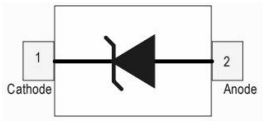
ESD9L5.0

1- Line Uni-directional ESD Protection Diode S0D923

Schematic & Pin configuration

Simplified outline	Graphic symbol
	

General description

The ESD9LS.O 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: SV 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
- 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

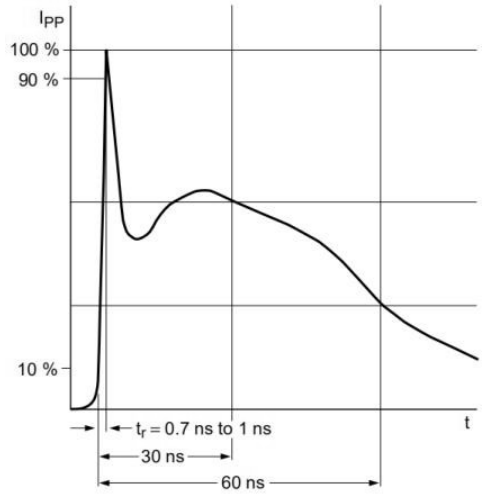
Device	Package	Marking	Packaging
ESD9LS.O	S0D923	D	8000/Tape & Reel

Maximum Ratings (ToP = 25 °c, unless otherwise specified)

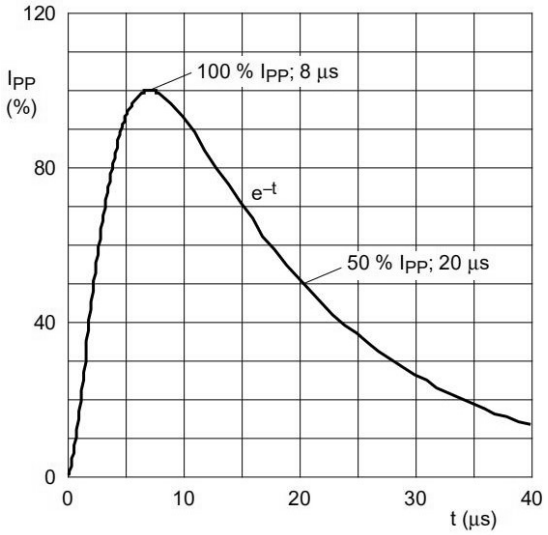
Parameter	Symbol	Value	Unit
Peak Pulse Power (tp = 8/20 μ s)	PPPM	60	W
Peak Pulse Current (tp = 8/20 μ s}	IPPM	4	A
ESD voltage IEC 61000-4-2 (air discharge)	VESD	20	kV
ESD voltage IEC 61000-4-2 (contact discharge)	VEsD	15	kV
Maximum lead temperature for soldering during 10s	TL	260	oc
Storage Temperature Range	Tstg	-55 to +150	oc
Operating Temperature Range	Top	-40 to +125	oc
Maximum junction temperature	T	150	oc

Electrical Characteri. tics (ToP = 25 °C, uunnlleesss ootherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Condition
Reverse Working Voltage	VRwM			5.0	V	
Breakdown Voltage	VBR	6.5		9.0	V	|T=1mA
Leakage Current Ileak	IR			100	nA	VRwM=SV
Clamping Voltage	Ve			15.0	V	lpp=4A,Tp=8/20μs
Junction Capacitance	CJ		0.5	0.6	pF	VR=OV, f=IMHz



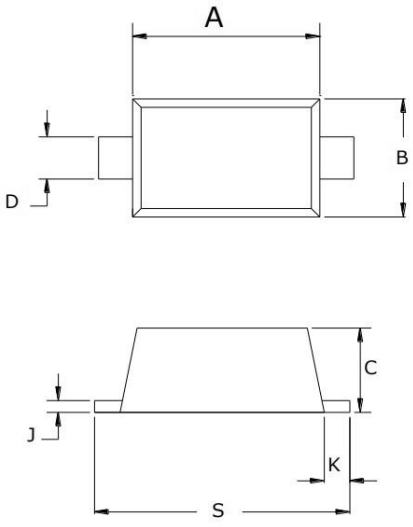
IEC61000-4-2 Waveform



IEC 61000-4-5 Waveform(8/20μs pulse)

Package Outline Dimensions

S0D923



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)