

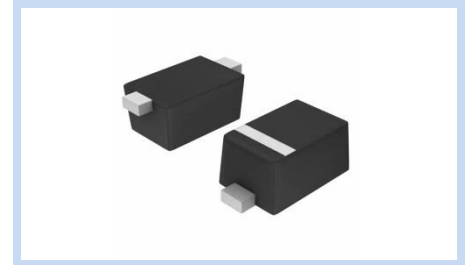
ESD Suppressor 5V Bidirectional SOD-523

ME51B8S523

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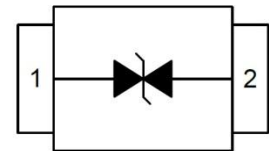
FEATURE

- IEC 61000-4-2 ESD: $\pm 22\text{KV}$ (Air) $\pm 15\text{KV}$ (Contact)
- ESD Protection for one Bidirectional Channel
- Low Leakage Current
- Low Clamping Voltage
- Solid-State Silicon-Avalanche Technology



APPLICATION

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



MAXIMUM RATINGS AND CHARACTERISTICS

Parameter	Symbol	Value	Unit
ESD Voltage (Contact discharge)	V_{ESD}	± 15	KV
ESD Voltage (Air discharge)		± 22	
Peak Pulse Current ($t_p=8/20\mu s$)	I_{PP}	8.5	A
Lead Soldering Temperature (10 seconds)	T_S	260	V
Operating Temperature Range	T_J	-55~+125	$^{\circ}\text{C}$
Storage Temperature Range	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}	6.10	--	9	V
Operating Supply Voltage	Pin 1, Pin 2 to Pin 3	V_{DC}	--	--	6	V
Reverse Leakage Current	$V_R=5\text{V}$	I_R	--	--	2.50	μA
Clamping Voltage	$I_{PP}=5\text{A}$, $t_p=8/20\mu s$	V_C	--	7	8	V
	$I_{PP}=7\text{A}$, $t_p=8/20\mu s$		--	8	9	
ESD Holding Voltage	IEC 61000-4-2 6KV Contact Mode	V_{hold}	--	10.5	--	V
Channel Input Capacitance	$V_{dc}=0$, $f=1\text{MHz}$	C_J	--	11.5	13.5	pF

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

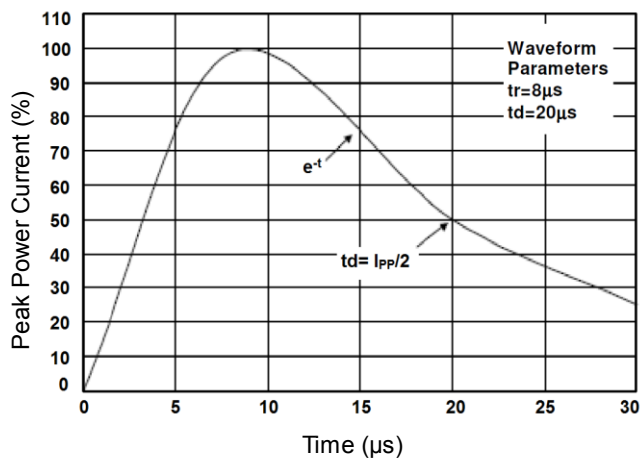
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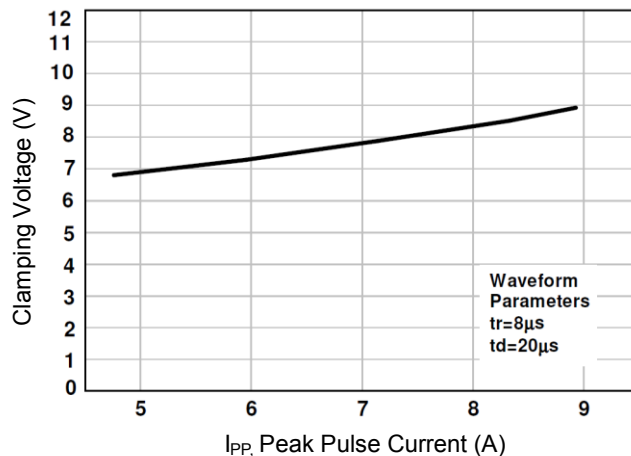
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CHARACTERISTIC CURVES

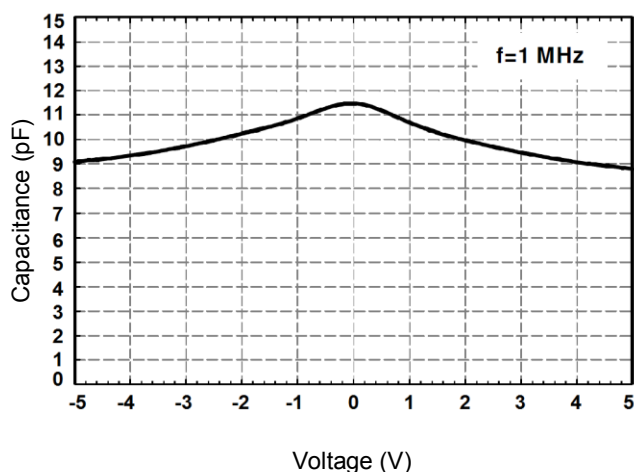
Pulse Waveforms



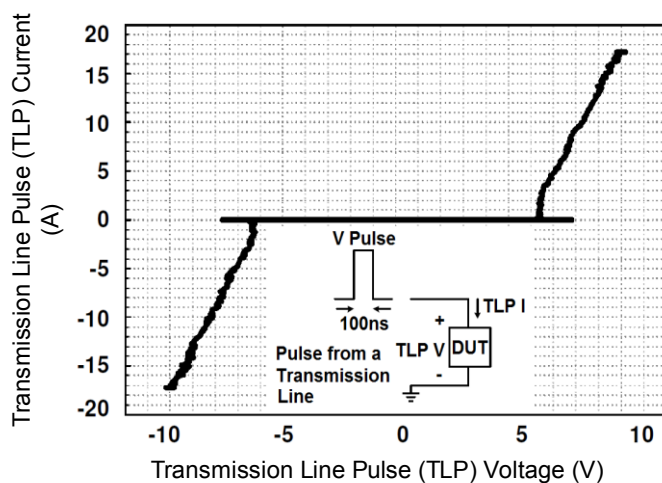
Clamping Voltage vs. Peak Pulse Current



Typical Variation C_{IN} Vs V_{IN}

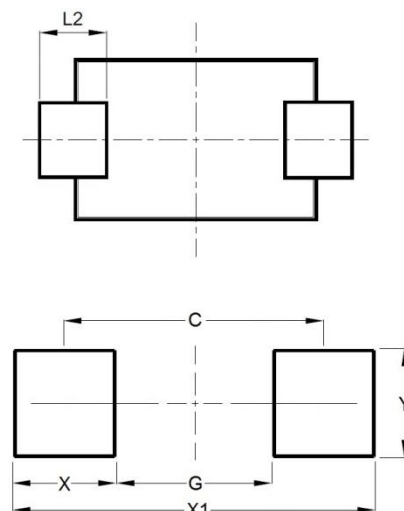
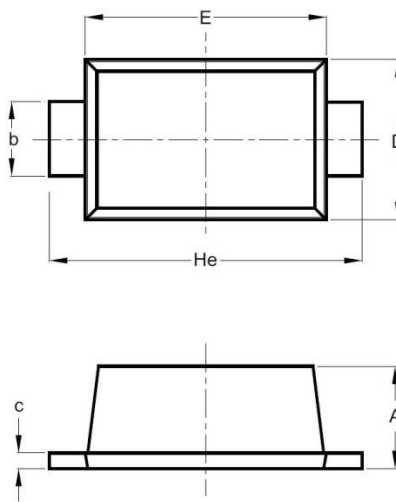


Transmission Line Pulsing (TLP) Measurement



DIMENSIONS AND RECOMMENDED LAND PATTERN

Item	Min (mm)	Max (mm)
A	0.51	0.77
b	0.25	0.35
C	0.08	0.15
D	0.75	0.85
E	1.10	1.30
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.