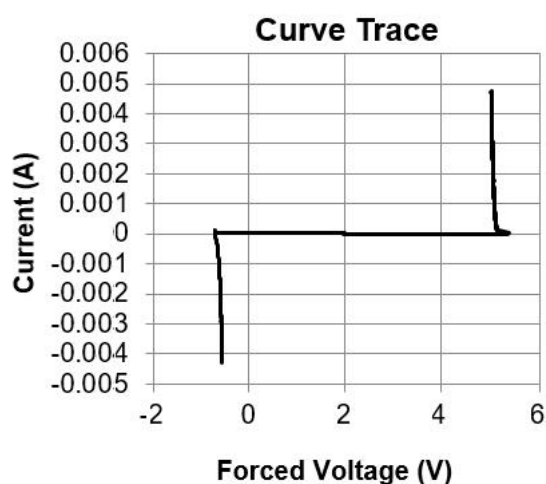
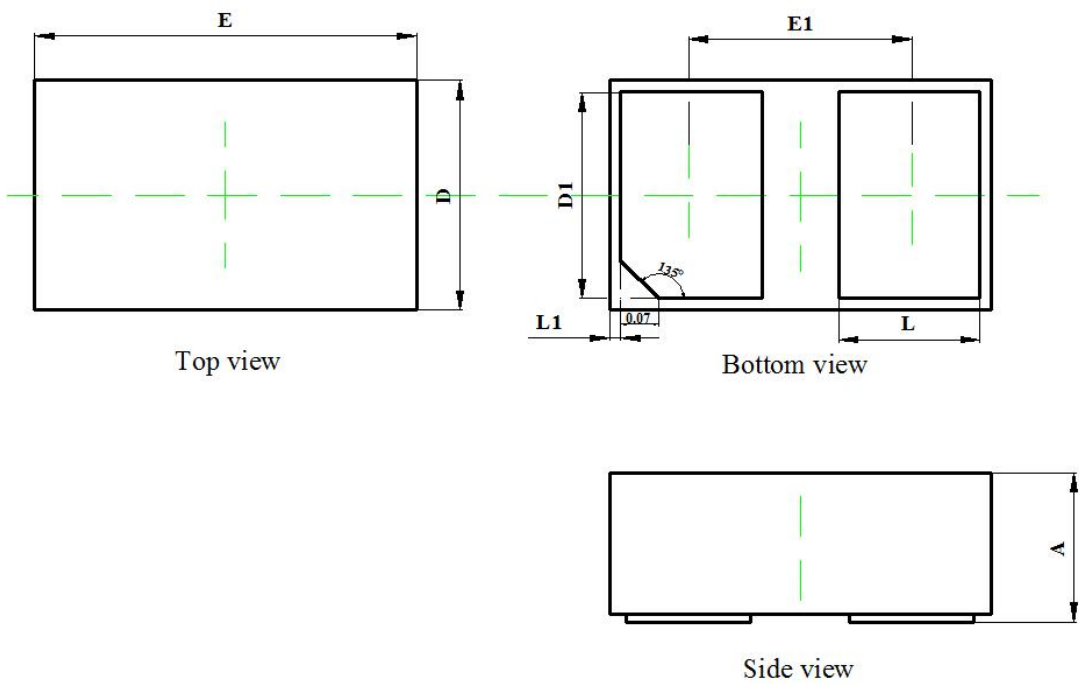


Fig.4 IV Curve

DFN1006-2L



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.350	0.450	0.014	0.018
D	0.550	0.650	0.022	0.026
E	0.950	1.050	0.037	0.041
D1	0.420	0.520	0.017	0.020
E1	0.550	0.650	0.022	0.026
L	0.270	0.370	0.011	0.015
L1	0.000	0.100	0.000	0.004

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