

MSKSEMI 美森科

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED

RCLAMP0521P-MS

Product specification

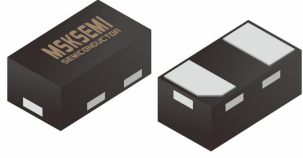
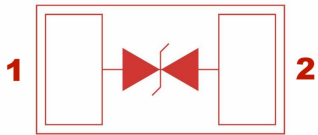

Features

- 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 μs): 5A

Applications

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

Reference News

PACKAGE OUTLINE	PIN Configuration	Marking
		
DFN1006-2L		

Limiting Values($T_A = 25^\circ\text{C}$, 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	$t_P = 8/20 \mu\text{s}$	-	110	W
I_{PPM}	Rated Peak Pulse Current	$t_P = 8/20 \mu\text{s}$	-	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	μA
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

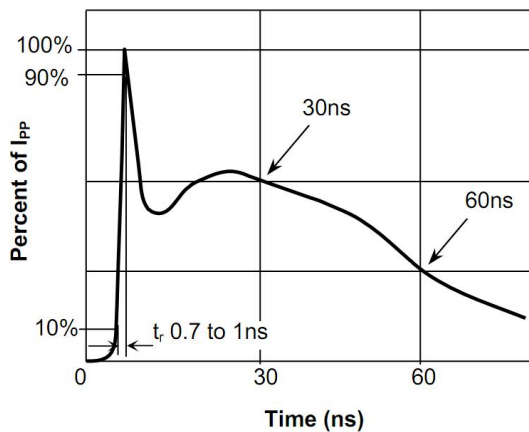


Fig.1 Pulse Waveform-ESD (IEC61000-4-2)

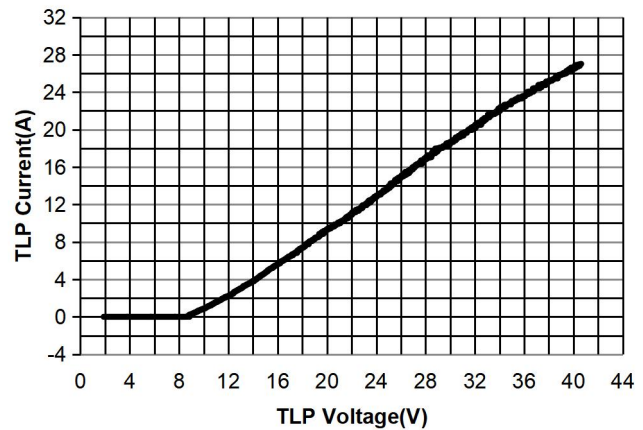


Fig.2 Transmission Line Pulse (TLP)

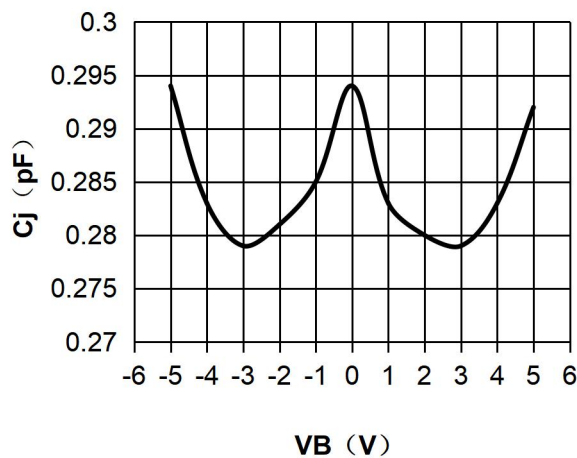


Fig.3 Capacitance vs. Reverse Voltage

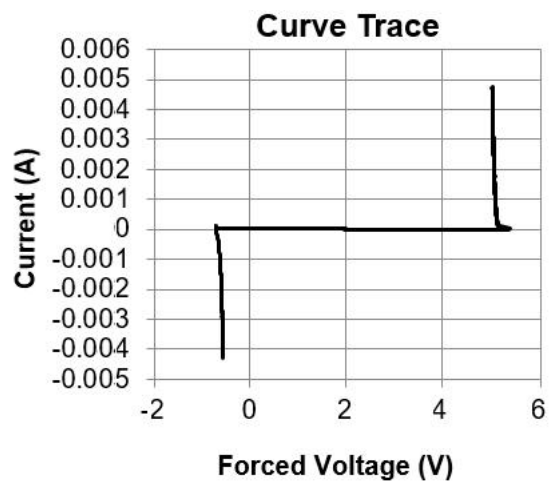
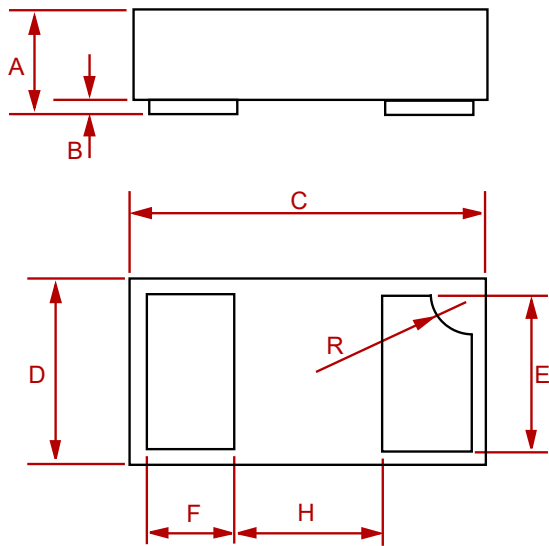


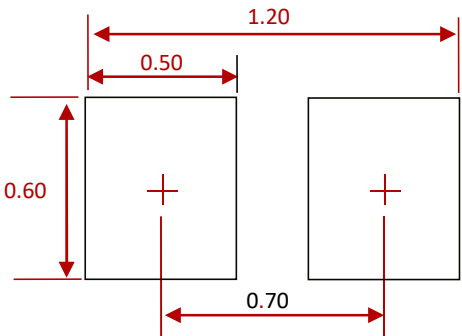
Fig.4 IV Curve

PACKAGE MECHANICAL DATA



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
RCLAMP0521P-MS	DFN1006-2L	10000

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