

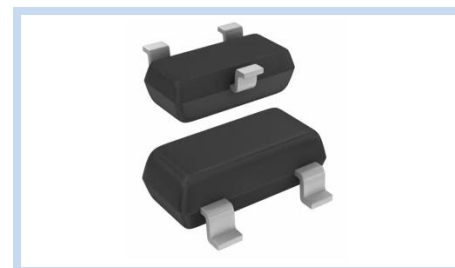
ESD Suppressor 24V 2-Unidirectional SOT-23

ME242U43S2355

MERITEK

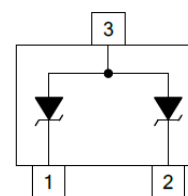
FEATURE

- IEC 61000-4-2 ESD: $\pm 15\text{KV}$ (Air) $\pm 8\text{KV}$ (Contact)
- ESD Protection for one Bidirectional line
- ESD Protection for two Unidirectional lines
- Low Clamping Voltage
- Low Leakage Current



APPLICATION

- Data Line Protection
- Industrial Controls
- Notebook Computers
- Set-Top Box
- Projection TV
- Cellular Handsets and Accessories



MAXIMUM RATINGS AND CHARACTERISTICS

Parameter	Symbol	Value	Unit
ESD Voltage (Contact discharge)	V_{ESD}	± 8	KV
ESD Voltage (Air discharge)		± 15	
Peak Pulse Current ($t_p=8/20\mu\text{s}$)	I_{PP}	5	A
Peak Pulse Power ($t_p=8/20\mu\text{s}$)	P_{PP}	300	W
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}	--	--	24	V
Reverse Breakdown Voltage	$I_{BR}=1\text{mA}$	V_{BR}	26.7	--	--	V
Reverse Leakage Current	$V_{RWM}=24\text{V}$	I_R	--	--	1	μA
Clamping Voltage	$I_{PP}=1\text{A}$, $t_p=8/20\mu\text{s}$	V_C	--	--	43	V
Off State Junction Capacitance	$V_{dc}=0$, $f=1\text{MHz}$	C_J	--	45	55	pF

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

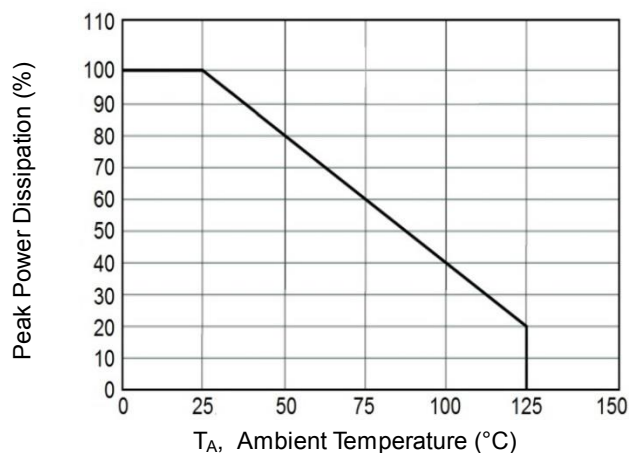
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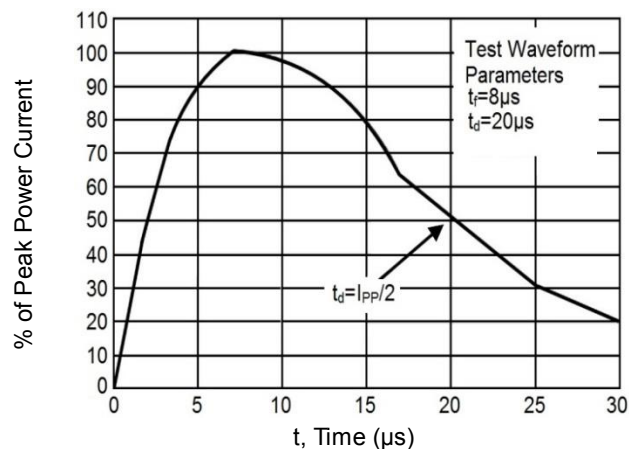
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CHARACTERISTIC CURVES

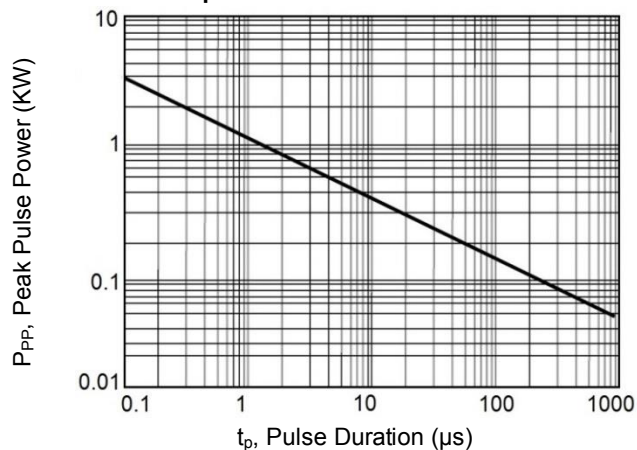
Power Derating Curve



Pulse Waveforms

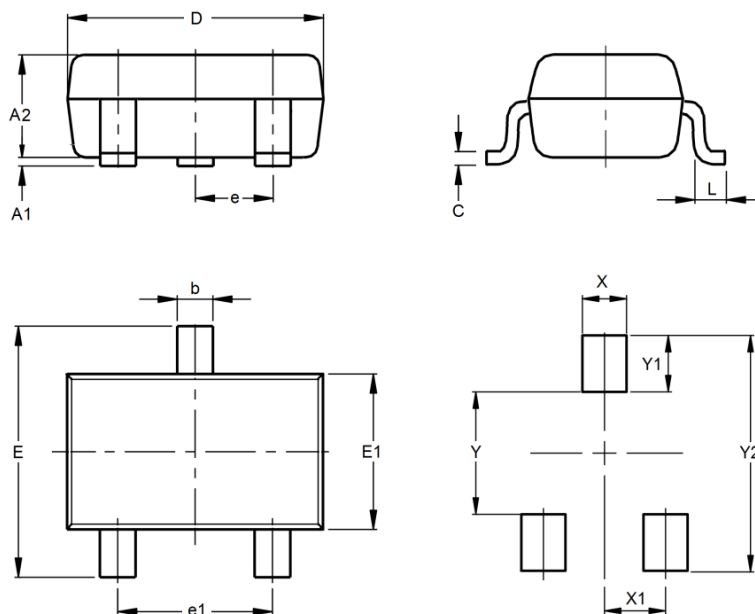


Non-Repetitive Peak Pulse vs. Pulse Time



DIMENSIONS AND RECOMMENDED LAND PATTERN

Item	Min (mm)	Max (mm)
A1	0.08	0.20
A2	0.81	1.20
b	0.30	0.50
C	0.00	0.10
D	2.70	3.10
e	--	--
e1	1.78	2.04
E	2.10	2.80
E1	1.20	1.60
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.