

ESD Suppressor 5V 2-Unidirectional DFN1006-3

ME52U11D023

MERITEK

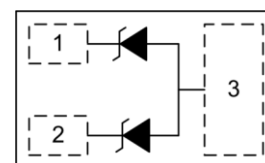
FEATURE

- IEC 61000-4-2 ESD: $\pm 15\text{KV}$ (Air) $\pm 8\text{KV}$ (Contact)
- ESD Protection for two Unidirectional Channels
- Low Capacitance
- Low Clamping Voltage
- Solid-State Silicon-Avalanche Technology



APPLICATION

- USB 2.0 and USB 3.0
- High Definition Multi-Media Interface (HDMI)
- Display Port Interface
- SATA and eSATA Interface
- Desktops and Notebooks



MAXIMUM RATINGS AND CHARACTERISTICS

Parameter	Symbol	Value	Unit
ESD Voltage (Contact discharge)	V_{ESD}	± 8	KV
ESD Voltage (Air discharge)		± 15	
Peak Pulse Current ($t_p=8/20\mu\text{s}$)	I_{PP}	2.5	A
Operating & Storage Temperature Range	T_J, T_{STG}	-55~+150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS

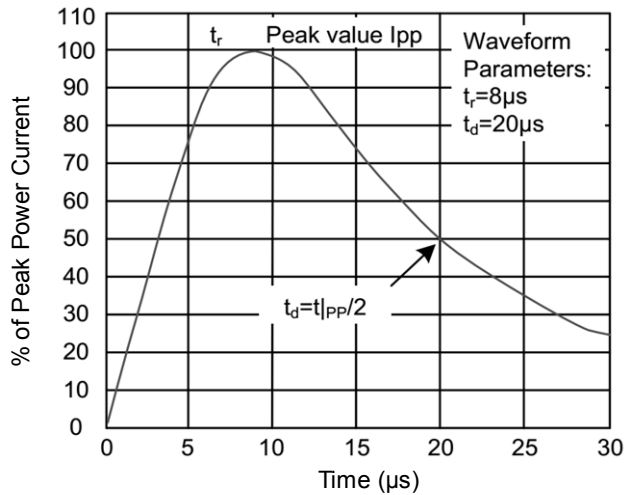
Parameter	Condition	Symbol	Min.	Typ.	Max.	Unit
Reverse Stand-Off Voltage	--	V_{RWM}	--	--	5	V
Reverse Breakdown Voltage	$I_{BR}=1\text{mA}$	V_{BR}	6	--	8.5	V
Reverse Leakage Current	$V_R=5\text{V}$	I_R	--	--	0.5	μA
Clamping Voltage	$I_{PP}=1\text{A}, t_p=8/20\mu\text{s}$	V_C	--	11	--	V
	$I_{PP}=2\text{A}, t_p=8/20\mu\text{s}$		--	14	--	
Off State Junction Capacitance	$V_{dc}=0, f=1\text{MHz}, \text{Pin}1/2 \text{ to Pin}3$	C_J	--	0.75	--	pF
	$V_{dc}=0, f=1\text{MHz}, \text{Pin}1 \text{ to Pin}2$		--	0.50	--	

Notes:

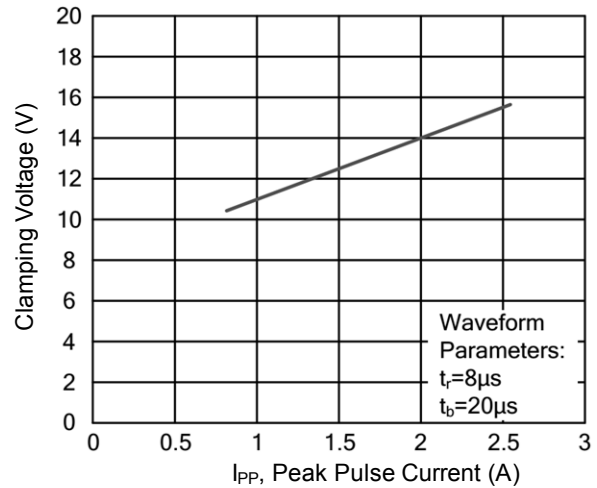
1. $T_J=25^{\circ}\text{C}$ unless otherwise specified

CHARACTERISTIC CURVES

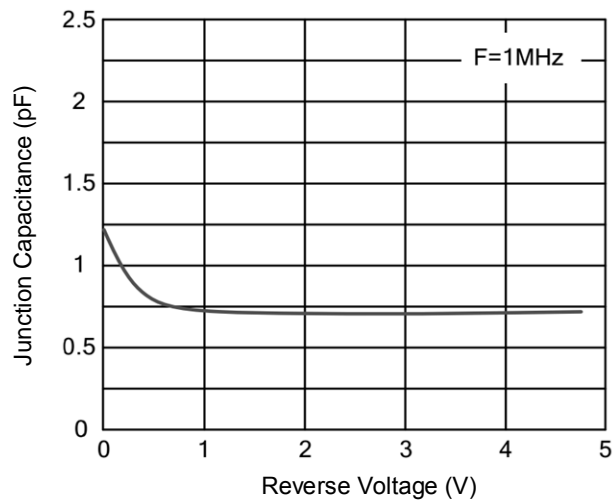
Pulse Waveform



Clamping Voltage vs. Peak Pulse Current



Capacitance vs. Reverse Voltage



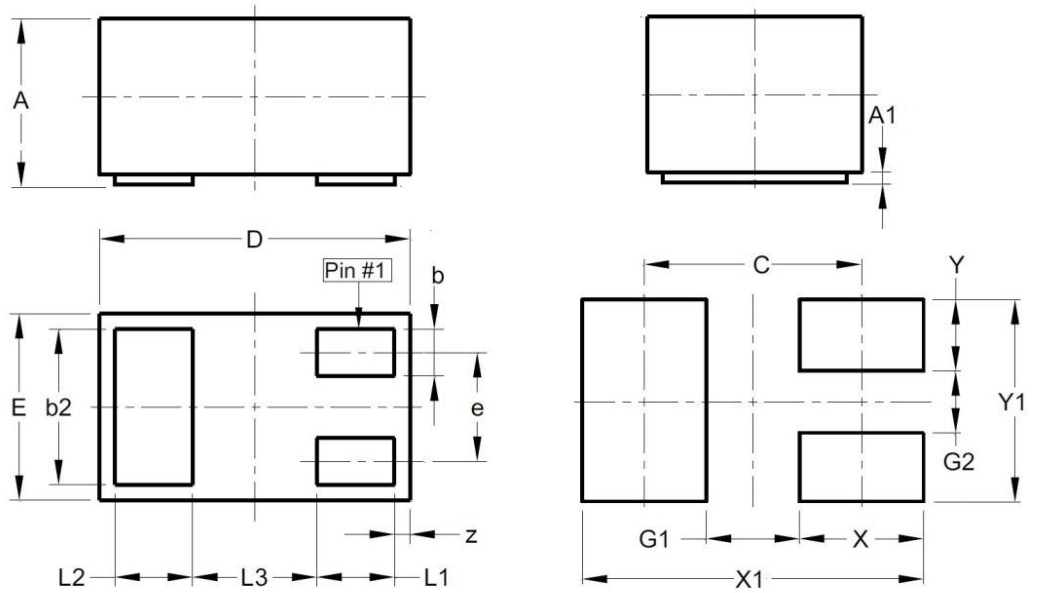
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DIMENSIONS AND RECOMMENDED LAND PATTERN

Item	Min (mm)	Max (mm)
A	0.33	0.39
A1	-	-
b2	0.45	0.55
D	0.85	1.15
E	0.45	0.75
z	0.10	0.10
L1	0.20	0.30
L2	0.21	0.31
L3	0.39	0.39
C	-	-
G1	0.25	0.25
G2	0.20	0.20
X	0.45	0.45
X1	1.15	1.15
Y	0.25	0.25
Y1	0.70	0.70



*Specifications subject to change without notice.