

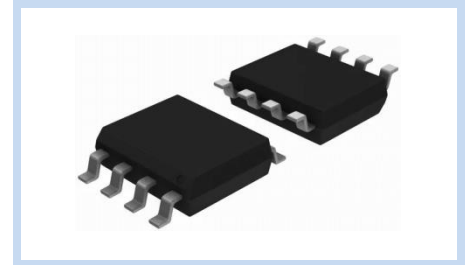
# ESD Suppressor 15V 8-Unidirectional SOIC-08

ME158U27S08

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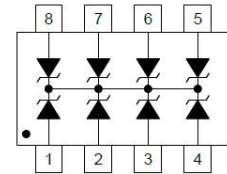
## FEATURE

- IEC 61000-4-2 ESD:  $\pm 15\text{KV}$  (Air)  $\pm 8\text{KV}$  (Contact)
- ESD Protection for eight Unidirectional Channels
- Low Leakage Current
- Low Capacitance and Clamping Voltages
- Solid-State Silicon-Avalanche Technology



## APPLICATION

- RS-232 and RS-422 Data Line Protection
- Set Top Box (STB) Protection
- Microprocessor Based Equipment
- LAN/WAN Equipment
- Notebooks, Desktops, Servers
- I<sup>2</sup>C Serial Ports



## MAXIMUM RATINGS AND CHARACTERISTICS

Parameter	Symbol	Value	Unit
ESD Voltage (Contact discharge)	$V_{ESD}$	$\pm 8$	KV
ESD Voltage (Air discharge)		$\pm 15$	
Peak Pulse Power ( $t_p=8/20\mu s$ )	$P_{PP}$	300	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	--	$V_{RWM}$	--	--	15	V
Reverse Breakdown Voltage	$I_{BR}=1\text{mA}$	$V_{BR}$	16.7	--	--	V
Reverse Leakage Current	$V_R=15\text{V}$ , Each I/O Pin	$I_R$	--	--	1	$\mu\text{A}$
Clamping Voltage	$I_{PP}=1\text{A}$ , $t_p=8/20\mu s$	$V_C$	--	--	27	V
Off State Junction Capacitance	$V_{dc}=0$ , $f=1\text{MHz}$ , Between I/O pins and GND	$C_J$	--	--	75	pF

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

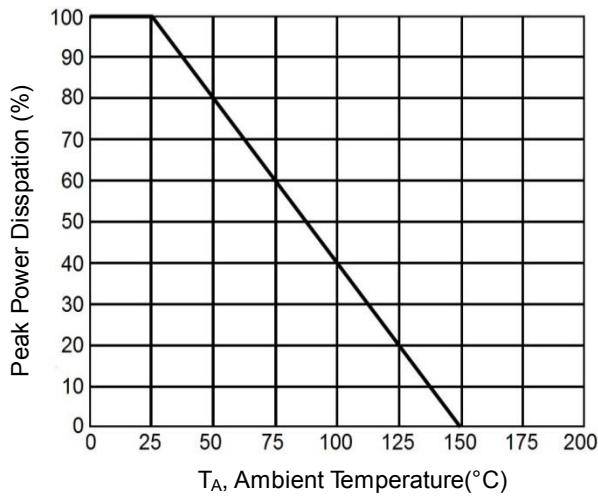
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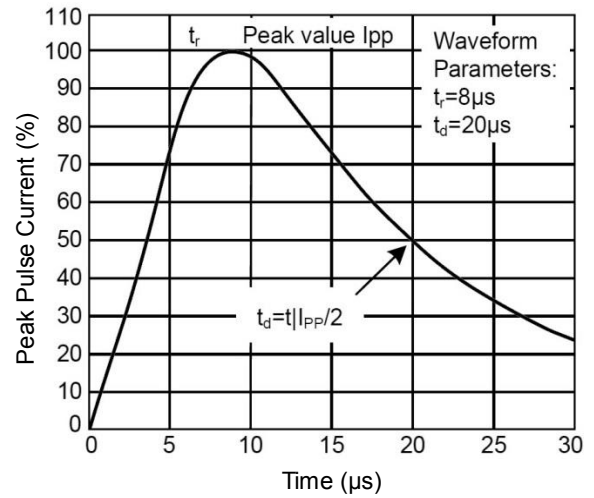
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## CHARACTERISTIC CURVES

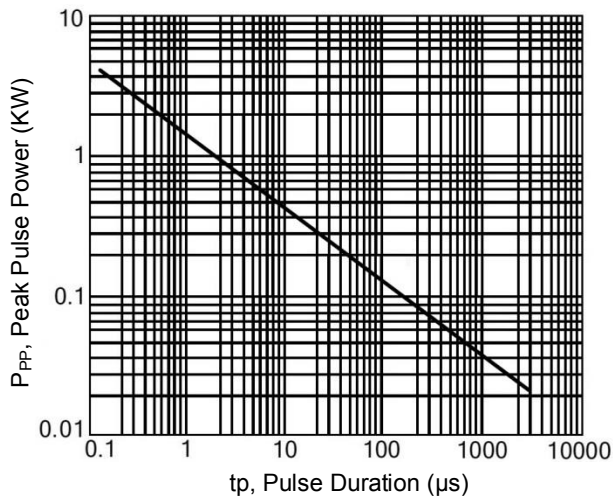
Derating Curve



Pulse Waveforms



Non-Repetitive Peak Pulse vs. Pulse Time



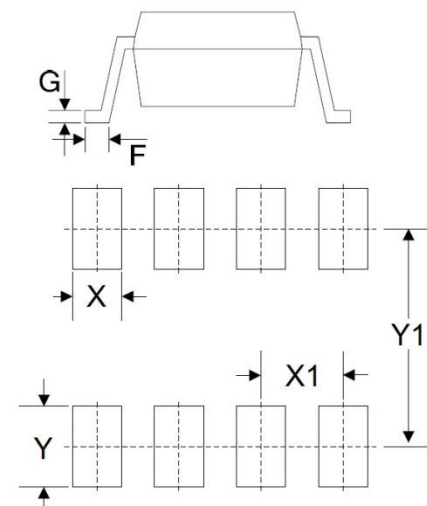
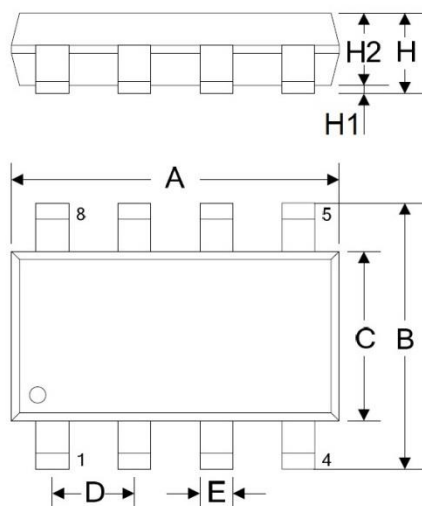
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## DIMENSIONS AND RECOMMENDED LAND PATTERN

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.