Leiditech

BTR9S23A10

1-Line Bi-directional TVS Diode

Features

- Ultra low capacitance: 15 pF typical
- Ultra low leakage: nA level
- Operating voltage: 5V
- Low clamping voltage
- Complies with following standards:
  - IEC 61000-4-2 (ESD) immunity test
    - Air discharge: ±25kV
    - Contact discharge: ±25kV
  - IEC61000-4-5 (Lightning) 8 A (8/20 μs)
- RoHS Compliant

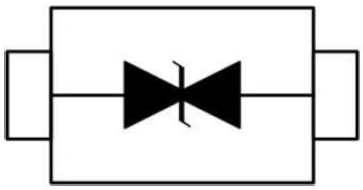
Dimensions SOD-923



Applications

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

Pin Configuration



Mechanical Characteristics

- Package: SOD-923
- Molding compound flammability rating:UL94V-0
- Quantity Per Reel:8,000pcs
- Reel Size:7 inch
- Device Marking: C

Absolute Maximum Ratings (Tamb=25°C unless otherwise specified)

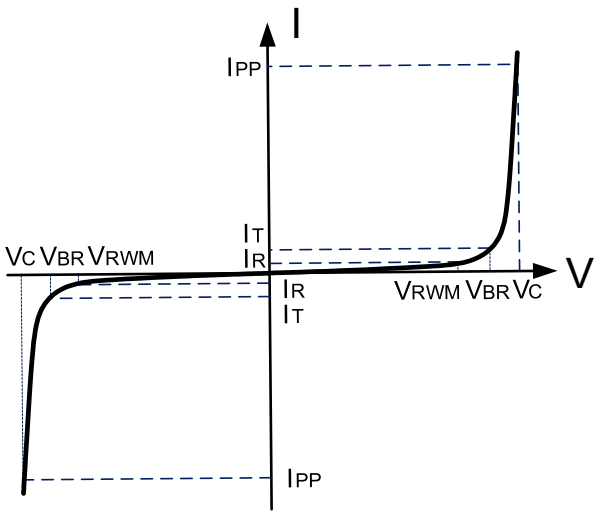
Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	Ppp	70	W
ESD per IEC 61000−4−2 (Air)	V_{ESD}	± 25	kV
ESD per IEC 61000−4−2 (Contact)		± 25	
Operating Temperature Range	T_J	-55 to +150	℃
Storage Temperature Range	T_{STJ}	-55 to +150	℃

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

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V_{RWM}				5	V
Breakdown Voltage	V_{BR}	I_T = 1mA	6			V
Reverse Leakage Current	I_R	V_{RWM} = 5V			0.5	μA
Clamping Voltage	V_C	I_{PP} = 8A (8 x 20 μs pulse)		8		V
Junction Capacitance	C_J	V_R = 0V, f = 1MHz		15	20	pF

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

Symbol	Parameter
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Maximum Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current



Note:. 8/20μs pulse waveform.

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

Figure 1: Peak Pulse Power vs. Pulse Time

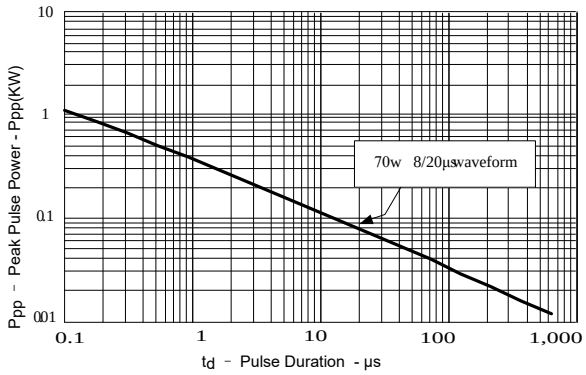


Figure 2: Power Derating Curve

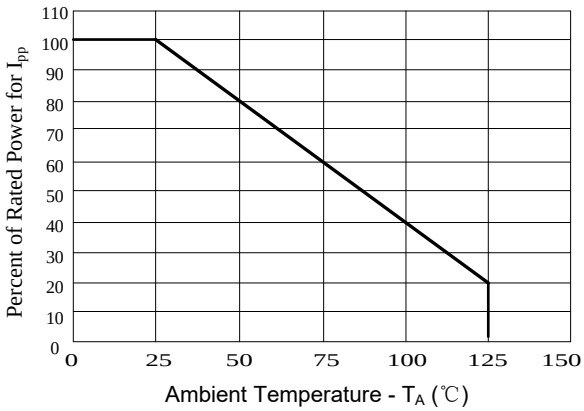


Figure3: Pulse Waveform

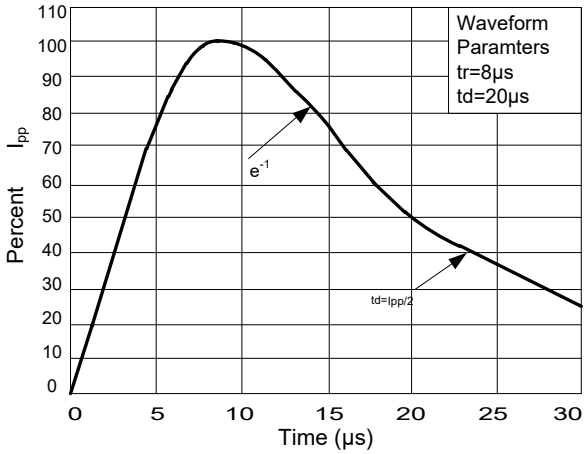
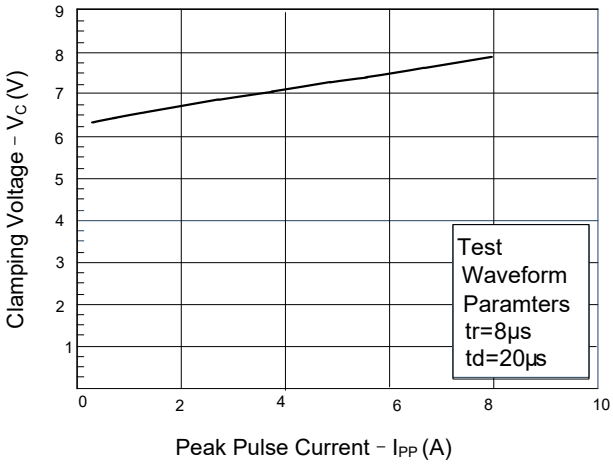
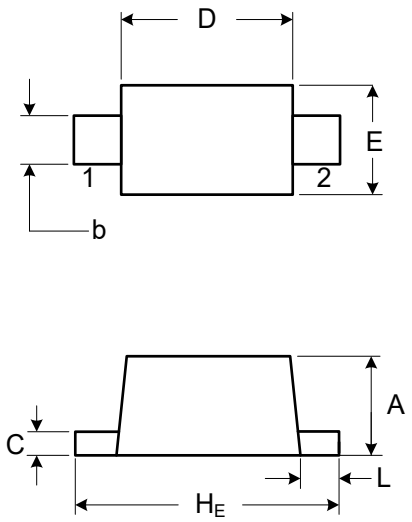


Figure 4: Clamping Voltage vs.Ipp



SOD-923 Package Outline Drawing



DIMENSIONS

SYMBOL	MILLIMETER		INCHES	
	MIN	MAX	MIN	MAX
A	0.35	0.43	0.014	0.0172
b	0.15	0.25	0.006	0.010
C	0.07	0.17	0.0028	0.0068
D	0.75	0.85	0.030	0.034
E	0.55	0.65	0.022	0.026
H_E	0.90	1.10	0.036	0.044
L	0.05	0.15	0.002	0.006

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.

Shanghai Leiditech Electronic Technology Co., Ltd.
Email: sale1@leiditech.com
Tel : +86- 021 50828806
Fax : +86- 021 50477059