

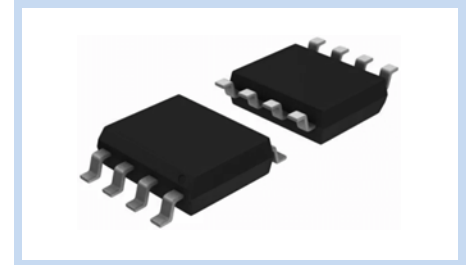
ESD Suppressor 5V 4-Bidirectional SOIC-08

ME54B9V8SO83

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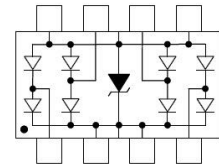
FEATURE

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



APPLICATION

- Firewire & USB Protection
- Set Top Box (STB) Protection
- Video Card (DVI) Protection
- IC BUS Protection
- Ethernet 10/100 Base T
- Micro-controller Line Protection



MAXIMUM RATINGS AND CHARACTERISTICS

Parameter	Symbol	Value	Unit
ESD Voltage (Contact discharge)	V_{ESD}	± 30	KV
ESD Voltage (Air discharge)		± 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}	--	--	5	V
Reverse Breakdown Voltage	$I_{BR}=1\text{mA}$	V_{BR}	6	--	--	V
Reverse Leakage Current	$V_R=5\text{V}$, Each I/O Pin	I_R	--	--	10	μA
Clamping Voltage	$I_{PP}=1\text{A}$, $t_p=8/20\mu s$	V_C	--	--	9.8	V
	$I_{PP}=10\text{A}$, $t_p=8/20\mu s$		--	--	13.5	
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

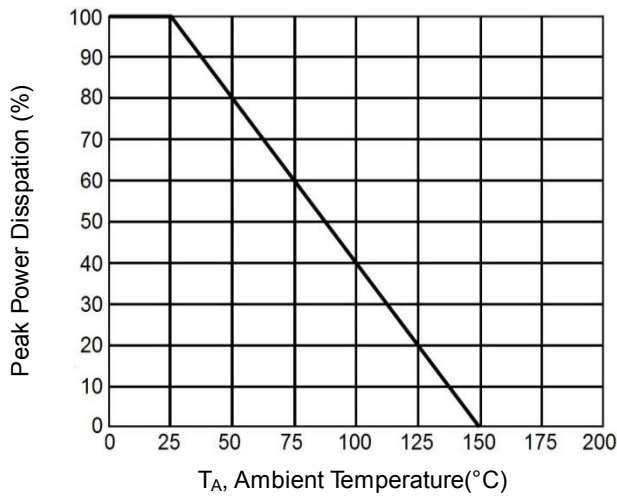
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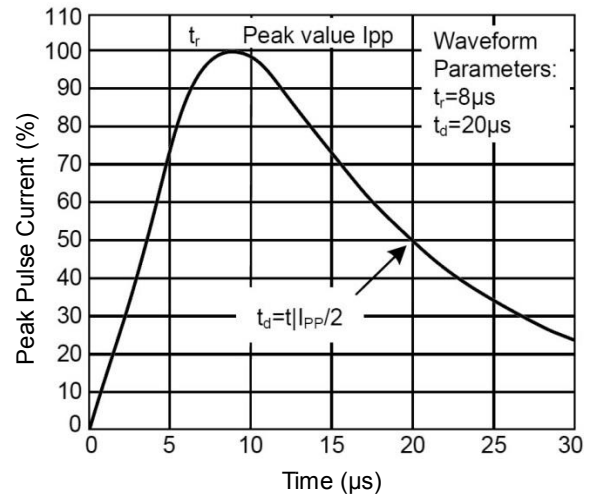
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CHARACTERISTIC CURVES

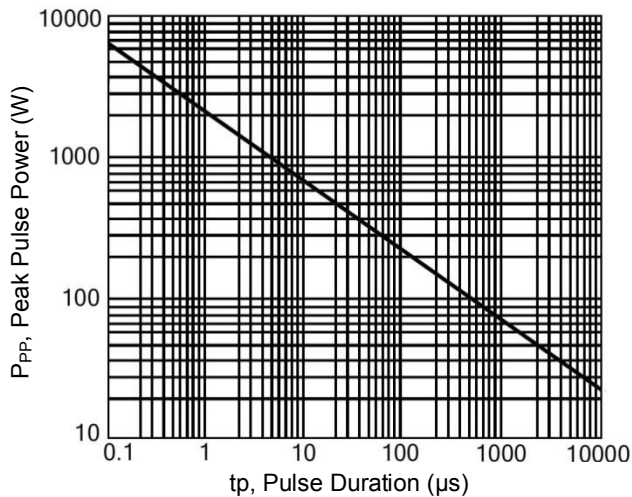
Derating Curve



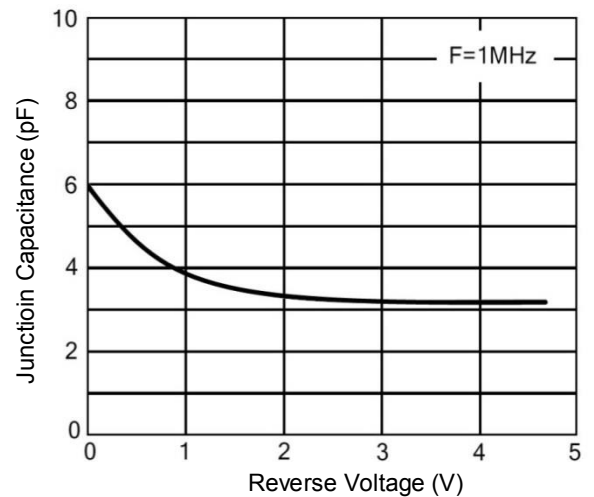
Pulse Waveforms



Non-Repetitive Peak Pulse vs. Pulse Time



Capacitance vs. Reverse Voltage



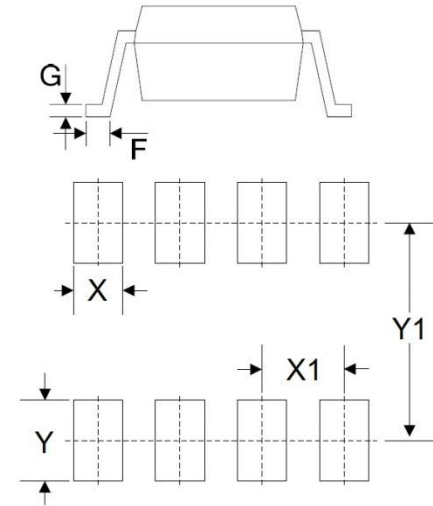
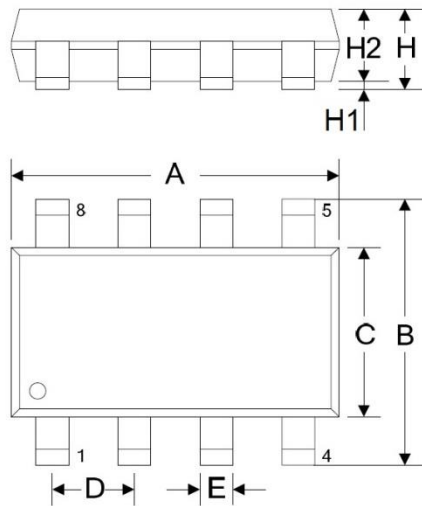
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DIMENSIONS AND RECOMMENDED LAND PATTERN

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.