

# ESD Suppressor 5V Bidirectional DFN0603

ME51B10D015P0

MERITEK

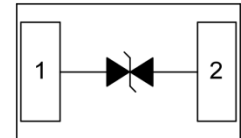
## FEATURE

- IEC 61000-4-2 ESD:  $\pm 15\text{KV}$  (Air)  $\pm 8\text{KV}$  (Contact)
- ESD Protection for one Bidirectional Channel
- Low Leakage Current
- Low Clamping Voltage
- Solid-State Silicon-Avalanche Technology



## APPLICATION

- Mobile Phones
- Hand Held Portable Applications
- Computer Interfaces Protection
- Microprocessors Protection
- Serial and Parallel Ports Protection



## MAXIMUM RATINGS AND CHARACTERISTICS

Parameter	Symbol	Value	Unit
ESD Voltage (Contact discharge)	$V_{ESD}$	$\pm 8$	KV
ESD Voltage (Air discharge)		$\pm 15$	
Lead Soldering Temperature	$T_L$	260	$^{\circ}\text{C}$
Operating & Storage Temperature Range	$T_J, T_{STG}$	-50~+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	--	--	V
Reverse Leakage Current	$V_R=5\text{V}$	$I_R$	--	--	1	$\mu\text{A}$
Clamping Voltage	$I_{PP}=1\text{A}, t_p=8/20\mu\text{s}$	$V_C$	--	--	10	V
	$I_{PP}=2\text{A}, t_p=8/20\mu\text{s}$		--	--	15	
Off State Junction Capacitance	$V_{dc}=0, f=1\text{MHz}$	$C_J$	--	3.5	5	pF

Notes:

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

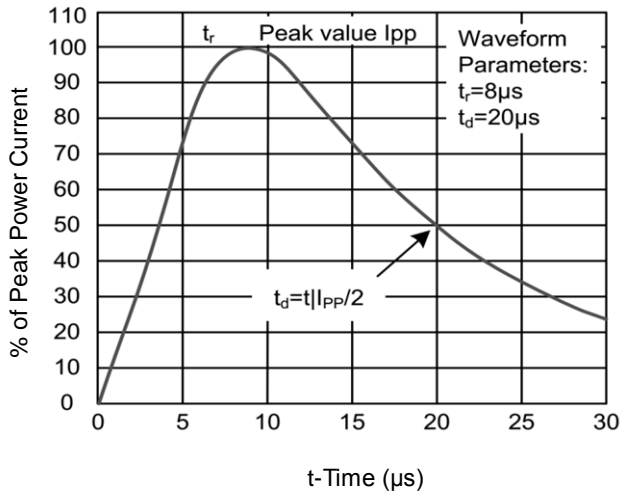
# ESD Suppressor 5V Bidirectional DFN0603

ME51B10D015P0

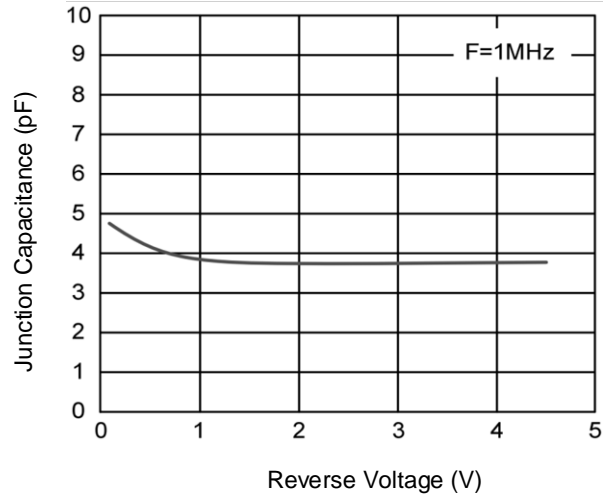
MERITEK

## CHARACTERISTIC CURVES

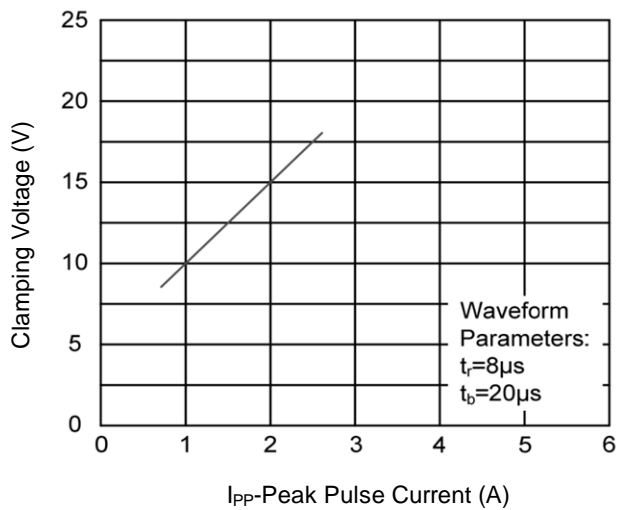
Pulse Waveforms



Capacitance vs. Reverse Voltage



Clamping Voltage vs. Peak Pulse Current



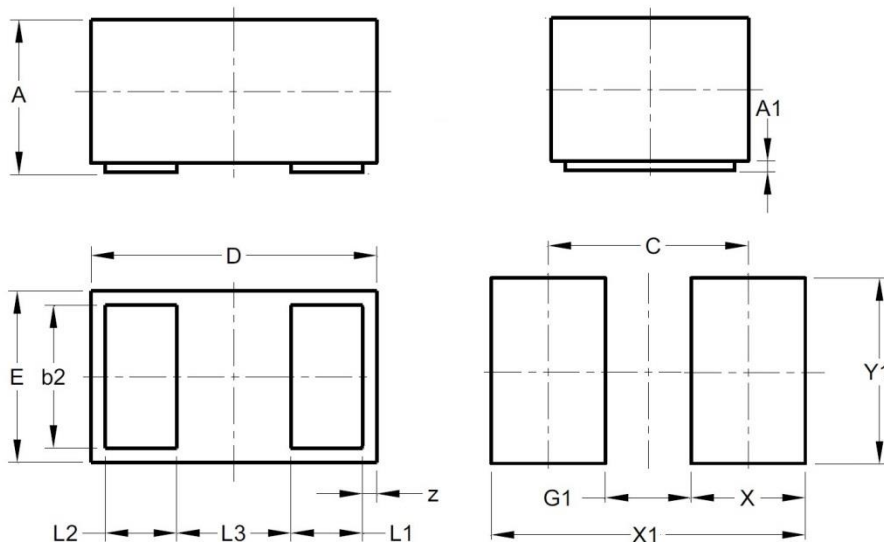
# ESD Suppressor 5V Bidirectional DFN0603

ME51B10D015P0

MERITEK

## DIMENSIONS AND RECOMMENDED LAND PATTERN

Item	Min (mm)	Max (mm)
A	0.24	0.30
A1	-	0.01
b2	0.22	0.28
D	0.57	0.63
E	0.27	0.33
z	0.25	0.25
L1	0.12	0.18
L2	0.12	0.18
L3	-	-
C	0.47	0.47
G1	0.19	0.19
X	0.28	0.28
X1	0.75	0.75
Y1	0.30	0.30



\*Specifications subject to change without notice.