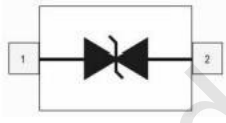
1-Line Bidirectional ESD Protection Diode SOD523

Schematic &Pin configuration

Simplified outline	Graphic symbol
	

General description

The ESD5B5.0C 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

·Reverse stand-off voltage:5V Max
·Low leakage current:nA Level
·Low Clamping Voltage:Vc<10V @Ipp=30A
·Response time is typically<1 ns
·ESD Protection:30kV(air)/30kV(contact)(IEC61000-4-2)
·RoHS compliant

Application information

- Cell Phone Handsets and Accessories

·Microprocessor based equipment
·Personal Digital Assistants (PDA's)
·Notebooks,Desktops,and Servers

Ordering information

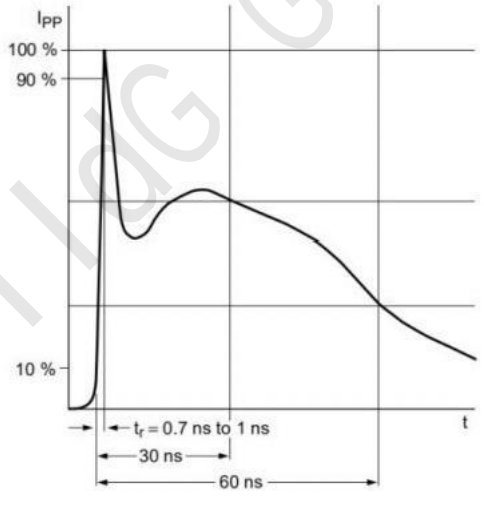
Device	Package	Marking	Packaging
ESD5B5.0C	SOD523	CC	3000/Tape &Reel

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

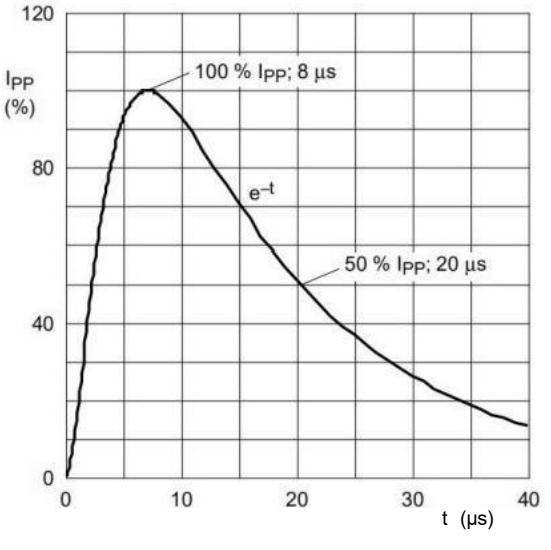
Parameter	Symbo	Value	Unit
Peak Pulse Power(tp=8/20μs)	PpPM	300	W
Peak Pulse Current (tp=8/20 μs)	lpPM	30	A
Maximum lead temperature for soldering during 10s	TL	260	°℃
Storage Temperature Range	Tstg	-55 to +150	℃
Operating Temperature Range	Top	-40 to +125	℃
Maximum junction temperature	Tj	150	℃
ESD voltage IEC 61000-4-2 (air discharge)	VEsD	30	kV
ESD voltage IEC 61000-4-2 (contact discharge)	VESD	30	kV

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	5.6			V	IT=1mA
Leakage Current ILeak	lk			100	nA	VRwM=5V
Clamping Voltage	Vc			10.0	V	lpp=30A, Tp=8/20μs
Junction Capacitance	Cj		65	80	pF	Vr=0V, f=1MHz



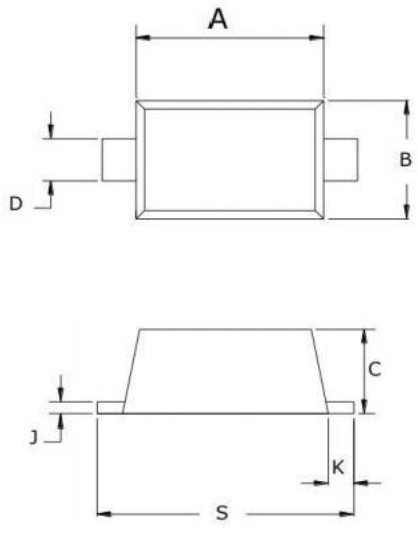
IEC61000-4-2 Waveform



IEC 61000-4-5 Waveform(8/20μs pulse)

Package Outline Dimensions

SOD523



SYMBOL	Dimensions In Millimet	
	MIN	MAX
A	1.10	1.30
B	0.70	0.90
C	0.50	0.70
D	0.25	0.35
J	0.07	0.20
K	0.15	**0.25**
S	1.50	**1.70**

Soldering Footprint (mm)