

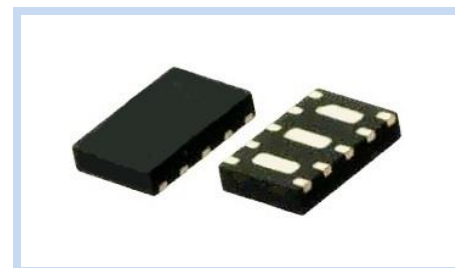
ESD Suppressor 2.8V 4-Unidirectional DFN3020

ME2V84U10D3020

MERITEK

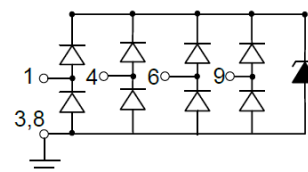
FEATURE

- IEC 61000-4-2 ESD: $\pm 30\text{KV}$ (Air) $\pm 30\text{KV}$ (Contact)
IEC 61000-4-4 EFT: 40A (5/50ns)
- ESD Protection for four Unidirectional Channels
- Low Leakage Current
- Low Clamping Voltage
- Solid-State Silicon-Avalanche Technology



APPLICATION

- 10/100/1000 Ethernet
- LVDS Interfaces
- Control Signal Lines Protection
- Monitors and Flat Panel Displays
- Notebooks and Desktops



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 ($t_p=8/20\mu s$)	I_{PP}	25	A
Operating Temperature Range	T_J	-55~+85	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55~+150	$^{\circ}\text{C}$

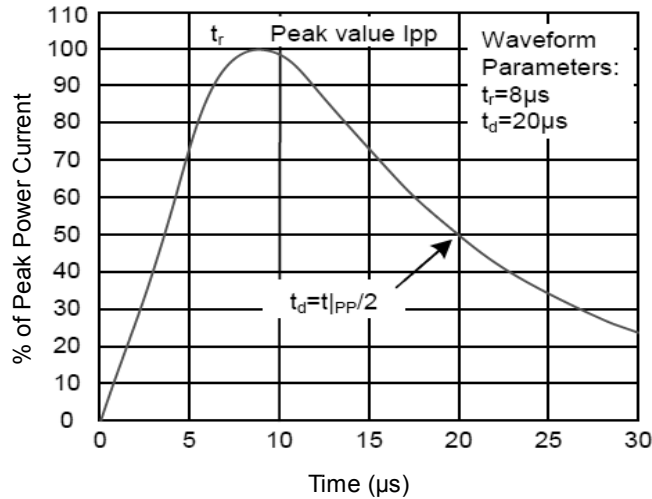
ELECTRICAL CHARACTERISTICS

Parameter	Condition	Symbol	Min.	Typ.	Max.	Unit
Reverse Stand-Off Voltage	--	V_{RWM}	--	--	2.8	V
Reverse Breakdown Voltage	$I_{BR}=1\text{mA}$	V_{BR}	3.8	--	--	V
Reverse Leakage Current	$V_R=2.8\text{V}$, Each I/O pin	I_R	--	--	1	μA
Clamping Voltage	$I_{PP}=5\text{A}$, $t_p=8/20\mu s$, Any I/O pin to GND	V_C	--	--	10	V
	$I_{PP}=5\text{A}$, $t_p=8/20\mu s$, Between I/O pins		--	--	15	
	$I_{PP}=20\text{A}$, $t_p=8/20\mu s$, Any I/O pin to GND		--	--	25	
	$I_{PP}=20\text{A}$, $t_p=8/20\mu s$, Between I/O pins		--	--	30	
Off State Junction Capacitance	$V_{dc}=0$, $f=1\text{MHz}$, Any I/O pin to GND	C_J	--	--	5.0	pF
	$V_{dc}=0$, $f=1\text{MHz}$, Between I/O pins		--	--	2.5	

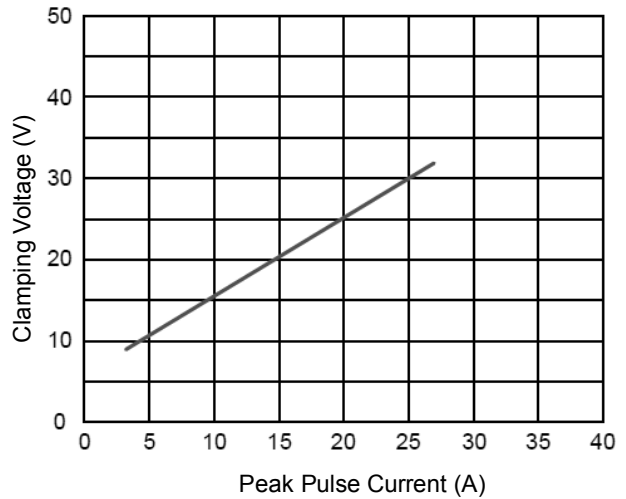
Notes: $T_J=25^{\circ}\text{C}$ unless otherwise specified

CHARACTERISTIC CURVES

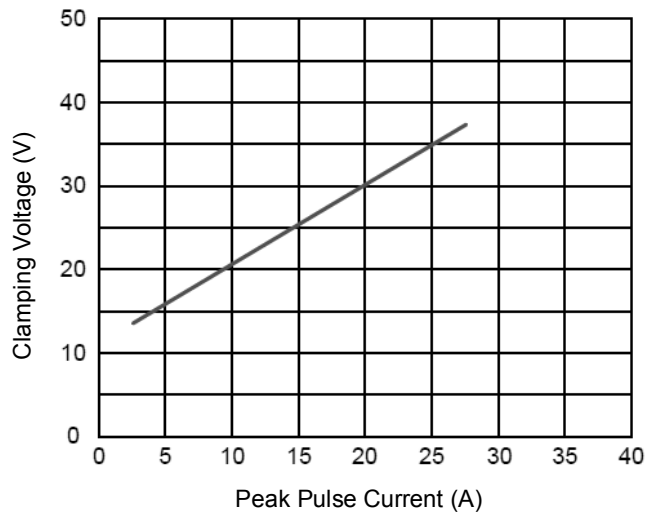
Pulse Waveform



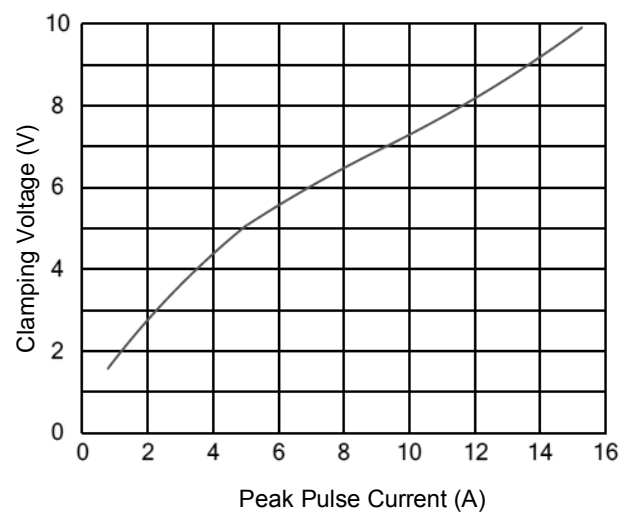
Clamping Voltage vs. Peak Pulse Current (Any I/O to GND)



Clamping Voltage vs. Peak Pulse Current (Between I/O pins)



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



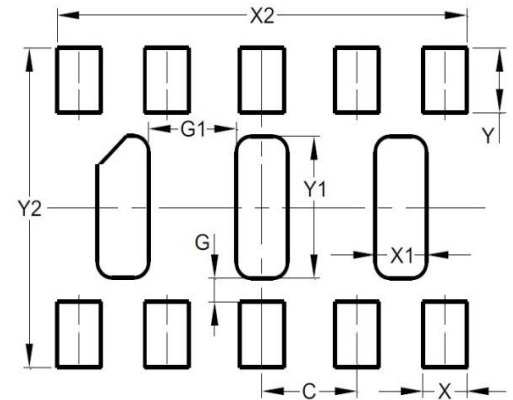
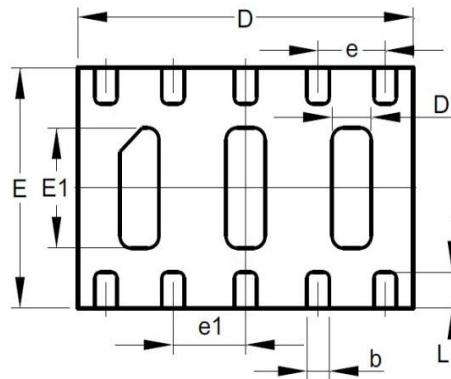
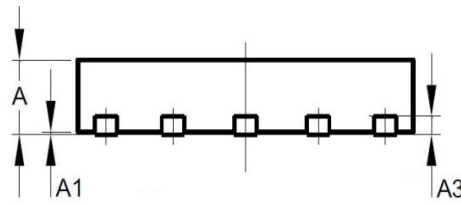
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ME2V84U10D3020

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DIMENSIONS AND RECOMMENDED LAND PATTERN

Item	Min (mm)	Max (mm)
A	0.50	0.65
A1	0.00	0.05
A3	0.15	0.15
b	0.15	0.25
D	2.90	3.10
D1	0.25	0.45
e	0.60	0.60
e1	0.65	0.65
E	1.90	2.10
E1	0.95	1.05
L	0.25	0.35
C	0.65	0.65
G	0.15	0.15
G1	0.60	0.60
X	0.30	0.30
X1	0.35	0.35
X2	2.80	2.80
Y	0.50	0.50
Y1	1.00	1.00
Y2	2.30	2.30



*Specifications subject to change without notice.