

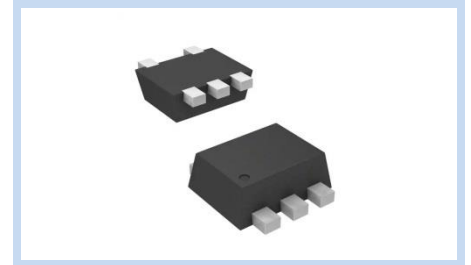
# ESD Suppressor 5V 4-Bidirectional SOT-553

ME54B15S553

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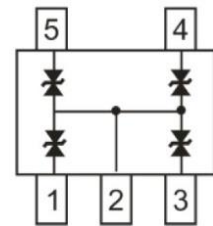
## FEATURE

- IEC 61000-4-2 ESD:  $\pm 15\text{KV}$  (Air)  $\pm 8\text{KV}$  (Contact)
- IEC 61000-4-4 EFT: 20A (5/50ns)
- IEC 61000-4-5 Lightning: 2A (8/20 $\mu\text{s}$ )
- ESD Protection for four Bidirectional Channels
- Low Clamping Voltage



## APPLICATION

- Computers
- Servers
- Printers
- Communication Systems And Cellular Phones
- Video Equipment



## MAXIMUM RATINGS AND CHARACTERISTICS

Parameter	Symbol	Value	Unit
ESD Voltage (Contact discharge)	$V_{ESD}$	$\pm 8$	KV
ESD Voltage (Air discharge)		$\pm 15$	
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	$I_{BR}=1\text{mA}$	$V_{BR}$	5.5	--	10	V
Reverse Leakage Current	$V_R=5\text{V}$	$I_R$	--	--	100	nA
Dynamic Resistance	$t_p=100\text{ns}$	$R_{DYN}$	--	0.2	--	$\Omega$
Clamping Voltage	$I_{PP}=1\text{A}, t_p=8/20\mu\text{s}$	$V_C$	--	--	12	V
	$I_{PP}=2\text{A}, t_p=8/20\mu\text{s}$		--	--	15	
Clamping Voltage TLP	$I_{PP}=8\text{A}, t_p=100\text{ns}$	$V_C$	--	12.1	--	V
	$I_{PP}=16\text{A}, t_p=100\text{ns}$		--	13.7	--	
Off State Junction Capacitance	$V_{dc}=0, \text{Bias}, f=1\text{MHz}$	$C_J$	--	0.2	--	pF
	$V_{dc}=0, \text{Bias}, f=1\text{MHz}$		--	--	3.5	

Note:

1. Testing using Transmission Line Pulse (TLP) conditions:  $Z_0=50\Omega, t_p=100\text{ns}$
2.  $T_A=25^{\circ}\text{C}$  unless otherwise specified

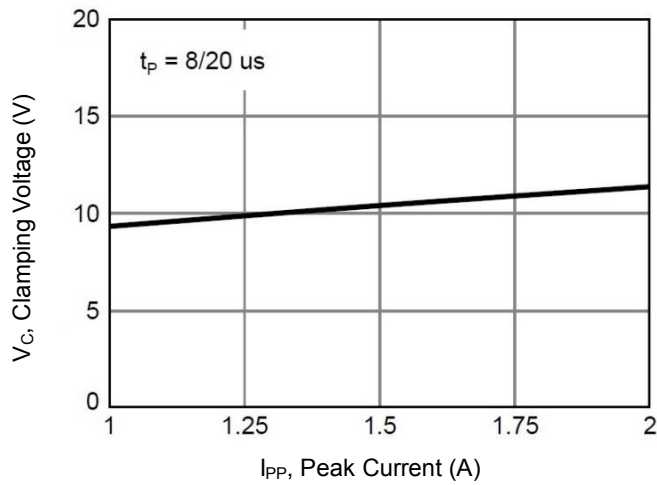
# ESD Suppressor 5V 4-Bidirectional SOT-553

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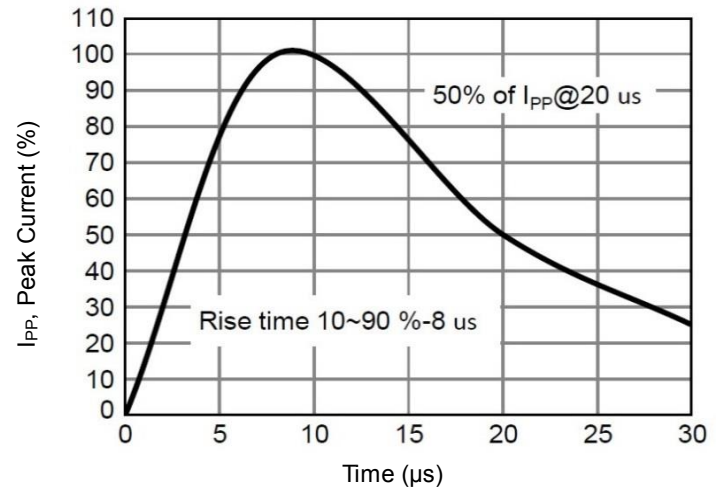
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## CHARACTERISTIC CURVES

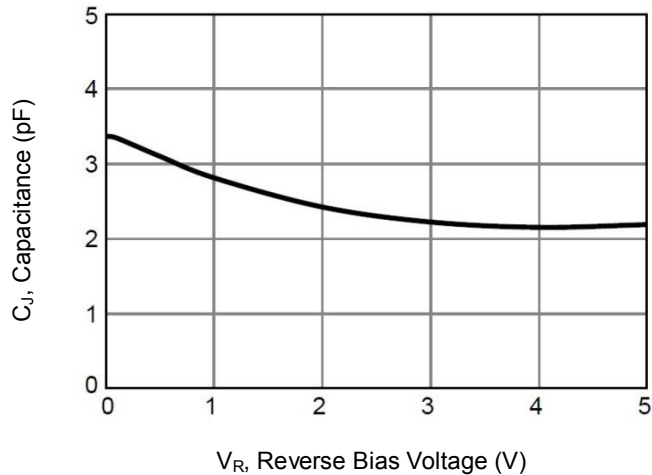
Typical Peak Clamping Voltage



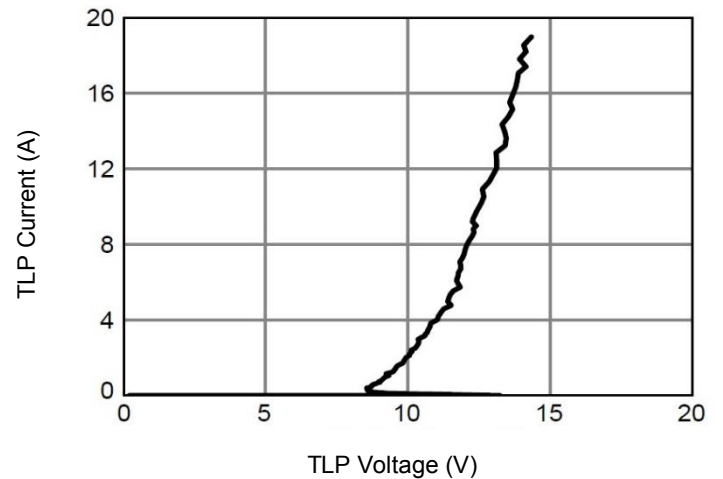
Pulse Waveform



Typical Junction Capacitance



Transmission Line Pulsing



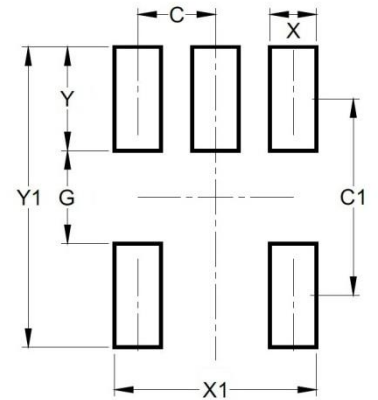
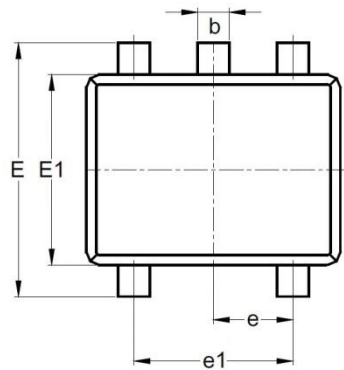
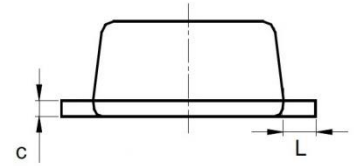
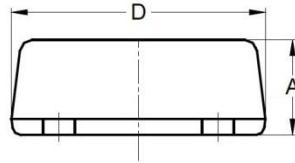
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## DIMENSIONS AND RECOMMENDED LAND PATTERN

Item	Min (mm)	Max (mm)
A	0.50	0.60
b	0.17	0.27
c	0.07	0.17
D	1.50	1.70
e	0.45	0.55
e1	0.90	1.10
E	1.50	1.70
E1	1.10	1.30
L	0.20	0.20
C	0.50	0.50
C1	1.45	1.45
G	0.90	0.90
X	0.40	0.40
X1	1.05	1.05
Y	0.55	0.55
Y1	2.00	2.00



\*Specifications subject to change without notice.