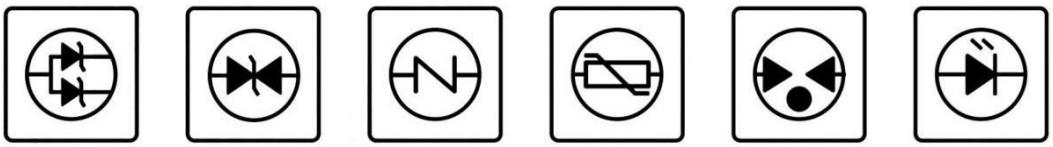
MSKSEMI 美森科
SEMICONDUCTOR



ESD5311N-MS

Product specification

ESD5311N-MS

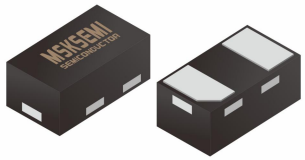
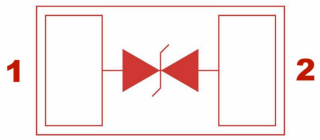
Features

- Ultra Low Capacitance: 0.30pF(typ.)
- Reverse Working Voltage: 5V
- IEC 61000-4-2 (ESD Air): ±20kV
  IEC 61000-4-2 (ESD Contact): ±20kV
  IEC 61000-4-5 (Lightning 8/20μs): 5A

Applications

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

Reference News

PACKAGE OUTLINE	PIN Configuration	Marking
 DFN1006		5F

Limiting Values(T_A = 25 °C, unless otherwise specified)

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

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

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

Typical Characteristics

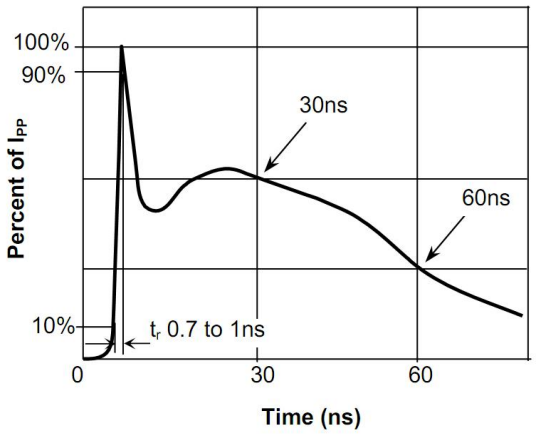


Fig.1 Pulse Waveform-ESD (IEC61000-4-2)

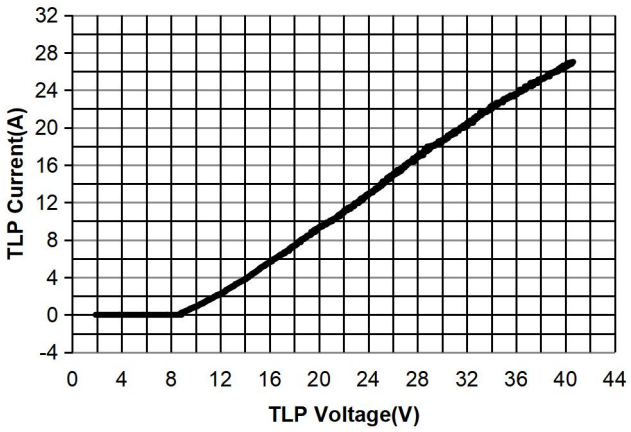


Fig.2 Transmission Line Pulse (TLP)

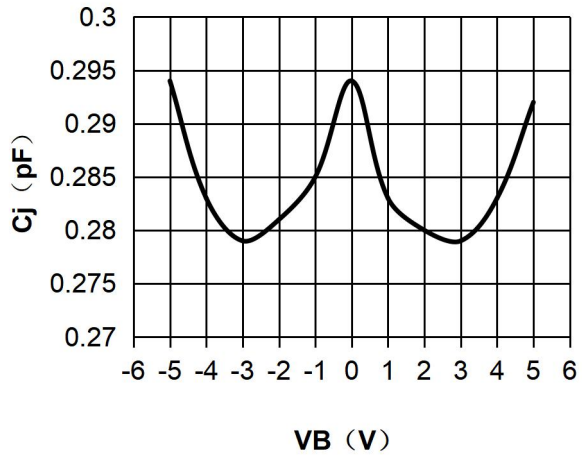


Fig.3 Capacitance vs. Reveres Voltage

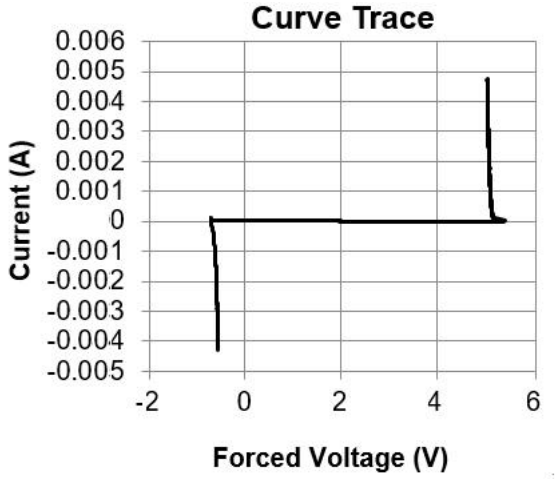
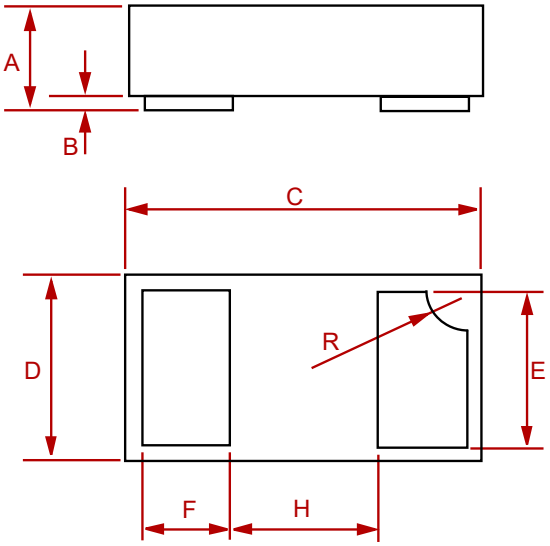


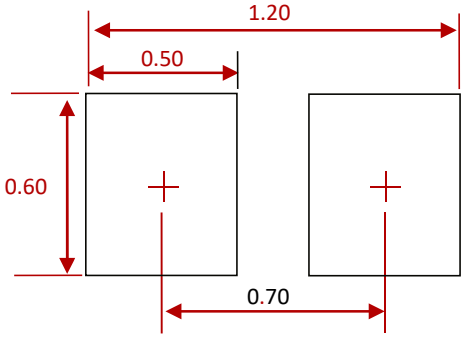
Fig.4 IV Curve

PACKAGEMECHANICALDATA



Dim	Inches		Millimeters	
	MIN	MAX	MIN	MAX
A	0.0125	0.02	0.32	0.52
B	0.000	0.002	0.00	0.05
C	0.037	0.043	0.95	1.080
D	0.022	0.027	0.55	0.680
E	0.016	0.024	0.40	0.60
F	0.008	0.012	0.20	0.30
H	0.015Typ.		0.40Typ.	
R	0.001	0.005	0.05	0.15

Suggested Pad Layout



NOTES:

1. CONTROLLING DIMENSIONS ARE IN MILLIMETERS (ANGLES IN DEGREES).
2. THIS LAND PATTERN IS FOR REFERENCE PURPOSES ONLY. CONSULT YOUR MANUFACTURING GROUP TO ENSURE YOUR COMPANY'S MANUFACTURING GUIDELINES ARE MET.

REEL SPECIFICATION

P/N	PKG	QTY
ESD5311N-MS	DFN1006	10000

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