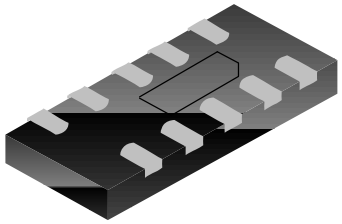
Semiteh Electronics ESD14N5V0U6U

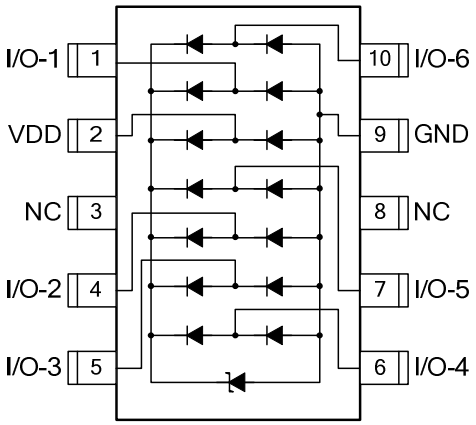
ESD14N5V0U6U TVS arrays designed to protect power/control lines and high-speed signal lines from overvoltage hazard of Electrostatic Discharge (ESD), Electrical Fast Transients (EFT) and Lightning. These interfaces can be used for high definition multi-media interface (HDMI) at 1.65 Gb/s and up to 3.2 Gb/s, digital visual interface (DVI), USB3.0 power and data lines protection, notebook and personal computers, monitors and flat panel displays, IEEE 1394 Firewire Ports, etc.

ESD14N5V0U6U incorporates a pair of rail-to-rail diodes with low capacitance for each of four I/O channels. Additional Zener diode is employed to minimize the influence of supply voltage. The ESD protection of TVS arrays meets the immunity standard of IEC 61000-4-2, level 4 (±15kV air, ±8kV contact discharge).

DFN-10-4.1X2X0.5-0.80



PIN CONFIGURATION

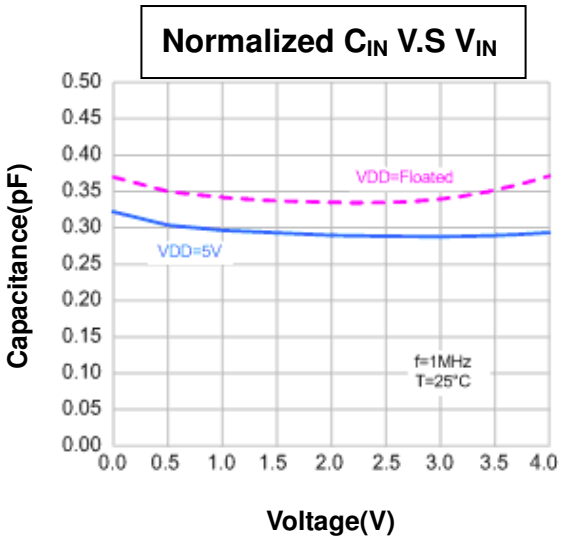


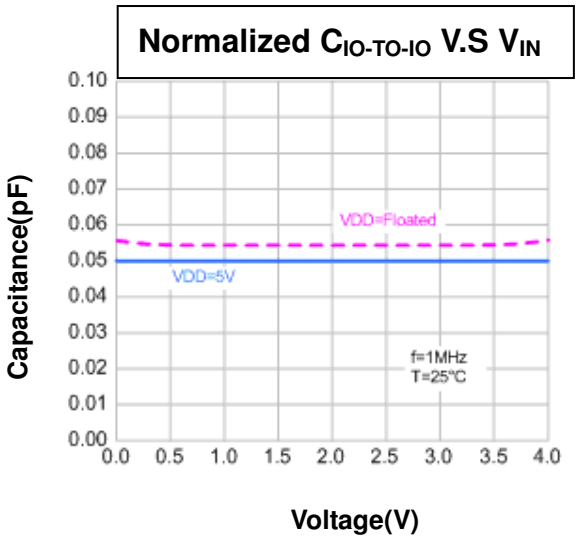
Shipping

3000/Tape&Reel

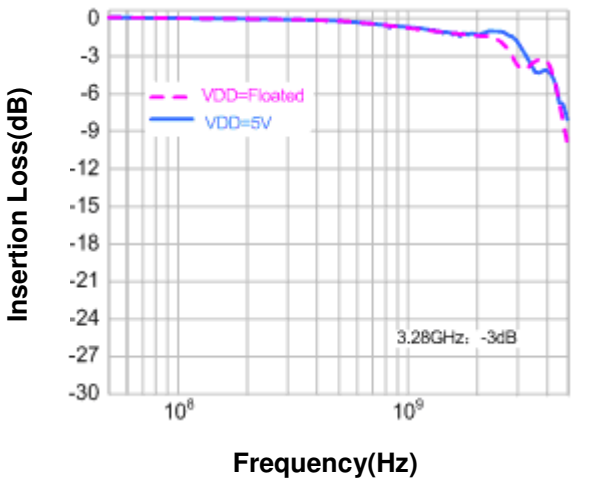
PARAMETER	PARAMETER	RATING	UNITS
Peak Pulse power (tp = 8/20μs)	P_{pp}	150	W
Peak Pulse current (tp = 8/20μs)	I_{pp}	5	A
Operating Supply Voltage (VDD-GND)	V_{DC}	5	V
ESD per IEC 61000-4-2 (Air) (I/O pins) ESD per IEC 61000-4-2 (Contact) (I/O pins)	V_{ESD_IO}	15 8	kV
Lead Soldering Temperature	T_{SOL}	260 (10 sec.)	℃
Operating Temperature	T_{OP}	-55 to +125	℃
Storage Temperature	T_{STO}	-55 to +150	℃

PARAMETER	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNITS
Reverse Stand-Off Voltage	V_{RWM}	Any I/O pin to Ground			5	V
Reverse Leakage Current	I_{Leak}	V_{RWM} = 5V, Any I/O pin to Ground			1	μA
Reverse Breakdown Voltage	V_{BV}	I_{BV} = 1mA, Any I/O pin to Ground	6			V
ESD Clamping Voltage –I/O	V_{C1}	I_{PP}=1A, t_P=8/20μS, Any I/Opin to Ground		8.5	12	V
Reverse ESD Clamping Voltage –I/O	V_{C2}	I_{PP}=1A, t_P=8/20μS, Any I/Opin to Ground		1.8		V
Channel to Channel InputCapacitance	C_{J1}	V_R=0V, f=1MHz		0.2	0.25	pF
Channel I/O to GND Capacitance	C_{J2}	V_R=0V, f=1MHz, Any I/Opin to Ground			0.4	pF

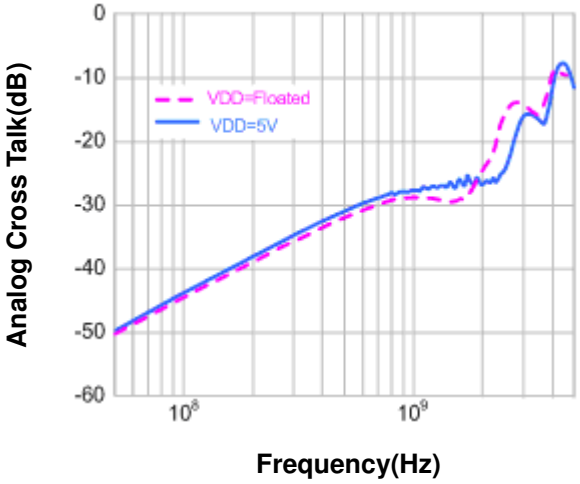




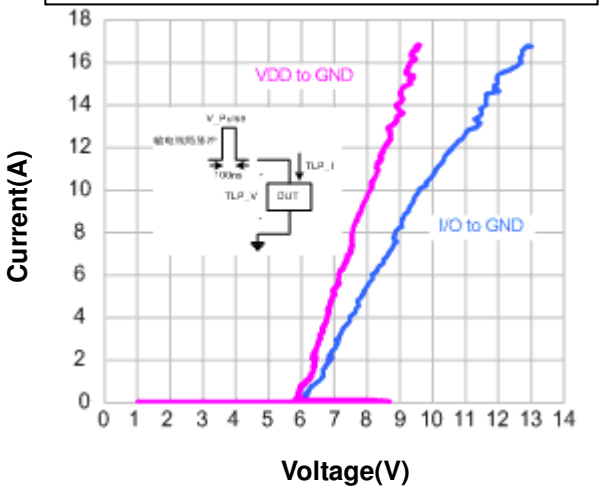
Insertion Loss S21 (I/O to Gnd)



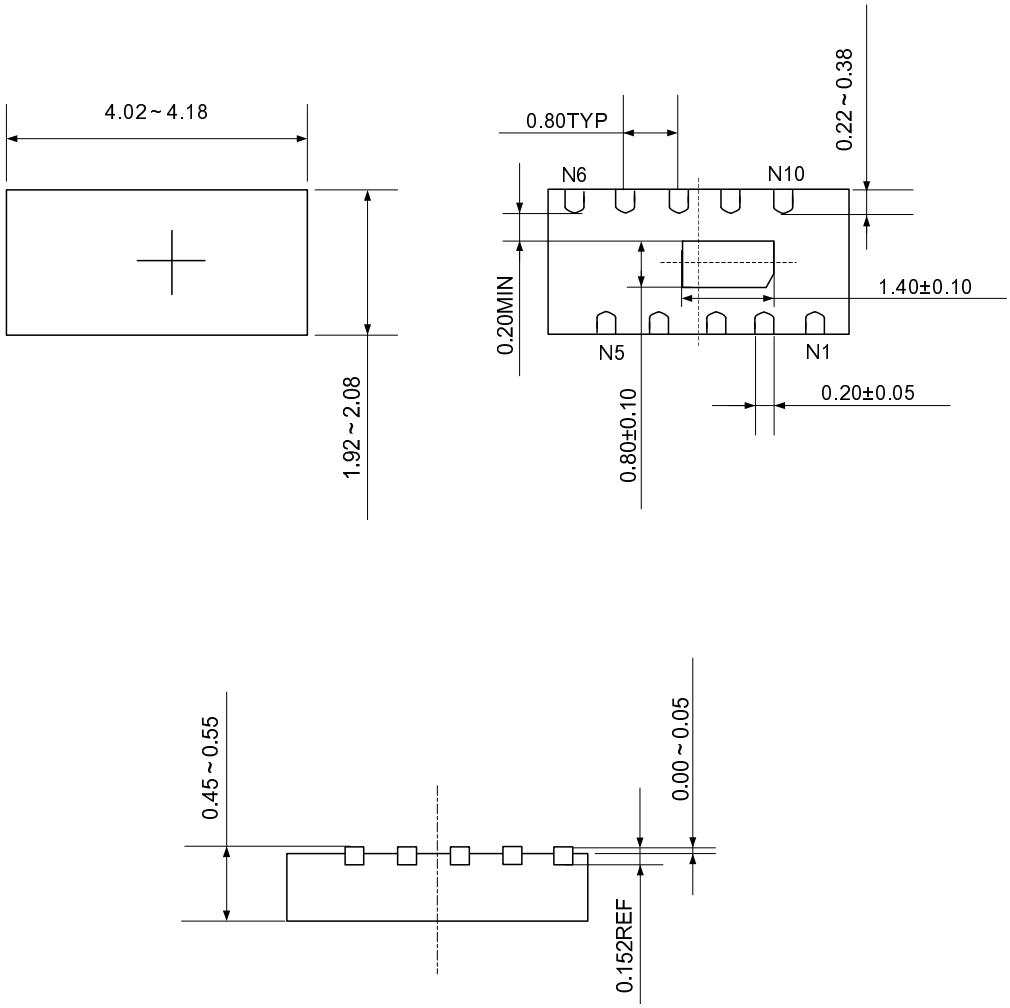
Analog Cross



Transmission Line Pulsing (TLP)



Mechanical Details



NOTICE

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The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of with would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Semiteh Semiconductor Co., Ltd., or anyone on its behalf, assumes no responsibility or liability for any damagers resulting from such improper use of sale.

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