

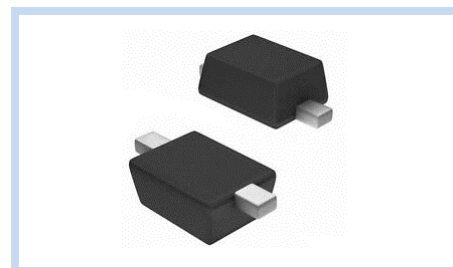
# ESD Suppressor 5V Unidirectional SOD-923

ME51U12S923

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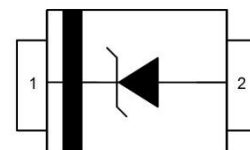
## FEATURE

- IEC 61000-4-2 ESD:  $\pm 30\text{KV}$  (Air)  $\pm 30\text{KV}$  (Contact)
- IEC 61000-4-4 EFT: 40A (5/50ns)
- ESD Protection for one Unidirectional Channel
- Low Clamping Voltage



## APPLICATION

- Cellular Handsets & Accessories
- Personal Digital Assistants (PDAs)
- Notebooks & Handhelds
- Cordless Phones
- Peripherals
- MP3 Players



## MAXIMUM RATINGS AND CHARACTERISTICS

Parameter	Symbol	Value	Unit
ESD Voltage (Contact discharge)	$V_{ESD}$	$\pm 30$	KV
ESD Voltage (Air discharge)		$\pm 30$	
Peak Pulse Current (tp=8/20 $\mu$ s)	$I_{PP}$	5	A
Peak Pulse Power (tp=8/20 $\mu$ s)	$P_{PP}$	40	W
Lead Soldering Temperature (10 Seconds)	$T_L$	260	$^{\circ}\text{C}$
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	$I_{BR}=1\text{mA}$	$V_{BR}$	6.5	--	--	V
Reverse Leakage Current	$V_R=5\text{V}$	$I_R$	--	--	1	$\mu\text{A}$
Clamping Voltage	$I_{PP}=5\text{A}$ , tp=8/20 $\mu$ s	$V_C$	--	--	12	V
Off State Junction Capacitance	Vdc=0, f=1MHz	$C_J$	--	--	35	pF

Notes:  $T_J=25^{\circ}\text{C}$  unless otherwise specified, VF=1.1V Max, IF=10mA

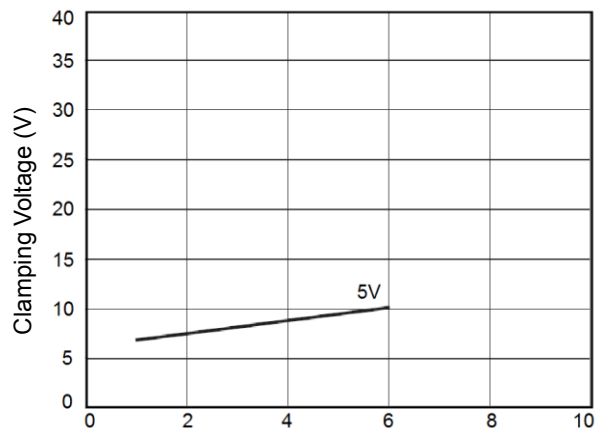
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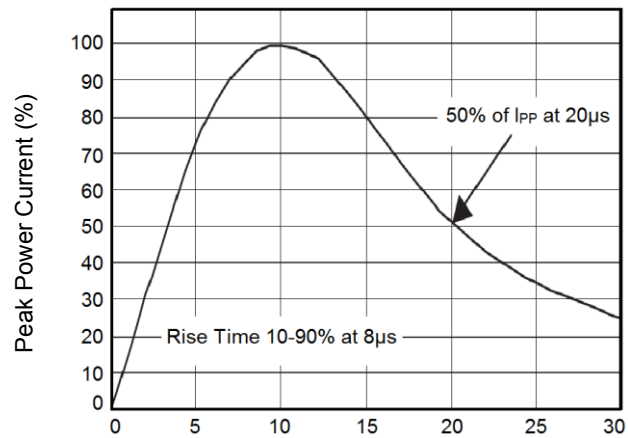
## CHARACTERISTIC CURVES

Clamping Voltage vs. Peak Pulse Current



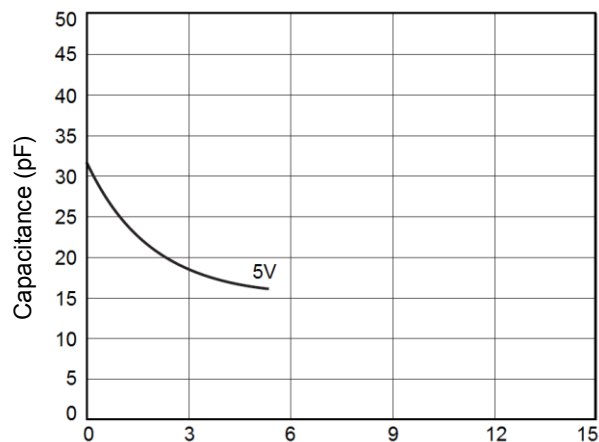
$I_{PP}$ , Peak Pulse Current (A)

Pulse Waveforms



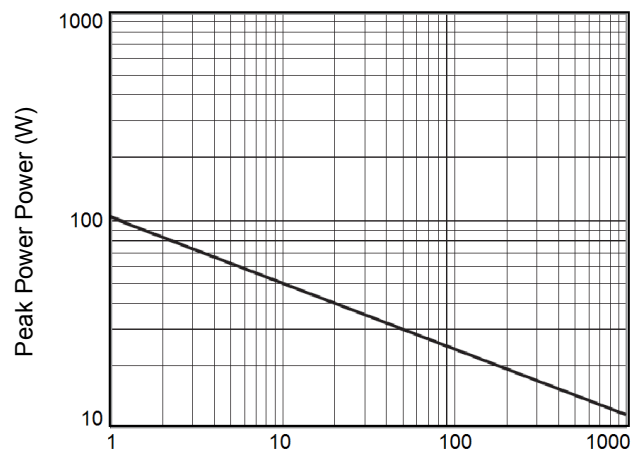
Time ( $\mu$ s)

Capacitance vs. Biasing Voltage at 1MHz



Bias Voltage (V)

Non-Repetitive Peak Pulse Power vs. Pulse Time



Pulse Time ( $\mu$ s)

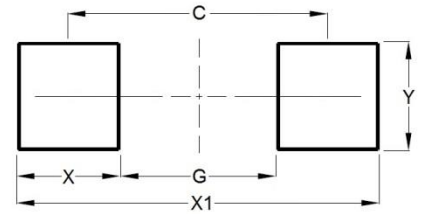
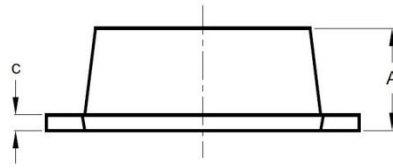
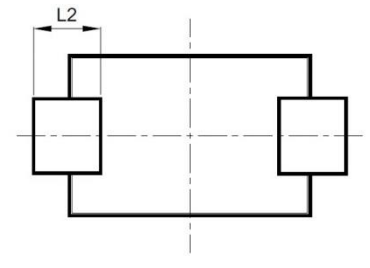
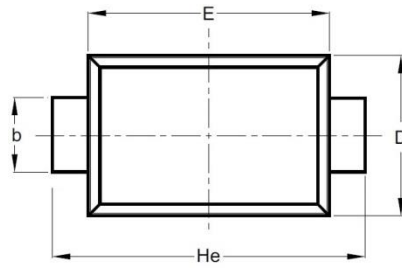
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## DIMENSIONS AND RECOMMENDED LAND PATTERN

Item	Min (mm)	Max (mm)
A	0.35	0.45
b	0.15	0.25
C	0.08	0.18
D	0.55	0.65
E	0.75	0.85
He	0.95	1.05
L2	0.10	0.10
C	0.90	0.90
G	0.60	0.60
X	0.30	0.30
X1	1.20	1.20
Y	0.40	0.40



\*Specifications subject to change without notice.