

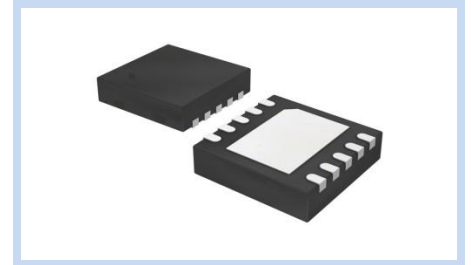
ESD Suppressor 3.3V 4-Unidirectional DFN2626

ME3V34U12D2626

MERITEK

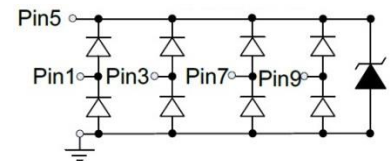
FEATURE

- IEC 61000-4-2 ESD: $\pm 300\text{KV}$ (Air) $\pm 30\text{KV}$ (Contact)
- ESD Protection for four Unidirectional Channels
- Low Leakage Current
- Low Operating and Clamping Voltage
- Solid-State Silicon-Avalanche Technology



APPLICATION

- WAN/LAN
- 10/100/1000 Ethernet
- RJ-45 Connectors
- T1/E1, T3/E3 Protection
- Analog Video



MAXIMUM RATINGS AND CHARACTERISTICS

Parameter	Symbol	Value	Unit
ESD Voltage (Contact discharge)	V_{ESD}	± 30	KV
ESD Voltage (Air discharge)		± 30	KV
Peak Pulse Current ($t_p=8/20\mu\text{s}$)	I_{PP}	30	A
Operating & Storage Temperature Range	T_J, T_{STG}	$-55 \sim +150$	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS

Parameter	Condition	Symbol	Min.	Typ.	Max.	Unit
Reverse Stand-Off Voltage	--	V_{RWM}	--	--	3.3	V
Reverse Breakdown Voltage	$I_{BR}=1\text{mA}$	V_{BR}	3.8	--	--	V
Reverse Leakage Current	$V_R=3.3\text{V}$, Each I/O pin	I_R	--	--	1	μA
Clamping Voltage	$I_{PP}=5\text{A}$, $t_p=8/20\mu\text{s}$, Any I/O to GND	V_C	--	--	12	V
	$I_{PP}=5\text{A}$, $t_p=8/20\mu\text{s}$, Between I/O pins		--	--	15	
	$I_{PP}=30\text{A}$, $t_p=8/20\mu\text{s}$, Any I/O to GND		--	--	25	
	$I_{PP}=30\text{A}$, $t_p=8/20\mu\text{s}$, Between I/O pins		--	--	30	
Clamping Voltage TLP	$I_{PP}=8\text{A}$	V_C	--	8.8	--	V
	$I_{PP}=16\text{A}$		--	9.7	--	

ESD Suppressor

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ELECTRICAL CHARACTERISTICS

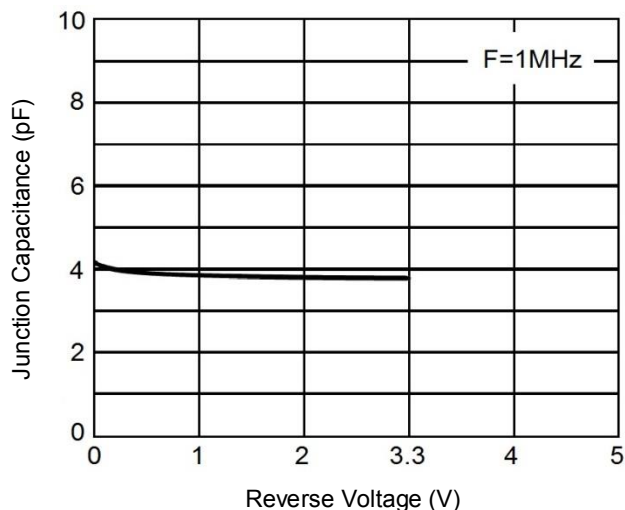
Parameter	Condition	Symbol	Min.	Typ.	Max.	Unit
Off State Junction Capacitance	Vdc=0, f=1MHz, Any I/O to GND	C _J	--	4	5	pF
	Vdc=0, f=1MHz, Between I/O pins		--	2	2.5	

Notes:

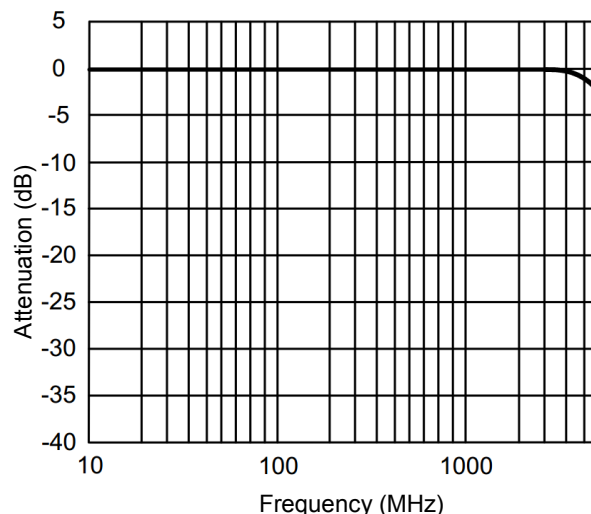
- T_J= 25°C unless otherwise specified

CHARACTERISTIC CURVES

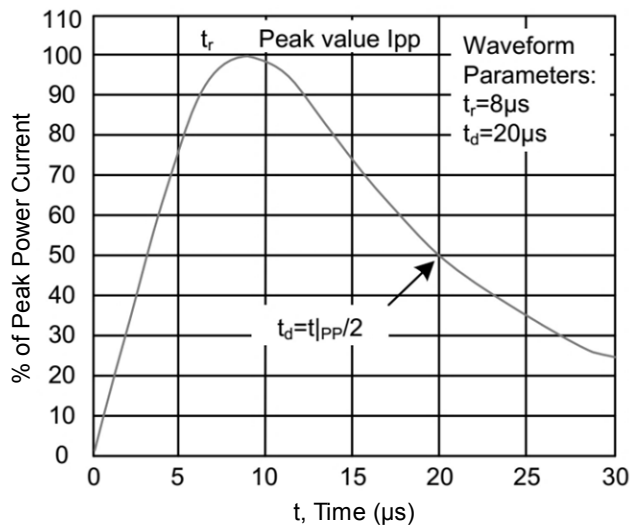
Capacitance vs. Bias Voltage



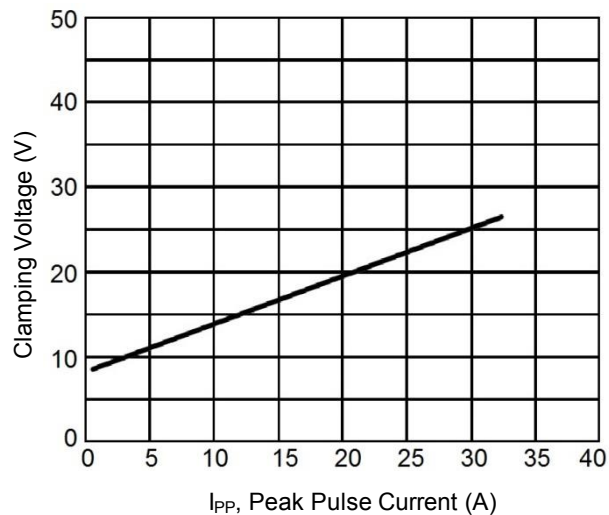
Insertion Loss (S21) I/O to GND



Pulse Waveform

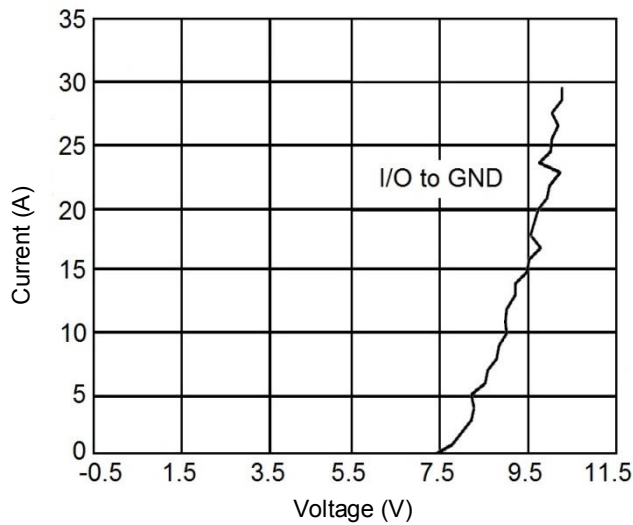


Clamping Voltage vs. Peak Pulse Current (Any I/O to GND)



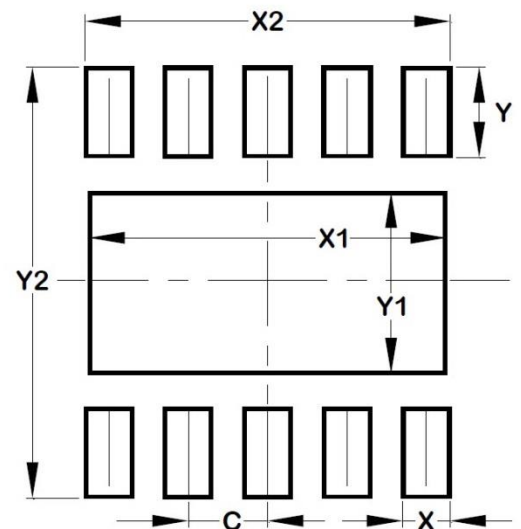
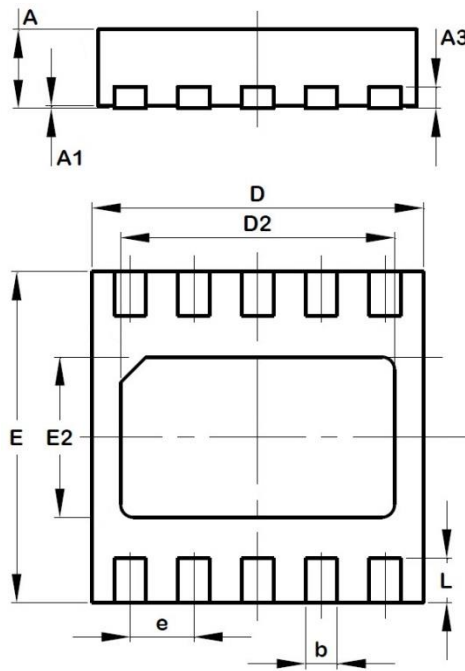
CHARACTERISTIC CURVES

TLP Measurement



DIMENSIONS AND RECOMMENDED LAND PATTERN

Item	Min (mm)	Max (mm)
A	0.5	0.60
A1	0.00	0.05
A3	0.15	0.15
b	0.20	0.30
D	2.55	2.65
D2	2.00	2.25
e	0.50	0.50
E	2.55	2.65
E2	1.11	1.26
L	0.25	0.45
C	0.50	0.50
X	0.30	0.30
X1	2.25	2.25
X2	2.30	2.30
Y	0.60	0.60
Y1	1.36	1.36
Y2	3.00	3.00



*Specifications subject to change without notice.