TECH PUBLIC
台舟电子

ESD9L5.0ST5G-P

Low Capacitance 1-Line Uni-directional Diode

www.sot23.com.tw

Features

- Ultra low capacitance: 0.5pF typical
- Ultra low leakage: nA level
- Low operating voltage: 3.3V
- Low clamping voltage
- 2-pin leadless package
- Complies with following standards:
- – IEC 61000-4-2 (ESD) immunity test
  Air discharge: ±30kV
  Contact discharge: ±30kV
- – IEC61000-4-5 (Lightning)4A (8/20μs)
- RoHS Compliant
- Lead Finish: NiPdAu

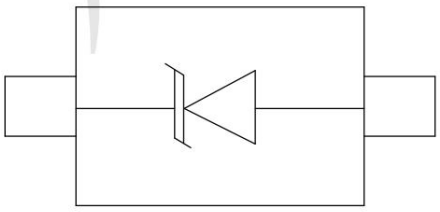
Mechanical Characteristics

- Package: SOD-923 (0402)
- Lead Finish: Matte Tin
- Case Material: "Green" Molding Compound.
- Moisture Sensitivity: Level 3 per J-STD-020
- Terminal Connections: See Diagram Below
- Shipping Qty : Or 10000pcs/7Inch Tape & Reel

Applications

- Smart Phone and Tablet PC
- TV and Set Top Box
- Wearable Devices
- PDA

Dimensions and Pin Configuration



Marking: X

SOD923

Absolute Maximum Ratings (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	Ppk	60	W
Peak Pulse Current (8/20μs)	Ipp	4	A
ESD per IEC 61000−4−2 (Air) ESD per IEC 61000−4−2 (Contact)	V_{ESD}	±30 ±30	kV
Operating Temperature Range	T_J	−55 to +125	°C
Storage Temperature Range	Tstg	−55 to +150	°C

Electrical Characteristics (TA=25°C unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	V_{RWM}			3.3	V	
Breakdown Voltage	V_{BR}	5			V	I_T = 1mA
Reverse Leakage Current	I_R			0.08	uA	V_{RWM} = 3.3V
Clamping Voltage	Vc			8	V	Ipp=1A(8x 20us pulse)
Clamping Voltage	Vc			14	V	Ipp=4A(8x 20us pulse)
Junction Capacitance	C_J		0.5		pF	VR = 0V, f = 1MHz

Characteristic Curves

Fig1. 8/20μs Pulse Waveform

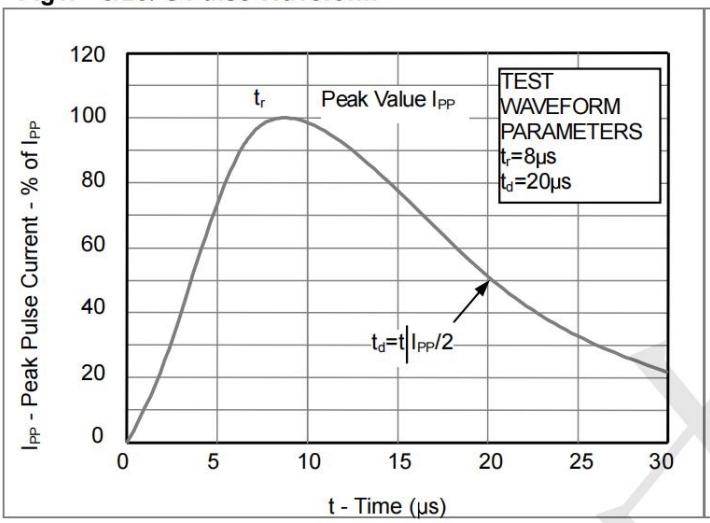


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

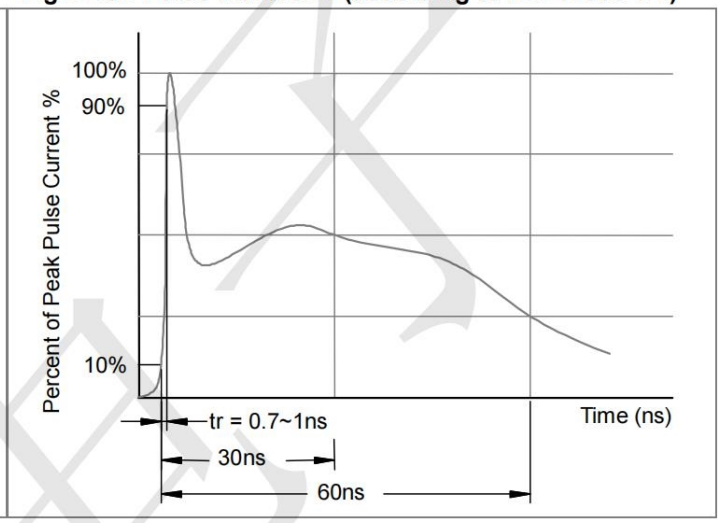
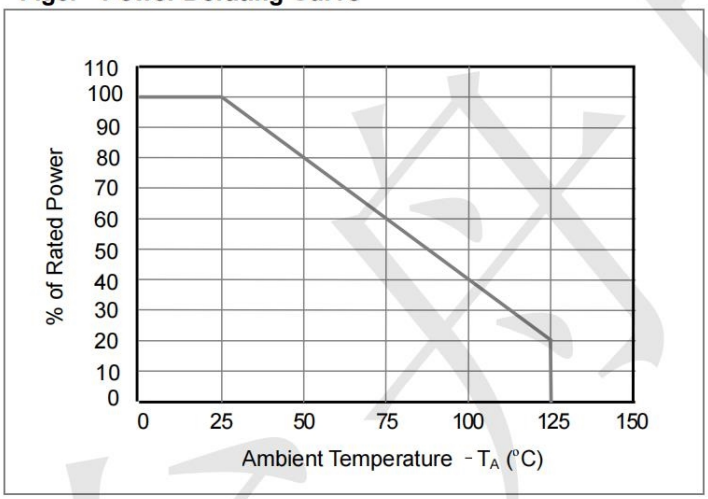
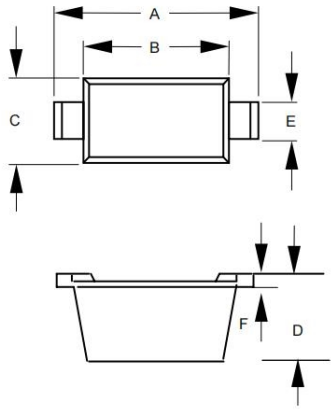


Fig3. Power Derating Curve

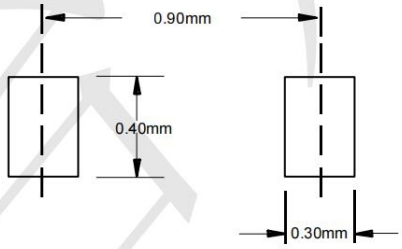


Outline Drawing - SOD-923(0402)



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.037	.041	0.95	1.05	
B	.030	.033	0.75	0.85	
C	.022	.026	0.55	0.65	
D	.014	.017	0.36	0.43	
E	.006	.010	0.15	0.25	
F	.003	.007	0.07	0.17	

Land Pattern - SOD-923(0402)



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FDC6301N-TP SI3932DV TPDMG6602SVT TPESD0402G08V FDMS7670AS-TP LTH7 TPAPX809S-31SA TPS7B6950DBVR-TP ESD5B5.0ST1G-P SN7002W TPADM809SAKSZ TPZVN3320FTA TPESD5311N TPGC12C-1 BSN20W DMP6350S TPB1A30-123 TPD1213A-02SM TPESD0504S6-A TPZXMP3A13FTA DDTA143ZCA IRFR2405TRPBF-TP TPB05A40-323 TPFMMT493 TPS3809L30DBVR-TP TPWSB5557Z TPSPX3819M5-L-3-3 BV15C QM3003J-TP TPADM809LAKSZ