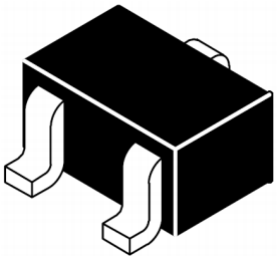
LM-PESD2CANFD24VU-Q

2-Line Bi-directional TVS Diode Array

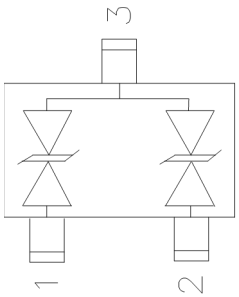
Features

- Ultra low leakage: nA level
- Operating voltage: 24V
- Low clamping voltage
- Complies with following standards:
  - – IEC 61000-4-2 (ESD) immunity test
    - Air discharge: ±30kV
    - Contact discharge: ±30kV
  - – IEC61000-4-4 (EFT) 40A (5/50ns)
  - – IEC61000-4-5 (Lightning) 5A (8/20 μs)
- RoHS Compliant
- AEC-Q101 qualified

Dimensions SOT-323



Pin Configuration



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

Mechanical Characteristics

- Package: SOT-323
- Lead Finish: Lead Free
- UL Flammability Classification Rating 94V-0
- Quantity Per Reel:3000pcs
- Reel Size:7 inch
- Device Marking: 24TL

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

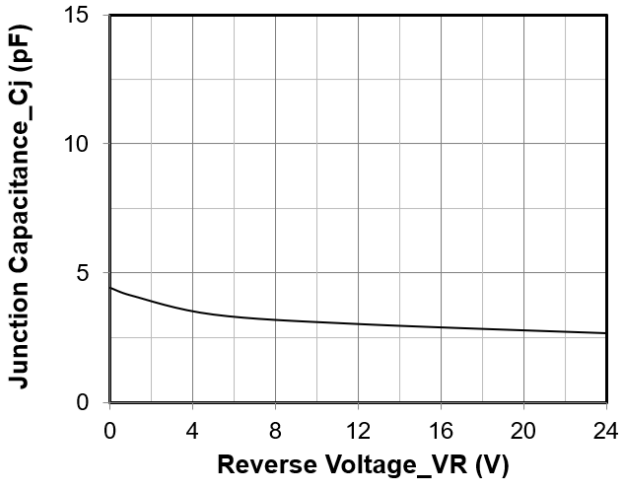
Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	Ppp	160	W
ESD per IEC 61000−4−2 (Air)	V_{ESD}	± 30	kV
ESD per IEC 61000−4−2 (Contact)		± 30	
Operating Temperature Range	T_J	-55 to +125	℃
Storage Temperature Range	T_{STJ}	-55 to +150	℃

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

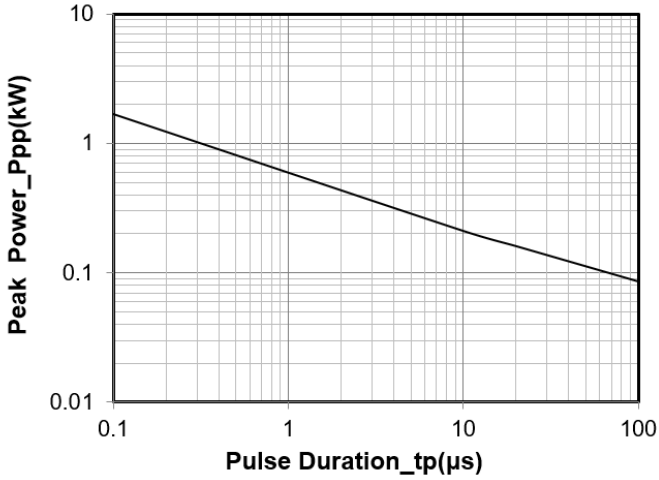
Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	V_{RWM}			24	V	Any I/O pin to ground
Breakdown Voltage	V_{BR}	26.5	30	36	V	I_T = 1mA, any I/O pin to ground
Reverse Leakage Current	I_R			0.2	μA	T = 25°C, V_{RWM} = 24V, any I/O pin to ground
				0.3	μA	T = 125°C, V_{RWM} = 24V, any I/O pin to ground
Clamping Voltage(1)	V_C			25	V	I_{PP} = 1A (8 x 20μs pulse), any I/O pin to ground
				32	V	I_{PP} = 5A (8 x 20μs pulse), any I/O pin to ground
ESD Clamping Voltage(2)	V_C		26		V	IPP = 4A, tp = 0.2/100ns (TLP)
			29.5		V	IPP = 16A, tp = 0.2/100ns (TLP)
Dynamic Resistance(3)	R_{DYN}		0.29		Ohm	tp = 0.2/100ns (TLP)
Junction Capacitance	C_J		5	9	pF	VR = 0V, f = 1MHz, any I/O pin to ground

(1) Measured using a constant current source.
(2) Transmission Line Pulse Test (TLP) Settings: tp = 100ns, tr = 0.2ns
(3): Dynamic resistance calculated from ITLP = 4A to ITLP = 16A

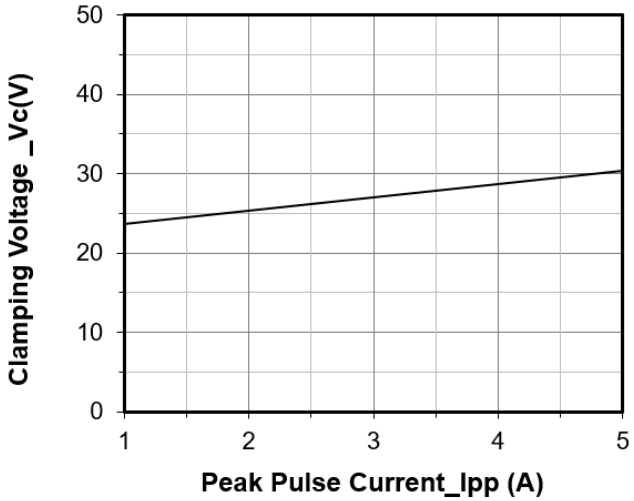
Typical Performance Characteristics(TA=25°C unless otherwise specified)



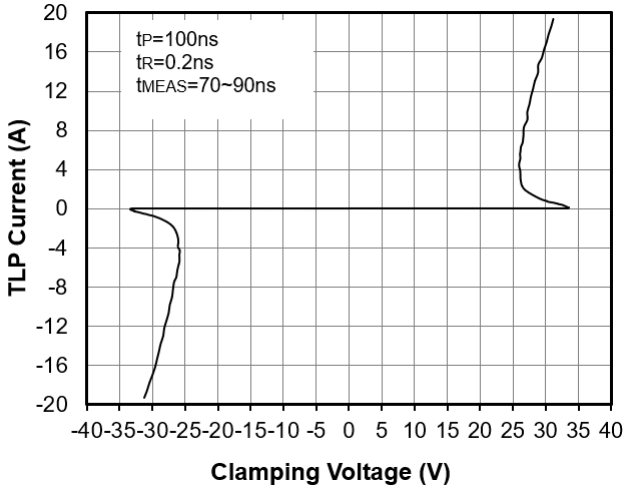
Junction Capacitance vs. Reverse Voltage



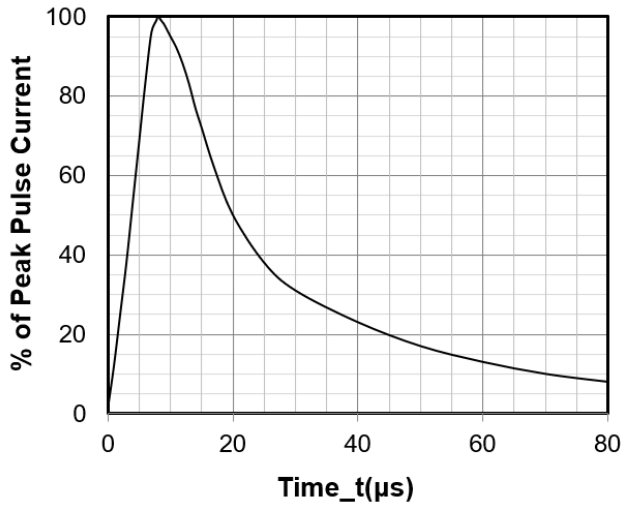
Peak Pulse Power vs. Pulse Time



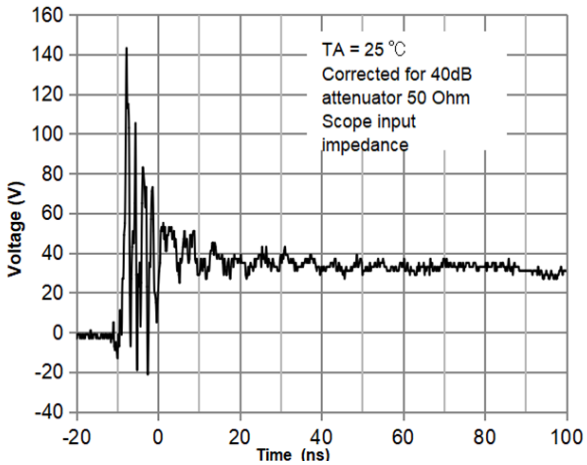
Clamping Voltage vs. Peak Pulse Current (tp = 8/20μs)



TLP Measurement



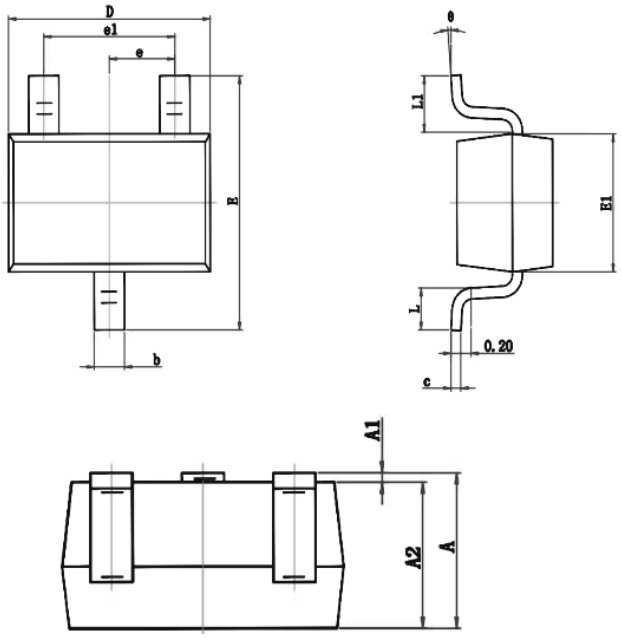
8X20μs Pulse Waveform



ESD Clamping Voltage

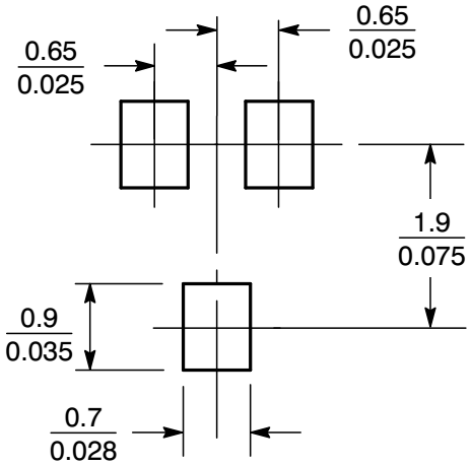
8 kV Contact per IEC61000−4−2

SOT-323 Package Outline Drawing



Symbol	Dim in mm		
	Min	Nor	Max
A	0.90	1.00	1.10
A1	0.00	0.05	0.10
A2	0.90	0.95	1.00
b	0.20	0.30	0.40
c	0.08	0.12	0.15
D	2.00	2.10	2.20
E	2.15	2.30	2.45
E1	1.15	1.25	1.35
e	0.650TPY.		
e1	1.2	1.3	1.4
L	0.26	0.36	0.46
L1	0.525REF.		
θ	0°	4°	8°

Suggested Land Pattern



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