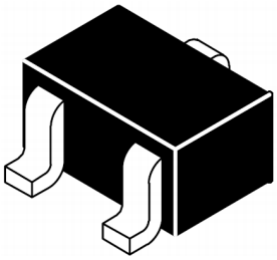
LM-ESD7002WTT1G

2-Line Uni-directional TVS Diode Array

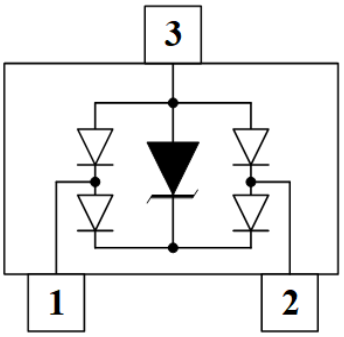
Features

- Ultra low leakage: nA level
- Operating voltage: 16V
- 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) 4A (8/20 μs)
- RoHS Compliant

Dimensions SOT-323



Pin Configuration



Applications

- Peripherals
- Industrial Equipment
- Notebook Computers
- Portable Instrumentation
- Microprocessor Based Equipment
- Cell Phone Handsets and Accessories
- Personal Digital Assistants (PDAs) and Pagers

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: SLH

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

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	Ppp	190	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	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V_{RWM}				16	V
Breakdown Voltage	V_{BR}	I_T = 1mA	17			V
Reverse Leakage Current	I_R	V_{RWM} = 16V			1	μA
Clamping Voltage	V_C	I_{PP} = 1A (8 x 20 μs pulse)			25	V
Clamping Voltage	V_C	I_{PP} =4A (8 x 20 μs pulse)			32	V
Junction Capacitance	C_J	VR = 0V, f = 1MHz, I/Os		0.3		pF
Junction Capacitance	C_J	VR = 0V, f = 1MHz, I/O toGND		0.6		pF

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

Figure 1. 8 x 20 μs Waveform

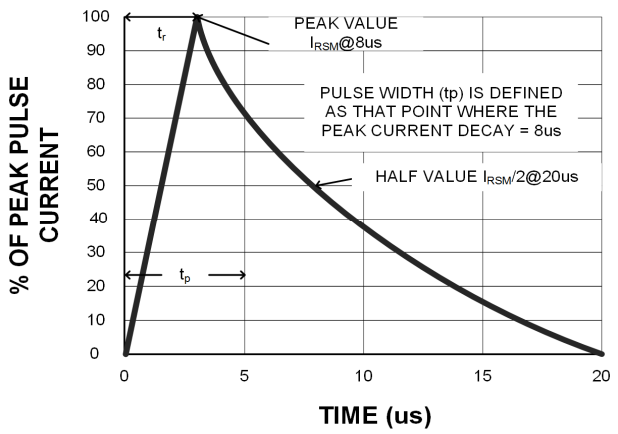


Figure 2. Power Derating Curve

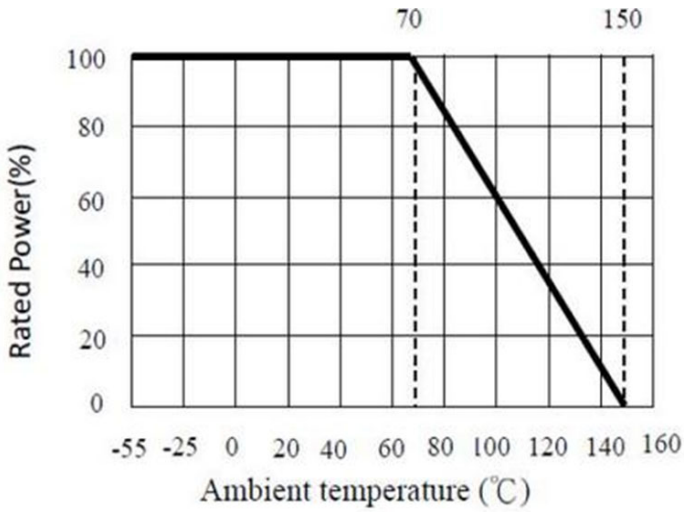


Figure 3. Clamping Voltage vs. Peak Pulse Current (tp=8/20 μs)

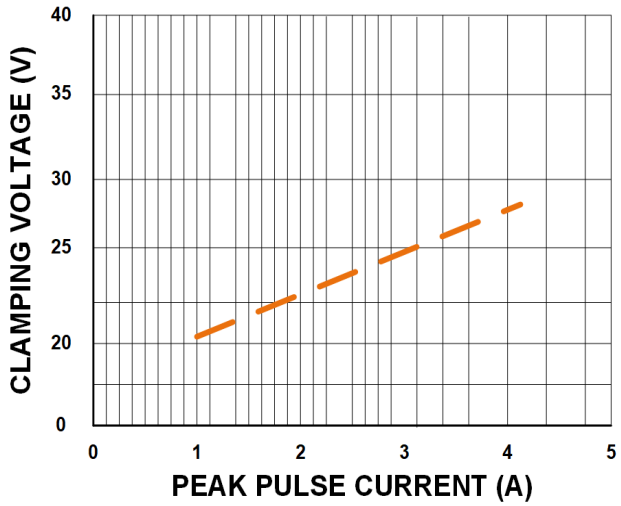


Figure 4. Typic Breakdown Voltage vs. Temperature

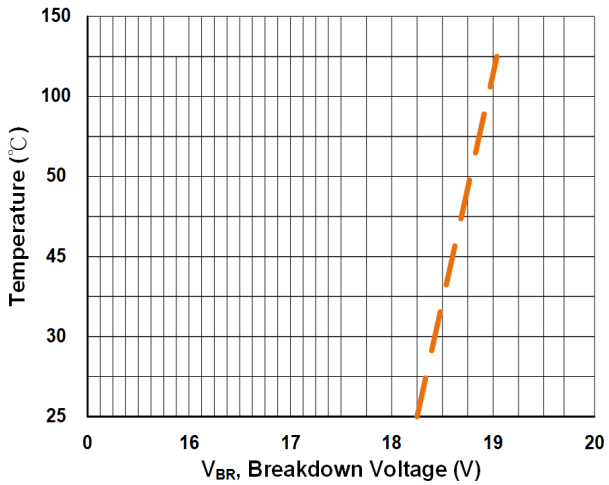


Figure 5. Typic Reverse Current vs. Temperature

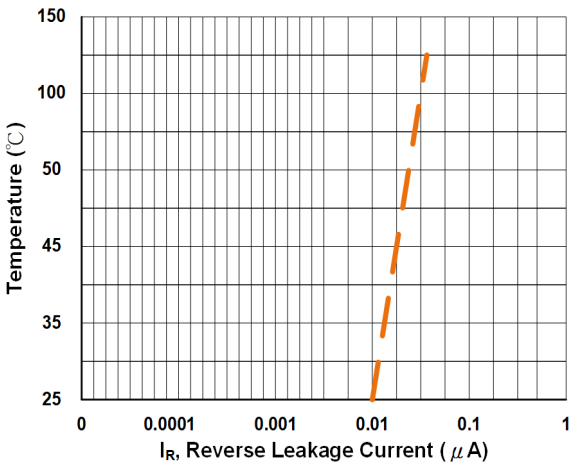
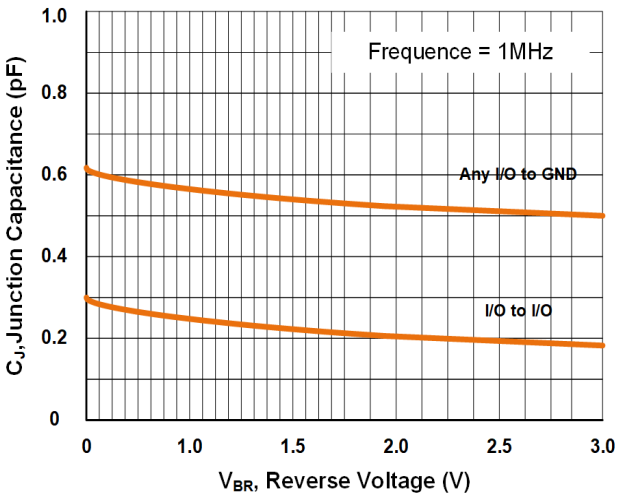
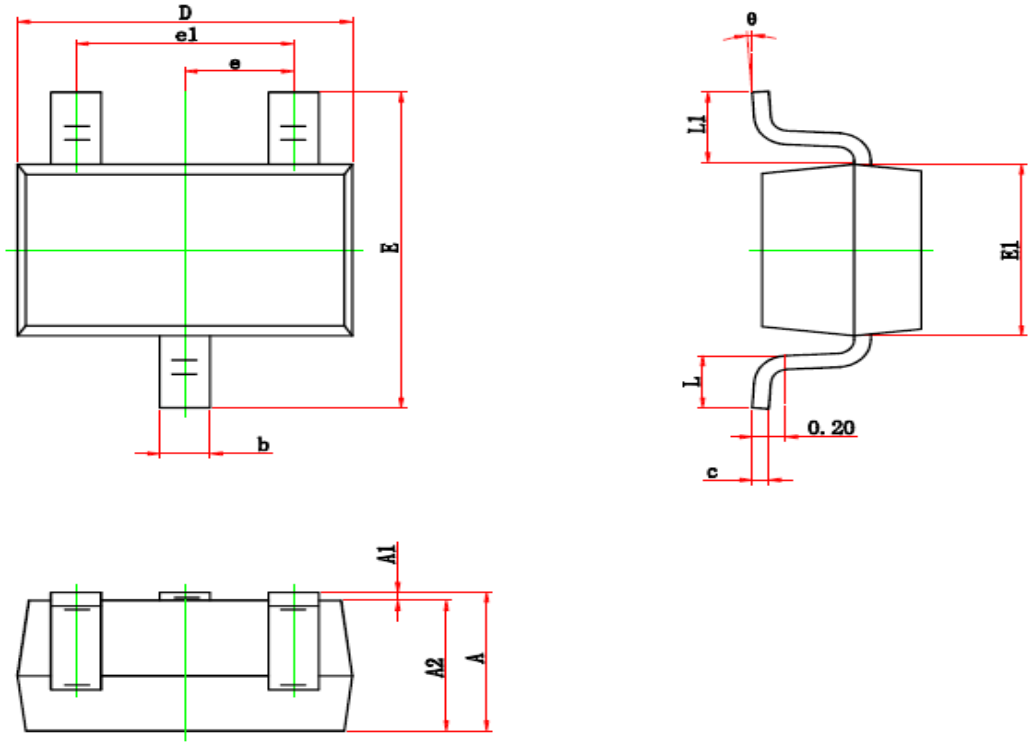


Figure 6. Typic Capacitance vs. Reverse Voltage



SOT-323 Package Outline & Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.200	0.400	0.008	0.016
c	0.080	0.150	0.003	0.006
D	2.000	2.200	0.079	0.087
E	2.150	2.450	0.085	0.096
E1	1.150	1.350	0.045	0.053
e	0.650 TYP.		0.026 TYP.	
e1	1.200	1.400	0.047	0.055
L	0.260	0.460	0.010	0.018
L1	0.525 REF.		0.021 REF.	
θ	0°	8°	0°	8°

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