

## Features

- Ultra low leakage: nA level
- Operating voltage: 24V
- 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) 7A (8/20 $\mu\text{s}$ )
- RoHS Compliant

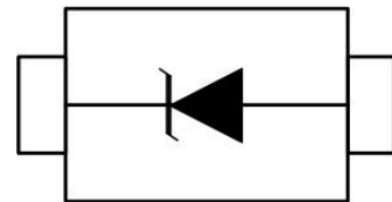
## Dimensions SOD-323



## Applications

- CAN BUS
- 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

## Pin Configuration



## 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: 24W

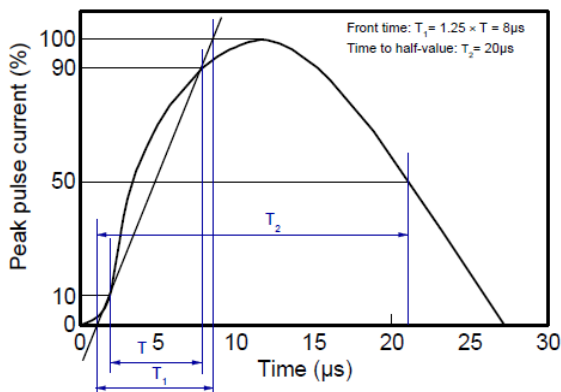
## Absolute Maximum Ratings (T<sub>amb</sub>=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 $\mu\text{s}$ )	P <sub>pp</sub>	300	W
ESD per IEC 61000-4-2 (Air)	V <sub>ESD</sub>	$\pm 30$	kV
ESD per IEC 61000-4-2 (Contact)		$\pm 30$	
Operating Temperature Range	T <sub>J</sub>	-55 to +150	°C
Storage Temperature Range	T <sub>STJ</sub>	-55 to +150	°C

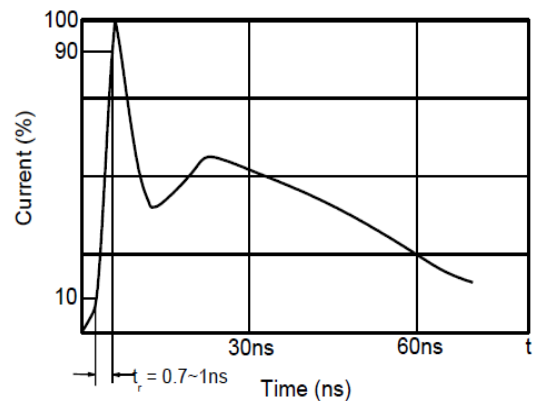
## Electrical Characteristics (TA=25°C unless otherwise specified)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	$V_{RWM}$				24	V
Breakdown Voltage	$V_{BR}$	$I_T = 1\text{mA}$	26.5		29	V
Reverse Leakage Current	$I_R$	$V_{RWM} = 24\text{V}$			0.1	$\mu\text{A}$
Clamping Voltage	$V_C$	$I_{PP} = 1\text{A}$ (8 x 20 $\mu\text{s}$ pulse)			35	V
Clamping Voltage	$V_C$	$I_{PP} = 7\text{A}$ (8 x 20 $\mu\text{s}$ pulse)			45	V
Junction Capacitance	$C_J$	$V_R = 0\text{V}$ , $f = 1\text{MHz}$			50	pF

## Typical Performance Characteristics (TA=25°C unless otherwise specified)



8/20 $\mu\text{s}$  waveform per IEC61000-4-5



Contact discharge current waveform per IEC61000-4-2

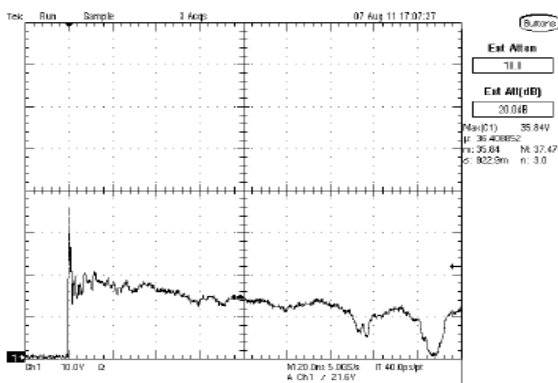


Fig1. ESD Clamping Voltage Screenshot Positive 8 kV Contact per IEC61000-4-2

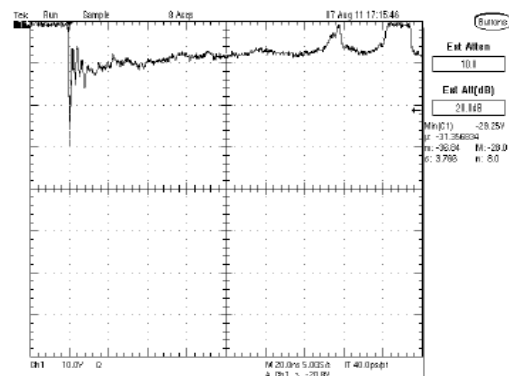
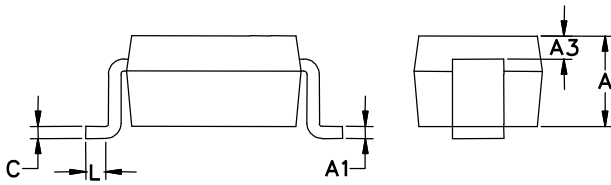
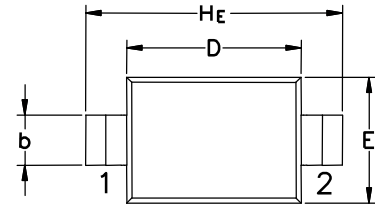


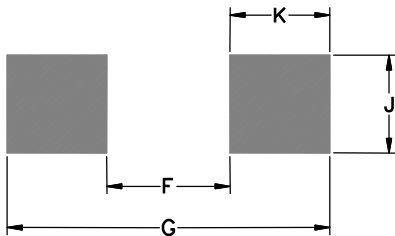
Fig2. ESD Clamping Voltage Screenshot Negative 8 kV Contact per IEC61000-4-2

## SOD-323 Package Outline Drawing



Symbol	Millimeters			Inches		
	Min.	Nom.	Max.	Min.	Nom.	Max.
A	0.80	0.90	1.15	0.031	0.035	0.045
A1	0.001	0.05	0.15	0.004	0.002	0.006
A3	0.15 REF			0.006 REF		
b	0.25	0.32	0.45	0.010	0.012	0.018
C	0.100	0.12	0.150	0.004	0.005	0.006
D	1.60	1.70	1.95	0.063	0.066	0.077
E	1.10	1.25	1.50	0.043	0.049	0.059
L	0.08			0.003		
HE	2.65	2.85	3.10	0.104	0.112	0.122

## Suggested Land Pattern



Symbol	Millimeters	Inches
F	1.60	0.063
G	3.20	0.125
J	0.60	0.024
K	0.80	0.031

### NOTICE

Leiditech reserves the right to make modifications, enhancements, improvements, corrections or other changes without further notice to any product herein. Leiditech does not assume any liability arising out of the application or use of any product described herein.