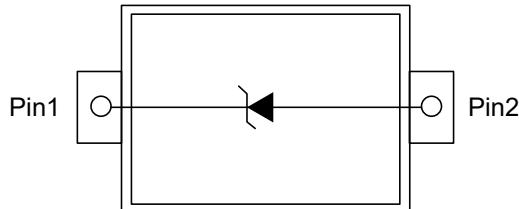


### 1. Features

- 300 Watts peak pulse power ( $t_p=8/20\mu s$ )
- Transient protection for data lines to IEC 61000-4-2 (ESD)  $\pm 15kV$  (air),  $\pm 8kV$
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 24A (8/20  $\mu s$ )
- Small package for use in portable electronics
- Suitable replacement for MLV's in ESD protection applications
- Small Body Outline Dimensions
- Protects one I/O or power line
- Low clamping voltage
- Working voltages: 5V and 36V
- Low leakage current
- Solid-state silicon-avalanche technology
- We declare that the material of product compliance with RoHS requirements

### 2. Pinning information



**SOD-323**



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

Parameter	Symbol	Maximum	Units
Peak Pulse Power ( $tp=8/20\text{s}$ )	$P_{PP}$	300	W
Maximum lead temperature for soldering during 10s	$T_L$	260	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to 155	$^\circ\text{C}$
Junction Temperature	$T_{OP}$	-40 to 125	$^\circ\text{C}$
Maximum junction temperature	$T_J$	150	$^\circ\text{C}$
IEC61000-4-2 (ESD)	air discharge	$\pm 15$	kV
	contact discharge	$\pm 8$	kV
IEC61000-4-4(EFT)		40	A
ESD Voltage	Per Human Body Model	16	kV



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

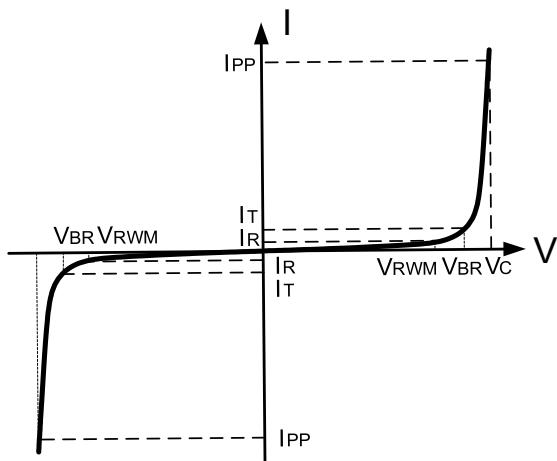
Device	Device Marking	VRWM (V)	$I_R(\mu\text{A})$ $V_{RWM}$	$V_{BR}(\text{V})$ $I_T(\text{Note1})$	$I_T$	$V_c(\text{V})$ $I_{PP}=5\text{A}^*$	$V_c(\text{V})$ $\text{Max}=I_{PP}^*$	$I_{PP}$ (A)*	$P_{PK}$ (W)*	C (pF)
		Max	Max	Min	mA	Typ	Max	Max	Max	Typ
ESD3Z5V0	3M	5	1	5.6	1	11.6	18.6	9.4	174	35

Notes:

\*Surge current waveform per Figure 1.

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

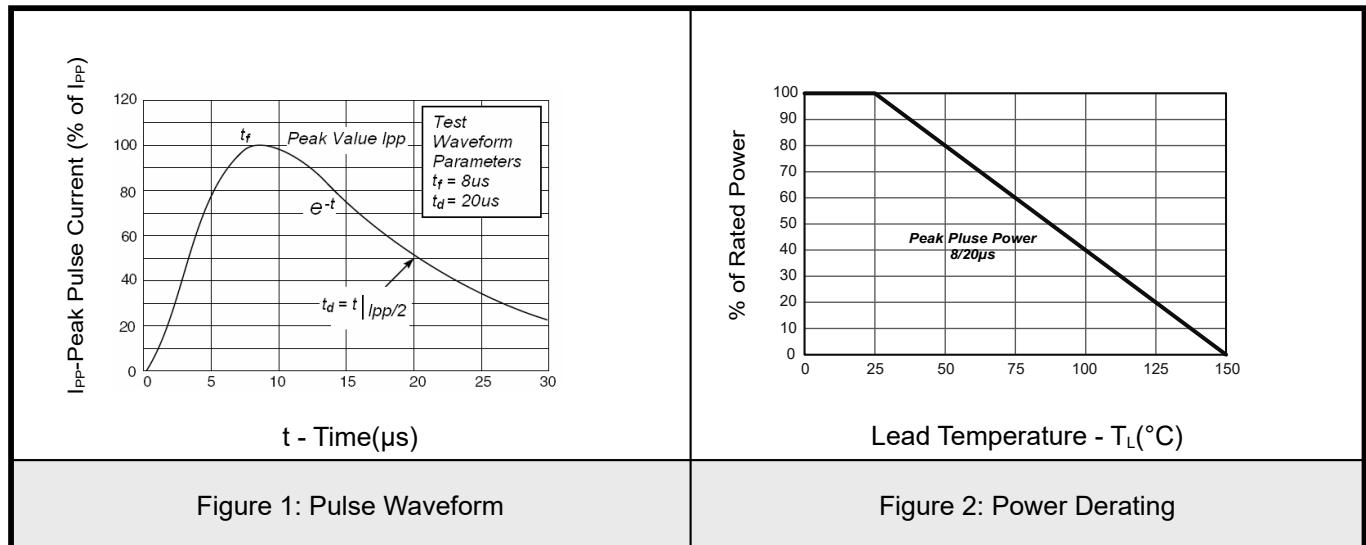
#### 5. Electrical Parameters ( $T_A=25^\circ\text{C}$ unless otherwise noted )



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

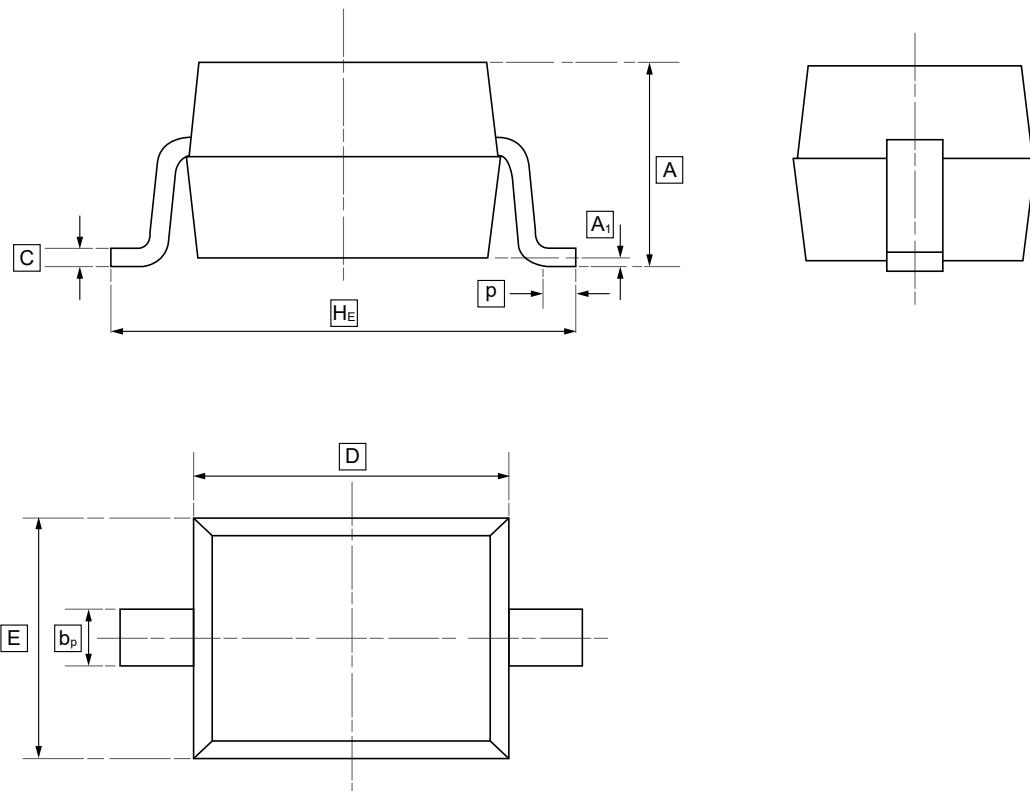


## 6.Typical characteristic





## 7. 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



## 8.Ordering information



Order Code	Package	Base QTY	Delivery Mode
UMW ESD3Z5V0	SOD-323	3000	Tape and reel



## **9.Disclaimer**

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