

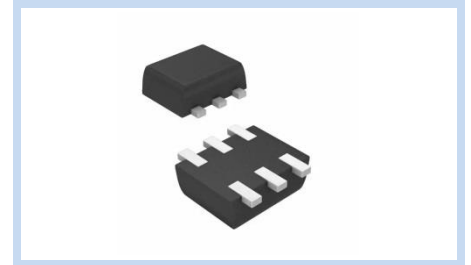
ESD Suppressor 5V 4-Unidirectional SOT-563

ME54U9V8S563

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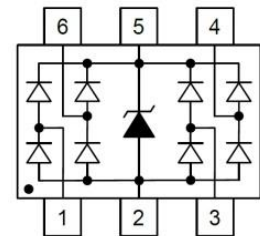
FEATURE

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



APPLICATION

- USB Power And Data Line Protection
- Video Line Protection
- LAN/WAN Device
- Microcontroller Input Protection
- Portable Devices



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}	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	$V_R=5\text{V}$, Each I/O pin	I_R	--	--	1	μA
Clamping Voltage	$I_{PP}=1\text{A}$, $t_p=8/20\mu\text{s}$	V_C	--	--	9.8	V
	$I_{PP}=2\text{A}$, $t_p=8/20\mu\text{s}$		--	--	15	
Off State Junction Capacitance	$V_{dc}=0$, $f=1\text{MHz}$, Between I/O pins and GND	C_J	--	1	--	pF

Notes:

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

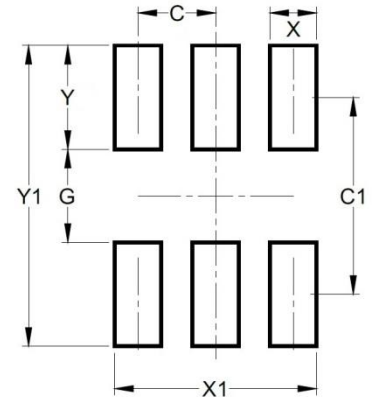
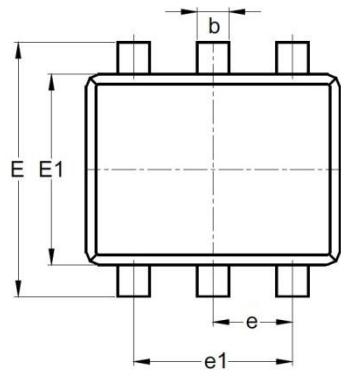
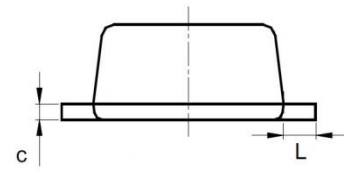
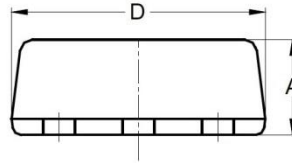
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DIMENSIONS AND RECOMMENDED LAND PATTERN

Item	Min (mm)	Max (mm)
A	0.50	0.60
b	0.17	0.27
c	0.08	0.18
D	1.50	1.70
e	0.50	0.50
e1	1.00	1.00
E	1.50	1.70
E1	1.10	1.30
L	0.10	0.30
C	0.50	0.50
C1	1.30	1.30
G	0.60	0.60
X	0.30	0.30
X1	1.30	1.30
Y	0.67	0.67
Y1	2.00	2.00



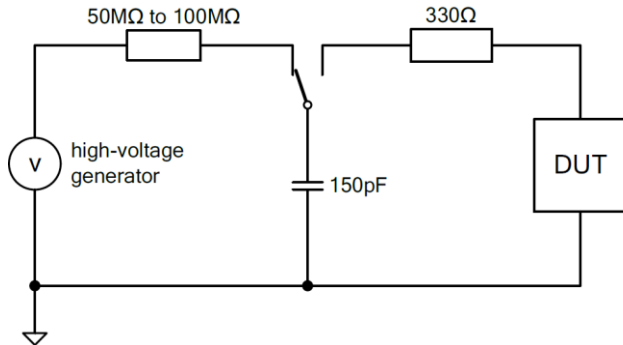
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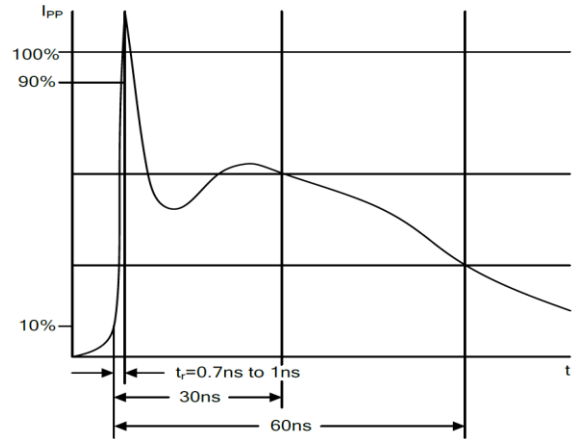
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ESD PROTECTION STANDARDS

IEC61000-4-2

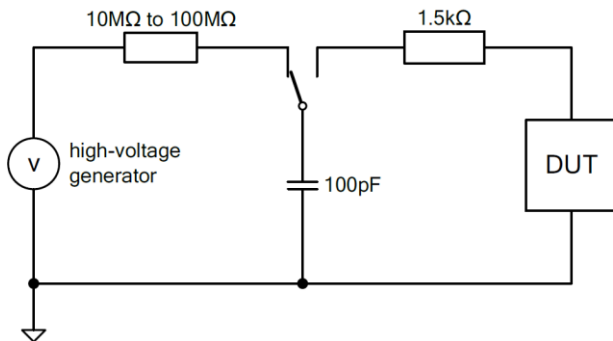


Test Circuit according to IEC61000-4-2

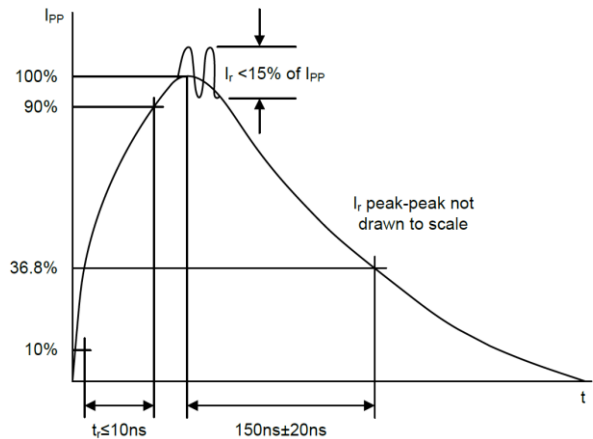


ESD Surge according IEC61000-4-2

Human Body Model (HBM, 883E method 3015.7)



Test Circuit according to MIL-883E method 3015.7



ESD Surge according to MIL-883E method 3015.7

*Specifications subject to change without notice.