

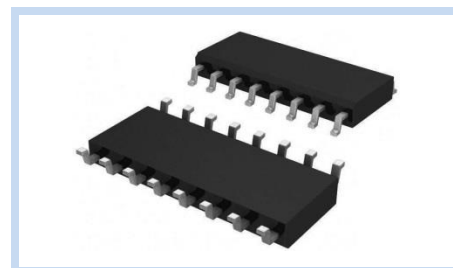
# ESD Suppressor 24V 8-Bidirectional SOIC-16

ME248B40SO16

MERITEK

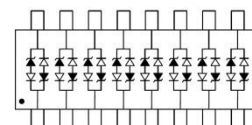
## FEATURE

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



## APPLICATION

- Wireless Communication Circuit
- WAN Equipment
- CSU/DSU
- Multi Plexers
- Routers
- ISP Equipment



## 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 ( $t_p=8/20\mu s$ )	$P_{PP}$	500	W
Operating & Storage Temperature Range	$T_J, T_{STG}$	-55~+150	$^{\circ}\text{C}$

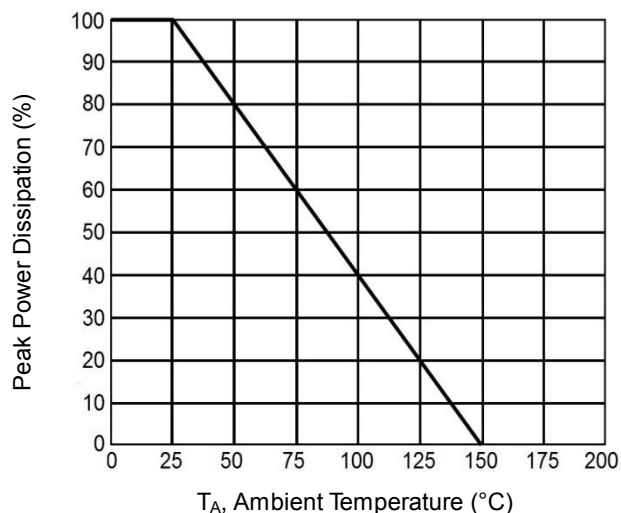
## ELECTRICAL CHARACTERISTICS

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	$I_{PP}=1\text{A}$ , $t_p=8/20\mu s$	$V_C$	--	--	40	V
	$I_{PP}=10\text{A}$ , $t_p=8/20\mu s$		--	--	57	
Off State Junction Capacitance	$V_{dc}=0$ , $f=1\text{MHz}$ , Between I/O pins and GND	$C_J$	--	--	15	pF

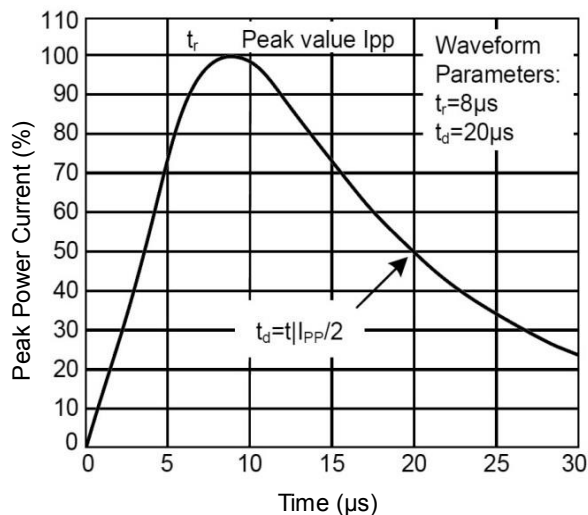
Notes:  $T_J=25^{\circ}\text{C}$  unless otherwise specified

## CHARACTERISTIC CURVES

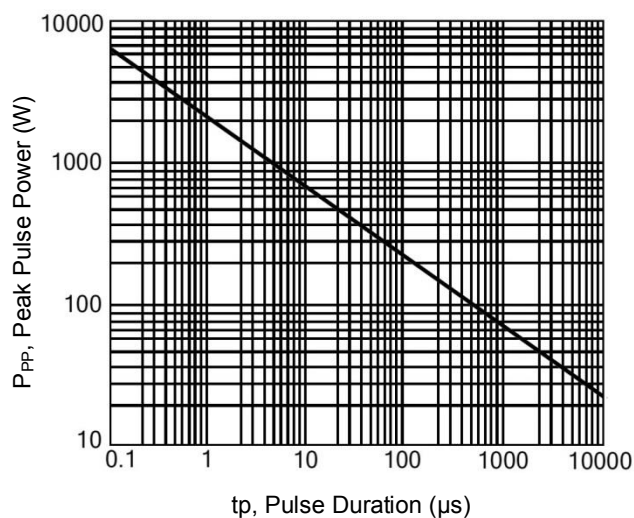
Derating Curve



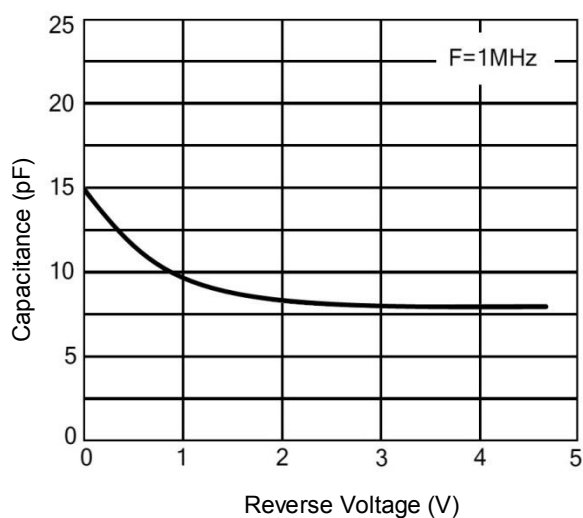
Pulse Waveforms



Non-Repetitive Peak Pulse vs. Pulse Time



Capacitance vs. Reverse Voltage



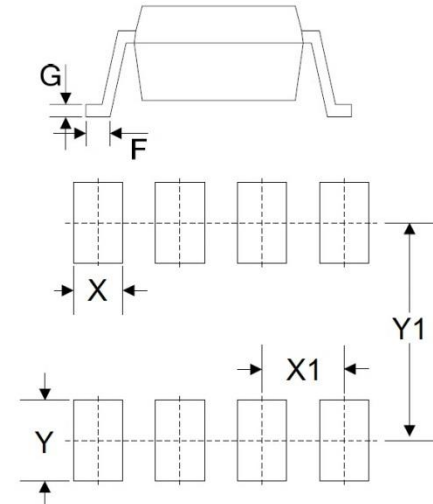
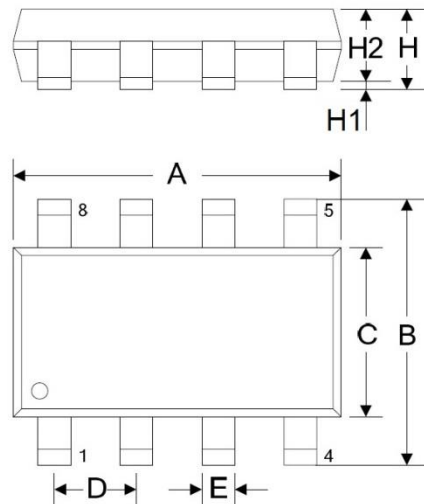
# ESD Suppressor 24V 8-Bidirectional SOIC-16

ME248B40SO16

MERITEK

## DIMENSIONS AND RECOMMENDED LAND PATTERN

Item	Min (mm)	Max (mm)
A	4.80	5.00
B	5.80	6.20
C	3.80	4.00
D	1.27	1.27
E	0.33	0.51
F	0.40	1.27
G	0.19	0.25
H	1.35	1.75
H1	0.10	0.25
H2	1.45	1.45
X	0.73	0.73
X1	1.27	1.27
Y	1.20	1.20
Y1	6.60	6.60



\*Specifications subject to change without notice.