

PROTECTION PRODUCTS
Absolute Maximum Rating

Rating	Symbol	Value	Units
Peak Pulse Power ($t_p = 8/20\mu s$)	P_{pk}	50	Watts
Maximum Peak Pulse Current ($t_p = 8/20\mu s$)	I_{pp}	4	Amps
ESD per IEC 61000-4-2 (Air) ¹ ESD per IEC 61000-4-2 (Contact) ¹	V_{ESD}	+/- 17 +/- 12	kV
Operating Temperature	T_J	-40 to +125	°C
Storage Temperature	T_{STG}	-55 to +150	°C

Electrical Characteristics (T=25°C)

Parameter	Symbol	Conditions	Minimum	Typical	Maximum	Units
Reverse Stand-Off Voltage	V_{RWM}				3.5	V
Breakdown Voltage	V_{BR}	$I_{BR} = 1mA$	4.5	6.7	8.5	V
Reverse Leakage Current	I_R	$V_{RWM} = 3.5V$		0.01	0.05	μA
Clamping Voltage	V_C	$I_{pp} = 1A, t_p = 8/20\mu s$		9.5	10	V
Clamping Voltage	V_C	$I_{pp} = 4A, t_p = 8/20\mu s$		10.5	13	V
ESD Clamping Voltage ²	V_C	$I_{pp} = 4A,$ $t_{lp} = 0.2/100ns$		8.8		V
ESD Clamping Voltage ²	V_C	$I_{pp} = 16A,$ $t_{lp} = 0.2/100ns$		14.5		V
Trigger Voltage ²	V_{TRIG}	$t_{lp} = 0.2/100ns$		8		V
Dynamic Resistance ^{2, 3}	R_{DYN}	$t_{lp} = 0.2 / 100ns$		0.47		Ohms
Junction Capacitance	C_J	$V_R = 0V, f = 1MHz$		0.33	0.40	pF

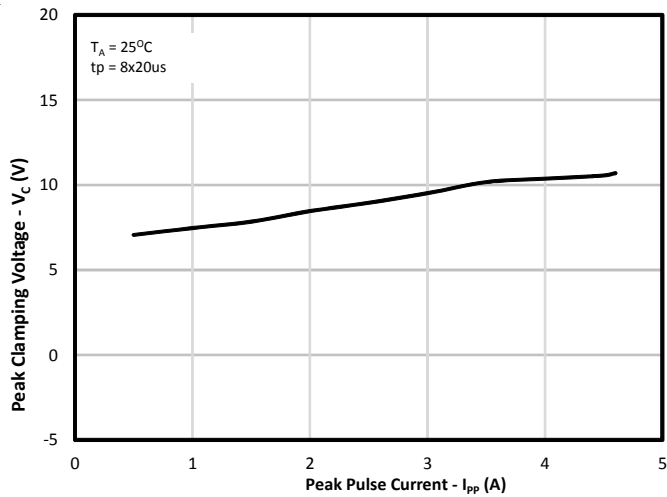
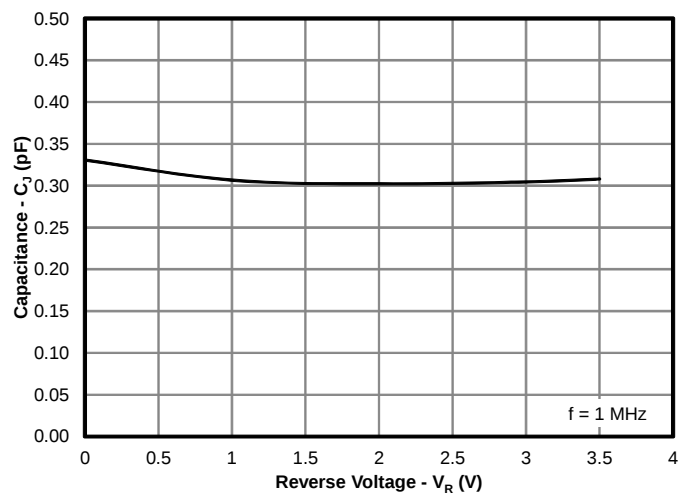
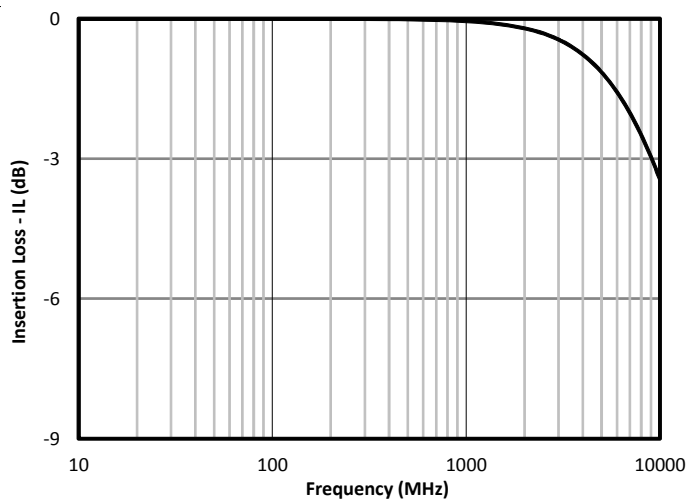
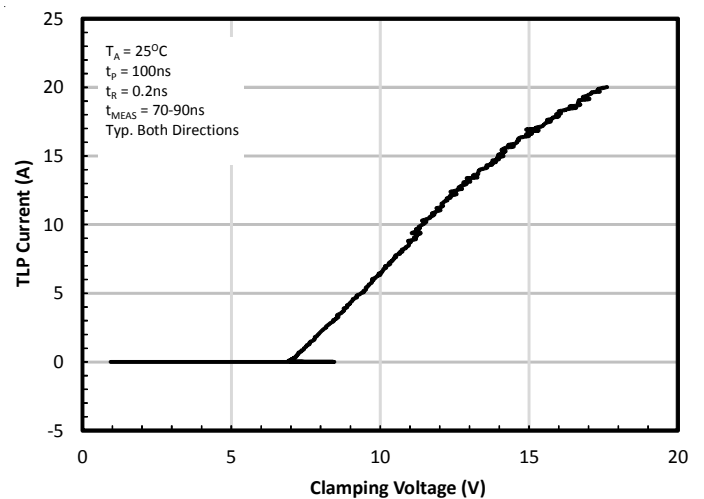
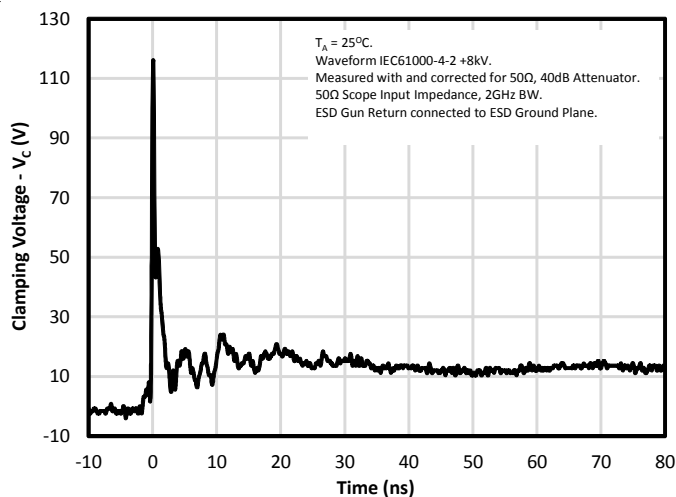
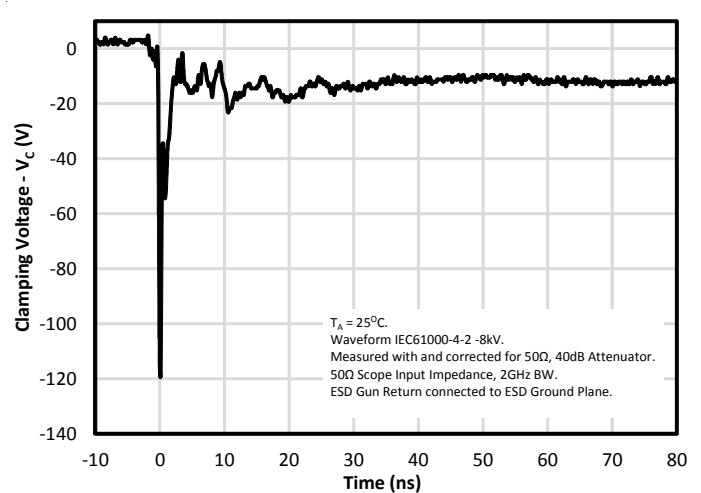
Notes

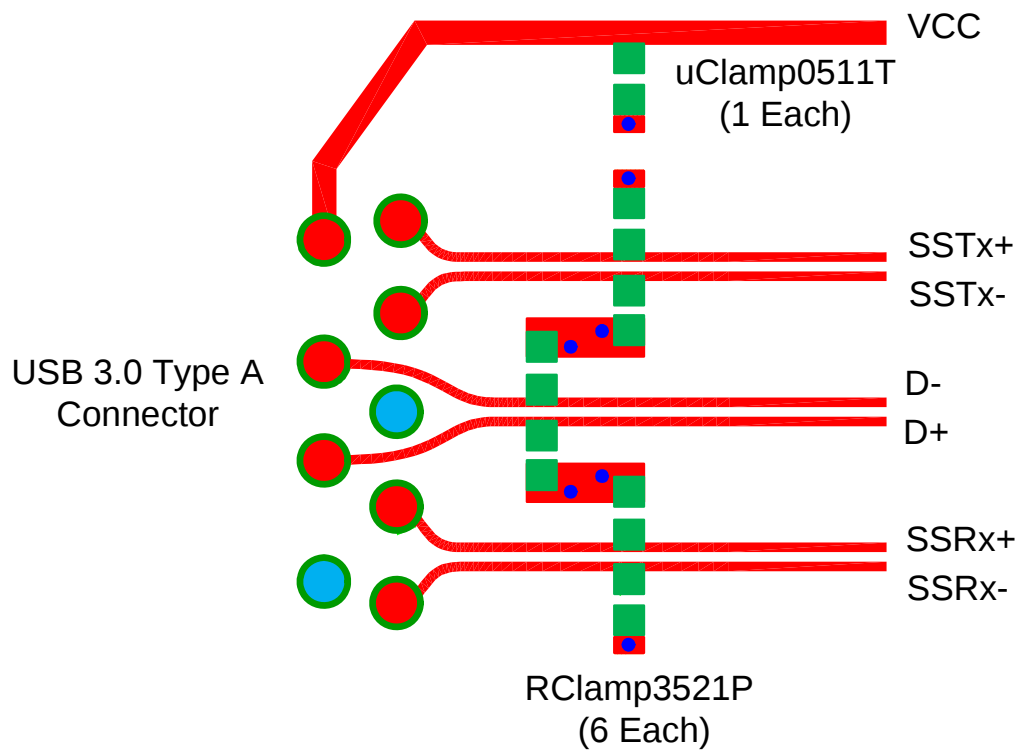
1)ESD gun return path connected to ESD ground reference plane.

2)Transmission Line Pulse Test (TLP) Settings: $t_p = 100ns$, $t_r = 0.2ns$, I_{TLP} and V_{TLP} averaging window: $t_1 = 70ns$ to $t_2 = 90ns$.

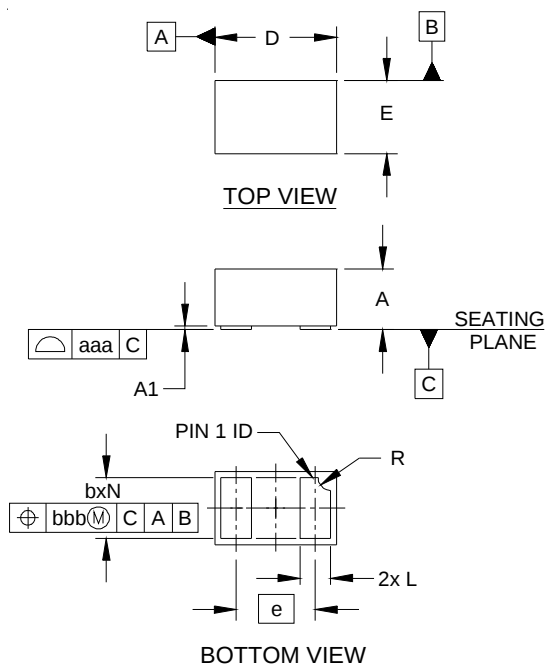
3) Dynamic resistance calculated from $I_{pp} = 4A$ to $I_{pp} = 16A$

4) Device is electrically symmetrical

PROTECTION PRODUCTS
Typical Characteristics
Clamping Voltage vs. Peak Pulse Current

Capacitance vs. Reverse Voltage

Typical Insertion Loss (S21)

TLP Characteristic

ESD Clamping (+8kV Contact per IEC 61000-4-2)

ESD Clamping (-8kV Contact per IEC 61000-4-2)




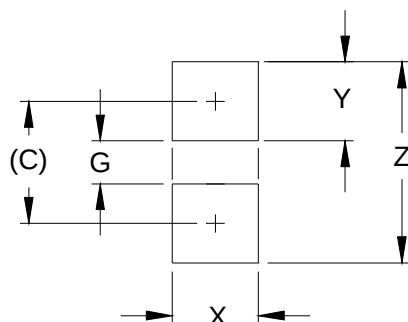
USB 3.0 Layout Diagram

PROTECTION PRODUCTS
Outline Drawing - SLP1006P2


DIM	INCHES			MILLIMETERS		
	MIN	NOM	MAX	MIN	NOM	MAX
A	.016	.020	.022	0.40	0.50	0.55
A1	.000	.001	.002	0.00	0.03	0.05
b	.018	.020	.022	0.45	0.50	0.55
D	.035	.039	.043	0.90	1.00	1.10
E	.020	.024	.028	0.50	0.60	0.70
e	.026 BSC			0.65 BSC		
L	.008	.010	.012	0.20	0.25	0.30
R	.002	.004	.006	0.05	0.10	0.15
N	2			2		
aaa	.003			0.08		
bbb	.004			0.10		

NOTES:

1. CONTROLLING DIMENSIONS ARE IN MILLIMETERS (ANGLES IN DEGREES).

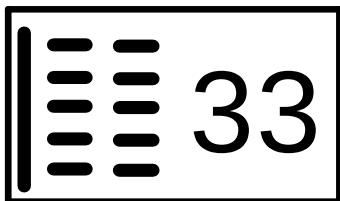
Land Pattern - SLP1006P2


DIM	DIMENSIONS	
	INCHES	MILLIMETERS
C	(.033)	(0.85)
G	.012	0.30
X	.024	0.60
Y	.022	0.55
Z	.055	1.40

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.

Marking Codes



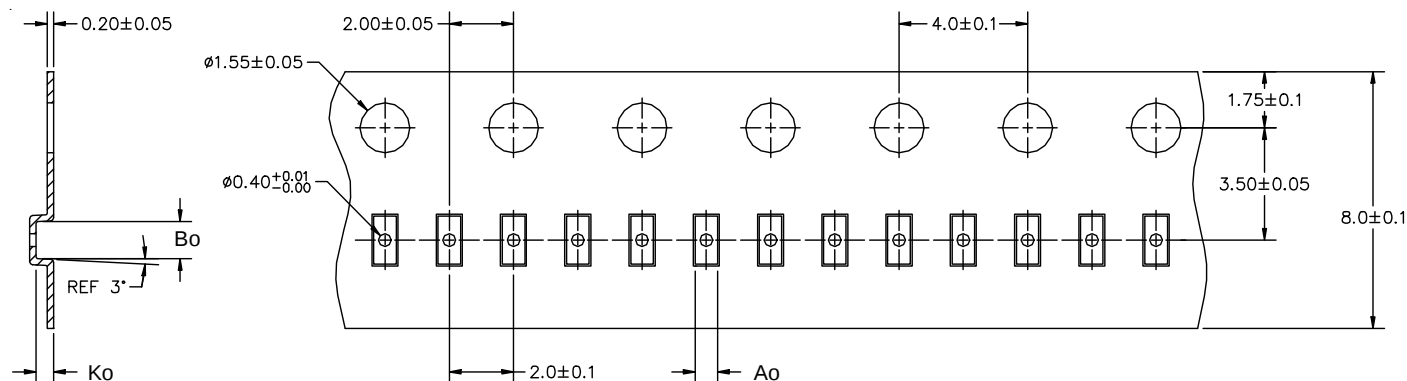
Ordering Information

Part Number	Qty per Reel	Reel Size
RClamp3521P.TNT	10,000	7 Inch

RailClamp and RClamp are trademarks of Semtech Corporation

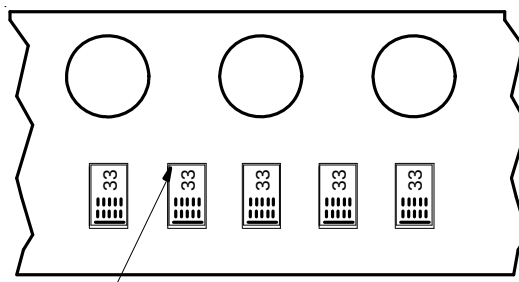
- 1) Device is electrically symmetrical
- 2) Marking will also include line matrix date code

Carrier Tape Specification



A0	B0	K0
0.69 +/-0.10 mm	1.19 +/-0.10 mm	0.66 +/-0.10 mm

Note: All dimensions in mm unless otherwise specified



Pin 1 Location
(Towards Sprocket Holes)

Device Orientation in Tape

Contact Information

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