

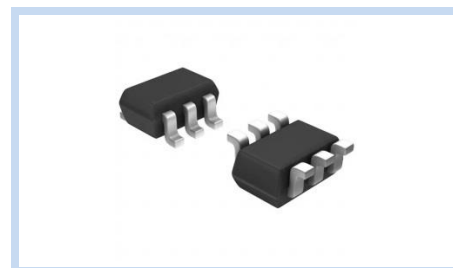
# ESD Suppressor 5V 4-Unidirectional SOT-23-6

ME54U9S236

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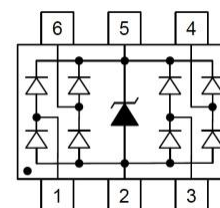
## FEATURE

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



## APPLICATION

- Digital Visual Interface (DVI)
- 10/100/1000 Ethernet
- USB 1.1/2.0/OTG
- IEEE 1394 Firewire Ports
- Set Top Box



## MAXIMUM RATINGS AND CHARACTERISTICS

Parameter	Symbol	Value	Unit
ESD Voltage (Contact discharge)	$V_{ESD}$	$\pm 8$	KV
ESD Voltage (Air discharge)		$\pm 15$	
Peak Pulse Current (tp=8/20 $\mu$ s)	$I_{PP}$	4	A
Peak Pulse Power (tp=8/20 $\mu$ s)	$P_{PP}$	50	W
Operating Temperature Range	$T_J$	-55~+125	$^{\circ}\text{C}$
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	Any I/O to GND	$V_{RWM}$	--	--	5	V
Reverse Breakdown Voltage	$I_{BR}=1\text{mA}$ , Any I/O to GND	$V_{BR}$	6	--	--	V
Reverse Leakage Current	$V_R=5\text{V}$ , Any I/O to GND	$I_R$	--	--	1	$\mu\text{A}$
Diode Forward Current	$I_F=15\text{mA}$	$I_F$	--	0.85	1.20	V
Clamping Voltage	$I_{PP}=1\text{A}$ , tp=8/20 $\mu$ s, Any I/O to GND	$V_C$	--	--	9	V
	$I_{PP}=3\text{A}$ , tp=8/20 $\mu$ s, Any I/O to GND		--	--	11	
Off State Junction Capacitance	$V_R=0$ , f=1MHz, Between I/O pins	$C_J$	--	0.35	0.45	pF
	$V_R=0$ , f=1MHz, Any I/O to GND		--	0.8	1	

Notes:  $T_A=25^{\circ}\text{C}$  unless otherwise specified

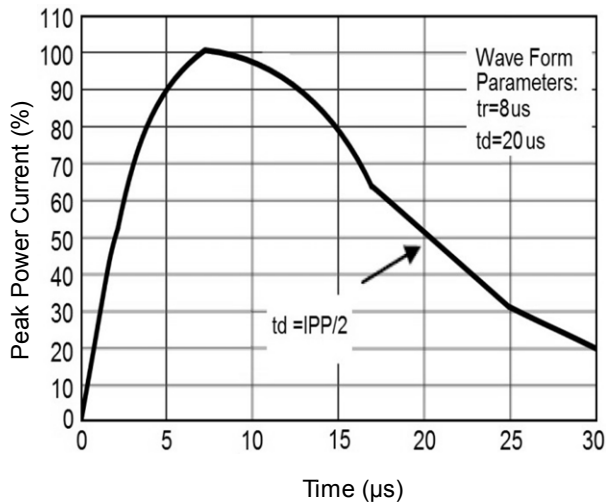
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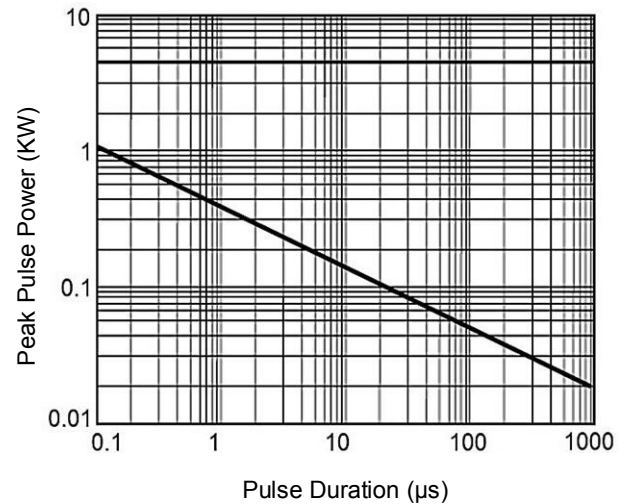
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## CHARACTERISTIC CURVES

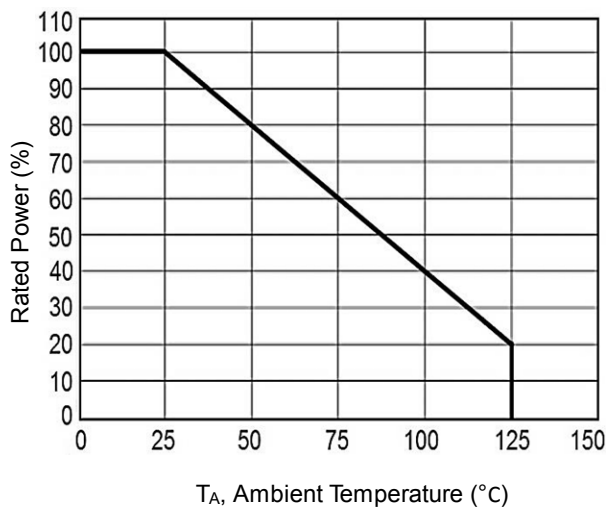
Pulse Waveforms



Non-Repetitive Peak Pulse Power vs. Pulse Time



Derating Curve



# ESD Suppressor

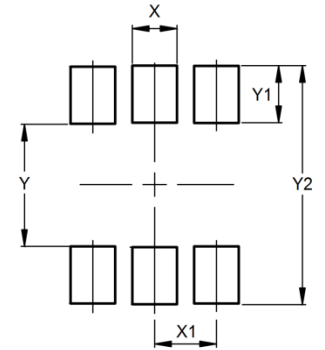
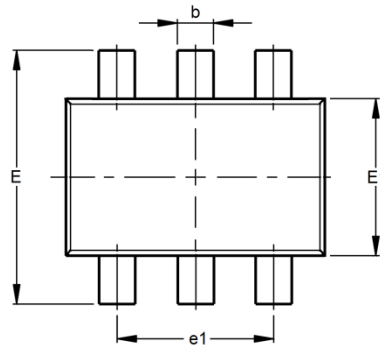
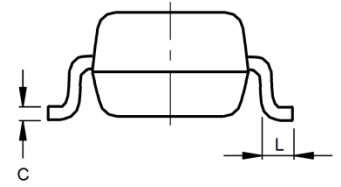
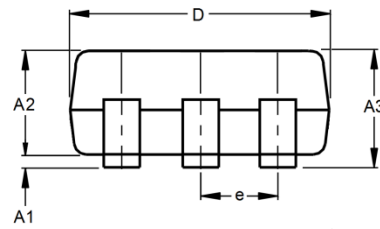
## 5V 4-Unidirectional SOT-23-6

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### DIMENSIONS AND RECOMMENDED LAND PATTERN

Item	Min (mm)	Max (mm)
A1	0.00	0.10
A2	1.05	1.15
A3	1.05	1.25
b	0.30	0.50
C	0.10	0.20
D	2.82	3.02
e	0.95	0.95
e1	1.80	2.00
E	2.65	2.95
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.