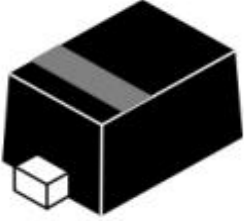


ESD	Features
<p style="text-align: center;"><u>SOD923</u></p> 	<ul style="list-style-type: none"> <li>• Low Capacitance 0.5 pF(Typ)</li> <li>• Reverse stand-off voltage: 5V Max</li> <li>• Low leakage current: nA Level</li> <li>• Low Clamping Voltage</li> <li>• Response time is typically &lt; 1 ns</li> <li>• IEC61000-4-2 Level 4 ESD Protection</li> </ul>

**General description**

The ESD9L5.0 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.


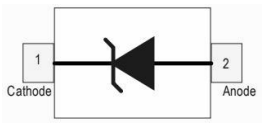
**Application information**

- 10/100/1000 Mbit/s Ethernet
- FireWire
- High- speed data lines
- Subscriber Identity Module (SIM) card protection
- Cellular handsets and accessories
- Portable electronics
- Communication systems
- Computers and peripherals
- Audio and video equipment
- Antenna protection

**Ordering information**

Device	Package	Marking	Packaging
ESD9L5.0	SOD923	D	8000/Tape & Reel

## Schematic & Pin configuration

Simplified outline	Graphic symbol
	

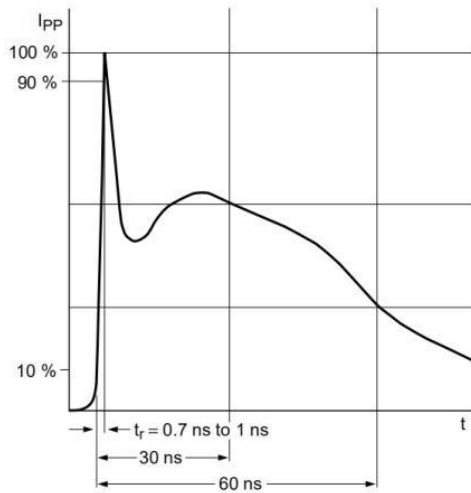
### Maximum Ratings ( $T_{OP} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power ( $t_p = 8/20\ \mu\text{s}$ )	$P_{PPM}$	60	W
Peak Pulse Current ( $t_p = 8/20\ \mu\text{s}$ )	$I_{PPM}$	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	$^{\circ}\text{C}$
Storage Temperature Range	$T_{stg}$	-55 to +150	$^{\circ}\text{C}$
Operating Temperature Range	$T_{OP}$	-40 to +125	$^{\circ}\text{C}$
Maximum junction temperature	$T_j$	150	$^{\circ}\text{C}$

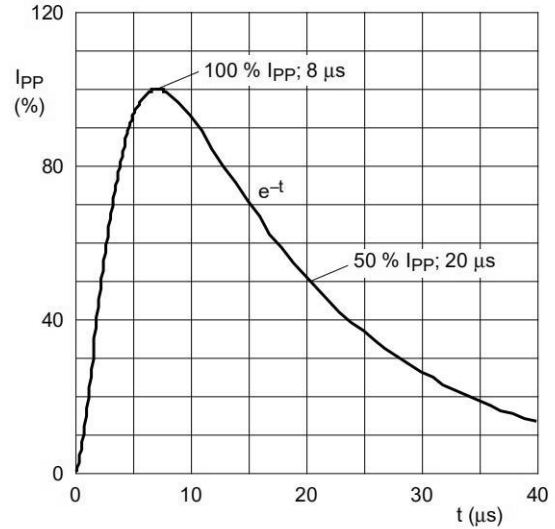
### Electrical Characteristics ( $T_{OP} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified)

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

Typical Electrical and Thermal Characteristics (Curves)



IEC61000-4-2 Waveform



IEC 61000-4-5 Waveform ( 8/20μs pulse)

Package Outline Dimensions

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

Soldering Footprint (mm)

