

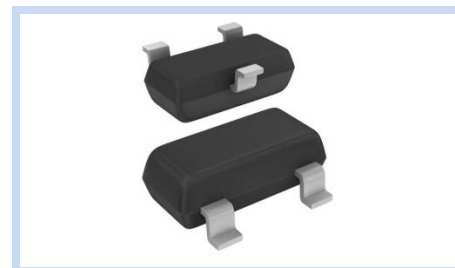
ESD Suppressor 5V 2-Unidirectional SOT-23

ME52U9V8S23P4

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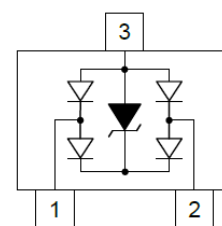
FEATURE

- IEC 61000-4-2 ESD: $\pm 15\text{KV}$ (Air) $\pm 8\text{KV}$ (Contact)
- ESD Protection for two Unidirectional Channels
- Ultra Low Capacitance: 0.8pF Typical
- Low Clamping Voltage
- Solid-State Silicon-Avalanche Technology



APPLICATION

- HDMI Interface Protection
- Display Port Interface
- Antenna Applications
- USB 2.0
- GaAs Photodetector Protection



MAXIMUM RATINGS AND CHARACTERISTICS

Parameter	Symbol	Value	Unit
ESD Voltage (Contact discharge)	V_{ESD}	± 8	KV
ESD Voltage (Air discharge)		± 15	
Peak Pulse Current (tp=8/20 μ 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	--	--	0.5	μA
Clamping Voltage	$I_{PP}=1\text{A}$, tp=8/20 μ s	V_C	--	--	9.8	V
	$I_{PP}=3\text{A}$, tp=8/20 μ s		--	--	15	
Off State Junction Capacitance	$V_{dc}=0$, f=1MHz, Between I/O pins and GND	C_J	--	0.8	--	pF
	$V_{dc}=0$, f=1MHz, Between I/O pins		--	0.4	--	

Notes:

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

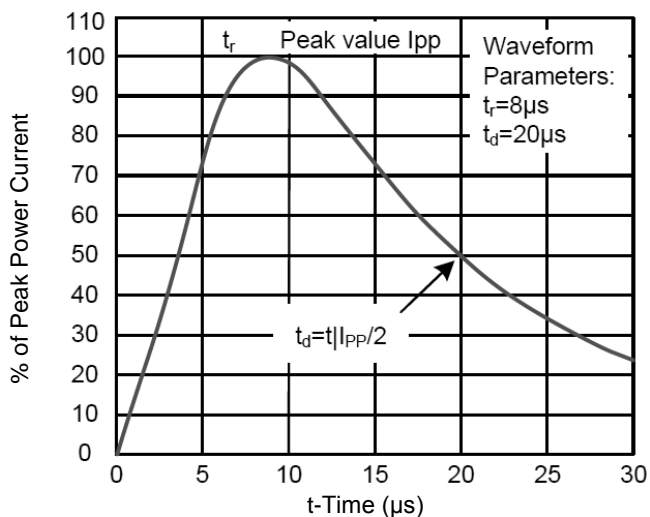
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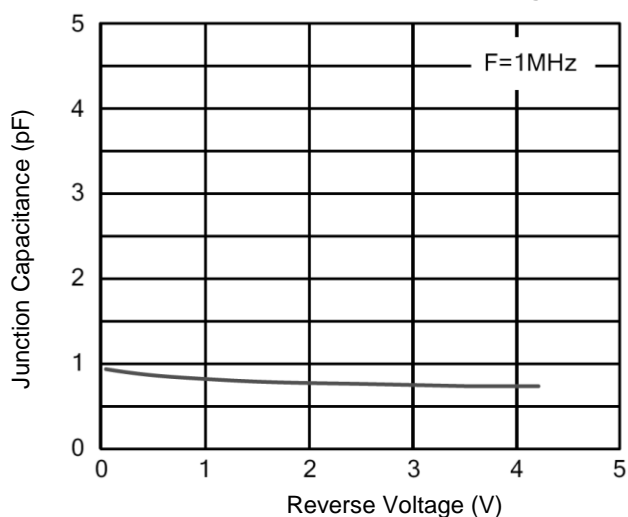
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CHARACTERISTIC CURVES

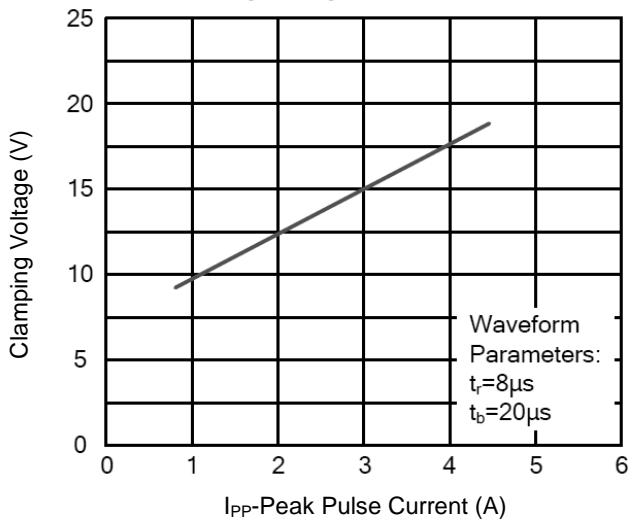
Pulse Waveforms



Capacitance vs. Reverse Voltage



Clamping Voltage vs. Peak Pulse Current



ESD Suppressor

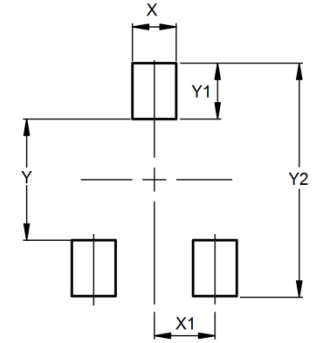
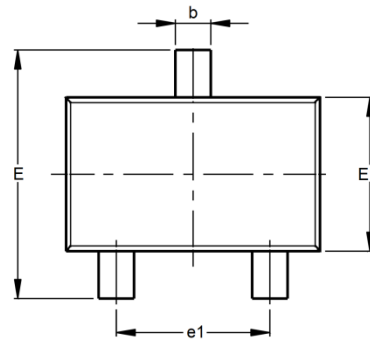
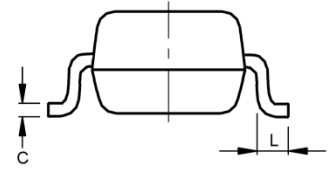
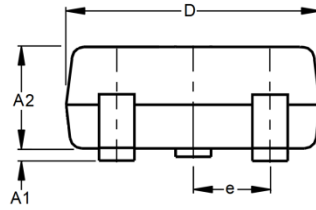
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DIMENSIONS AND RECOMMENDED LAND PATTERN

Item	Min (mm)	Max (mm)
A1	0.08	0.18
A2	0.81	0.91
b	0.35	0.50
C	--	0.13
D	2.80	3.05
e	0.95	0.95
e1	1.90	1.90
E	2.10	2.49
E1	1.19	1.40
L	0.15	--
X	0.80	0.80
X1	1.35	1.35
Y	2.00	2.00
Y1	0.90	0.90
Y2	2.90	2.90



*Specifications subject to change without notice.