
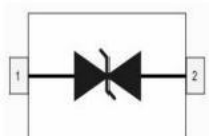




1-Line Bidirectional ESD Protection Diode

SOD323

Schematic & Pin configuration

Simplified outline	Graphic symbol
	

General description

Low capacitance bidirectional ElectroStatic Discharge(ESD)protection diode in a ultra-small and flat lead SOD323 plastic package designed to protect one signal line from the damage caused by ESD and other transients.

Features and benefits

- Ultra Low Capacitance 0.35 pF(Typ)
- Reverse stand-off voltage:5V Max
- Low leakage current:nA Level
- Response time is typically<1 ns
- IEC61000-4-2 Level 4 ESD Protection
- RoHS compliant

Application information

- High-speed data lines
- Smart phones
- Display Ports
- MDDI Ports
 - USB Ports
- Digital Video Interface (DVI)
- PCI Express and Serial SATA Ports

Ordering information

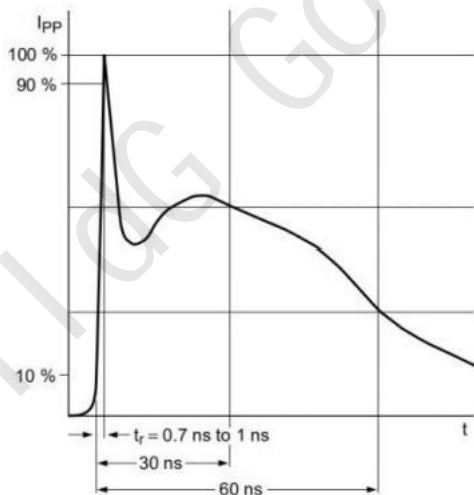
Device	Package	Marking	Packaging
FSD31L5.0C	SOD323	5C	3000/Tape &Reel

Maximum Ratings (Top=25 °C, unless otherwise specified)

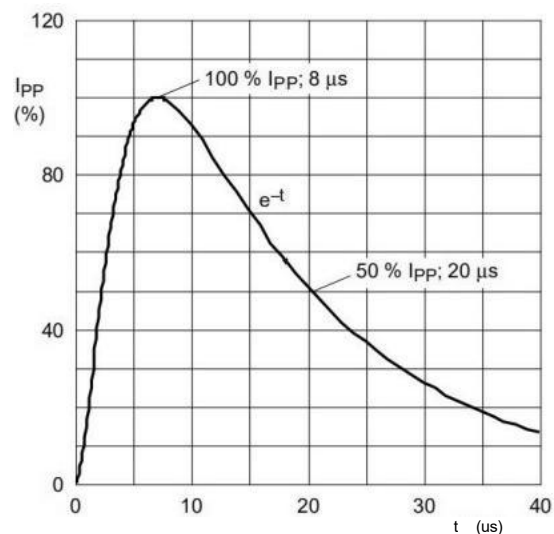
Parameter	Symbol	Value	Unit
Peak Pulse Power (tp=8/20 μs)	PppM	80	W
Peak Pulse Current (tp=8/20 μs)	IppM	4	A
ESD voltage IEC 61000-4-2 (air discharge)	VESD	20	kV
ESD voltage IEC 61000-4-2 (contact discharge)	VESD	15	kV
Maximum lead temperature for soldering during 10s	TL	260	°C
Storage Temperature Range	Tstg	-55 to +150	°C
Operating Temperature Range	Top	-40 to +125	°C

Electrical Characteristics (Top=25 °C, unless otherwise specified)

Parameter	Symbo	Min	Typ	Max	Unit	Condition
Reverse Working Voltage	VRWM			5.0	V	
Breakdown Voltage	VBR	6.2		8.5	V	I _r =1mA
Leakage Current I _{Leak}	I _r			100	nA	VRWM=5.0V
Clamping Voltage	V _c			20.0	V	I _{pp} =4A, T _p =8/20 μs
Junction Capacitance	C _J		0.35	0.45	pF	V _r =0V, f=1MHz



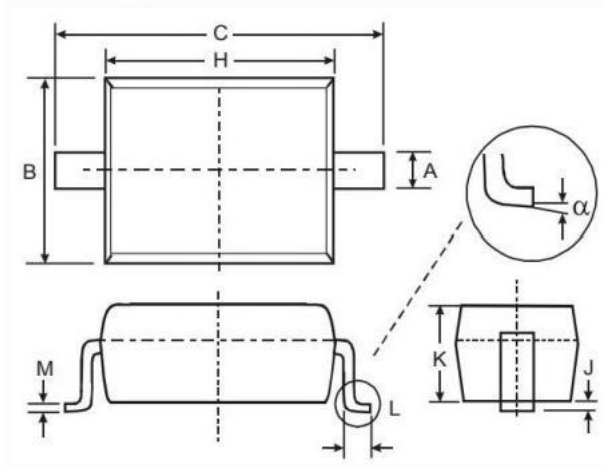
IEC61000-4-2 Waveform



IEC 61000-4-5 Waveform(8/20μs pulse)

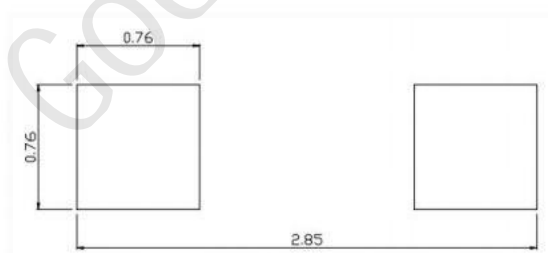
Package Outline Dimensions

SOD323



SYMBOL	MILLIMETERS	
	MIN	MAX
A	0.25	0.35
B	1.20	1.40
C	2.40	2.70
H	1.60	1.80
J	0.01	0.15
K	0.80	1.00
L	0.20	0.40
M	0.08	0.15
a	0°	8°

Soldering Footprint (mm)



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