Leiditech

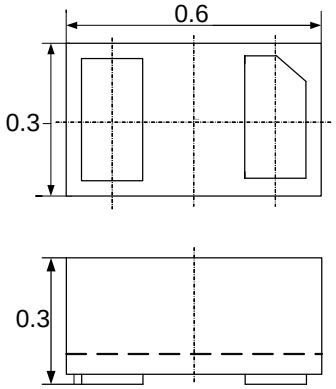
ULC0321P8LV

1-Line Low Capacitance Bi-directional TVS Diode

Features

- Ultra low leakage: nA level
- operating voltage: 3.3V
- Low clamping voltage
- 2-pin leadless package
- Complies with following standards:
- – IEC 61000-4-2 (ESD) immunity test
  Air discharge: ±24kV
  Contact discharge: ±24kV
  – IEC61000-4-5 (Lightning) 8A (8/20μs)
- RoHS Compliant

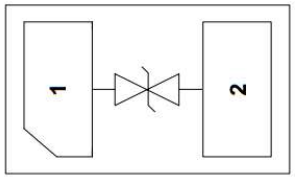
Dimensions DFN0603



Applications

- USB Ports
- SIM Ports
- Smart Phones
- Wireless Systems
- Set-top box and digital TV
- Digital video interface (DVI)
- Ethernet 10/100/1000 Base T

Pin Configuration



Mechanical Characteristics

- Package: DFN0603
- UL Flammability Classification Rating 94V-0
- Quantity Per Reel:10,000pcs
- Reel Size:7 inch
- Device Marking: LAB

Caution:
This Device is designed for signal line protection only.
Not intended to be used under bias, not for application with a power line.

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

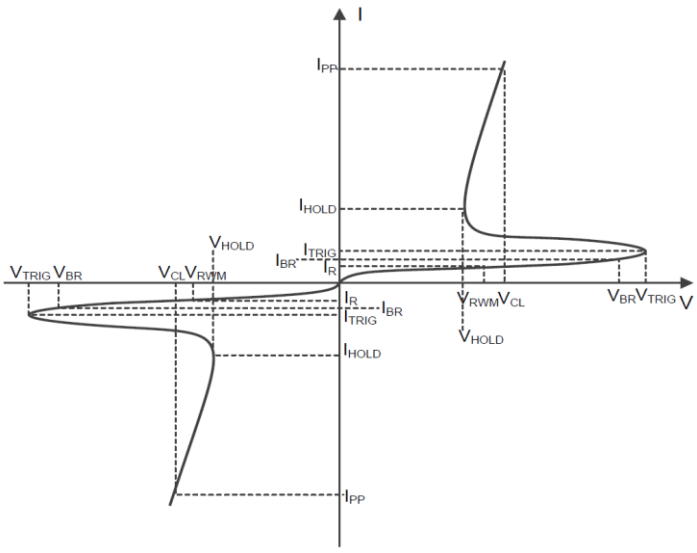
Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	Ppp	50	W
ESD per IEC 61000−4−2 (Air)	V_{ESD}	± 24	kV
ESD per IEC 61000−4−2 (Contact)		± 24	
Operating Temperature Range	T_J	-50 to +125	℃
Storage Temperature Range	T_{STJ}	-55 to +150	℃

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

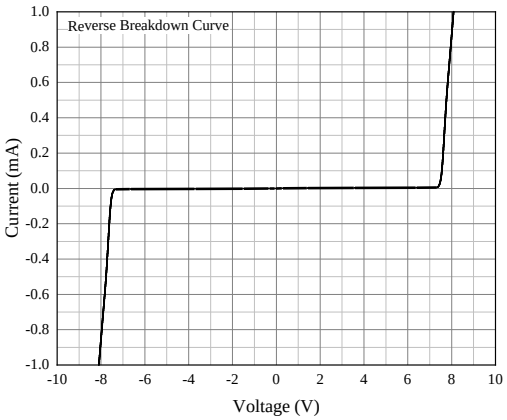
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Stand-off Voltage	V_{RWM}				3.3	V
Reverse Breakdown Voltage	V_{BR}	I_T=1mA	6.0	8.1		V
Holding Voltage	V_h			2.5		V
Reverse Leakage Current	I_R	V_{RWM}=3.3V			100	nA
Clamping Voltage	V_C	I_{PP}=1A; tp=8/20us		2.0	3.0	V
Clamping Voltage	V_C	I_{PP}=8A; tp=8/20us		5.0	6.0	V
Clamping Voltage	V_C	I_{PP}=16A; tp=10/100ns		5.5	6.5	V
Dynamic Resistance	R_{dyn}	TLP=10/100ns		0.2		Ω
Junction Capacitance	C_J	V_R=1.5V; f=1MHz		0.17	0.20	pF

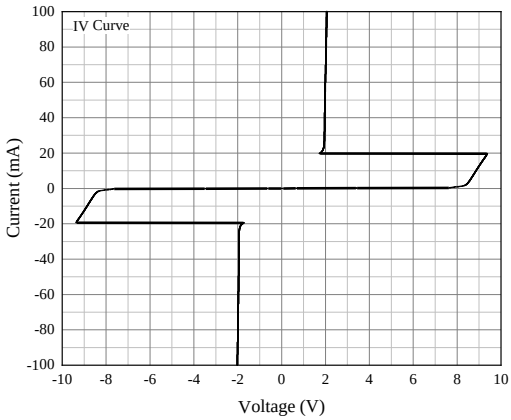
Electrical Parameters(TA=25°C unless otherwise specified)

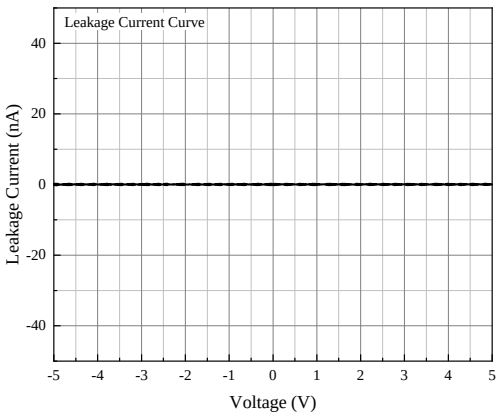
Symbol	Parameters
V_{RWM}	Reverse stand-off voltage
I_R	Reverse leakage current
V_{BR}	Reverse breakdown voltage
I_{BR}	Reverse breakdown current
V_{CL}	Clamping voltage
V_{TRIG}	Reverse trigger voltage
I_{TRIG}	Reverse trigger current
V_{HOLD}	Reverse holding voltage
I_{HOLD}	Reverse holding current
I_{PP}	Peak pulse current

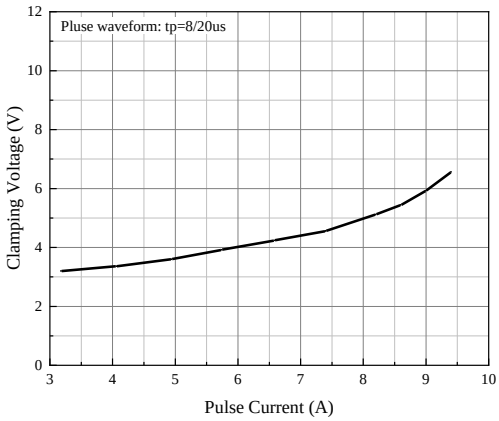


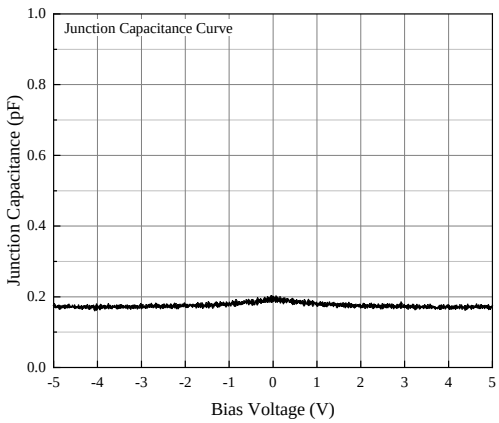
Typical Performance Characteristics(TA=25°C unless otherwise specified)

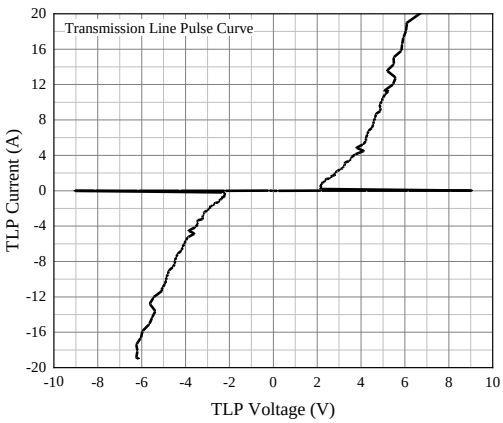




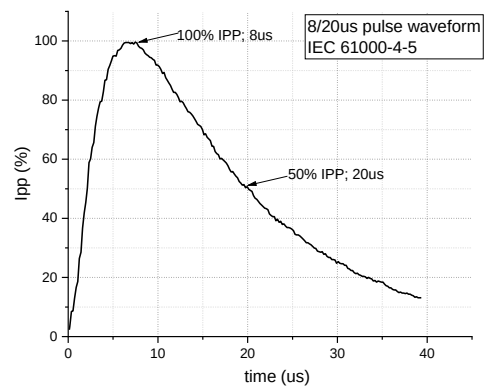


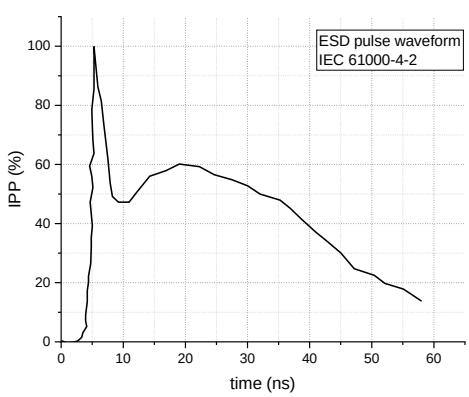




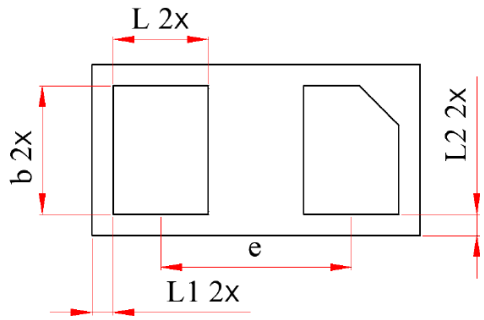


Measurement Wave According to IEC Standard

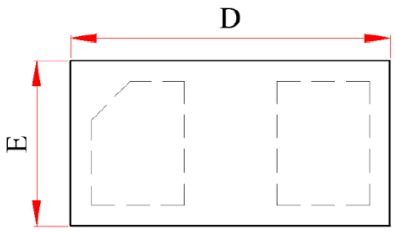




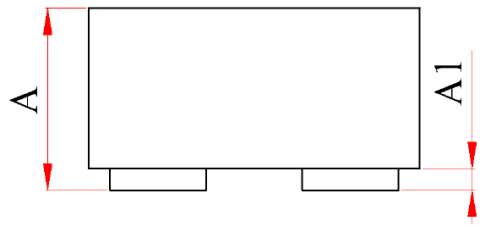
DFN0603 Package Outline Drawing



Bottom View



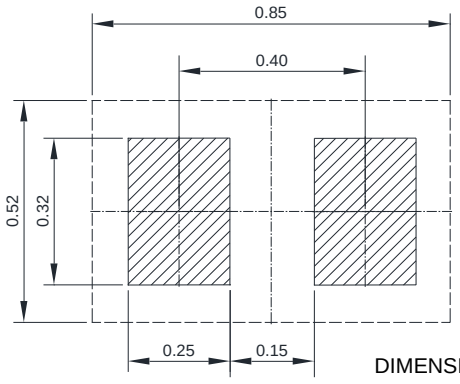
Top View



Side View

Symbol	Dimension In Millimeters			Dimension In Inches		
	Normal	Min	Max	Normal	Min	Max
A	--	0.280	0.340	--	0.011	0.013
A1	--	--	0.050	--	--	0.002
D	0.620	0.590	0.640	0.024	0.023	0.025
E	0.320	0.290	0.340	0.013	0.011	0.013
b	0.240	0.215	0.265	0.009	0.008	0.010
L	0.180	0.155	0.205	0.007	0.006	0.008
L1	0.040 REF			0.002 REF		
L2	0.040 REF			0.002 REF		
e	0.360 BSC			0.014 BSC		

Suggested Land Pattern



DIMENSIONS: MILLIMETERS

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