1.Features

The LESD8D5.0CAis designed to protect voltage sensitive components from ESD. Excellent clamping capability, low leakage, and fast response time,make these parts ideal for ESDprotection on designs where board space is at a premium.

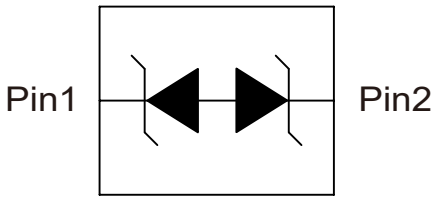
2.Applications

- Cellular phones
- audio MP3 players
- Digital cameras
- Portable
- applicationss mobiletelephone

3.Features

- Low Leakage
- Response Time is Typically < 1 ns
- ESD Rating of Class 3 (> 16 kV) per Human Body Model
- IEC61000−4−2 Level 4 ESD Protection
- These are Pb−Free Devices
- We declare that the material of product compliance with RoHS requirements.

4.Pinning information



SOD-882

5.Absolute Maximum Ratings

Parameter	Symbol	Value	Units
IEC 61000-4-2 (ESD) Air discharge		±25	kV
IEC 61000-4-2 (ESD) Contact discharge		±20	kV
Total Power Dissipation on FR-5 Board (Note 1) @ T_A=25°C	P_D	200	mW
Junction and Storage Temperature Range	T_J,T_{STG}	-55 to 150	°C
Lead Solder Temperature – Maximum (10 Second Duration)	T_L	260	°C

Notes:

Stresses exceeding Maximum Ratings may damage the device. Maximum Rating are stress ratings only. Functional operation above the Recommended Operating Conditions is not implied. Extended exposure to stresses above the Recommended Operating Conditions may affect device reliability.

1. FR-5 = 1.0*0.75*0.62 in.

6.Electrical Characteristics

Device	V_{RWM} (V)	I_{R1}(μA) @V_{RWM}	I_{R2}(μA) @V_R=3.5V	V_{BR}(V) @ I_T (Note 2)		I_T	V_C (V) @ I_{PP}=1A (Note 3)	V_C (V) @MAX I_{PP} (Note 3)	I_{PP}(A) (Note3)	P_{PK}(W) (Note3)	C (pF)
	Max	Max	Max	Min	Max	mA	Max	Max	Max	Max	Max
LESD8D5.0CA	5	0.5	0.3	5.6	8	1	9.8	12.5	5.5	69	15

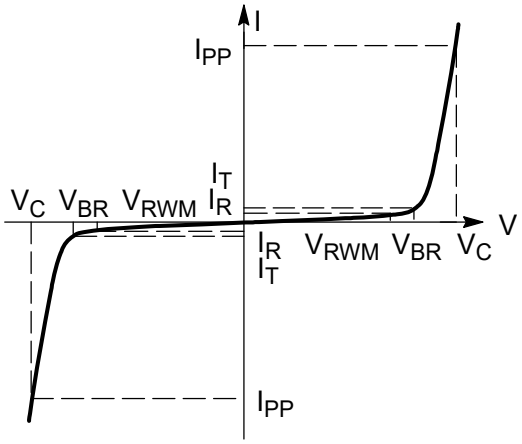
Notes:

Other voltage available upon request.

2. V_{BR} is measured with a pulse test current I_T at an ambient temperature of 25°C.

3. Surge current waveform per Figure 3.

7.Electrical Parameters (T_A=25°C unless otherwise noted)



Bi−Directional TVS

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
P_{PK}	Peak Power Dissipation
C	Capacitance @ V_R=0 and f=1.0 MHz

8.Typical characteristic

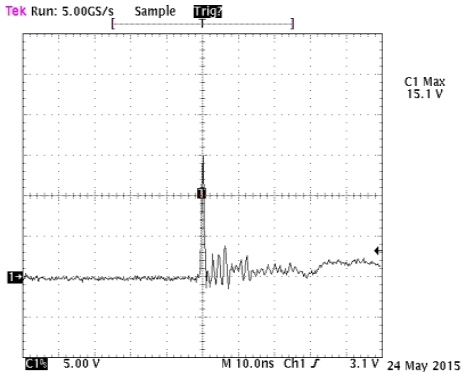


Figure 1: ESD Clamping Voltage Screenshot
Positive 8 kV Contact per IEC61000-4-2

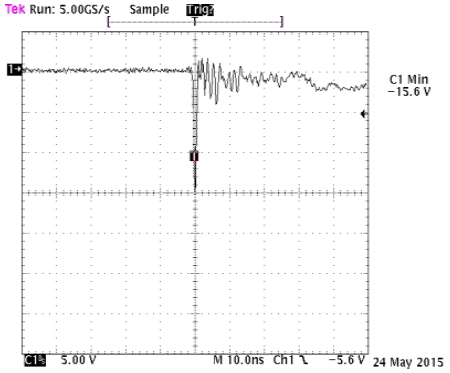


Figure 2: ESD Clamping Voltage Screenshot
Negative 8 kV Contact per IEC61000-4-2

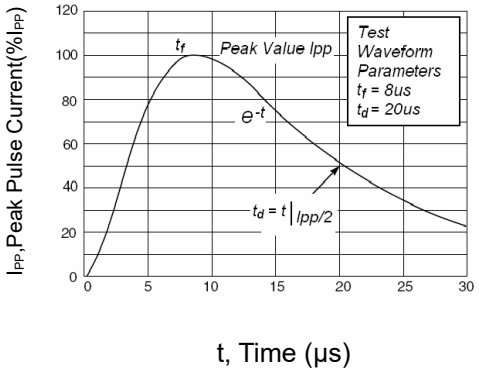
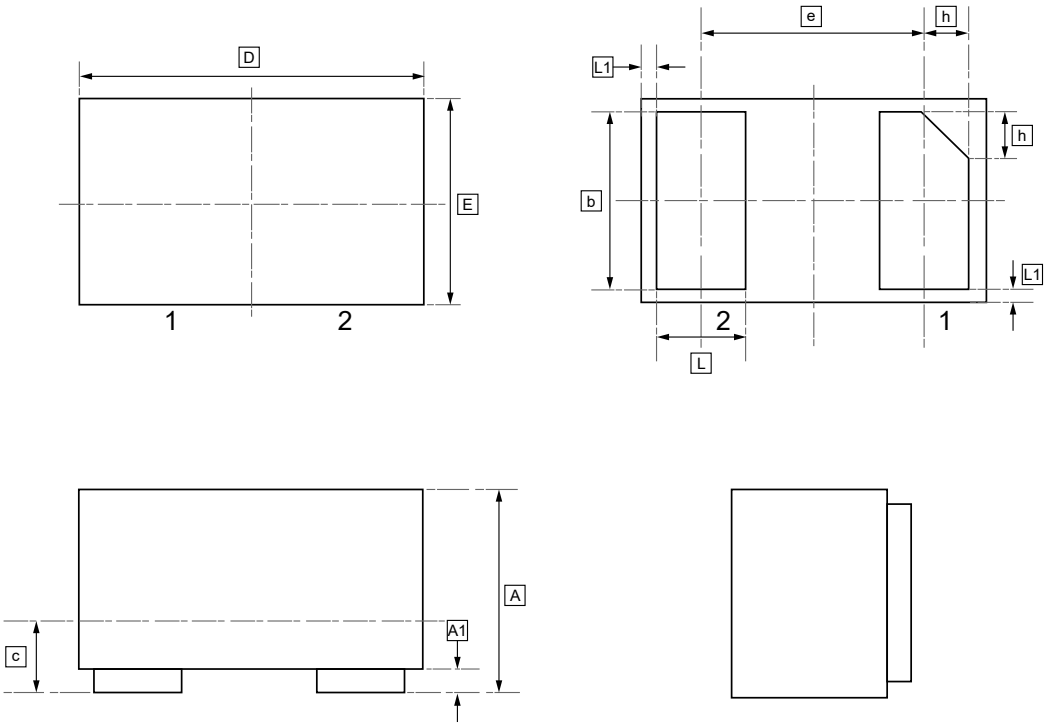


Figure 3: Pulse Waveform

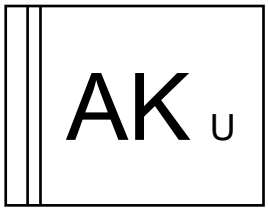
9.SOD-882 Package Outline Dimensions



DIMENSIONS (mm are the original dimensions)

Symbol	A	A1	b	c	D	e	E	L	L1	h
Min	0.45	0.00	0.45	0.12	0.95	0.65	0.55	0.20	0.05	0.07
Max	0.55	0.05	0.55	0.18	1.05	BSC	0.65	0.30	REF	0.17

10.Ordering information



Order Code	Package	Base QTY	Delivery Mode
UMW LESD8D5.0CAT5G	SOD-882	10000	Tape and reel

11.Disclaimer

UMW reserves the right to make changes to all products, specifications. Customers should obtain the latest version of product documentation and verify the completeness and currency of the information before placing an order.

When applying our products, please do not exceed the maximum rated values, as this may affect the reliability of the entire system. Under certain conditions, any semiconductor product may experience faults or failures. Buyers are responsible for adhering to safety standards and implementing safety measures during system design, prototyping, and manufacturing when using our products to prevent potential failure risks that could lead to personal injury or property damage.

Unless explicitly stated in writing, UMW products are not intended for use in medical, life-saving, or life-sustaining applications, nor for any other applications where product failure could result in personal injury or death. If customers use or sell the product for such applications without explicit authorization, they assume all associated risks.

When reselling, applying, or exporting, please comply with export control laws and regulations of China, the United States, the United Kingdom, the European Union, and other relevant countries, regions, and international organizations.

This document and any actions by UMW do not grant any intellectual property rights, whether express or implied, by estoppel or otherwise. The product names and marks mentioned herein may be trademarks of their respective owners.