

ESD Suppressor 5V Unidirectional DFN0603

ME51U10D01

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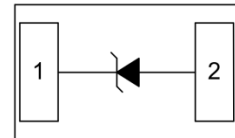
FEATURE

- 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}	± 20	KV
ESD Voltage (Air discharge)		± 20	
Peak Pulse Current ($t_p=8/20\mu s$)	I_{PP}	3	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	--	--	V
Reverse Leakage Current	$V_R=5\text{V}$	I_R	--	--	1	μA
Clamping Voltage	$I_{PP}=1\text{A}, t_p=8/20\mu s$	V_C	--	--	10	V
	$I_{PP}=3\text{A}, t_p=8/20\mu s$		--	--	15	
Off State Junction Capacitance	$V_{dc}=0, f=1\text{MHz}$	C_J	--	30	40	pF

Notes:

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

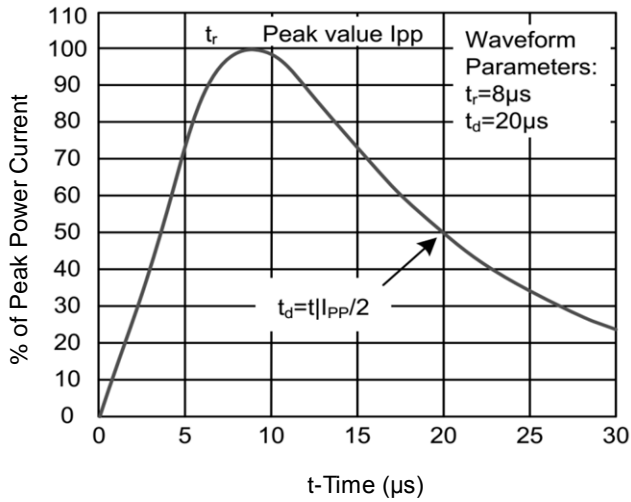
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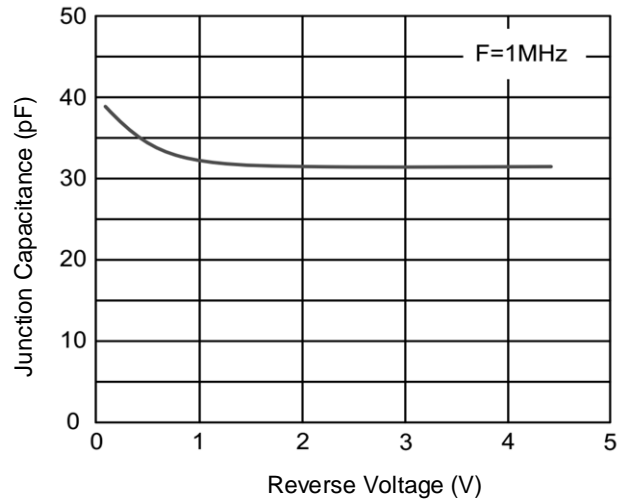
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CHARACTERISTIC CURVES

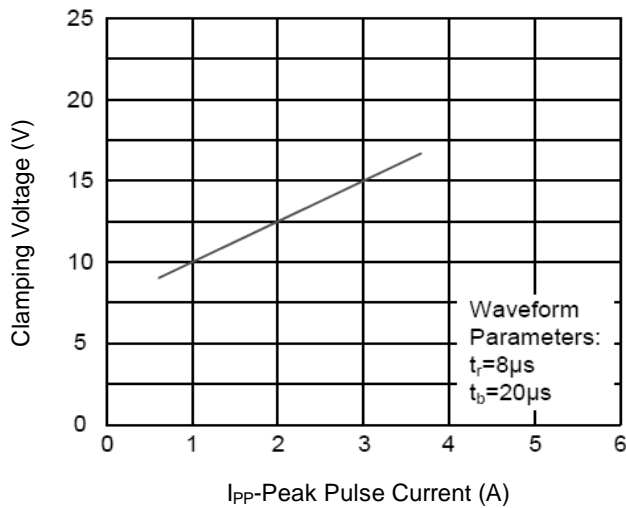
Pulse Waveforms



Capacitance vs. Reverse Voltage



Clamping Voltage vs. Peak Pulse Current



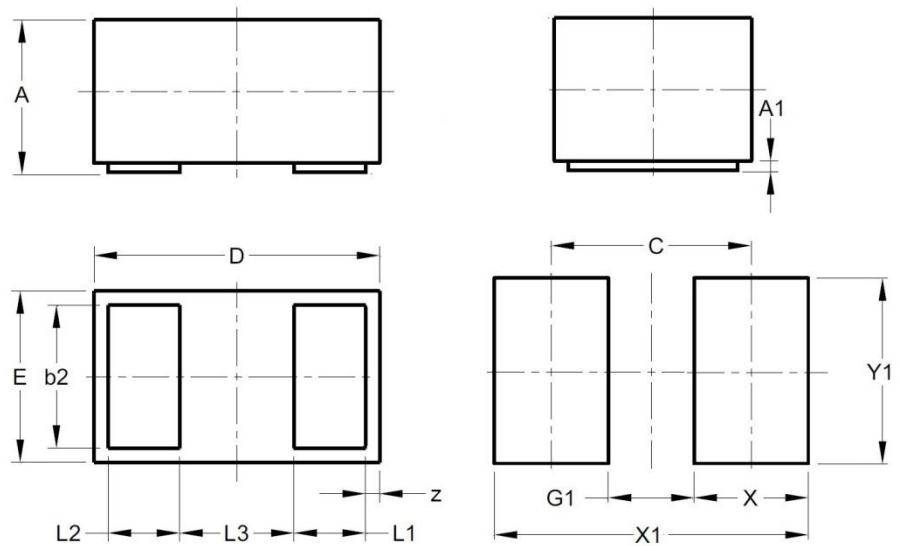
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DIMENSIONS AND RECOMMENDED LAND PATTERN

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.