

## 1.Description

The LESD5Z5.0CT1G is designed to protect voltage sensitive components from ESD and transient voltage events. Excellent clamping capability, low leakage and fast response time make these parts ideal for ESD protection on designs where board space is at a premium.

## 3.Applications

- High Speed Line :USB1.0/2.0, VGA, DVI, SDI
- Serial and Parallel Ports
- Notebooks, Desktops, Servers
- Projection TV

## 4.Machanical Data

- SOD-523 package
- Terminals: Tin plated, solderable per MIL-STD-750, method 2026

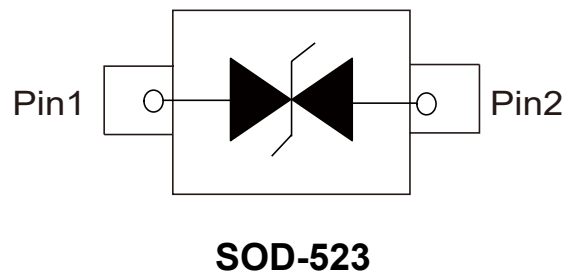
## 5.Pinning information

## 2.Features

- EC61000-4-2 (ESD)  $\pm 30\text{kV}$  (Contact)  $\pm 30\text{kV}$  (Air)
- IEC61000-4-4 (EFT) 40A (5/50ns)
- Peak power dissipation: 75W (8/20 $\mu\text{s}$ )
- Protects one I/O line
- Low clamping voltage
- Working voltages : 5V
- Low leakage current

- Cellular handsets and accessories
- Portable instrumentation
- Peripherals

- Packaging: Tape and Reel
- Reel size: 7 inch
- MSL3





## 6. Absolute Maximum Ratings

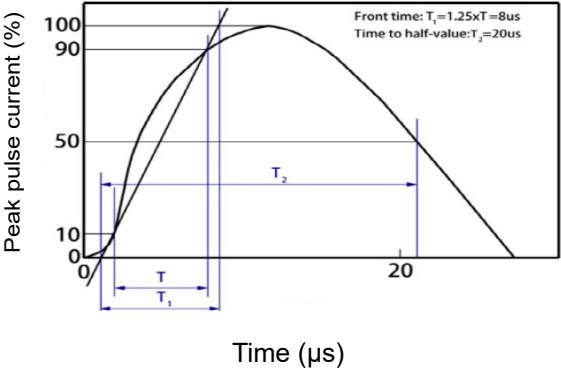
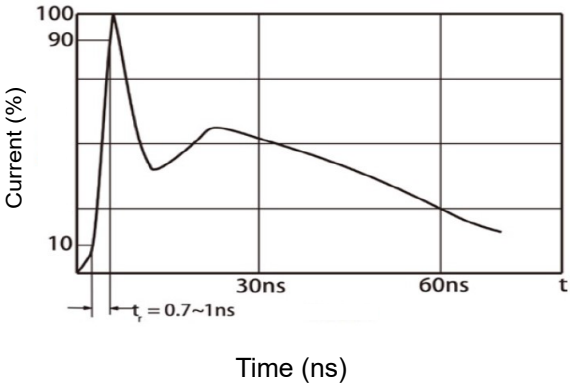
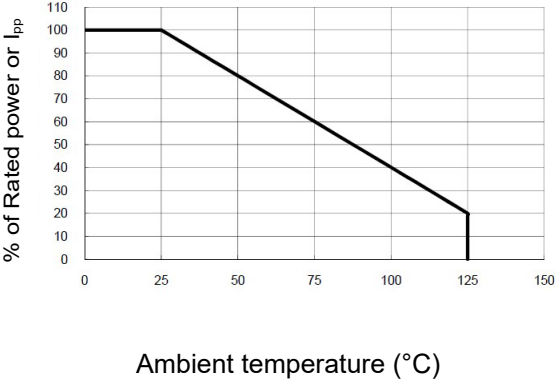
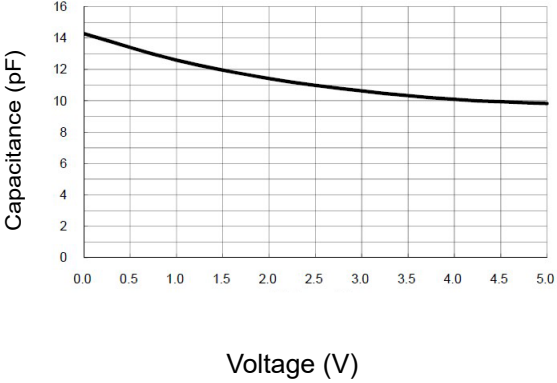
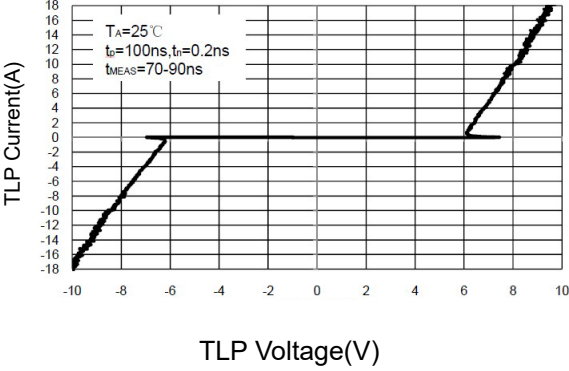
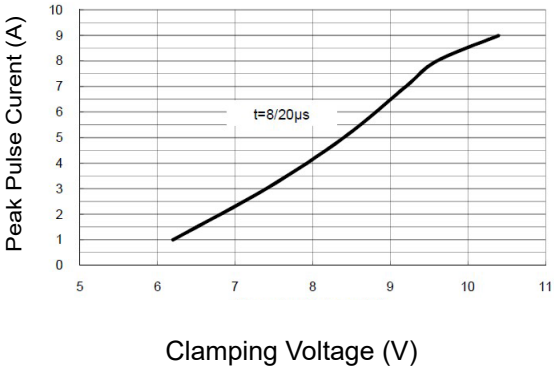
Parameter	Symbol	Value	Units
ESD per IEC 61000-4-2 (Contact)	$V_{ESD}$	$\pm 30$	kV
ESD per IEC 61000-4-2 (Air)		$\pm 30$	kV
Peak Pulse Power (8/20 $\mu$ s)	$P_{PP}$	75	W
Junction Temperature	$T_{OPT}$	-40 to 150	$^{\circ}\text{C}$
Storage Temperature	$T_{STG}$	-40 to 150	$^{\circ}\text{C}$

## 7. Electrical Characteristics

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Reverse Working Voltage	$V_{RWM}$				5	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T=1\text{mA}$	5.6		9	V
Reverse Leakage Current	$I_R$	$V_{RWM}=5\text{V}$			1	$\mu\text{A}$
Clamping Voltage	$V_C$	$I_{PP}=1\text{A}$ , $t_p=8/20\mu\text{s}$			9.5	V
Clamping Voltage	$V_C$	$I_{PP}=5\text{A}$ , $t_p=8/20\mu\text{s}$			15	V
Junction capacitance	$C_J$	$V_R=0\text{V}$ , $f=1\text{MHz}$			15	pF

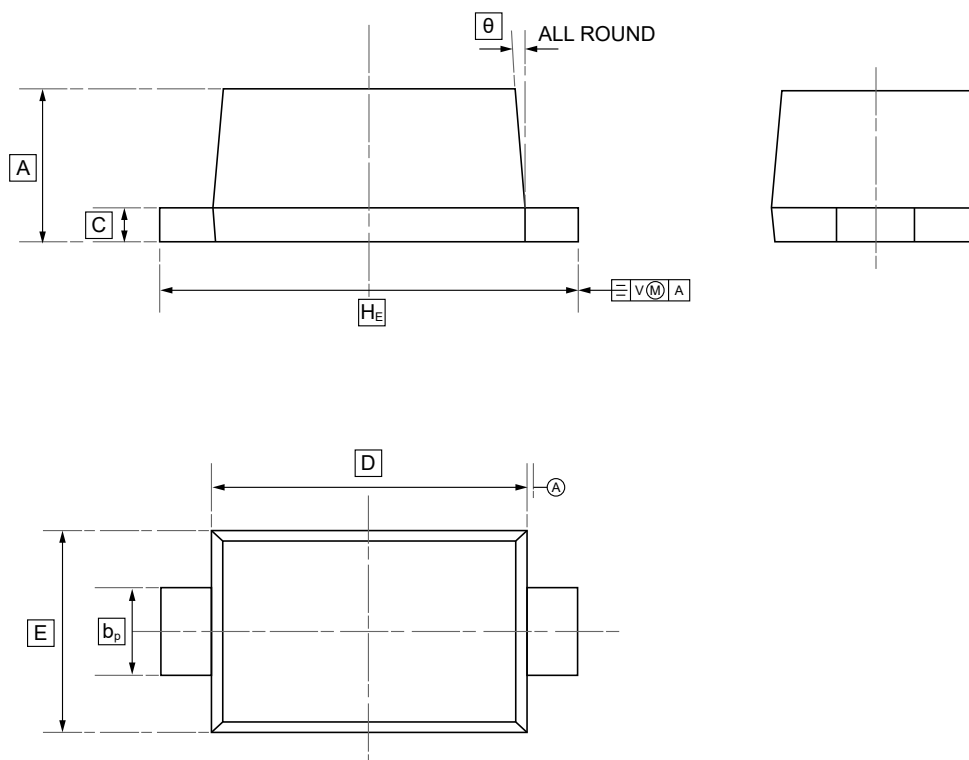


8. Typical characteristic

	
Figure 1: 8/20µs Waveform per IEC61000-4-5	Figure 2: Contact Discharge Current Waveform per IEC 61000-4-2)
	
Figure 3: Power Derating Curve	Figure 4: Voltage vs Capacitance
	
Figure 5: Transmission Line Pulsing (TLP) Measurement	Figure 6: Clamping Voltage vs Peak Pulse Current



## 9.SOD-523 Package Outline Dimensions



### DIMENSIONS (mm are the original dimensions)

Symbol	A	$b_p$	C	D	E	$H_E$	$\theta$
Min	0.58	0.3	0.100	1.15	0.75	1.5	5°
Max	0.68	0.4	0.135	1.25	0.85	1.7	



10.Ordering information



yww: Batch Code

Order Code	Package	Base QTY	Delivery Mode
UMW LESD5Z5.0CT1G	SOD-523	3000	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.