

# ESD Suppressor

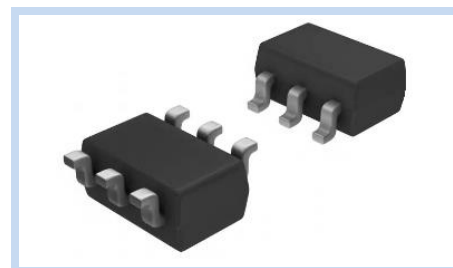
## 24V 5-Unidirectional SOT-23-6

ME245U40S236

MERITEK

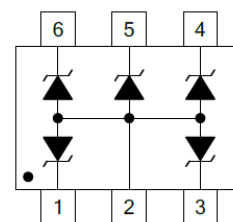
### FEATURE

- IEC 61000-4-2 ESD:  $\pm 30\text{KV}$  (Air)  $\pm 30\text{KV}$  (Contact)
- ESD Protection for five Unidirectional Channels
- Low Leakage Current
- Low Clamping Voltage
- Solid-State Silicon-Avalanche Technology



### APPLICATION

- Cellular Handsets and Accessories
- PDA's
- Notebooks, Desktops and Servers
- Portable Devices
- Peripherals



### 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 Power ( $t_p=8/20\mu s$ )	$P_{PP}$	350	W
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	--	$V_{RWM}$	--	--	24	V
Reverse Breakdown Voltage	$I_{BR}=1\text{mA}$	$V_{BR}$	26.7	--	--	V
Reverse Leakage Current	$V_R=24\text{V}$ , Each I/O pin	$I_R$	--	--	1	$\mu\text{A}$
Clamping Voltage	$I_{PP}=5\text{A}$ , $t_p=8/20\mu s$	$V_C$	--	--	40	V
	$I_{PP}=7\text{A}$ , $t_p=8/20\mu s$		--	--	50	
Off State Junction Capacitance	$V_{dc}=0$ , $f=1\text{MHz}$ , Between I/O pins	$C_J$	--	50	--	pF

Notes:

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

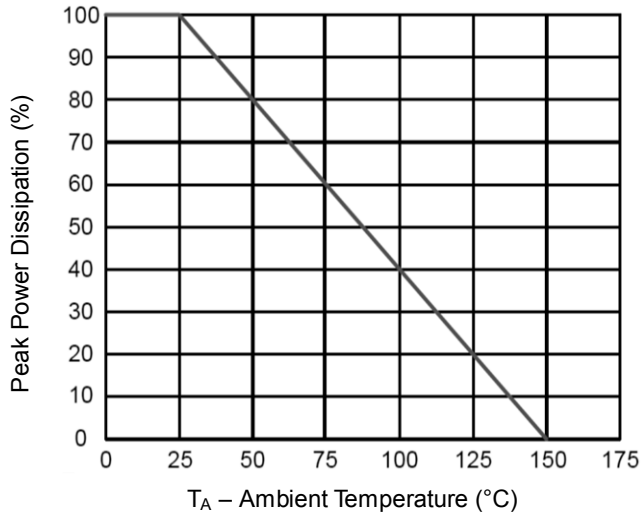
# ESD Suppressor 24V 5-Unidirectional SOT-23-6

ME245U40S236

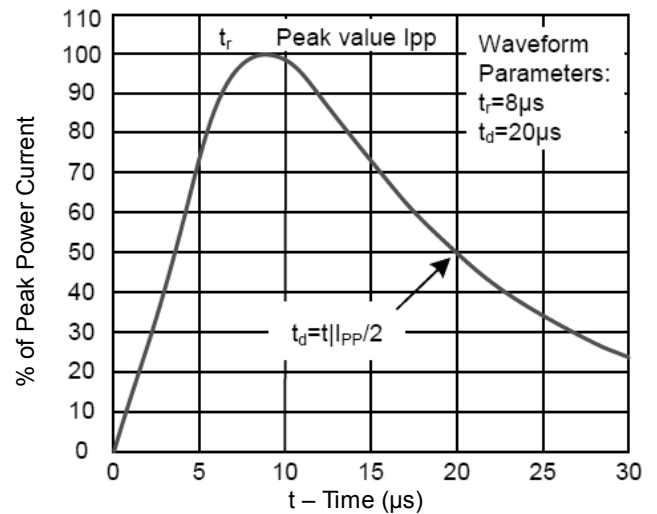
MERITEK

## CHARACTERISTIC CURVES

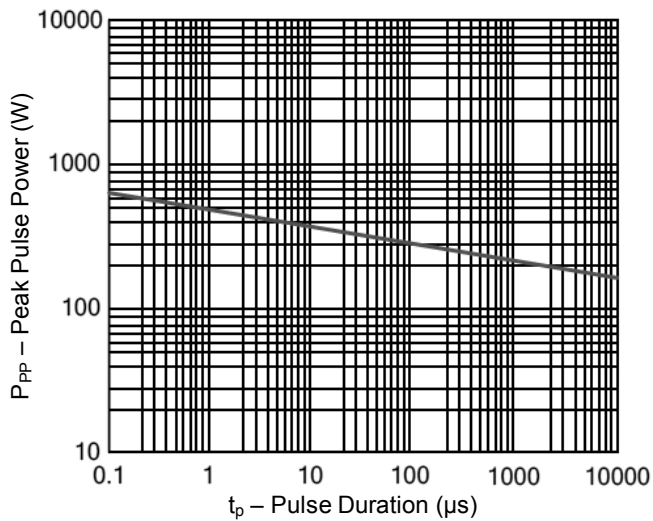
Power Derating Curve



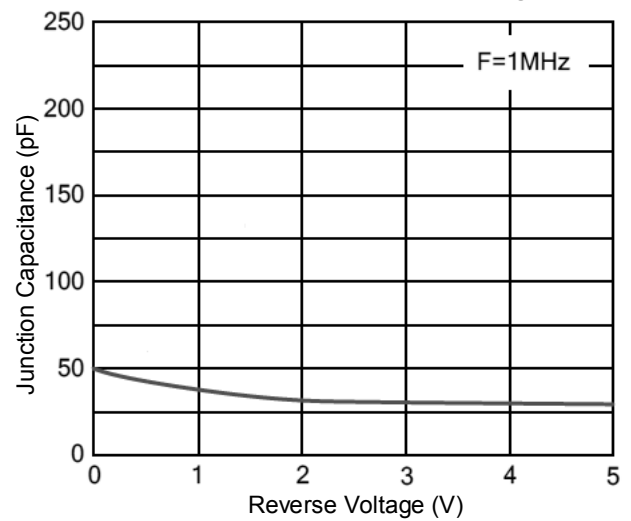
Pulse Waveforms



Non-Repetitive Peak Pulse vs. Pulse Time



Capacitance vs. Reverse Voltage



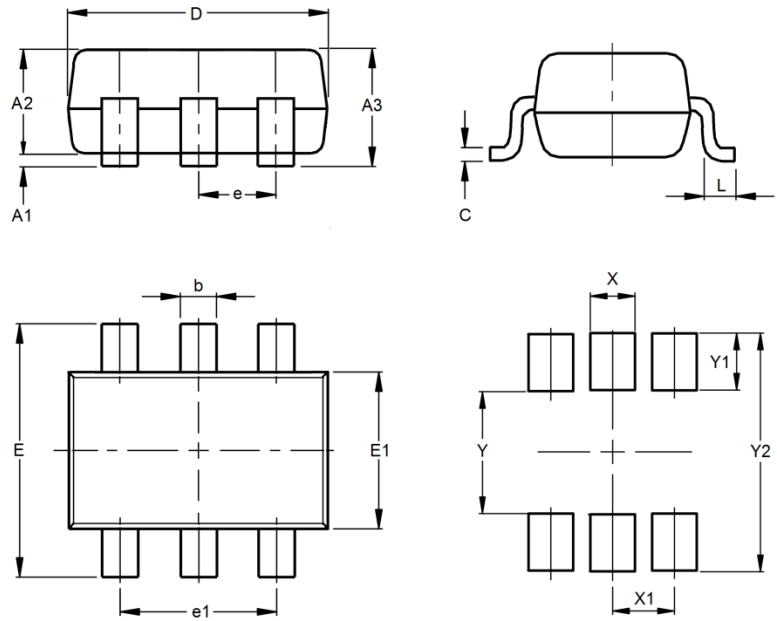
# ESD Suppressor 24V 5-Unidirectional SOT-23-6

ME245U40S236

MERITEK

## DIMENSIONS AND RECOMMENDED LAND PATTERN

Item	Min (mm)	Max (mm)
A1	0.15	0.15
A2	0.90	1.30
A3	1.45	1.45
b	0.30	0.50
C	0.08	0.22
D	2.80	3.00
e	0.93	0.97
e1	1.90	1.90
E	2.60	3.00
E1	1.50	1.70
L	0.30	0.60
Y	1.60	1.60
Y1	0.79	0.79
Y2	3.10	3.10
X	0.55	0.55
X1	0.94	0.94



\*Specifications subject to change without notice.