

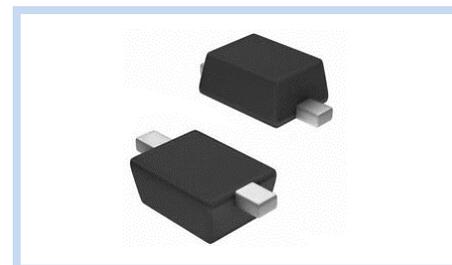
ESD Suppressor AEC-Q101 5V Unidirectional SOD-523

ME51U11S523A

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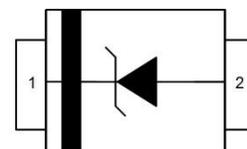
FEATURE

- IEC 61000-4-2 ESD: $\pm 15\text{KV}$ (Air) $\pm 8\text{KV}$ (Contact)
- ESD Protection for One Unidirectional Channel
- Low Clamping Voltage
- Low Leakage Current
- AEC-Q101 Qualified



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}	± 8	KV
ESD Voltage (Air discharge)		± 15	
Peak Pulse Current ($t_p=8/20\mu\text{s}$)	I_{PP}	18	A
Peak Pulse Power ($t_p=8/20\mu\text{s}$)	P_{PP}	200	W
ESD Voltage (HMB MIL-STD-883)	V_{ESD}	25	KV
Operating & Storage Temperature Range	T_J, T_{STG}	-50~+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	$V_R=5\text{V}$	I_R	--	--	1	μA
Clamping Voltage	$I_{PP}=5\text{A}, t_p=8/20\mu\text{s}$	V_C	--	--	11	V
	$I_{PP}=15\text{A}, t_p=8/20\mu\text{s}$		--	--	14	
Off State Junction Capacitance	$V_{dc}=0, \text{Bias}, f=1\text{MHz}$	C_J	--	--	160	pF
	$V_{dc}=5, \text{Bias}, f=1\text{MHz}$		--	--	80	

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

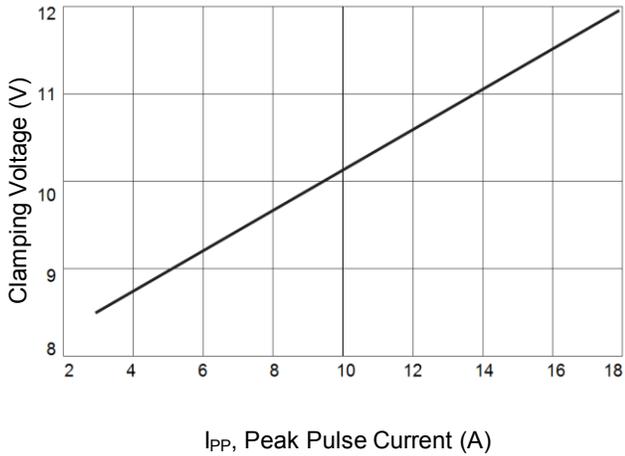
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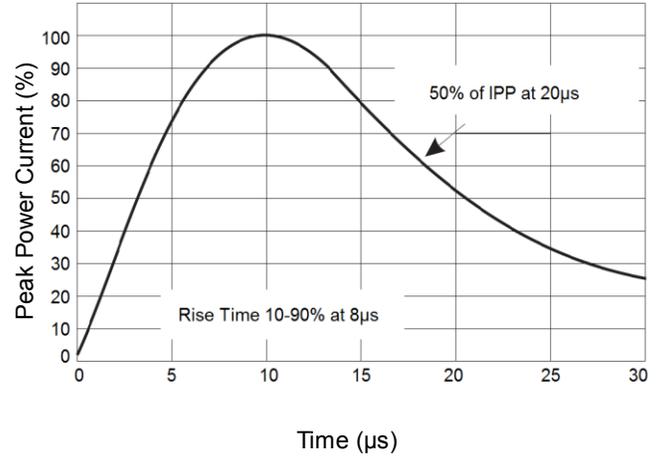
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CHARACTERISTIC CURVES

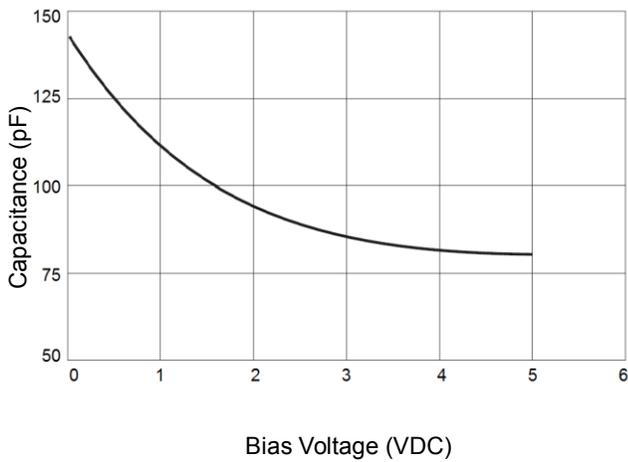
Clamping Voltage vs Peak Pulse Surge Current (8/20 μ s)



Pulse Waveforms



Capacitance vs Bias Voltage at 1MHz



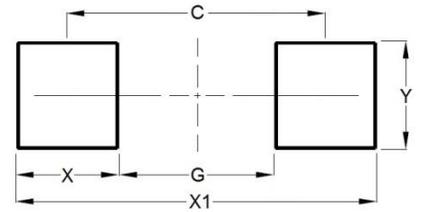
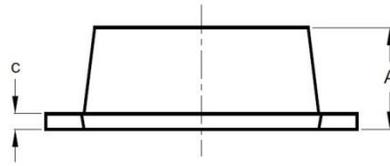
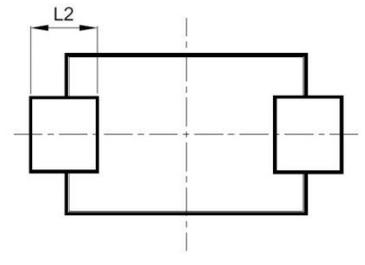
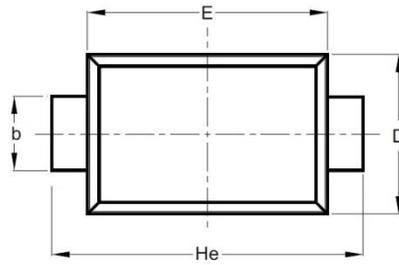
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DIMENSIONS AND RECOMMENDED LAND PATTERN

Item	Min (mm)	Max (mm)
A	0.55	0.65
b	0.25	0.35
C	0.05	0.15
D	0.75	0.85
E	1.15	1.25
He	1.50	1.70
L2	0.20	0.20
C	1.40	1.40
G	0.80	0.80
X	0.60	0.60
X1	2.00	2.00
Y	0.70	0.70



*Specifications subject to change without notice.