

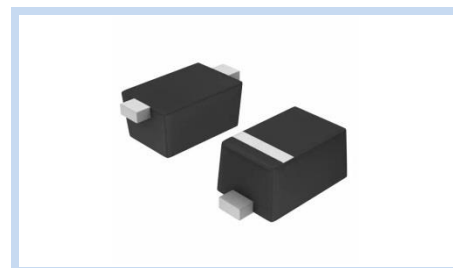
ESD Suppressor AEC-Q101 5V Bidirectional SOD-323G

ME51BS323GAP8

MERITEK

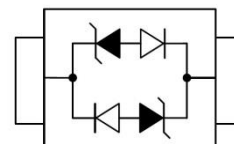
FEATURE

- 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 Voltage
- Solid-State Silicon-Avalanche Technology
- AEC-Q101 Qualified



APPLICATION

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



MAXIMUM RATINGS AND CHARACTERISTICS

Parameter	Symbol	Value	Unit
ESD Voltage (Contact discharge)	V_{ESD}	± 30	KV
ESD Voltage (Air discharge)		± 30	
Peak Pulse Power ($t_p=8/20\mu s$)	P_{PP}	350	W
Peak Pulse Current ($t_p=8/20\mu s$)	I_{PP}	17	A
Operating & Storage Temperature Range	T_J, T_{STG}	-55~+150	$^{\circ}\text{C}$

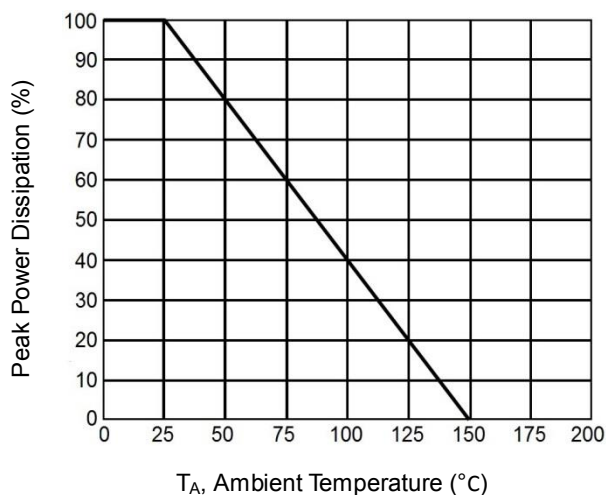
ELECTRICAL CHARACTERISTICS

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	$V_R=5\text{V}$	I_R	--	--	5	μA
Clamping Voltage	$I_{PP}=1\text{A}, t_p=8/20\mu s$	V_C	--	--	9.8	V
	$I_{PP}=5\text{A}, t_p=8/20\mu s$		--	--	18.3	
Off State Junction Capacitance	$V_{dc}=0, f=1\text{MHz}$	C_J	--	0.8	--	pF

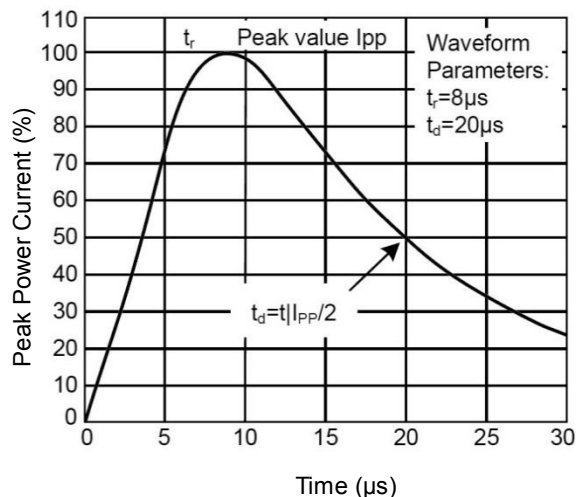
Notes: $T_J=25^{\circ}\text{C}$ unless otherwise specified

CHARACTERISTIC CURVES

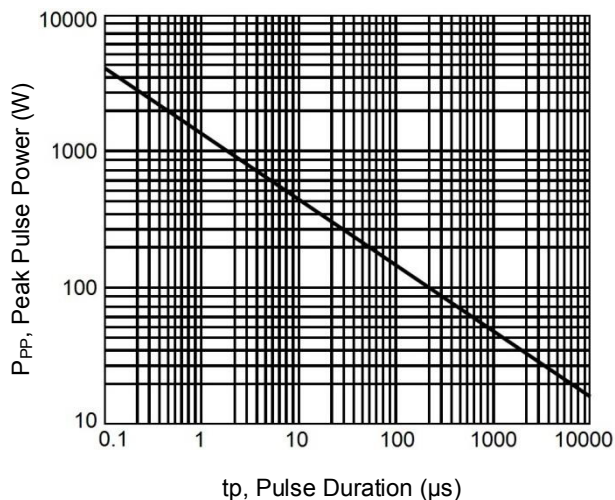
Derating Curve



Pulse Waveforms

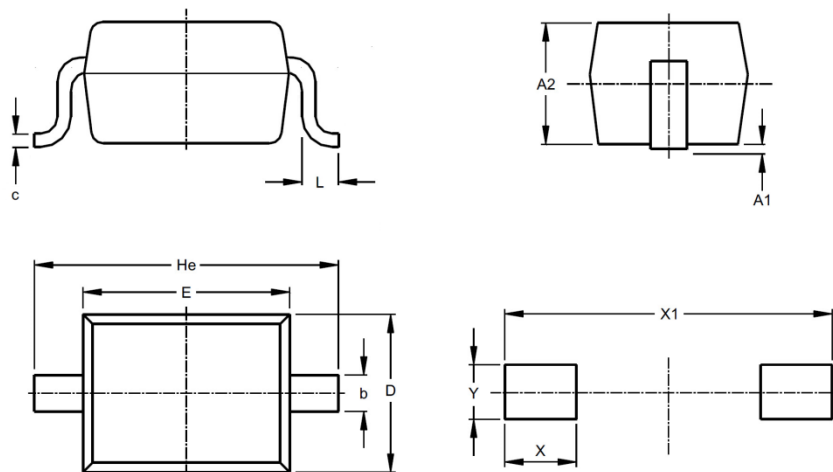


Non-Repetitive Peak Pulse vs Pulse Time



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.