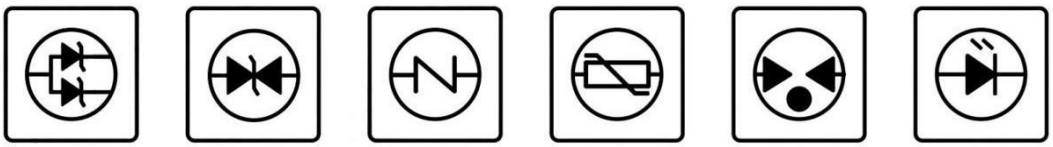
MSKSEMI 美森科
SEMICONDUCTOR



ESD9L5.0-MS

Product specification

ESD9L5.0-MS

1-Line Uni-directional ESD Protection Diode

General description

The ESD9L5.0-MS is designed to protect voltage sensitive components from ESD and transient voltage events. Excellent clamping capability, low leakage, and fast response time , make these parts ideal for ESD protection on designs where board space is at a premium.

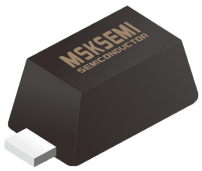
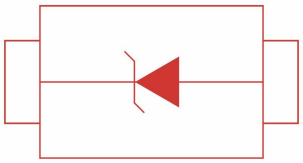
Features and benefits

- Low Capacitance 0.5 pF(Typ)
- Reverse stand-off voltage: 5V Max
- Low leakage current: nA Level
- Low Clamping Voltage
- Response time is typically < 1 ns
- IEC61000−4−2 Level 4 ESD Protection

Application information

- 10/100/1000 Mbit/s Ethernet
- FireWire
- High- speed data lines
- SubscriberIdentityModule(SIM) cardprotection
- Cellularhandsetsandaccessories
- Portableelectronics
- Communicationsystems
- Computersandperipherals
- Audioandvideoequipment
- Antennaprotection

Reference News

SOD-923	GRAPHIC SYMBOL	MARKING
		D*

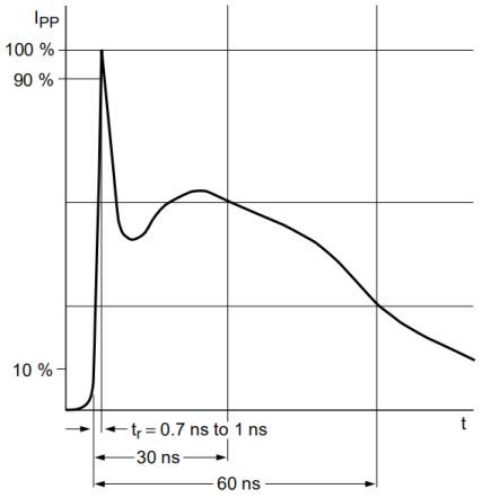
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Maximum Ratings (T_{OP} = 25°C, unless otherwise specified)

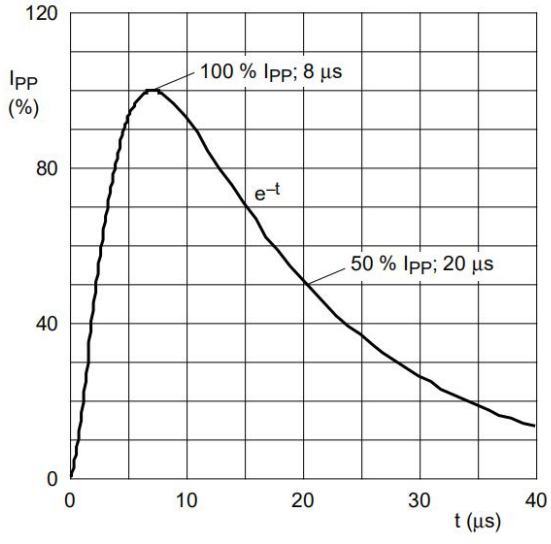
Parameter	Symbol	Value	Unit
Peak Pulse Power (tp = 8/20μs)	P_{PPM}	60	W
Peak Pulse Current (tp = 8/20μs)	I_{PPM}	4	A
ESD voltage IEC 61000-4-2 (air discharge)	V_{ESD}	20	kV
ESD voltage IEC 61000-4-2 (contact discharge)	V_{ESD}	15	kV
Maximum lead temperature for soldering during 10s	T_L	260	°C
Storage Temperature Range	T_{stg}	-55 to +150	°C
Operating Temperature Range	T_{OP}	-40 to +125	°C
Maximum junction temperature	T_j	150	°C

Electrical Characteristics (T_{OP} = 25°C, unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Condition
Reverse Working Voltage	V_{RWM}	--	--	5.0	V	
Breakdown Voltage	V_{BR}	6.5	--	9.0	V	I_T=1mA
Leakage Current ILeak	I_R	--	--	100	nA	V_{RWM}=5V
Clamping Voltage	V_C	--	--	15.0	V	I_{PP}=4A,Tp=8/20μs
Junction Capacitance	C_J	--	0.5	0.6	pF	V_R=0V, f=1MHz



IEC61000−4−2 Waveform

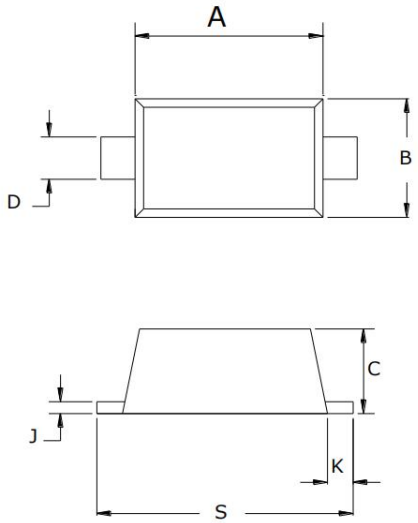


IEC 61000-4-5 Waveform(8/20μs pulse)

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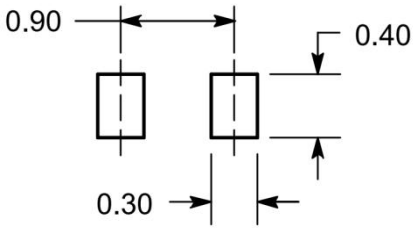
PackageOutlineDimensions

SOD923



SYMBOL	MILLIMETERS	
	MIN	MAX
A	0.74	0.86
B	0.54	0.66
C	0.35	0.45
D	0.14	0.26
K	0.04	0.16
S	0.95	1.10

SolderingFootprint (mm)



Order information

Orderable Device	Package	Packing Option
ESD9L5.0-MS	SOD-923	8000PCS

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