

# ESD Suppressor 12V Unidirectional DFN0603

ME121U20D01

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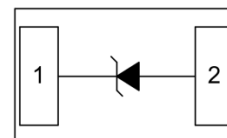
## FEATURE

- IEC 61000-4-2 ESD:  $\pm 20\text{KV}$  (Air)  $\pm 20\text{KV}$  (Contact)
- ESD Protection for one Unidirectional 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)	$V_{ESD}$	$\pm 20$	KV
ESD Voltage (Air discharge)		$\pm 20$	
Peak Pulse Current ( $t_p=8/20\mu s$ )	$I_{PP}$	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	--	$V_{RWM}$	--	--	12	V
Reverse Breakdown Voltage	$I_{BR}=1\text{mA}$	$V_{BR}$	13	--	--	V
Reverse Leakage Current	$V_R=12\text{V}$	$I_R$	--	--	1	$\mu\text{A}$
Clamping Voltage	$I_{PP}=1\text{A}, t_p=8/20\mu s$	$V_C$	--	--	20	V
	$I_{PP}=2.5\text{A}, t_p=8/20\mu s$		--	--	25	
Off State Junction Capacitance	$V_{dc}=0, f=1\text{MHz}$	$C_J$	--	15	20	pF

Notes:

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

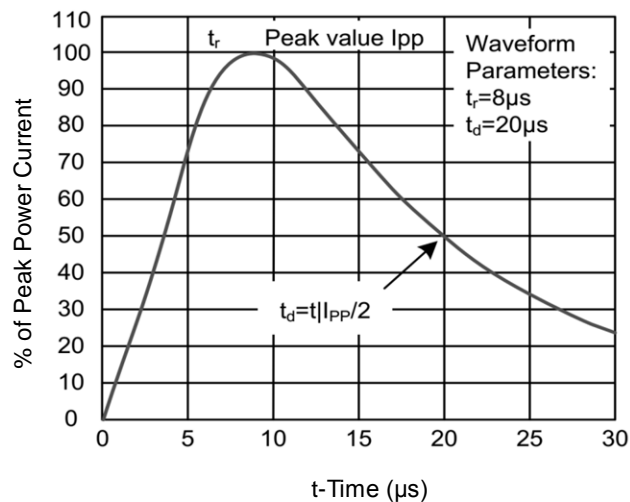
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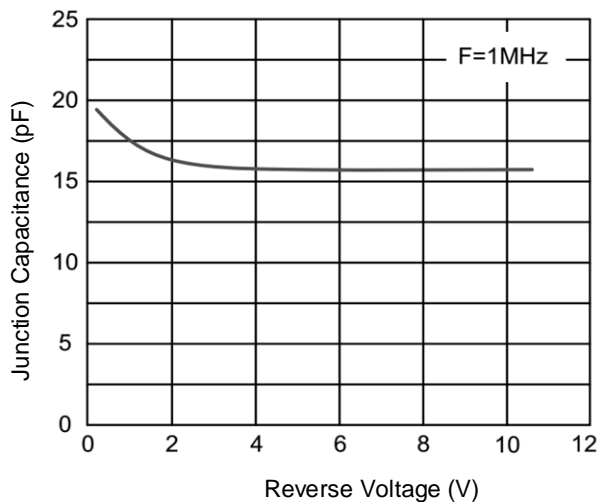
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## CHARACTERISTIC CURVES

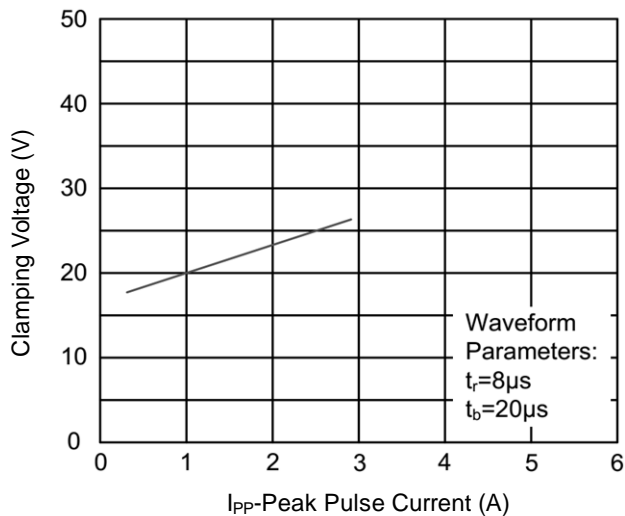
Pulse Waveforms



Capacitance vs. Reverse Voltage



Clamping Voltage vs. Peak Pulse Current



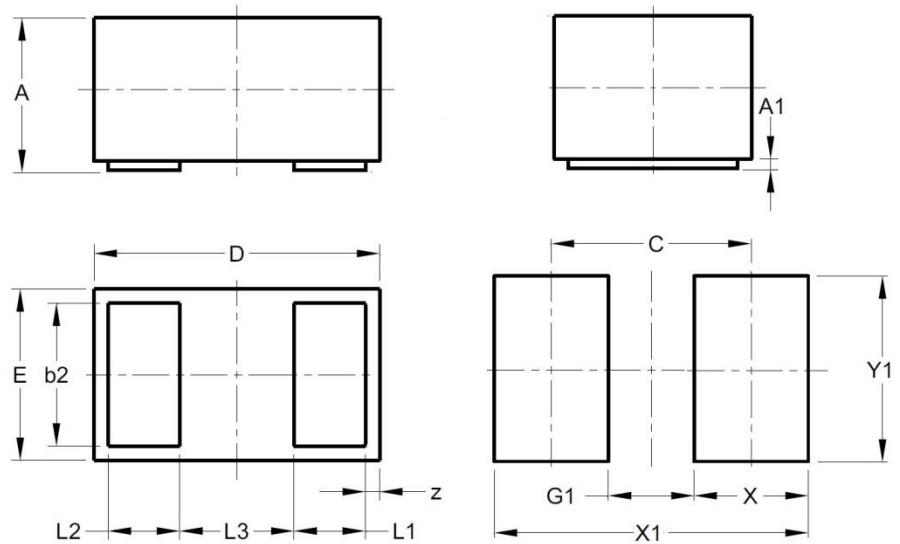
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## DIMENSIONS AND RECOMMENDED LAND PATTERN

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.