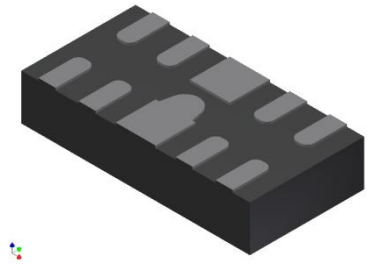
The SSCE1V511N7 provides a typical line to line capacitance of 0.08pF between I/O pins and low insertion loss up to 3GHz providing greater signal integrity making it ideally suited for HDMI applications, such as Digital TVs, DVD players, Computing, set-top boxes and MDDI applications in mobile computing devices.

It has been specifically designed to protect sensitive components which are connected to high-speed data and transmission lines from overvoltage caused by ESD(electrostatic discharge), CDE (Cable Discharge Events),and EFT (electrical fast transients).

Features

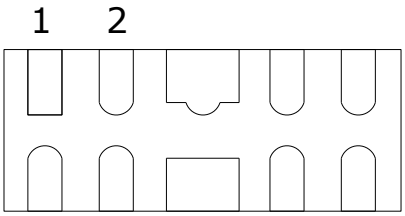
- Protects two or four I/O lines
- Low capacitance:0.07pf Typical between I/O channel
- Working voltages :1.5V
- Low leakage current
- Response Time is < 1 ns
- Meets MSL 1 Requirements
- ROHS compliant



DFN2510

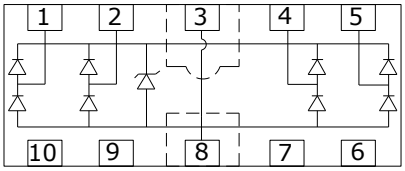
Main applications

- Display Port Interface
- Serial ATA
- PCI Express
- USB/3.0/3.1
- Projection TV Monitors and Flat Panel Displays
- Notebook Computers
- Set Top Box
- Projection TV



Protection solution to meet

- IEC61000-4-2 (ESD) ±15kV (air), ±8kV (contact)
- IEC61000-4-4 (EFT) 40A (5/50ns)



Ordering Information

Device	Marking	Qty per Reel	Reel Size
SSCE1V511N7	0524P	3000	7 Inch

Maximum ratings (Tamb=25℃ Unless Otherwise Specified)

Parameter	Symbol	Value	Unit
ESD Rating per IEC61000-4-2： Contact Air		15 18	KV
Lead Soldering Temperature	T_L	260 (10 sec.)	℃
Operating Temperature Range	T_J	-55 ~ 150	℃
Storage Temperature Range	T_{STG}	-55 ~ 150	℃

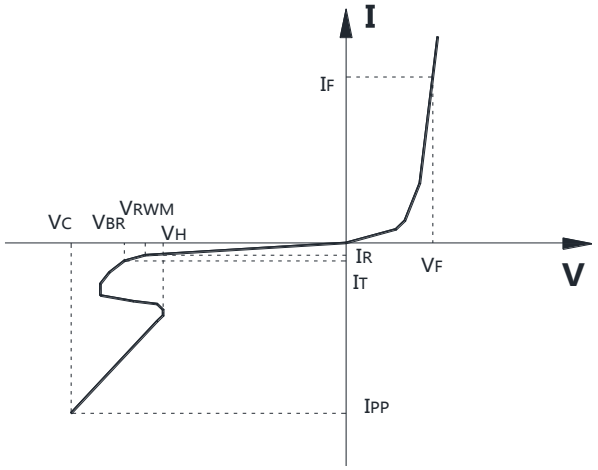
Electrical characteristics (Tamb=25℃ Unless Otherwise Specified)

Symbol	Parameter	Conditions	Min.	Typ.	Max.	Units
V_{RWM}	Reverse Working Voltage				1.5	V
V_{BR}	Reverse Breakdown Voltage	I_T = 0.1mA,	9.0			V
I_R	Reverse Leakage Current	V_{RWM} = 1.5V,			1	μA
V_F	Diode Forward Voltage	I_F = 15mA		0.85	1.2	V
V_h	Hold Current Voltage	I_H = 10mA		1.85		V
V_C	Clamping Voltage	I_{PP} = 1A(1),		1.7	5.7	V
		I_{PP} = 16A(1),		5.2	11	V
R_{dyn}	dynamic resistance	positive transient(TLP) negative transient(TLP)		0.26 0.28		Ω
C_J(2)	Junction Capacitance	V_{IN} = 1.0V, f = 1MHz, between I/O pins		0.07	0.1	pF
		V_{IN}=1.0V, f = 1MHz, any I/O pin to Ground		0.45	0.65	pF

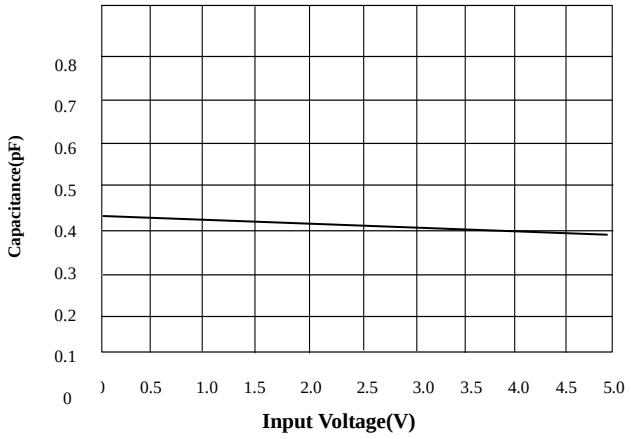
Notes:(1)Measurements performed using a 100ns Transmission Line Pulse(TLP) system.

(2)Junction capacitance is measured in V_R=0V,F=1MHz

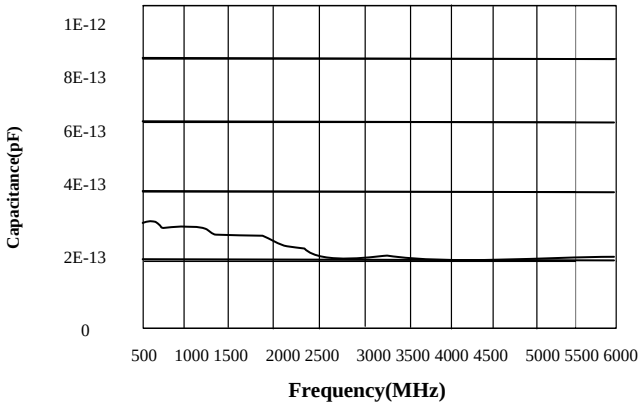
Symbol	Parameter
V_{RWM}	Working Peak Reverse Voltage
V_{BR}	Breakdown Voltage @ I_T
V_C	Clamping Voltage @ I_{PP} 100ns Transmission Line Pulse(TLP)
I_T	Test Current
I_{RM}	Leakage current at V_{RWM}
I_{PP}	Peak pulse current
C_O	Off-state Capacitance
C_J	Junction Capacitance



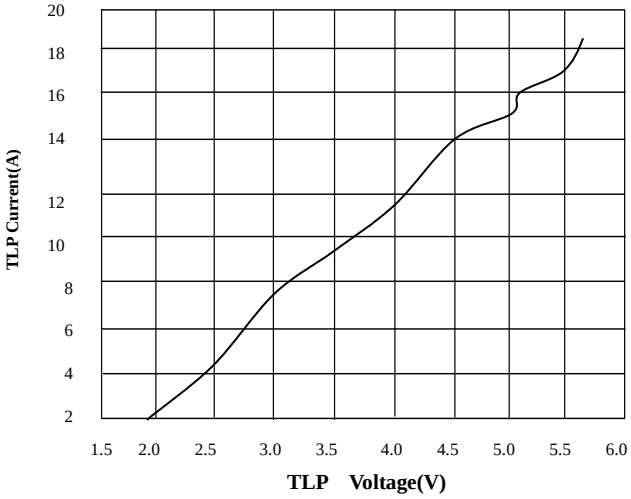
- **Typical electrical characterist applications**



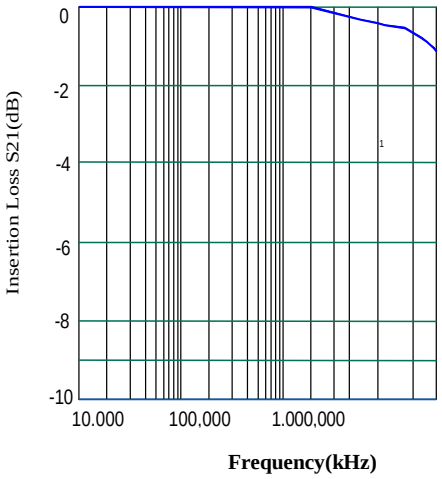
Typical Variation of CIN vs.VIN



Capacitance vs. Frequency
(IO to GND)



Transmission Line Pulsing (TLP) Measurement



Insertion Loss vs. Frequency
(IO to GND)

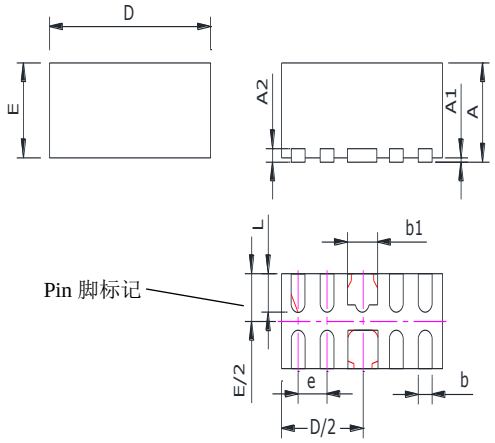
Package Information

DFN2510

Mechanical Data

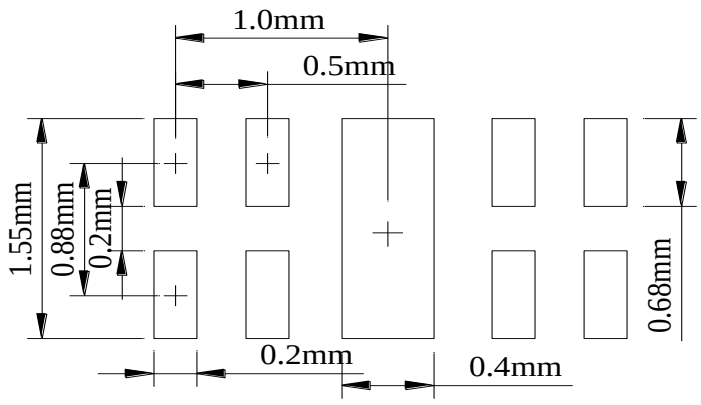
Case:DFN2510

Case Material: Molded Plastic. UL Flammability



DIM	Millimeters	
	Min	Max
A	0.45	0.65
A1	0.05REF	
A2	0.15REF	
b	0.15	0.25
b1	0.30	0.50
D	2.424	2.576
E	0.924	1.076
e	0.50REF	
L	0.30	0.45

Recommended Pad outline



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