

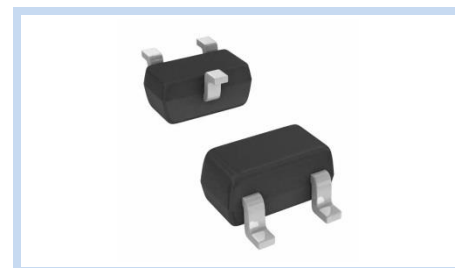
ESD Suppressor 5V 2-Unidirectional SOT-523

ME52U9V8S523GT

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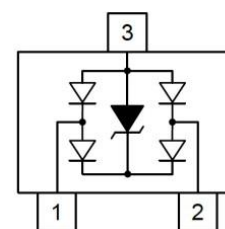
FEATURE

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



APPLICATION

- HDMI Interface Protection
- USB 2.0 & Firewire Ports
- Infiniband Transceiver Protection
- Gas Photodetector Protection
- RF/Antenna Circuits



MAXIMUM RATINGS AND CHARACTERISTICS

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

Notes:

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

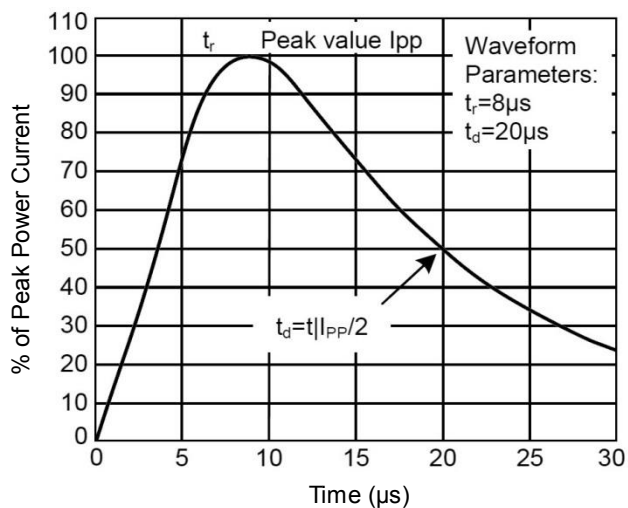
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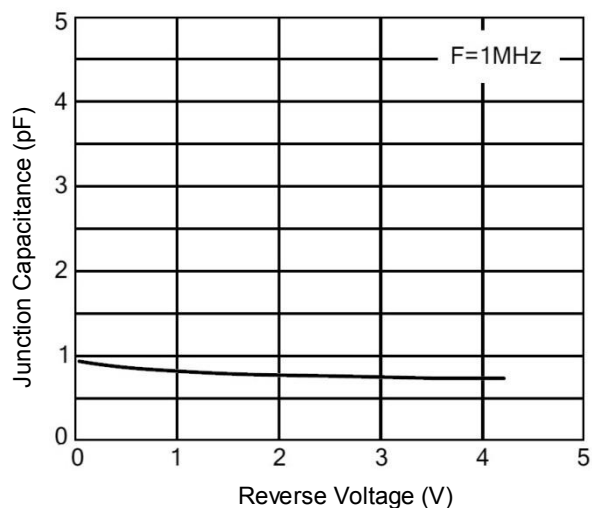
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CHARACTERISTIC CURVES

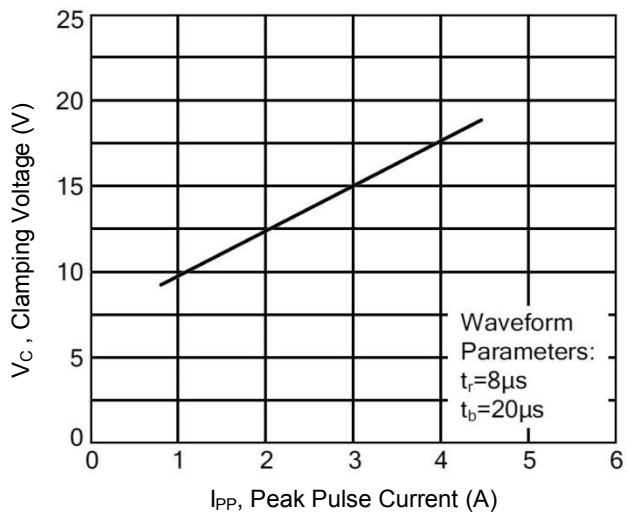
Pulse Waveforms



Capacitance vs. Reverse Voltage



Clamping Voltage vs. Peak Pulse Current



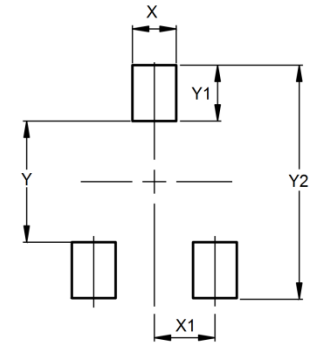
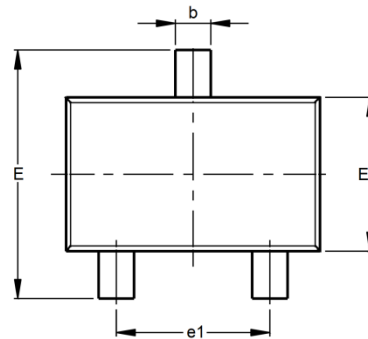
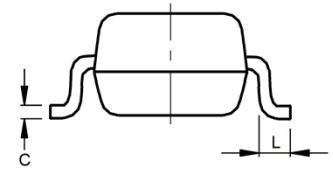
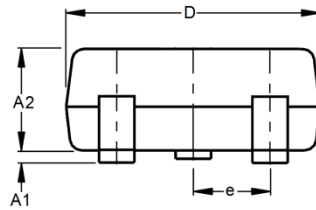
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DIMENSIONS AND RECOMMENDED LAND PATTERN

Item	Min (mm)	Max (mm)
A1	-	0.10
A2	-	0.80
b	0.15	0.35
C	0.10	0.20
D	1.50	1.70
e	0.50	0.50
e1	0.90	1.10
E	1.45	1.75
E1	0.75	0.85
L	0.28	0.44
X	0.50	0.50
X1	0.65	0.65
Y	1.15	1.15
Y1	0.50	0.50
Y2	1.75	1.75



*Specifications subject to change without notice.