

Features

- Ultra low leakage: nA level
- Operating voltage: 5V
- Low clamping voltage
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: $\pm 30\text{kV}$
 - Contact discharge: $\pm 30\text{kV}$
 - IEC61000-4-4 (EFT) 40A (5/50ns)
 - IEC61000-4-5 (Lightning) 25A (8/20 μs)
- RoHS Compliant

Applications

- Cell Phone Handsets and Accessories
- Microprocessor based equipment
- Personal Digital Assistants (PDA's)
- Notebooks, Desktops, and Servers
- Portable Instrumentation
- Networking and Telecom
- Serial and Parallel Ports
- Peripherals

Mechanical Characteristics

- Package: SOD-323
- Lead Finish: Lead Free
- UL Flammability Classification Rating 94V-0
- Quantity Per Reel: 3,000 pcs
- Reel Size: 7 inch
- Device Marking: 3M

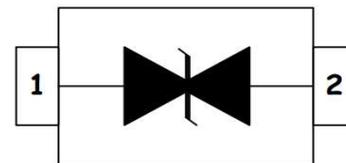
Absolute Maximum Ratings (T_{amb}=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 μs)	P _{pp}	300	W
ESD per IEC 61000-4-2 (Air)	V _{ESD}	± 30	kV
ESD per IEC 61000-4-2 (Contact)		± 30	
Operating Temperature Range	T _J	-55 to +150	°C
Storage Temperature Range	T _{STJ}	-55 to +150	°C

Dimensions SOD-323



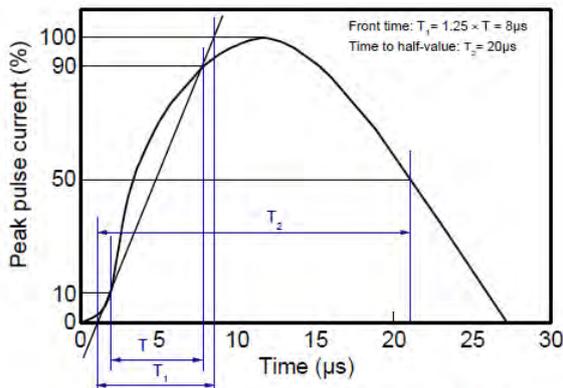
Pin Configuration



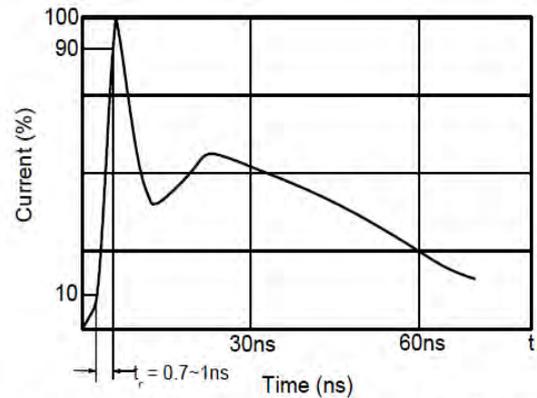
Electrical Characteristics (TA=25°C unless otherwise specified)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V_{RWM}			5	6	V
Breakdown Voltage	V_{BR}	$I_T = 1\text{mA}$	6.5		8	V
Reverse Leakage Current	I_R	$V_{RWM} = 5\text{V}$			0.1	μA
Clamping Voltage	V_C	$I_{PP} = 5\text{A}$ (8 x 20 μs pulse)			9.5	V
Clamping Voltage	V_C	$I_{PP} = 25\text{A}$ (8 x 20 μs pulse)			13	V
Junction Capacitance	C_J	$V_R = 0\text{V}$, $f = 1\text{MHz}$			110	pF

Characteristic Curves



8/20 μs waveform per IEC61000-4-5



Contact discharge current waveform per IEC61000-4-2

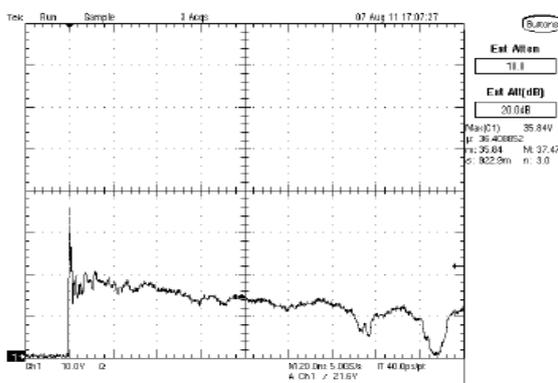


Fig1. ESD Clamping Voltage Screenshot Positive 8 kV Contact per IEC61000-4-2

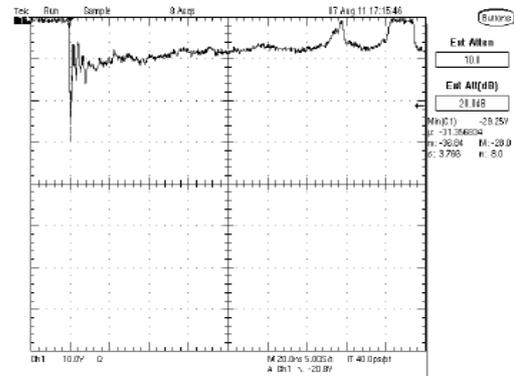
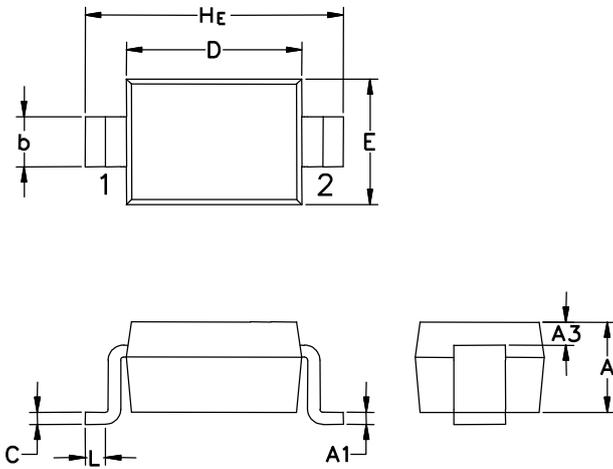


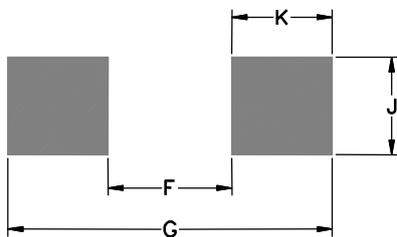
Fig2. ESD Clamping Voltage Screenshot Negative 8 kV Contact per IEC61000-4-2

SOD-323 Package Outline Drawing



Symbol	Millimeters			Inches		
	Min.	Nom.	Max.	Min.	Nom.	Max.
A	0.80	0.90	1.1	0.031	0.035	0.043
A1	0.010	0.05	0.10	0.004	0.002	0.004
A3	0.15 REF			0.006 REF		
b	0.25	0.32	0.40	0.010	0.012	0.016
C	0.100	0.12	0.150	0.004	0.005	0.006
D	1.60	1.70	1.80	0.062	0.066	0.070
E	1.15	1.25	1.35	0.045	0.049	0.053
L	0.08			0.003		
HE	2.30	2.50	2.80	0.090	0.098	0.105

Suggested Land Pattern



Symbol	Millimeters	Inches
F	1.60	0.063
G	2.85	0.112
J	0.83	0.033
K	0.63	0.025

NOTICE

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