

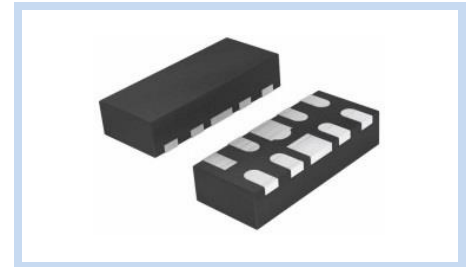
ESD Suppressor 5.5V 4-Unidirectional DFN2510

ME5V54U9V8D2510

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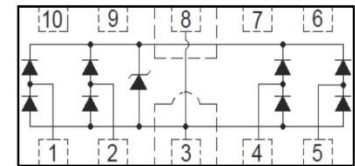
FEATURE

- IEC 61000-4-2 ESD: $\pm 20\text{KV}$ (Air) $\pm 20\text{KV}$ (Contact)
- IEC 61000-4-4 EFT: 40A (5/50ns)
- ESD Protection for four Unidirectional Channels
- Low Clamping Voltage
- Low Leakage Current



APPLICATION

- Digital Visual Interface (DVI)
- PCI Express
- HDMI
- Serial ATA
- USB 1.1/2.0/3.0/3.1/OTG



MAXIMUM RATINGS AND CHARACTERISTICS

Parameter	Symbol	Value	Unit
ESD Voltage (Contact discharge)	V_{ESD}	± 20	KV
ESD Voltage (Air discharge)		± 20	
Peak Pulse Power ($t_p=8/20\mu s$)	P_{PP}	45	W
Operating Temperature Range	T_J	-55~+125	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55~+150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS

Parameter	Condition	Symbol	Min.	Typ.	Max.	Unit
Reverse Stand-Off Voltage	Any I/O Pin to GND	V_{RWM}	--	--	5.5	V
Reverse Breakdown Voltage	$I_{BR}=1\text{mA}$, Any I/O Pin to GND	V_{BR}	6.0	--	--	V
Reverse Leakage Current	$V_R=5\text{V}$, Any I/O Pin to GND	I_R	--	--	0.5	μA
Dynamic Resistance	IEC61000-4-2 0~+6KV	R_{DYN}	--	0.36	--	Ω
Forward Voltage	$I_F=15\text{mA}$	V_F	--	0.85	1.20	v
Clamping Voltage	$I_{PP}=1\text{A}$, $t_p=8/20\mu s$, Any I/O Pin to GND	V_C	--	8.6	9.8	V
	$I_{PP}=3\text{A}$, $t_p=8/20\mu s$, Any I/O Pin to GND		--	11.4	15	
Off State Junction Capacitance	$V_{dc}=0$, $f=1\text{MHz}$, Between I/O Pin to GND	V_C	--	0.15	0.25	pF
	$V_{dc}=0$, $f=1\text{MHz}$, Between I/O Pin to GND		--	0.45	0.65	

Notes: $T_J=25^{\circ}\text{C}$ unless otherwise specified

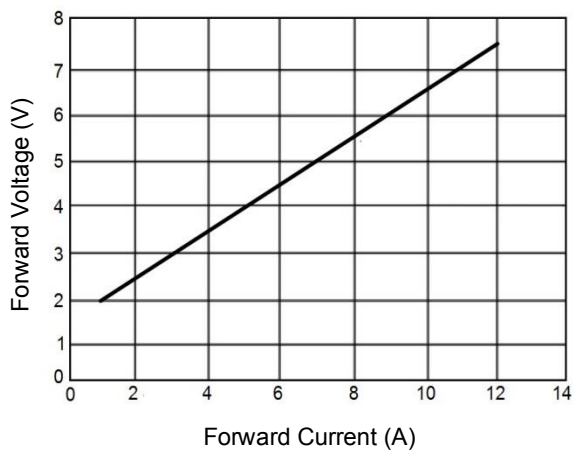
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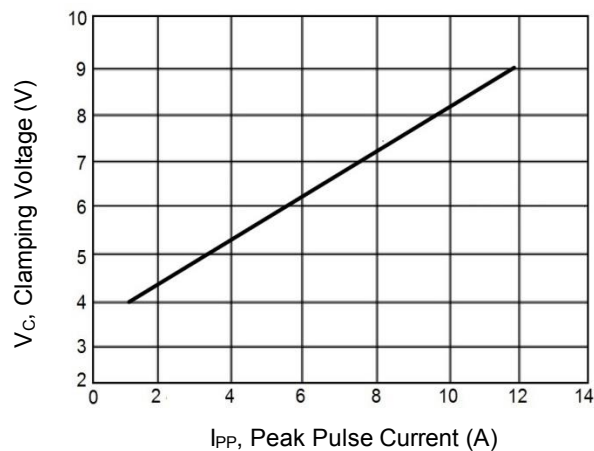
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CHARACTERISTIC CURVES

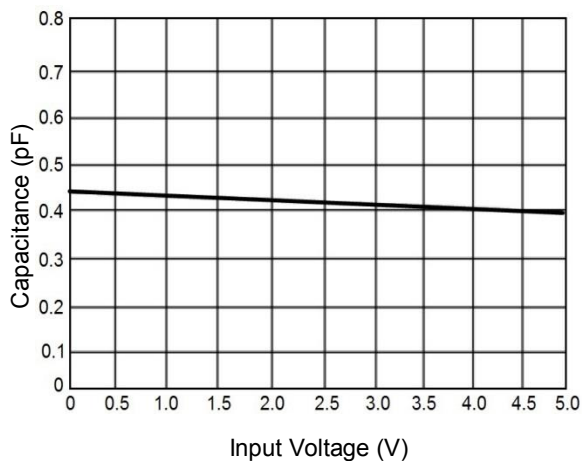
Forward Voltage vs. Forward Peak Pulse Current



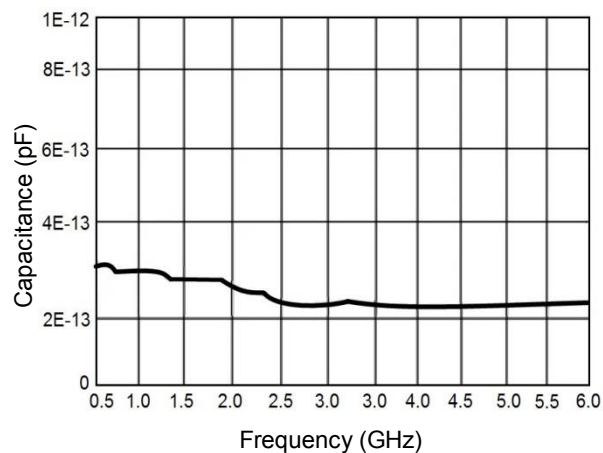
Clamping Voltage vs. Peak Pulse Current



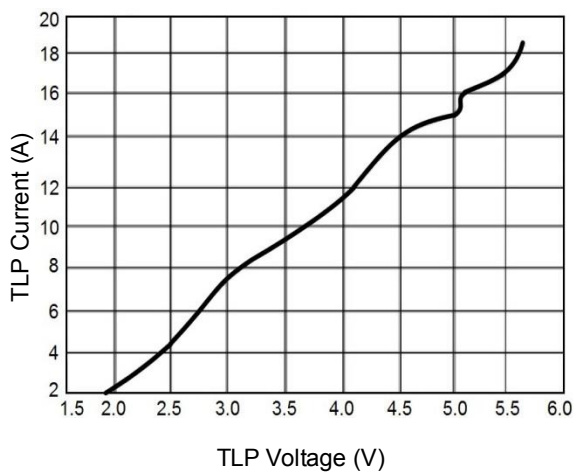
Typical Variation of C_{IN} vs. V_{IN}



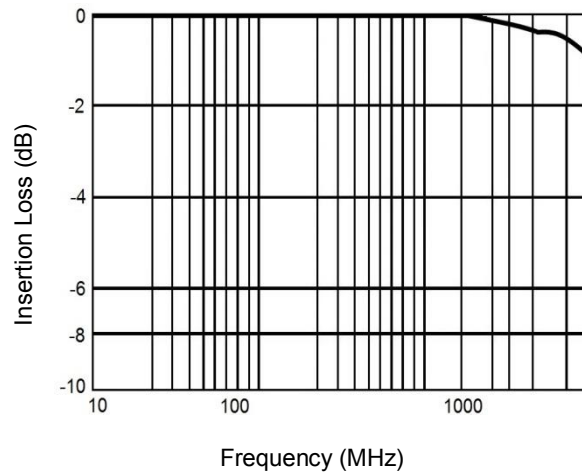
Capacitance vs. Frequency (I/O to GND)



TLP Measurement



Insertion Loss (S21)



ESD Suppressor

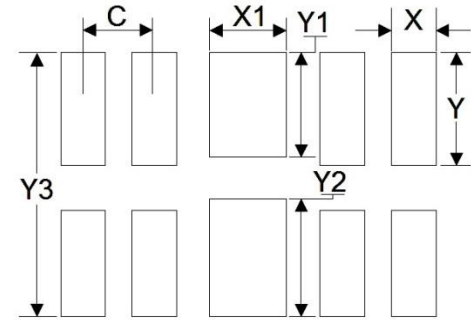
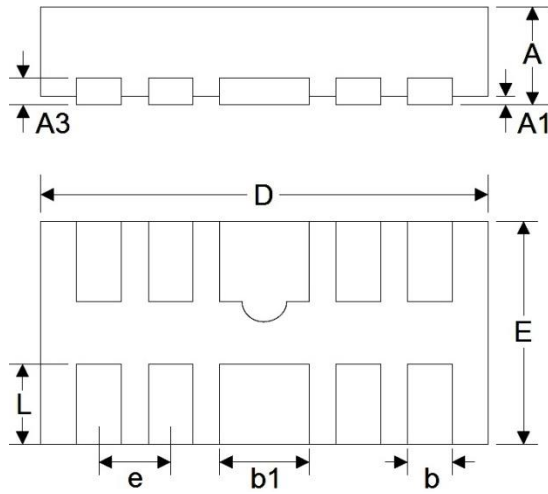
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DIMENSIONS AND RECOMMENDED LAND PATTERN

Item	Min (mm)	Max (mm)
A	0.45	0.65
A1	0.05	0.05
A3	0.15	0.15
b	0.15	0.25
b1	0.30	0.50
D	2.42	2.57
e	0.50	0.50
E	0.92	1.07
L	0.30	0.45
C	0.50	0.50
X	0.25	0.25
X1	0.45	0.45
Y	0.63	0.63
Y1	0.58	0.58
Y2	0.70	0.70
Y3	1.40	1.40



*Specifications subject to change without notice.