

## 1.Features

The LESD3Z5.0CMT1G 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.Features

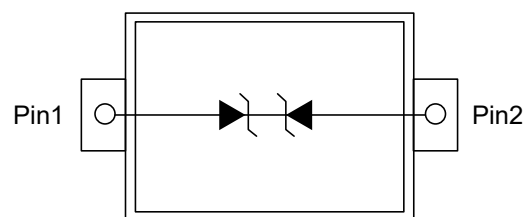
- Small Body Outline Dimensions
- Low Body Height
- Peak Power up to 200 Watts @ 8 x 20  $\mu$ s Pulse
- Low Leakage current

## 2.Applications

- Cellular phones
- Portable devices
- Digital cameras
- Power supplies

- Response Time is Typically < 1 ns
- ESD Rating of Class 3 (> 16 kV) per Human Body Model
- IEC61000-4-2 Level 4 ESD Protection
- IEC61000-4-4 Level 4 EFT Protection

## 4.Pinning information



**SOD-323**

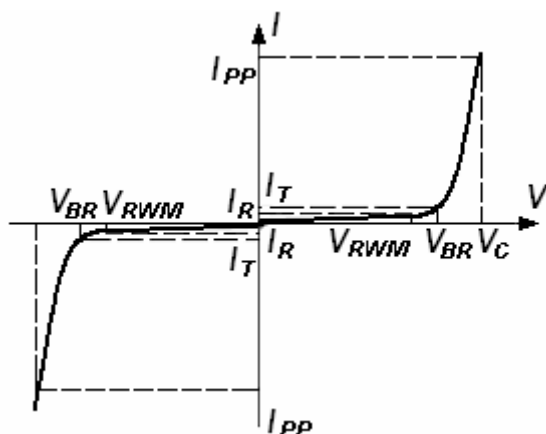


## 5. Absolute Maximum Ratings $T_A = 25^\circ\text{C}$

Parameter	Symbol	Maximum	Units
Peak Pulse Power ( $t_p=8/20\mu\text{s}$ )	$P_{PP}$	200	W
Maximum lead temperature for soldering during 10s	$T_L$	260	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to 155	$^\circ\text{C}$
Temperature Range	$T_{OP}$	-40 to 125	$^\circ\text{C}$
Maximum junction temperature	$T_J$	150	$^\circ\text{C}$
IEC61000-4-2 (ESD) air discharge contact discharge		$\pm 15$	kV
		$\pm 8$	kV
IEC61000-4-4 (EFT)		40	A
ESD Voltage Per Human Body Model		16	kV



## 6. Electrical Parameters ( $T_A=25^\circ\text{C}$ unless otherwise noted )



Symbol	Parameter
$I_{PP}$	Maximum Reverse Peak Pulse Current
$V_C$	Clamping Voltage @ $I_{PP}$
$V_{DRM}$	Working Peak Reverse Voltage
$I_R$	Maximum Reverse Leakage Current @ $V_{RWM}$
$I_T$	Test Current
$V_{BR}$	Breakdown Voltage @ $I_T$

## 7. Electrical Characteristics

Device	$V_{RWM}$ (V)	$I_R(\mu\text{A})$ @ $V_{RWM}$	$V_{BR}$ (V) @ $I_T$ (Note 1)	$I_T$	$V_C$ (V) @ $I_{PP}=5\text{ A}^*$	$V_C$ (V) @ Max $I_{PP}^*$	$I_{PP}$ (A)*	$P_{PK}$ (W)*	C (pF)
	Max	Max	Min	mA	Typ	Max	Max	Max	Typ
LESD3Z5.0CMT1G	5	1	5.6	1	11.6	18.6	9.4	174	25

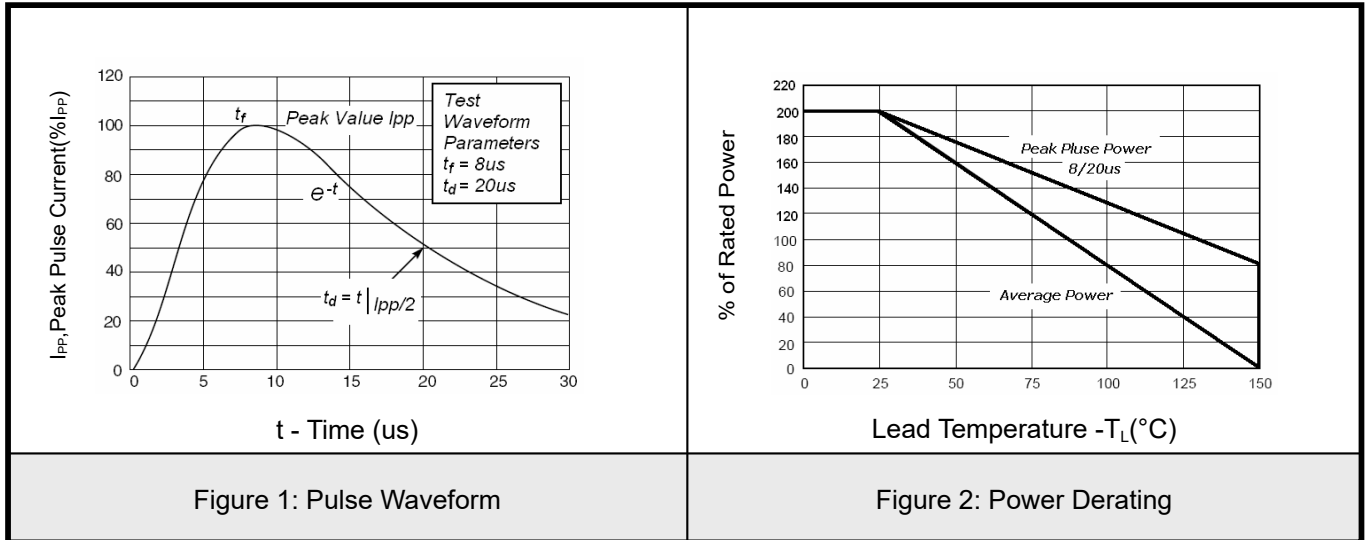
Notes:

\*Surge current waveform per Figure 1.

1.  $V_{BR}$  is measured with a pulsed test current  $I_T$  at an ambient temperature of  $25^\circ\text{C}$ .



## 8. Typical characteristic

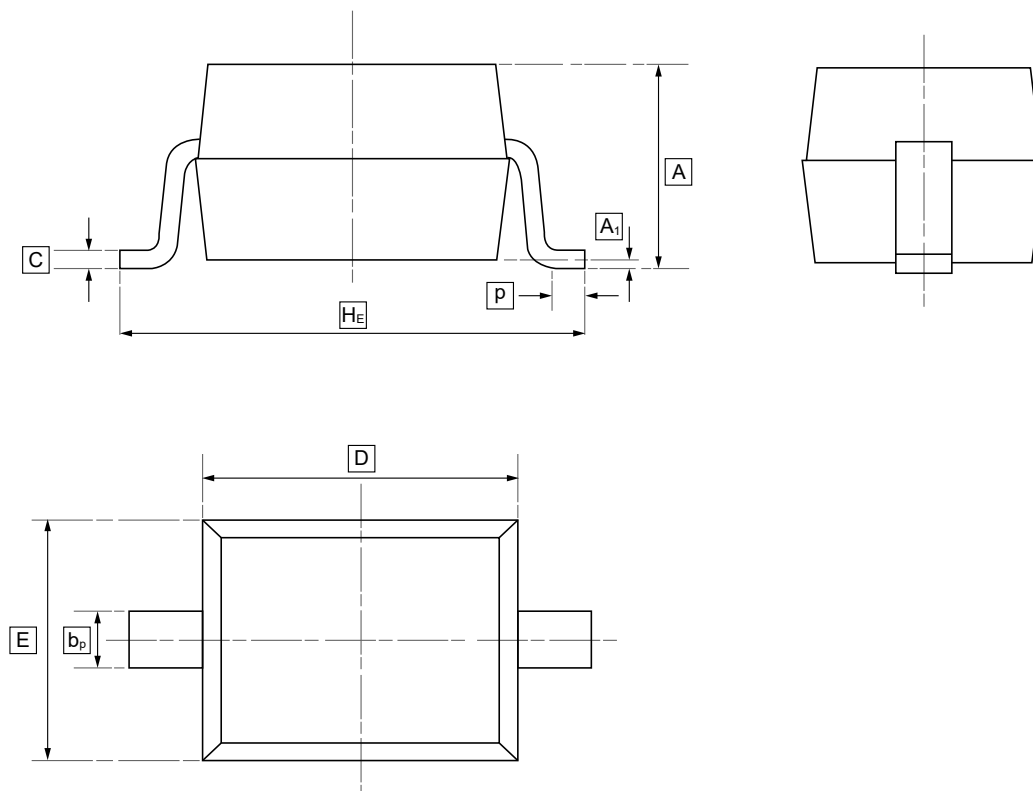


### Notes:

Electrostatic discharge (ESD) is a major cause of failure in electronic systems. Transient Voltage Suppressors (TVS) are an ideal choice for ESD protection. They are capable of clamping the incoming transient to a low enough level such that damage to the protected semiconductor is prevented. Surface mount TVS offers the best choice for minimal lead inductance. They serve as parallel protection elements, connected between the signal lines to ground. As the transient rises above the operating voltage of the device, the TVS becomes a low impedance path diverting the transient current to ground. The LESD3Z5.0CMT1G is the ideal board level protection of ESD sensitive semiconductor components. The tiny SOD-323 package allows design flexibility in the design of high density boards where the space saving is at a premium. This enables to shorten the routing and contributes to hardening against ESD.



## 9.SOD-323 Package Outline Dimensions



### DIMENSIONS (mm are the original dimensions)

Symbol	A	$b_p$	C	D	E	$H_E$	$A_1$	p
Min	0.90	0.25	0.10	1.60	1.15	2.30	0.01	0.20
Max	1.20	0.40	0.15	1.80	1.35	2.80	0.10	0.50



10.Ordering information



ww: Batch Code

Order Code	Package	Base QTY	Delivery Mode
UMW LESD3Z5.0CMT1G	SOD-323	3000	Tape and reel



## **11.Disclaimer**

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