

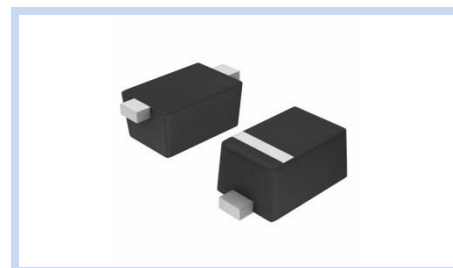
# ESD Suppressor 24V Unidirectional SOD-523

ME241U45S523

MERITEK

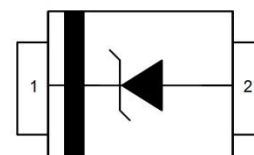
## FEATURE

- IEC 61000-4-2 ESD:  $\pm 20\text{KV}$  (Air)  $\pm 20\text{KV}$  (Contact)
- ESD Protection for one Unidirectional Channel
- Low Leakage Current
- Low Clamping Voltage
- Solid-State Silicon-Avalanche Technology



## APPLICATION

- Cellular Handsets & Accessories
- Cordless Phones
- Personal Digital Assistants (PDAs)
- Notebooks & Handhelds
- Portable Instrumentation
- Digital Cameras & MP3 Players



## MAXIMUM RATINGS AND CHARACTERISTICS

Parameter	Symbol	Value	Unit
ESD Voltage (Contact discharge)	$V_{ESD}$	$\pm 20$	KV
ESD Voltage (Air discharge)		$\pm 20$	
Peak Pulse Current ( $t_p=8/20\mu s$ )	$I_{PP}$	3	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	--	$V_{RWM}$	--	--	24	V
Reverse Breakdown Voltage	$I_{BR}=1\text{mA}$	$V_{BR}$	26	--	--	V
Reverse Leakage Current	$V_R=24\text{V}$	$I_R$	--	--	1	$\mu\text{A}$
Clamping Voltage	$I_{PP}=1\text{A}, t_p=8/20\mu s$	$V_C$	--	--	45	V
	$I_{PP}=3\text{A}, t_p=8/20\mu s$		--	--	56	
Off State Junction Capacitance	$V_{dc}=0, f=1\text{MHz}$	$C_J$	--	30	--	pF

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

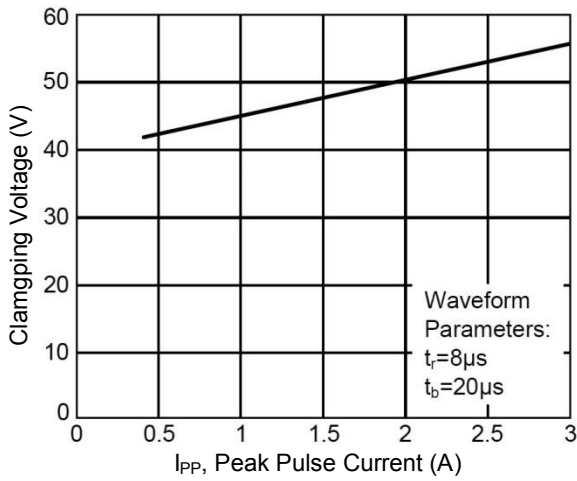
# ESD Suppressor 24V Unidirectional SOD-523

ME241U45S523

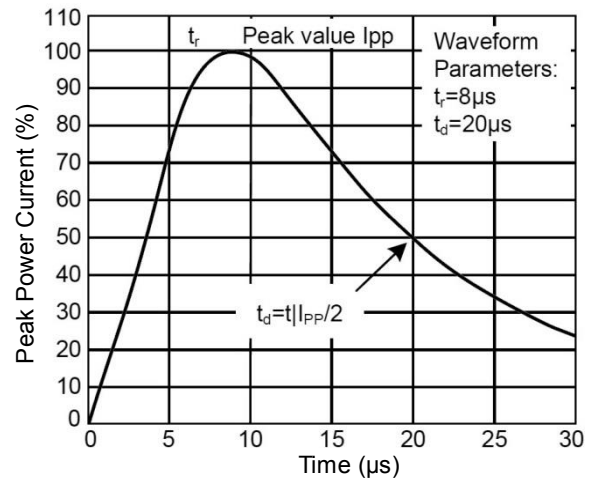
MERITEK

## CHARACTERISTIC CURVES

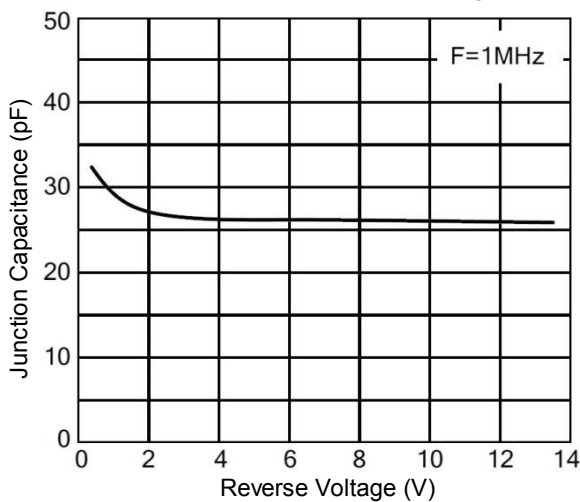
Clamping Voltage vs. Peak Pulse Current



Pulse Waveforms

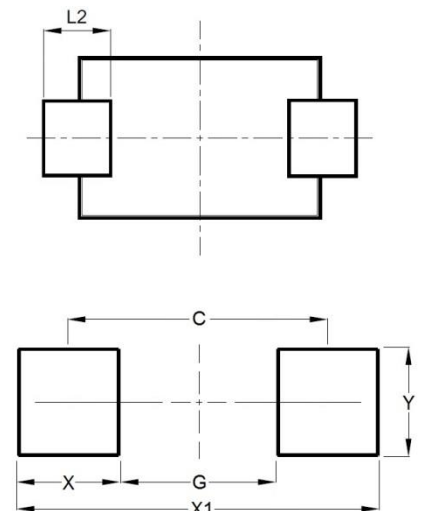
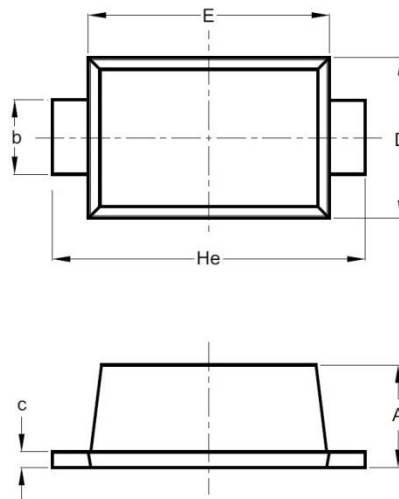


Capacitance vs. Reverse Voltage



## DIMENSIONS AND RECOMMENDED LAND PATTERN

Item	Min (mm)	Max (mm)
A	0.50	0.70
b	0.25	0.35
C	0.07	0.20
D	0.70	0.90
E	1.10	1.30
He	1.50	1.70
L2	0.15	0.25
C	1.40	1.40
G	0.80	0.80
X	0.60	0.60
X1	2.00	2.00
Y	0.70	0.70



\*Specifications subject to change without notice.