

PROTECTION PRODUCTS
Absolute Maximum Rating

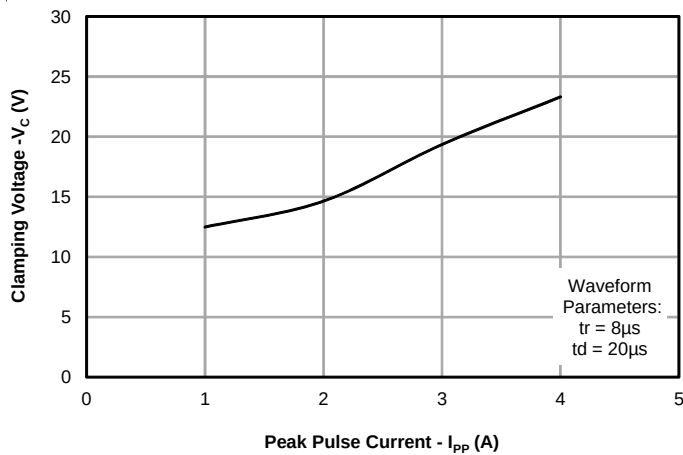
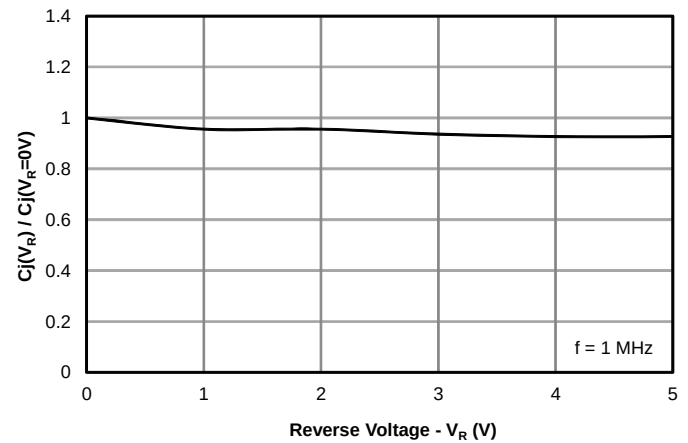
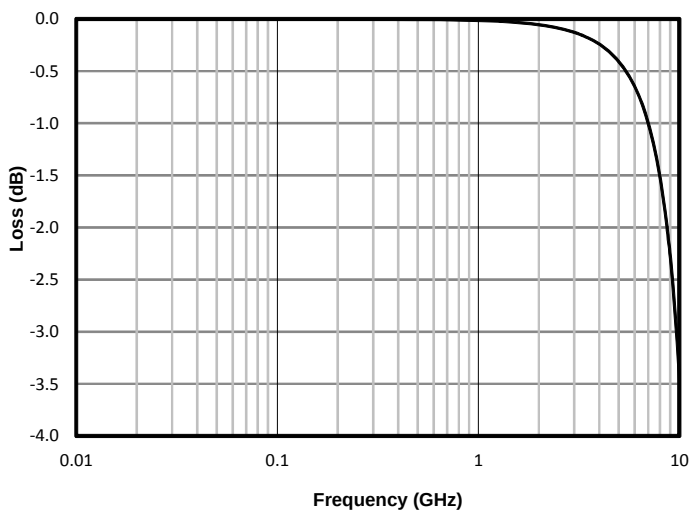
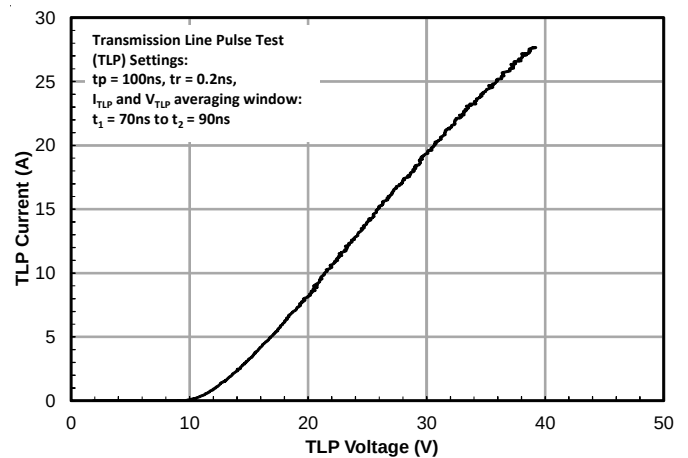
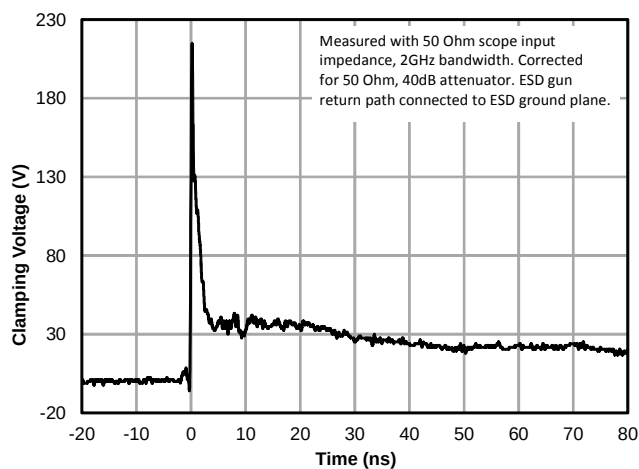
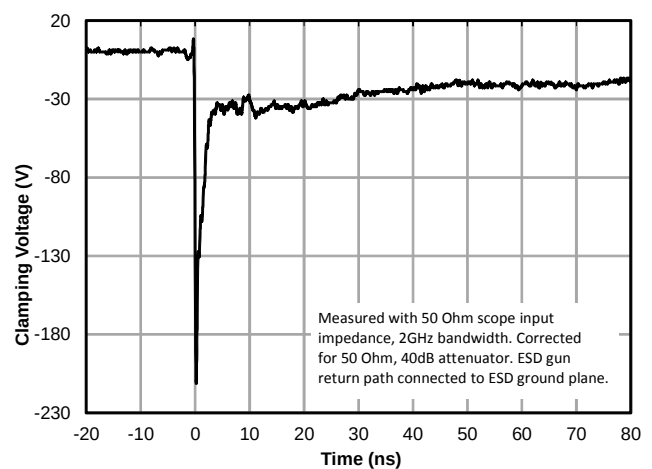
Rating	Symbol	Value	Units
Peak Pulse Power ($t_p = 8/20\mu s$)	Ppk	100	Watts
Peak Pulse Current ($t_p = 8/20\mu s$)	IPP	4	A
ESD per IEC 61000-4-2 (Air) ¹ ESD per IEC 61000-4-2 (Contact) ¹	V _{ESD}	+/- 25 +/- 17	kV
Operating Temperature	T _J	-55 to +125	°C
Storage Temperature	T _{STG}	-55 to +150	°C

Electrical Characteristics (T=25°C)

Parameter	Symbol	Conditions	Minimum	Typical	Maximum	Units
Reverse Stand-Off Voltage	V _{RWM}				5	V
Reverse Breakdown Voltage	V _{BR}	I _t = 1mA	6	9.3	11	V
Reverse Leakage Current	I _R	V _{RWM} = 5V, T=25 °C		0.005	0.100	μA
Clamping Voltage	V _C	I _{PP} = 1A, t _p = 8/20μs			15	V
Clamping Voltage	V _C	I _{PP} = 4A, t _p = 8/20μs			25	V
Dynamic Resistance ^{2, 3, 4}	R _D	t _p = 100ns		0.90		Ohms
Junction Capacitance	C _J	V _R = 0V, f = 1MHz		0.35	0.50	pF

Notes

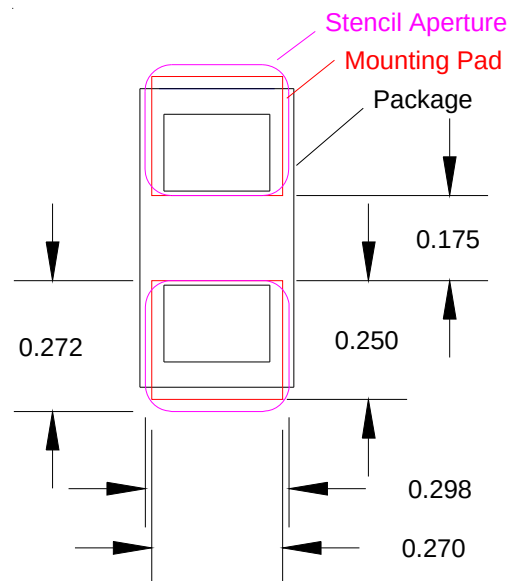
- 1)ESD gun return path connected to ESD ground reference plane.
- 2)Transmission Line Pulse Test (TLP) Settings: t_p = 100ns, t_r = 0.2ns, I_{TLP} and V_{TLP} averaging window: t₁ = 70ns to t₂ = 90ns.
- 3) Dynamic resistance calculated from I_{TLP} = 4A to I_{TLP} = 16A
- 4)Guaranteed by design. Not production tested

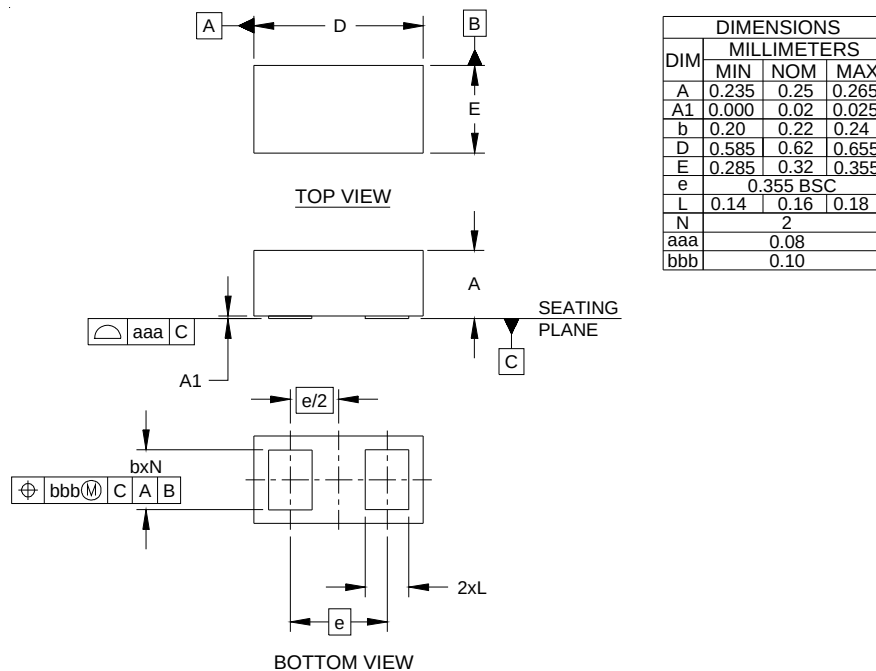
PROTECTION PRODUCTS
Typical Characteristics
Clamping Voltage vs. Peak Pulse Current

Typical 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)


PROTECTION PRODUCTS
Applications Information
Assembly Guidelines

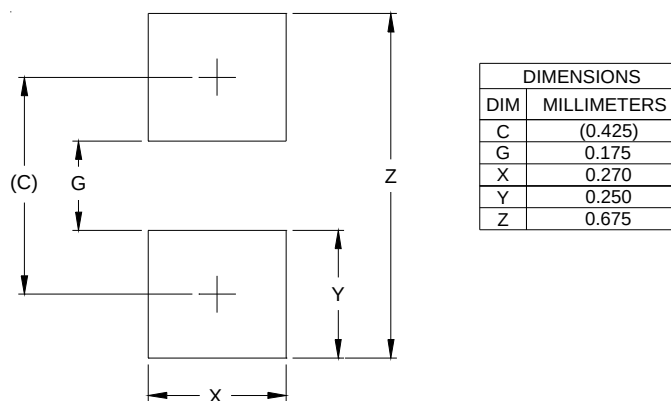
The small size of this device means that some care must be taken during the mounting process to insure reliable solder joint. The table below provides Semtech's recommended assembly guidelines for mounting this device. The figure at the right details Semtech's recommended aperture based on the below recommendations. Note that these are only recommendations and should serve only as a starting point for design since there are many factors that affect the assembly process. The exact manufacturing parameters will require some experimentation to get the desired solder application.

Assembly Parameter	Recommendation
Solder Stencil Design	Laser cut, Electro-polished
Aperture shape	Rectangular with rounded corners
Solder Stencil Thickness	0.100 mm (0.004")
Solder Paste Type	Type 4 size sphere or smaller
Solder Reflow Profile	Per JEDEC J-STD-020
PCB Solder Pad Design	Non-Solder mask defined
PCB Pad Finish	OSP OR NiAu

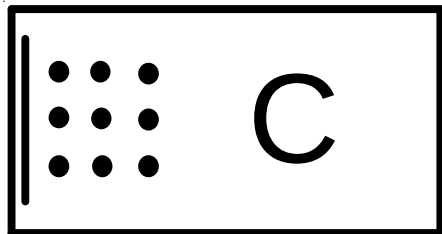
Recommended Mounting Pattern


PROTECTION PRODUCTS
Outline Drawing - SLP0603P2X3

NOTES:

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

Land Pattern - SLP0603P2X3

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.

PROTECTION PRODUCTS
Marking Code


Notes:

1) Dots represent date code matrix

Ordering Information

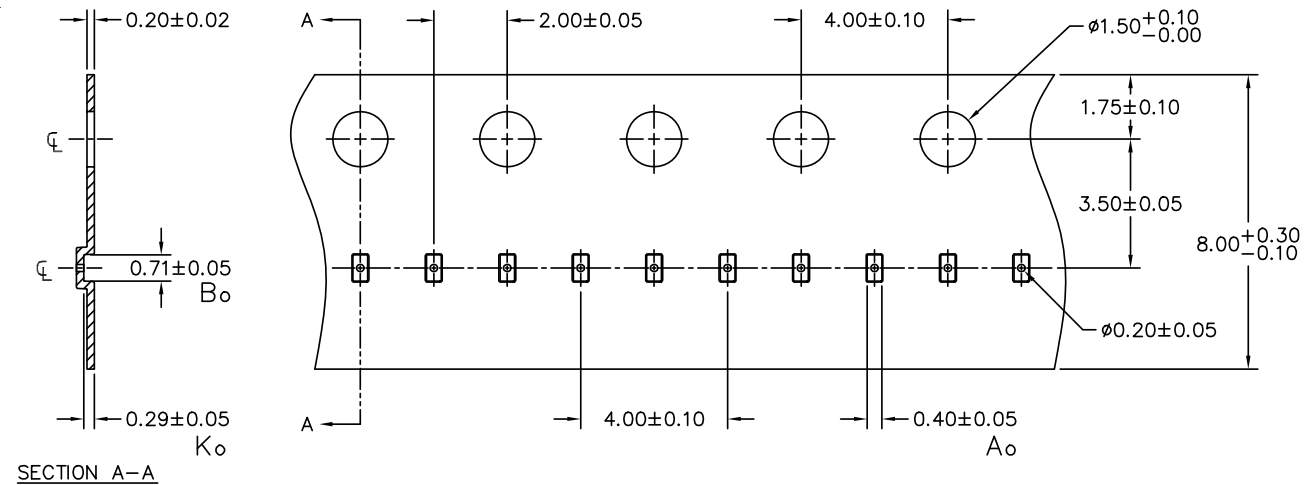
Ordering Number	Qty per Reel	Carrier Tape	Reel Size	Comments
RClamp0521Z.TNT	10,000	Plastic	7 Inch	Not Recommended for New Designs
RClamp0521Z.TFT	15,000	Paper	7 Inch	

RailClamp and RClamp are trademarks of Semtech Corporation.

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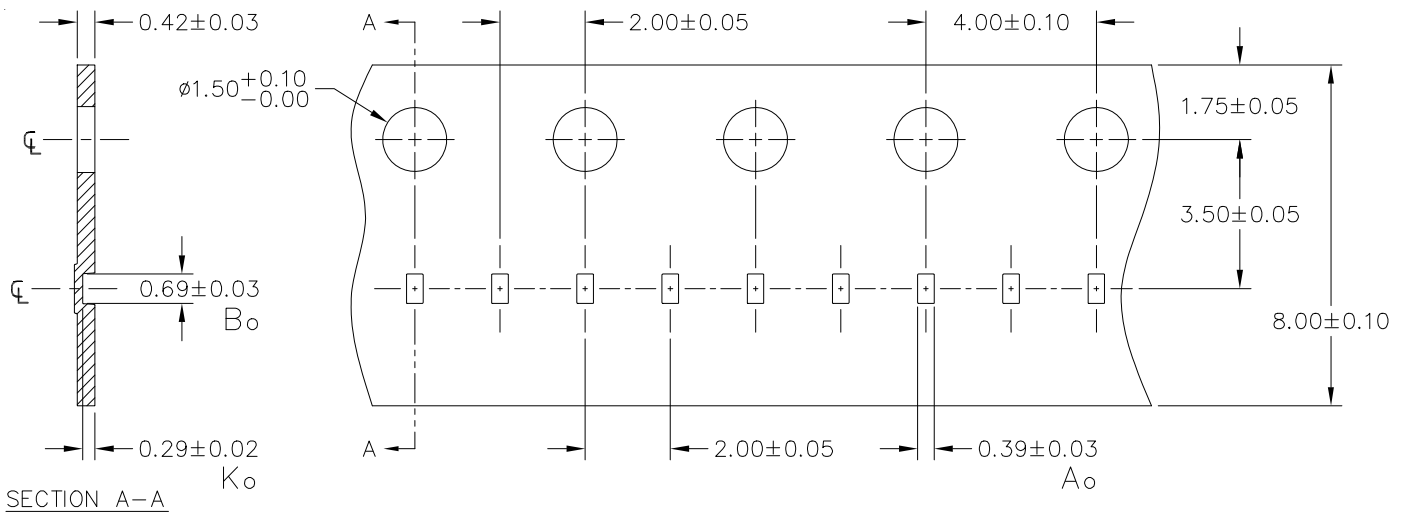
Carrier Tape Specification

Plastic Tape



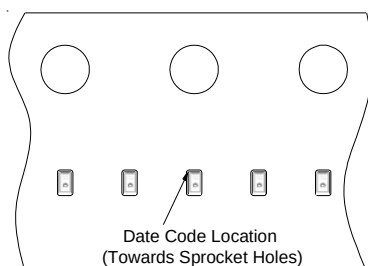
NOTES: 1.) ALL DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.

Paper Tape



Note: All dimensions in mm unless otherwise specified

Device Orientation in Tape



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