

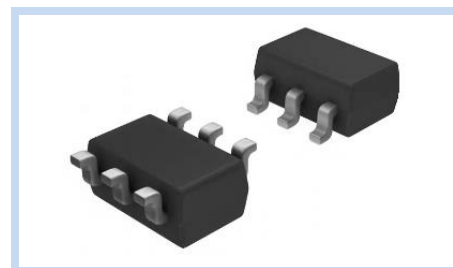
# ESD Suppressor 5V 4-Unidirectional SOT-23-6

ME54U12S236

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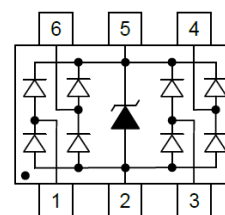
## FEATURE

- IEC 61000-4-2 ESD:  $\pm 20\text{KV}$  (Air)  $\pm 15\text{KV}$  (Contact)
- IEC 61000-4-4 EFT: 40A (5/50ns)
- IEC 61000-4-5 Lightning: 5A (8/20 $\mu\text{s}$ )
- ESD Protection for four Unidirectional Channels
- Low Leakage Current



## APPLICATION

- Digital Video Interface (DVI)
- 10/100/1000 Ethernet
- Monitors and Flat Panel Displays
- Notebook Computers
- Control Signal Lines Protection



## MAXIMUM RATINGS AND CHARACTERISTICS

Parameter	Symbol	Value	Unit
ESD Voltage (Contact discharge)	$V_{ESD}$	$\pm 20$	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	--	$V_{RWM}$	--	--	5.00	V
Reverse Breakdown Voltage	$I_{BR}=1\text{mA}$ , Pin 5 to Pin 2	$V_{BR}$	6.00	--	9.00	V
Reverse Leakage Current	$V_R=5\text{V}$	$I_R$	--	--	1.00	$\mu\text{A}$
Forward Voltage	$I_F=1\text{mA}$ , Pin 2 to Pin 5	$V_F$	--	--	1.00	V
Clamping Voltage	$I_{PP}=1\text{A}$ , $t_p=8/20\mu\text{s}$ any I/O pins to Pin 2	$V_C$	--	--	12.00	V
	$I_{PP}=5\text{A}$ , $t_p=8/20\mu\text{s}$ any I/O pins to Pin 2		--	--	20.00	
Off State Junction Capacitance	$V_{dc}=0$ , Bias, $f=1\text{MHz}$ , Between any I/O pins to Pin 2	$C_J$	--	--	0.80	pF
	$V_{dc}=0$ , Bias, $f=1\text{MHz}$ , Between any I/O pins		--	--	0.40	

Notes:

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

2. A Transient Suppressor is selected according to the working peak reverse voltage ( $V_{RWM}$ ), Which should equal to or greater than the DC or Continuous peak operation voltage level

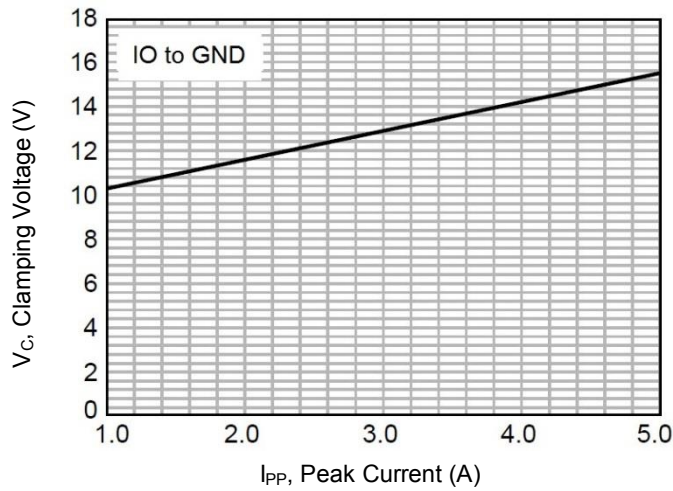
# ESD Suppressor 5V 4-Unidirectional SOT-23-6

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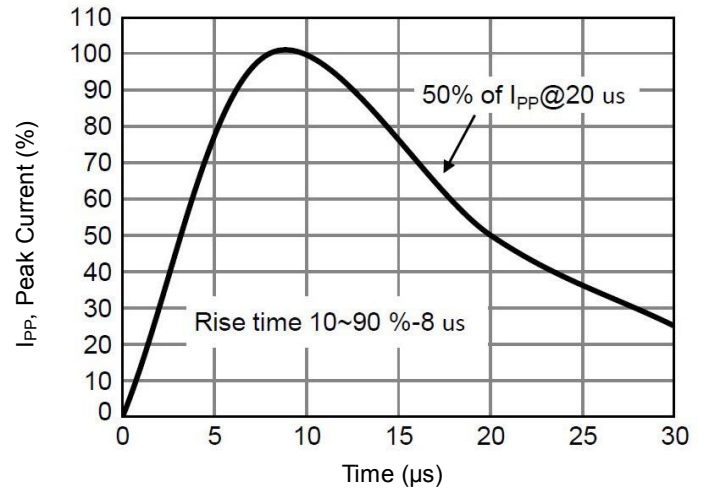
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## CHARACTERISTIC CURVES

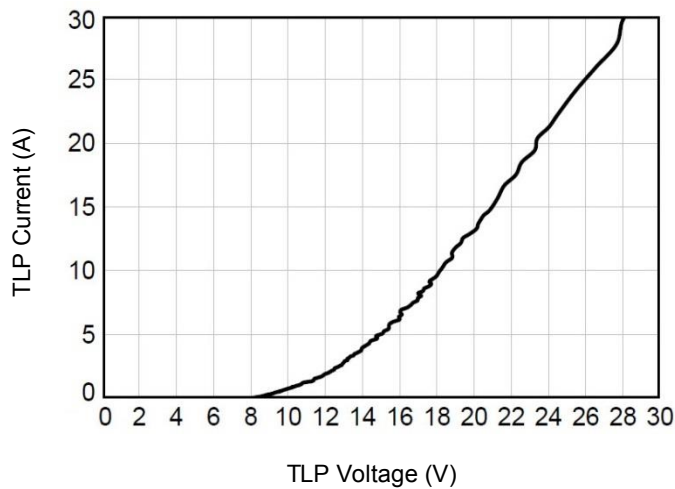
Typical Peak Clamping Voltage



Pulse Waveform



Transmission Line Pulsing



# ESD Suppressor

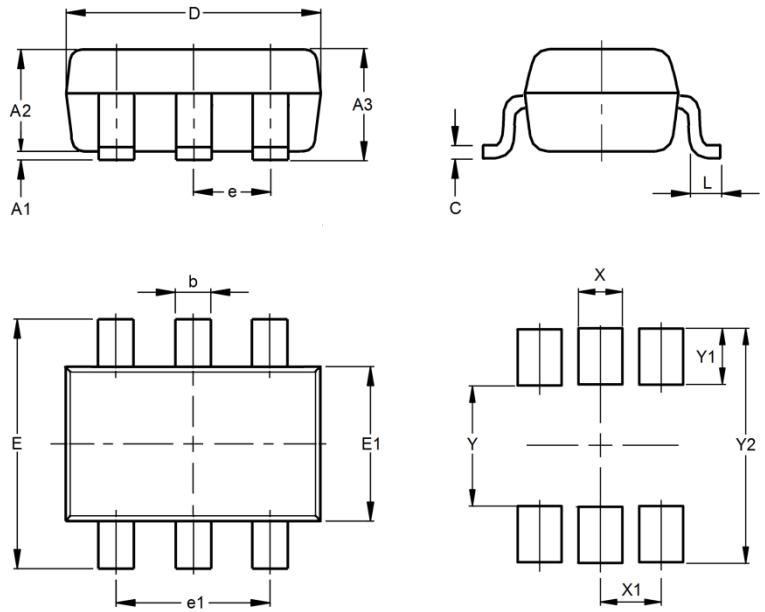
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### DIMENSIONS AND RECOMMENDED LAND PATTERN

Item	Min (mm)	Max (mm)
A1	0.00	0.15
A2	1.30	0.90
A3	0.00	1.45
b	0.30	0.50
C	0.08	0.22
D	2.80	3.00
e	0.00	0.95
e1	0.00	1.90
E	2.60	3.00
E1	1.50	1.70
L	0.30	0.60
Y	1.60	1.60
Y1	0.79	0.79
Y2	3.10	3.10
X	0.55	0.55
X1	0.94	0.94



\*Specifications subject to change without notice.