

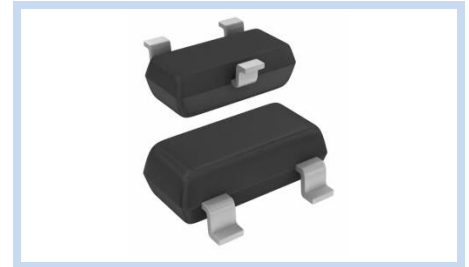
# ESD Suppressor 12V Unidirectional SOT-23

ME121U19S23

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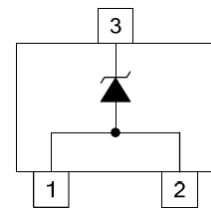
## FEATURE

- ESD Protection for one Unidirectional Channel
- Fast Turn On
- Low Clamping Voltage
- Space Saving Package



## APPLICATION

- RS-232, RS-442, RS-423
- USB Port Protection
- Portable Devices
- Wireless Bus Protection



## MAXIMUM RATINGS AND CHARACTERISTICS

Parameter	Symbol	Value	Unit
Peak Pulse Power (tp=8/20μs)	P <sub>PP</sub>	500	W
Peak Pulse Current (tp=8/20μs)	I <sub>PP</sub>	21	A
Operating & Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-50~+150	°C

## ELECTRICAL CHARACTERISTICS

Parameter	Condition	Symbol	Min.	Typ.	Max.	Unit
Reverse Stand-Off Voltage	--	V <sub>RWM</sub>	--	--	12	V
Reverse Breakdown Voltage	I <sub>BR</sub> =1mA	V <sub>BR</sub>	13.3	--	--	V
Reverse Leakage Current	V <sub>RWM</sub> =12V	I <sub>R</sub>	--	--	2	μA
Forward Voltage	I <sub>F</sub> =100mA, 300μs-square wave	V <sub>F</sub>	--	--	1.5	V
Clamping Voltage	I <sub>PP</sub> =21A, tp=8/20μs	V <sub>C</sub>	--	--	19	V
Off State Junction Capacitance	V <sub>dc</sub> =0, f=1MHz, Between I/O pins and GND	C <sub>J</sub>	--	--	200	pF

Notes:

1. T<sub>A</sub>= 25°C unless otherwise specified

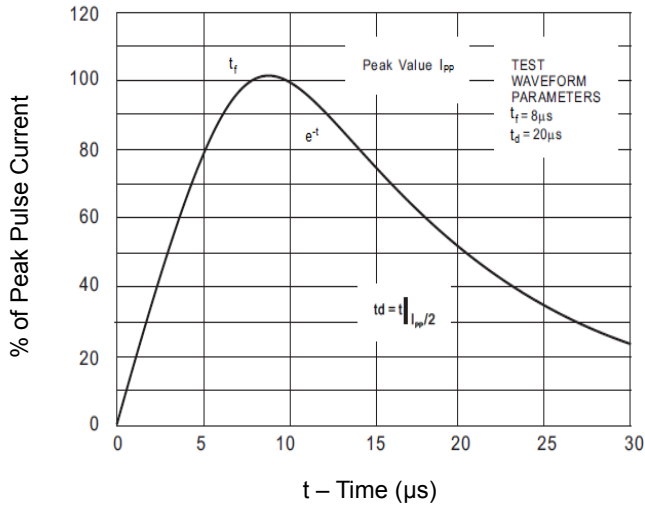
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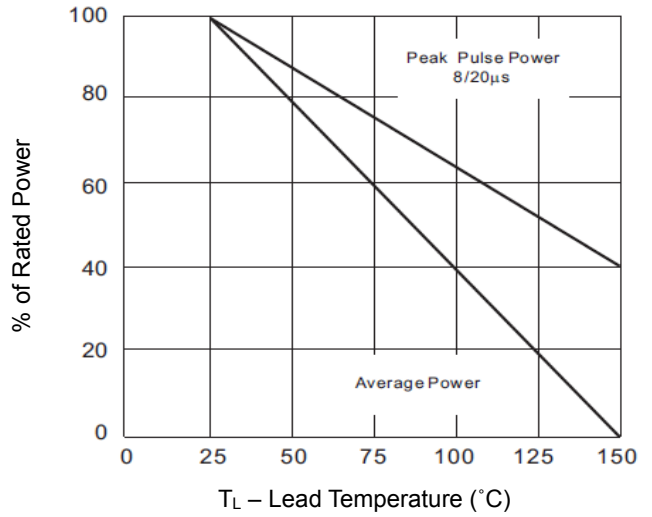
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## CHARACTERISTIC CURVES

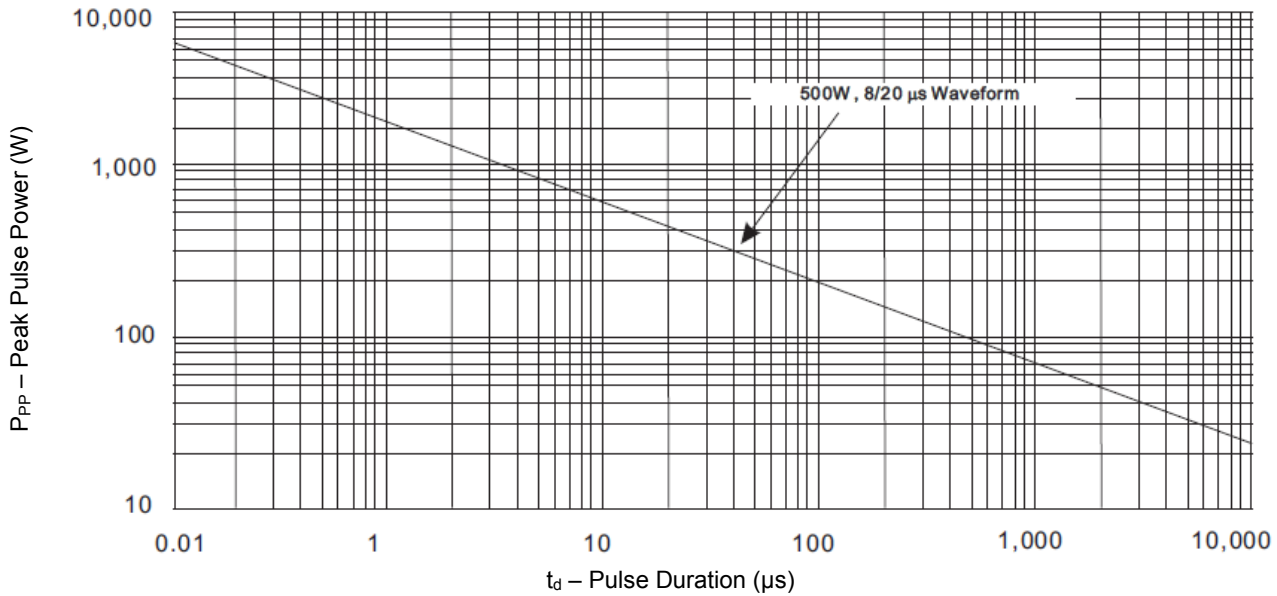
Pulse Waveform



Power Derating Curve



Peak Pulse Power vs. Pulse Time



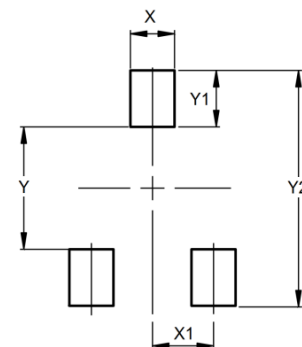
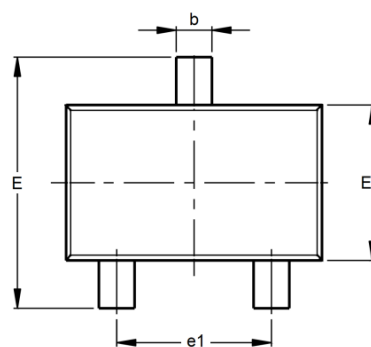
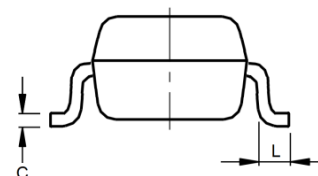
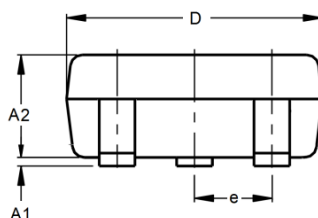
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## DIMENSIONS AND RECOMMENDED LAND PATTERN

Item	Min (mm)	Max (mm)
A1	0.08	0.20
A2	0.82	0.90
b	0.35	0.50
C	0.00	0.10
D	2.80	3.04
e	--	--
e1	1.80	2.00
E	2.20	2.60
E1	1.20	1.40
L	0.15	--
X	0.80	0.80
X1	1.35	1.35
Y	2.90	2.90
Y1	0.90	0.90
Y2	2.00	2.00



\*Specifications subject to change without notice.