



Simplified outline



Graphic symbol



General description

Unidirectional ElectroStatic Discharge (ESD) protection diode in a SOD523 plastic package designed to protect one transmission or data line from the damage caused by ESD and other transients

Features and benefits

- Unidirectional ESD protection of one line
- Reverse stand-off voltage: 36V Max
- Low leakage current: nA Level
- Response time is typically < 1 ns
- Low clamping voltage: $V_c < 65V @ I_{pp} = 7.0 A$
- ESD Protection: 30kV(air)/30kV(contact)(IEC61000-4-2)
- Surge Protection: 7.0 A(IEC 61000-4-58/20 μ s)

Application information

- Cellular phones
 - Portable devices
- Digital cameras
- Power supplies

Ordering information

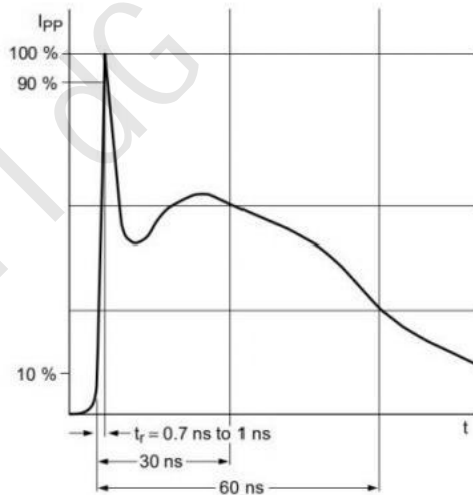
Device	Package	Marking	Packaging
ESD5Z36	SOD523	36E	3000/Tape & Reel

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

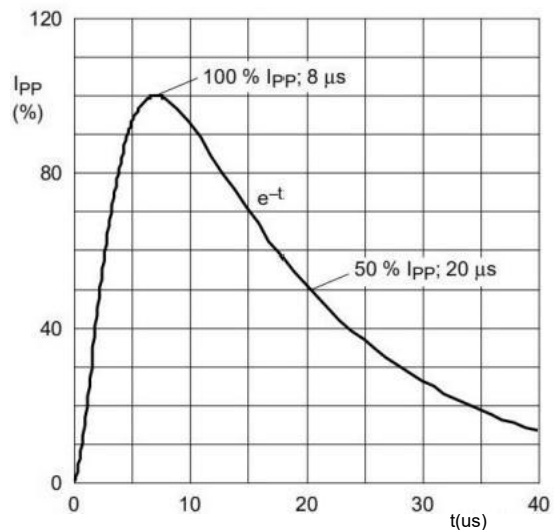
Parameter	Symbol	Value	Unit
Peak Pulse Power (tp=8/20 μ s)	PppM	450	W
Peak Pulse Current (tp=8/20 μ s)	Ippm	7.0	A
Maximum lead temperature for soldering during 10s	TL	260	° C
Storage Temperature Range	Tstg	-55 to +150	° C
Operating Temperature Range	Top	-40 to +125	° C
Maximum junction temperature	Tj	150	° C
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			36.0	V	
Breakdown Voltage	VBR	38.5			V	Ir=1mA
Leakage Current ILeak	IR			100	nA	VRwM=36V
Clamping Voltage	Vc			65.0	V	Ipp=7.0A, Tp=8/20 μ s
Junction Capacitance	CJ			40	pF	VR=0V, f=1MHz



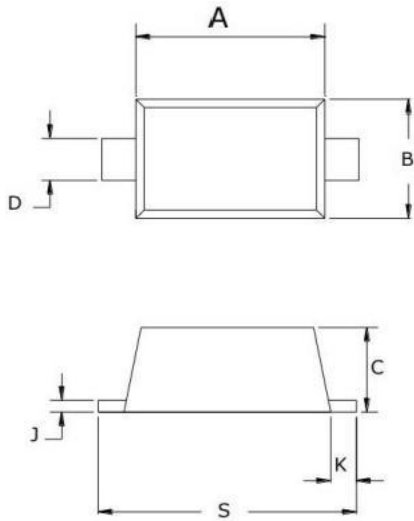
IEC61000-4-2 Waveform



IEC 61000-4-5 Waveform(8/20μs pulse)

Package Outline Dimensions

SOD523



SYMBOL	MILLIMETERS		
	MIN	NOR	MAX
A	1.10	1.20	1.30
B	0.70	0.80	0.90
C	0.60	0.65	0.70
D	0.25	0.30	0.35
J	0.08	0.11	0.15
K	0.15	0.20	0.25
S	1.50	1.60	1.70

Soldering Footprint (mm)

