

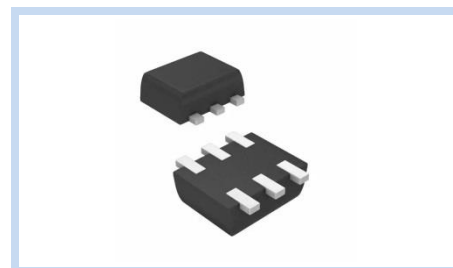
ESD Suppressor 5V 4-Unidirectional SOT-563

ME54U35S563

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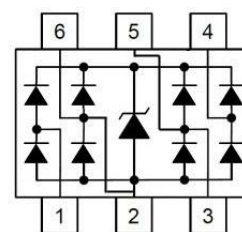
FEATURE

- IEC 61000-4-2 ESD: $\pm 17\text{KV}$ (Air) $\pm 12\text{KV}$ (Contact)
- IEC 61000-4-4 EFT: 40A (5/50ns)
- IEC 61000-4-5 Lightning: 5A (8/20 μs)
- ESD Protection for four Unidirectional Channels
- Low Leakage Current, Maximum 1 μA at Rated Voltage
- Solid-State Silicon-Avalanche Technology



APPLICATION

- USB 2.0 Data Line Protection
- Monitors, Flat Panel Display Notebook Computers
- 10/100/1000 Ethernet
- Digital Video Interface (DVI)
- Control Signal Lines Protection



MAXIMUM RATINGS AND CHARACTERISTICS

Parameter	Symbol	Value	Unit
ESD Voltage (Contact discharge)	V_{ESD}	± 17	KV
ESD Voltage (Air discharge)		± 12	
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	$I_{\text{BR}}=1\text{mA}$, Pin 6 and GND	V_{BR}	6	--	10	V
Reverse Leakage Current	$V_{\text{R}}=5\text{V}$, I/O and GND	I_{R}	--	--	1	μA
Clamping Voltage	$I_{\text{PP}}=1\text{A}$, $t_{\text{p}}=8/20\mu\text{s}$, Any I/O pin and GND	V_{C}	--	--	15	V
	$I_{\text{PP}}=5\text{A}$, $t_{\text{p}}=8/20\mu\text{s}$, Any I/O pin and GND		--	--	35	
Off State Junction Capacitance	$V_{\text{dc}}=0$, Bias, $f=1\text{MHz}$, Between I/O pins and GND	C_{J}	--	--	0.8	pF
	$V_{\text{dc}}=0$, Bias, $f=1\text{MHz}$, Between I/O pins		--	--	0.4	

Note:

1. A transient suppressor is selected according to V_{RWM} , which should be greater than or equal to the DC or continuous peak operation voltage level.
2. $T_J=25^{\circ}\text{C}$ unless otherwise specified

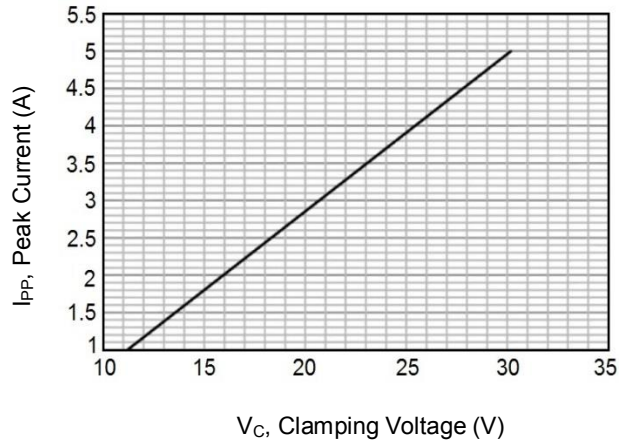
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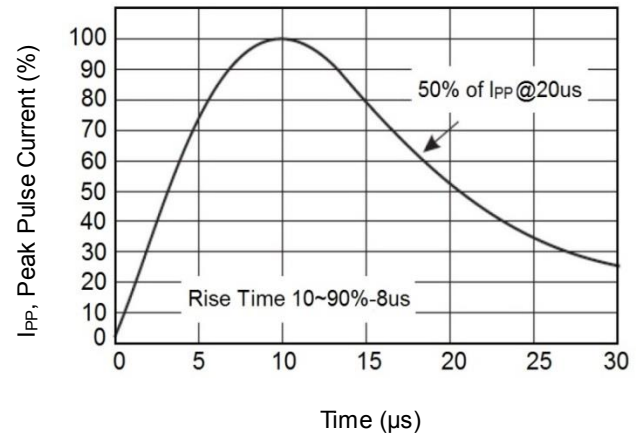
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CHARACTERISTIC CURVES

Typical Peak Clamping Voltage



Pulse Waveform



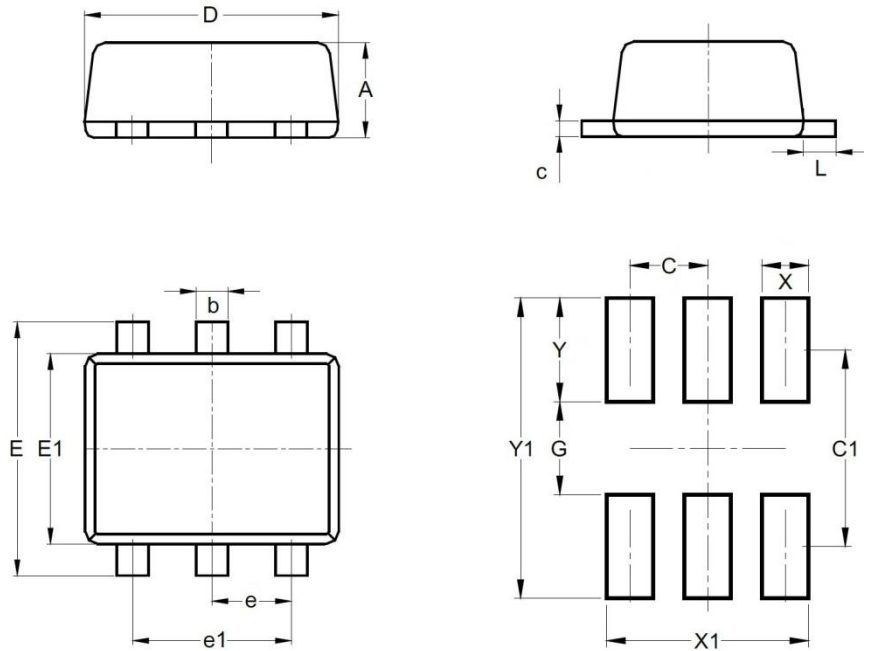
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DIMENSIONS AND RECOMMENDED LAND PATTERN

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.