

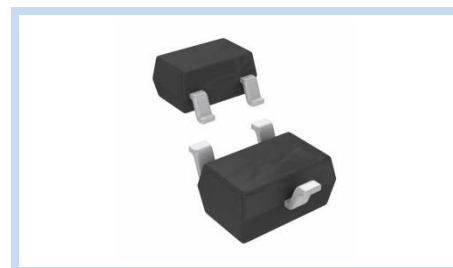
ESD Suppressor 5V 2-Unidirectional SOT-323

ME52U9S323T

MERITEK

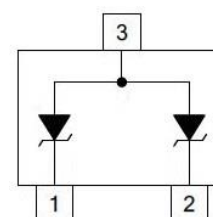
FEATURE

- IEC 61000-4-2 ESD: $\pm 15\text{KV}$ (Air) $\pm 8\text{KV}$ (Contact)
- ESD Protection for two Unidirectional Channels
- Low Clamping Voltage
- High Reliability
- Small Mold Type



APPLICATION

- High Definition Multi-Media Interface Protection
- Monitors, Flat Panel Displays, and Notebook computers
- Video Line Protection & Base Stations
- USB 3.0 Data Line Protection
- Control Signal Lines Protection



MAXIMUM RATINGS AND CHARACTERISTICS

Parameter	Symbol	Value	Unit
ESD Voltage (Contact discharge)	V_{ESD}	± 8	KV
ESD Voltage (Air discharge)		± 15	
Peak Pulse Power (tp=8/20 μ s)	P_{PP}	200	W
Forward Voltage (at 100mA, 300 μ s-Square Wave)	V_F	1.5	V
Operating & Storage Temperature Range	T_J, T_{STG}	-55~+150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS

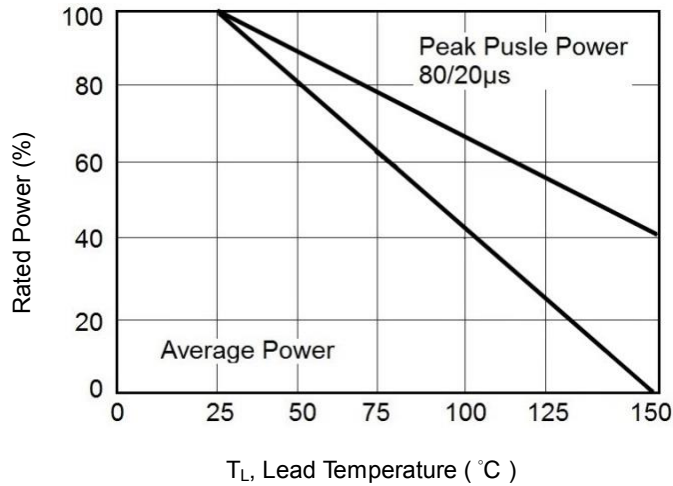
Parameter	Condition	Symbol	Min.	Typ.	Max.	Unit
Reverse Stand-Off Voltage	--	V_{RWM}	--	--	5	V
Reverse Breakdown Voltage	$I_{BR}=1\text{mA}$	V_{BR}	6	--	--	V
Reverse Leakage Current	$V_R=5\text{V}$	I_R	--	--	5	μA
Peak Pulse Current	tp=8/20 μ	I_{PP}	--	7	--	A
Clamping Voltage	$I_{PP}=7\text{A}$, tp=8/20 μ s	V_C	--	--	9	V
Off State Junction Capacitance	Vdc=0, Bias, f=1MHz	C_J	--	--	110	pF

Notes:

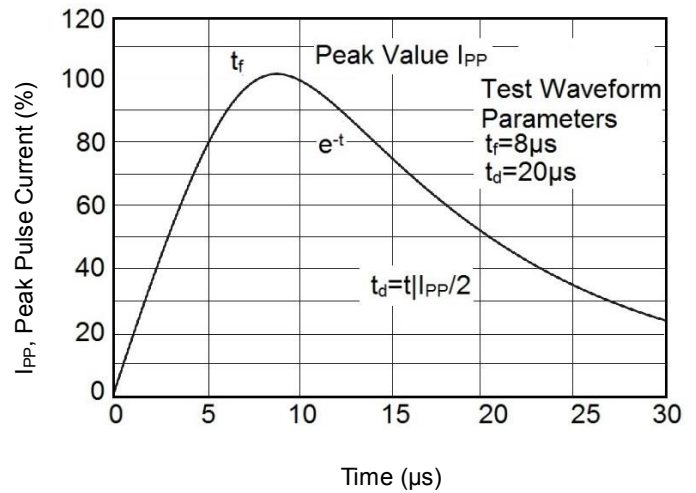
1. $T_J=25^{\circ}\text{C}$ unless otherwise specified

CHARACTERISTIC CURVES

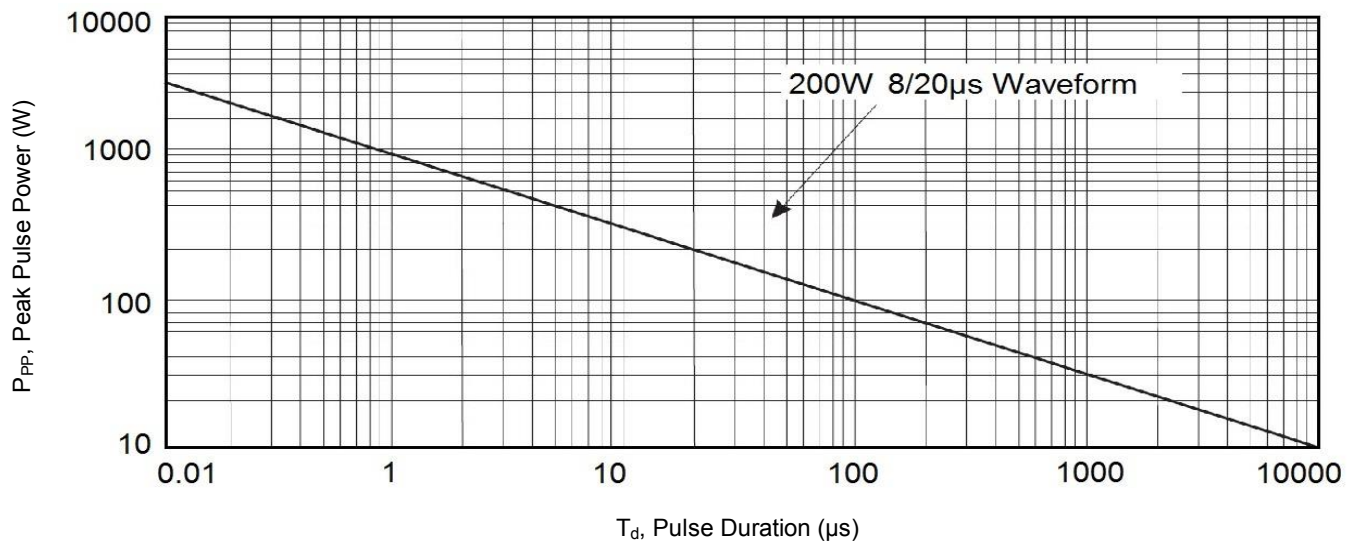
Power Derating Curve



Pulse Waveform



Peak Pulse Power Vs Time



ESD Suppressor

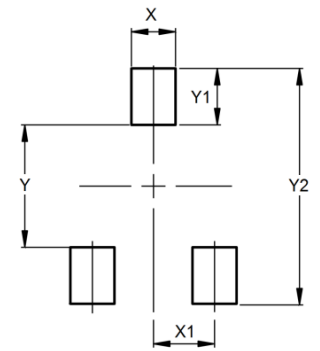
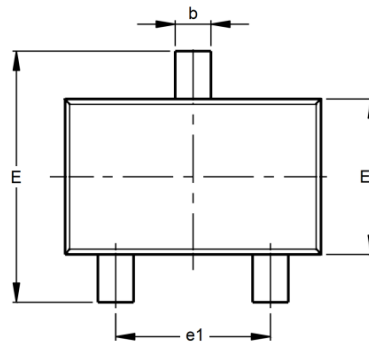
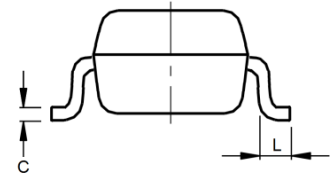
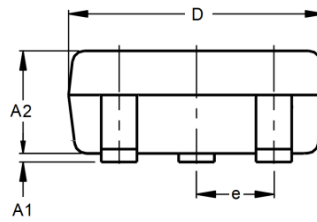
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DIMENSIONS AND RECOMMENDED LAND PATTERN

Item	Min (mm)	Max (mm)
A1	-	0.10
A2	-	1.00
b	0.20	0.40
C	0.05	0.15
D	1.80	2.20
e	0.60	0.70
e1	1.20	1.40
E	2.00	2.20
E1	1.15	1.35
L	0.10	-
X	0.45	0.45
X1	0.65	0.65
Y	1.50	1.50
Y1	0.55	0.55
Y2	2.50	2.50



*Specifications subject to change without notice.