

1.Features

The RCLAMP0521P is a bi-directional TVS diode, utilizing leading monolithic silicon technology to provide fast response time and low ESD clamping voltage, making this device an ideal solution for protecting voltage sensitive high-speed data lines.

3.Features

- Ultra low capacitance: 0.3pF typical
- Ultra low leakage: nA level
- Operating voltage: 5V
- Low clamping voltage
- 2-pin leadless package
- RoHS Compliant

4.Applications

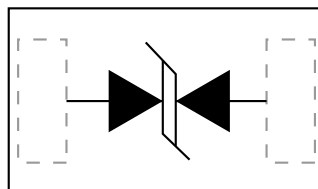
- Cellular Handsets and Accessories
- Display Ports
- MDDI Ports

2.Mechanical Characteristics

- Case Material: “Green” Molding Compound.
- Moisture Sensitivity: Level 3 per J-STD-020
- Terminal Connections: See Diagram Below
- Marking Information: See Below

- 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 μs)

5.Pinning Information



DFN1006-2



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

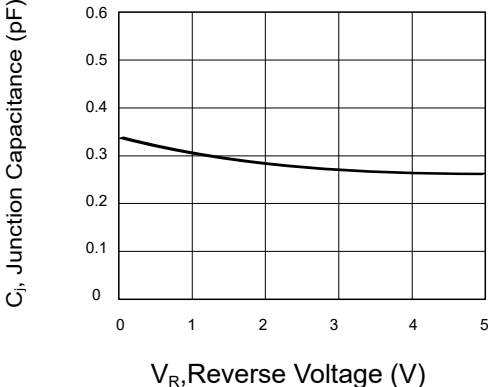
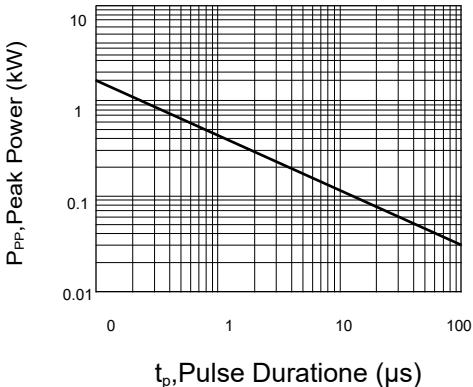
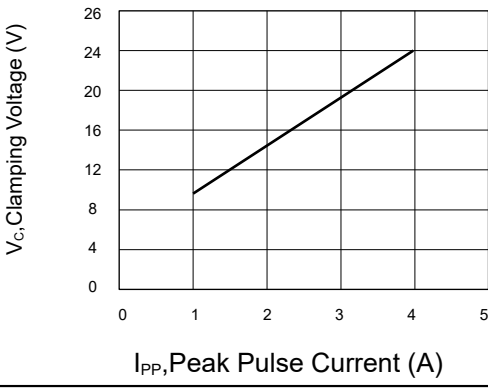
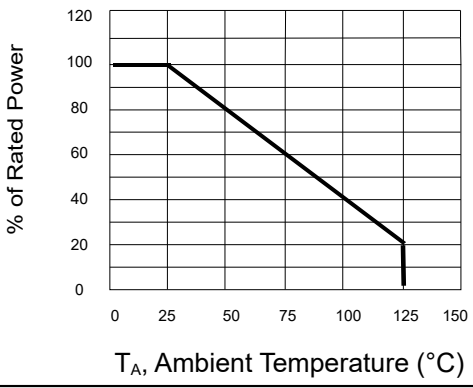
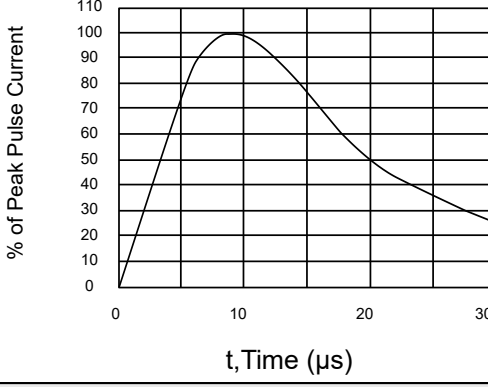
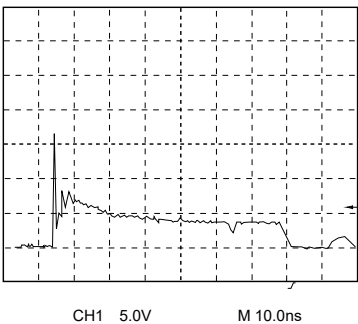
Parameter	Symbol	Value	Units
Peak Pulse Power (8/20 μs)	P_{PK}	100	W
Peak Pulse Current (8/20 μs)	I_{PP}	4	A
ESD per IEC 61000-4-2(Air)	V_{ESD}	± 25	kV
ESD per IEC 61000-4-2(Contact)		± 22	kV
Junction Temperature Range	T_J	-55 to 125	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55 to 150	$^{\circ}\text{C}$

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

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Reverse Working Voltage	V_{RWM}				5	V
Breakdown Voltage	V_{BR}	$I_T=1\text{mA}$	6.5		9.5	V
Reverse Leakage Current	I_R	$V_{RWM}=5\text{V}$			0.2	μA
Clamping Voltage	V_C	$I_{PP}=1\text{A}$ (8 x 20 μs pulse)			12	V
		$I_{PP}=4\text{A}$ (8 x 20 μs pulse)			25	V
Junction Capacitance	C_J	$V_R=0\text{V}$, $f=1\text{MHz}$		0.3	0.5	pF

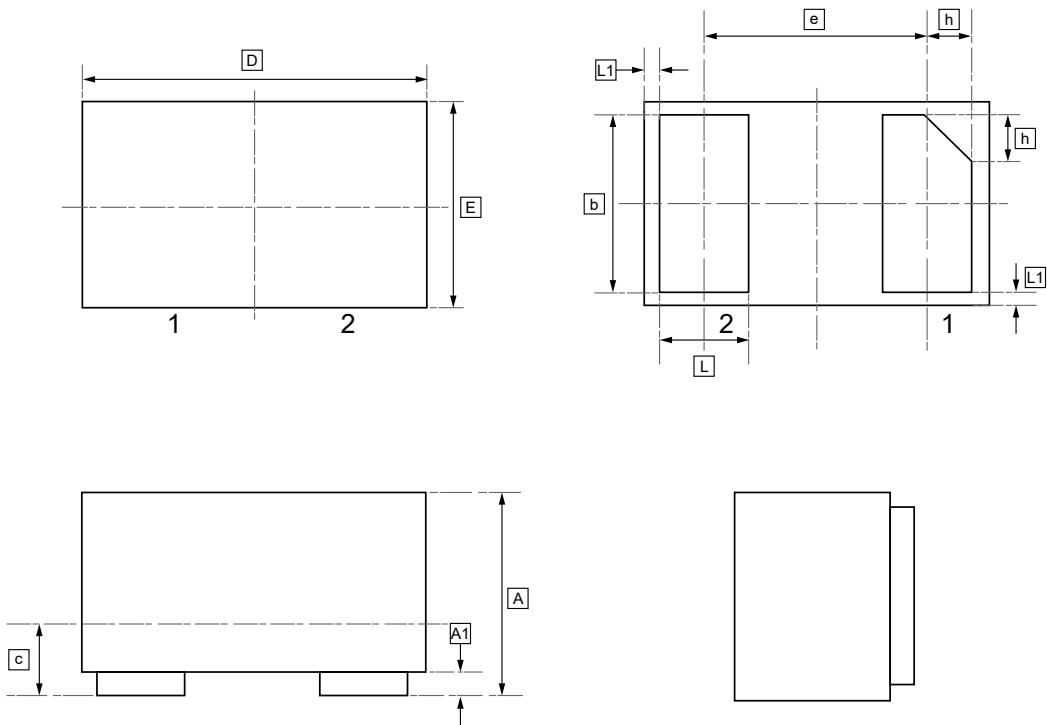


8. Typical Characteristic

	
Figure 1: Junction Capacitance vs. Reverse Voltage	Figure 2: Peak Pulse Power vs. Pulse Time
	
Figure 3: Clamping Voltage vs. Peak Pulse Current	Figure 4: Power Derating Curve
	
Figure 5: 8 X 20μs Pulse Waveform	Figure 6: ESD Clamping Voltage 8 kV Contact per IEC61000-4-2



9.DFN1006-2L Package Outline Dimensions

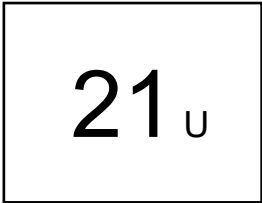


DIMENSIONS (mm are the original dimensions)

Symbol	A	A1	b	c	D	e	E	L	L1	h
Min	0.45	0.00	0.45	0.12	0.95	0.65	0.55	0.20	0.05	0.07
Max	0.55	0.05	0.55	0.18	1.05	BSC	0.65	0.30	REF	0.17



10.Ordering Information



Order Code	Package	Base QTY	Delivery Mode
UMW RCLAMP0521P	DFN1006-2	10000	Tape and reel



11.Disclaimer

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