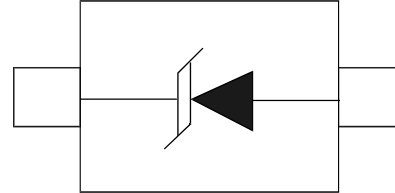


Features

- Unidirectional ESD protection of one line
- Low diode capacitance: $C_d = 34 \text{ pF}$
- Low clamping voltage: $V_{CL} = 11 \text{ V}$
- Very low leakage current: $I_{RM} = 100 \text{ nA}$
- ESD protection up to 30 kV
- IEC 61000-4-2; level 4 (ESD)
- AEC-Q101 qualified



Applications

- Computers and peripherals
- Audio and video equipment
- Cellular handsets and accessories
- Communication systems
- Subscriber Identity Module (SIM) card protection
- Portable electronics
- FireWire
- High-speed data lines

MACHANICAL DATA

- SOD-523 package
- Flammability Rating: UL 94V-0
- Packaging: Tape and Reel
- High temperature soldering guaranteed: 260°C/10S

Quick reference data

$T_{amb} = 25 \text{ }^\circ\text{C}$ unless otherwise specified.

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
V_{RWM}	reverse standoff voltage		-	-	3.3	V
C_d	diode capacitance	$f = 1 \text{ MHz}; V_R = 0 \text{ V}$	-	34	40	pF

Limiting values

In accordance with the Absolute Maximum Rating System (IEC 60134).

Symbol	Parameter	Conditions	Min	Max	Unit
P _{PP}	peak pulse power	t _p = 8/20 μs	[1][2] -	45	W
I _{PP}	peak pulse current	t _p = 8/20 μs	[1][2] -	4.5	A
T _j	junction temperature		-	150	°C
T _{amb}	ambient temperature		-55	+150	°C
T _{stg}	storage temperature		-65	+150	°C

[1] Non-repetitive current pulse 8/20 μs exponential decay waveform according to IEC 61000-4-5.

[2] Measured from pin 1 to pin 2.

ESD maximum ratings

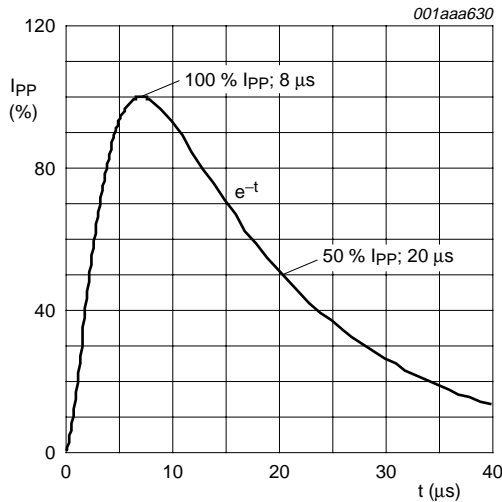
T_{amb} = 25 °C unless otherwise specified.

Symbol	Parameter	Conditions	Min	Max	Unit
V _{ESD}	electrostatic discharge voltage	IEC 61000-4-2 (contact discharge)	[1] -	30	kV
		machine model	-	400	V
		MIL-STD-883 (human body model)	-	10	kV

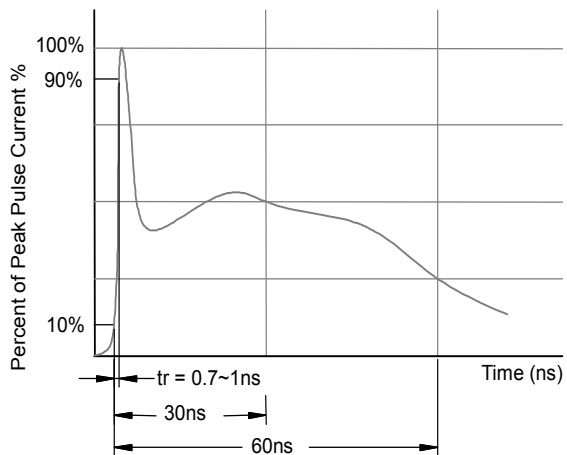
[1] Device stressed with ten non-repetitive ESD pulses.

ESD standards compliance

Standard	Conditions
IEC 61000-4-2; level 4 (ESD)	> 15 kV (air); > 8 kV (contact)
MIL-STD-883; class 3 (human body model)	> 4 kV



8/20 μs pulse waveform according to IEC 61000-4-5



ESD pulse waveform according to IEC 61000-4-2

Characteristics

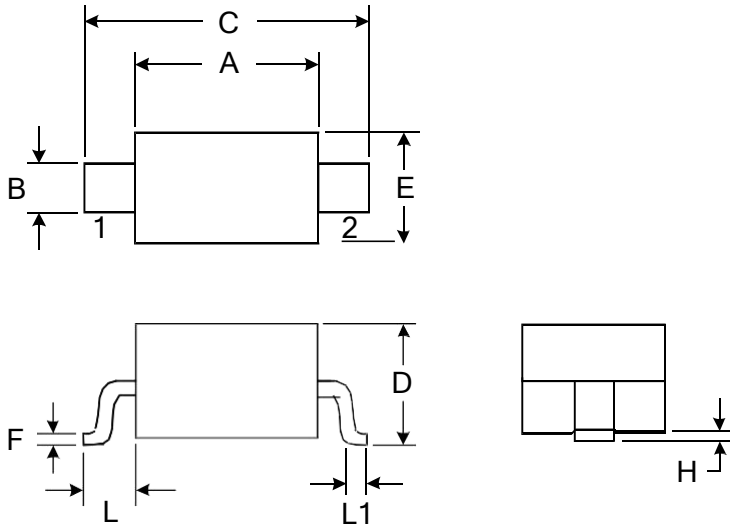
$T_{amb} = 25\text{ }^{\circ}\text{C}$ unless otherwise specified.

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
V_{RWM}	reverse standoff voltage		-	-	3.3	V
I_{RM}	reverse leakage current	$V_{RWM} = 3.3\text{ V}$	-	100	300	nA
V_{BR}	breakdown voltage	$I_R = 5\text{ mA}$	5.3	5.6	6.0	V
C_d	diode capacitance	$f = 1\text{ MHz};$ $V_R = 0\text{ V}$	-	34	40	pF
V_{CL}	clamping voltage	[1][2]				
		$I_{PP} = 1\text{ A}$	-	-	8	V
		$I_{PP} = 4.5\text{ A}$	-	-	11	V
r_{dif}	differential resistance	$I_R = 5\text{ mA}$	-	-	30	Ω
V_F	forward voltage	$I_F = 200\text{ mA}$	-	-	1.2	V

[1] Non-repetitive current pulse 8/20 μs exponential decay waveform according to IEC 61000-4-5.

[2] Measured from pin 1 to pin 2.

Outline Drawing - SOD-323



DIMENSIONS				
SYMBOL	MILLIMETER		INCHES	
	MIN	MAX	MIN	MAX
A	1.600	1.800	0.063	0.071
B	0.250	0.350	0.010	0.014
C	2.500	2.700	0.098	0.106
D		1.000		0.039
E	1.200	1.400	0.047	0.055
F	0.080	0.150	0.003	0.006
L	0.475 REF		0.019REF	
L1	0.250	0.400	0.010	0.016
H	0.000	0.100	0.000	0.004

Marking



Ordering information

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