

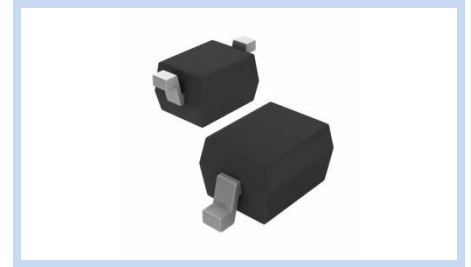
# ESD Suppressor AEC-Q101 3.3V Bidirectional SOD-323G

ME3V31BS323GA

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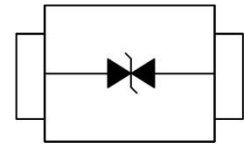
## FEATURE

- IEC 61000-4-2 ESD:  $\pm 30\text{KV}$  (Air)  $\pm 30\text{KV}$  (Contact)
- ESD Protection for One Bidirectional Channel
- Low Leakage Current
- Low Clamping and Operating Voltage
- Solid-State Silicon Avalanche Technology
- AEC-Q101 Qualified



## APPLICATION

- Personal Digital Assistants (PDAs)
- Serial ATA Protection
- USB 2.0 and USB 3.0 Interface
- Digital Visual Interface (DVI)
- RF Interface
- 10/100/1000 Ethernet



## 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 ( $t_p=8/20\mu\text{s}$ )	$I_{PP}$	11	A
Operating and 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	--	$V_{RWM}$	--	--	3.3	V
Reverse Breakdown Voltage	$I_{BR}=1\text{mA}$	$V_{BR}$	3.5	--	--	V
Reverse Leakage Current	$V_R=5\text{V}$	$I_R$	--	--	100	nA
Clamping Voltage	$I_{PP}=1\text{A}, t_p=8/20\mu\text{s}$	$V_C$	--	9.8	--	V
Clamping Voltage	$I_{PP}=11\text{A}, t_p=8/20\mu\text{s}$	$V_C$	--	13	--	V
Off State Junction Capacitance	$V_{dc}=0, f=1\text{MHz}$	$C_J$	--	1.5	2	pF

Notes:

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

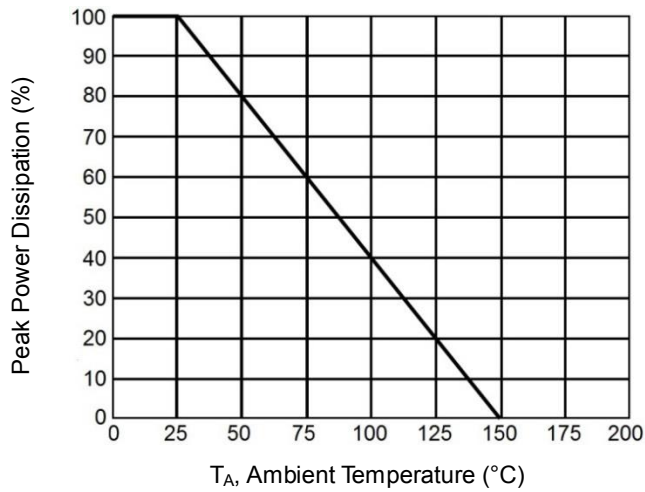
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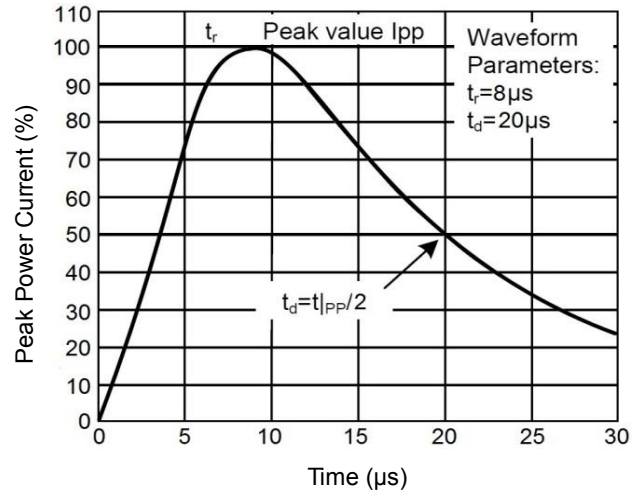
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## CHARACTERISTIC CURVES

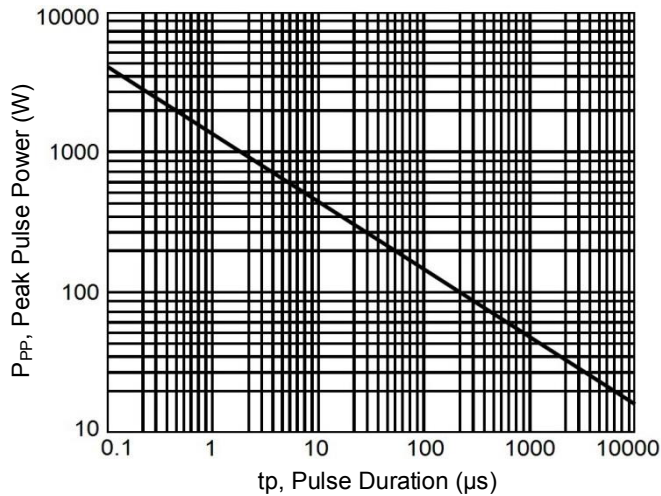
Derating Curve



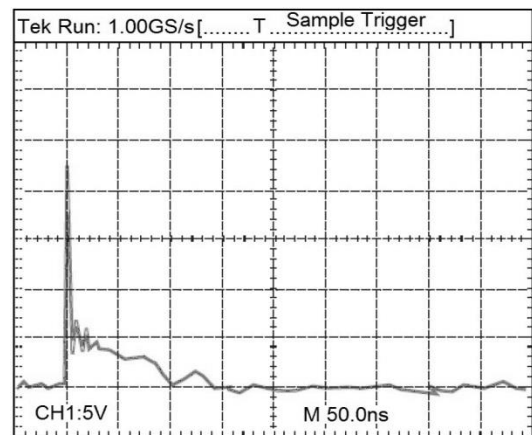
Pulse Waveforms



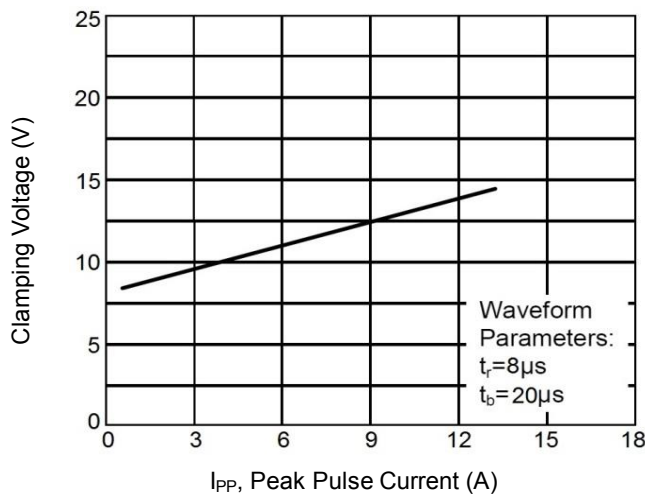
Non-Repetitive Peak Pulse vs. Pulse Time



ESD Clamping (8kV Contact IEC61000-4-2)



Clamping Voltage vs. Peak Pulse Current



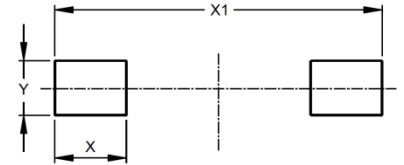
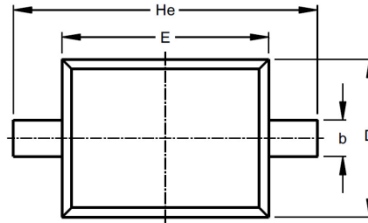
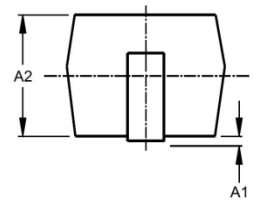
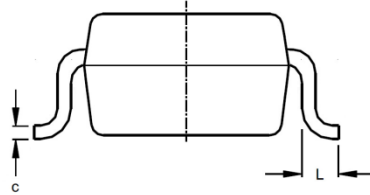
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## DIMENSIONS AND RECOMMENDED LAND PATTERN

Item	Min (mm)	Max (mm)
A	0.80	1.10
A1	-	0.10
b	-	0.35
C	0.11	0.20
D	1.15	1.35
E	1.60	1.80
He	2.40	2.60
L	0.20	-
X	0.50	0.50
X1	2.80	2.80
Y	0.60	0.60



\*Specifications subject to change without notice.