General description

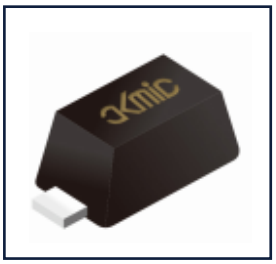
The ESD05V52D-C is designed to protect voltage sensitive components from ESD and transient voltag e events. Excellent clamping capability, low leakage, and fast response time , make these parts ideal for ESD protection on designs where board space is at a premium.

Application information

- Cell phones
- Audio equipment
- Portable devices
- Digital cameras
- Power supplies

Features and benefits

- Reverse stand-off voltage: 5V Max
- Low leakage current: nA Level
- Low Clamping Voltage
- Response time is typically < 1 ns
- IEC61000−4−2 Level 4 ESD Protection

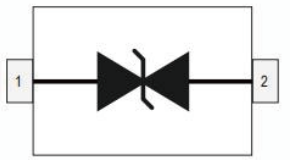


SOD523

Ordering information

Device	Package	Reel Size	Qty(PCS)
ESD05V52D-C	SOD523	7 Inch	3000

Ordering information

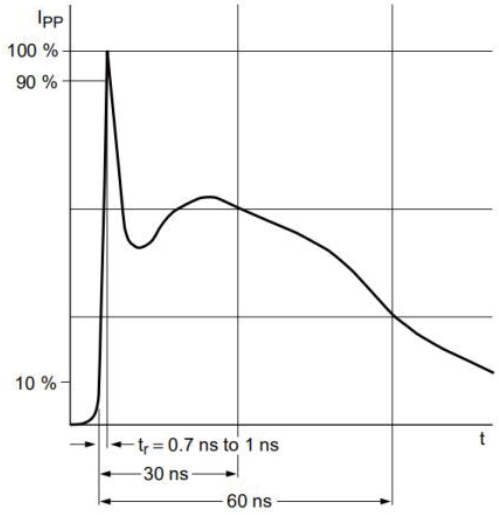
Marking	Graphic symbol
5C	

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

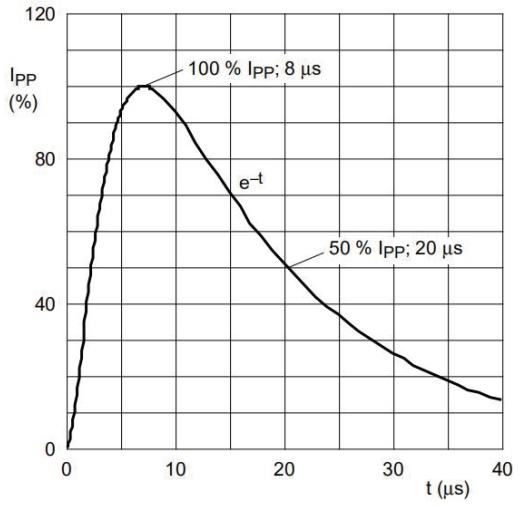
Parameter	Symbol	Min	Typ	Max	Unit	Condition
Reverse Working Voltage	V_{RWM}	--	--	5.0	V	
Breakdown Voltage	V_{BR}	5.6	--	--	V	I_T=1mA
Leakage Current ILeak	I_R	--	--	100	nA	V_{RWM}=5V
Clamping Voltage	V_C	--	--	9.0	V	I_{PP}=11A,Tp=8/20μs
Junction Capacitance	C_J	--	20	25	pF	V_R=0V, f=1MHz

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

Parameter	Symbol	Value	Unit
Peak Pulse Power (tp = 8/20μs)	P_{PPM}	100	W
Peak Pulse Current(tp = 8/20μs)	I_{PPM}	11	A
Maximum lead temperature for soldering during 10s	T_L	260	°C
Storage Temperature Range	T_{stg}	-55 to +150	°C
Operating Temperature Range	T_{OP}	-40 to +125	°C
Maximum junction temperature	T_j	150	°C
ESD voltage IEC 61000-4-2 (air discharge)	V_{ESD}	30	kV
ESD voltage IEC 61000-4-2 (contact discharge)	V_{ESD}	30	kV



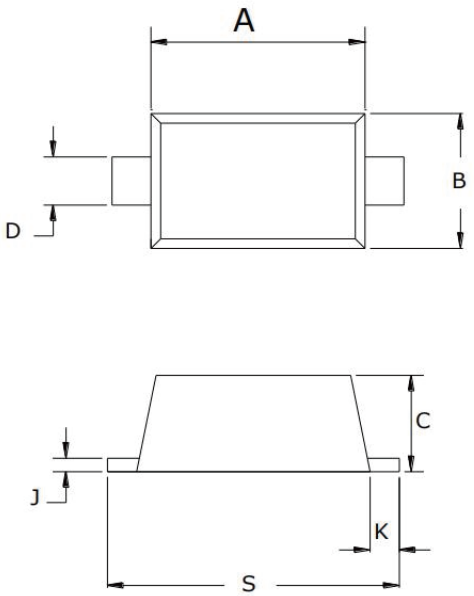
IEC61000−4−2 Waveform



IEC 61000-4-5 Waveform(8/20μs pulse)

Package Outline Dimensions

SOD523



SYMBOL	MILLIMETERS	
	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)

