



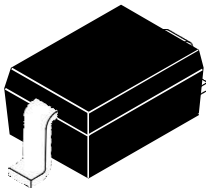
### Features

- Working voltage: 7V
- SOD323 Package
- 2500 Watts peak pulse power (tp=8/20us)
- Transient protection for data lines to
- IEC 61000-4-2 (ESD) ±30kV(air), ±30kV(contact)
- IEC 61000-4-5 (Surge) 105A (8/20us)
- IEC61000-4-4(EFT)40A(5/50ns)
- Low leakage current
- Low clamping voltage
- Solid-state silicon-avalanche technology

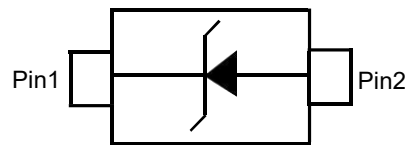
### Applications

- Power lines
- Personal digital assistants (PDA's)
- Microprocessorsbasedequipment
- Notebooks, Desktops, and Servers
- Cell phone Handsets and Accessories
- Portable Electronics
- Peripherals

### Circuit Diagram & Pin Configuration:



**SOD-323**



**Circuit Diagram**

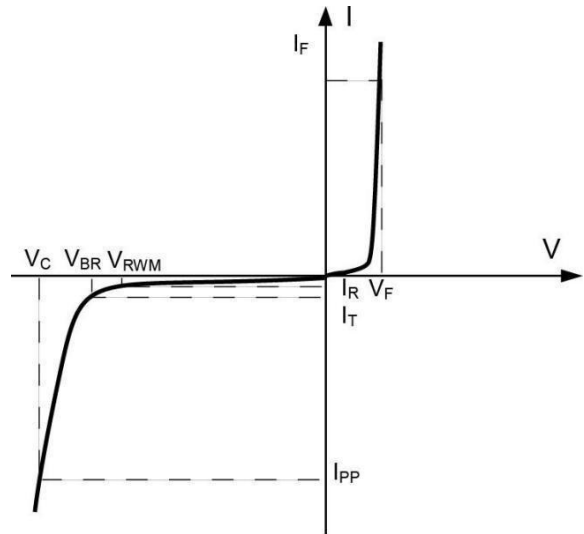
### DEVICE MARKING AND ORDERING INFORMATION

Device	Package	Marking	Shipping
ESD3D7VU1S252B	SOD-323	H7	3000/Tape&Reel



### Definitions of electrical characteristics

Symbol	Parameter
$V_{RWM}$	Reverse Stand-off Voltage
$I_R$	Reverse Leakage Current @ $V_{RWM}$
$V_{BR}$	Reverse Breakdown Voltage @ $I_T$
$I_T$	Test Current
$I_{PP}$	Reverse Peak Pulse Current
$V_C$	Clamping Voltage @ $I_{PP}$
$I_F$	Forward Current
$V_F$	Forward Voltage @ $I_F$
$C_j$	Junction Capacitance
$I_{PP}$	Peak Pulse Current



### Absolute Maximum Rating

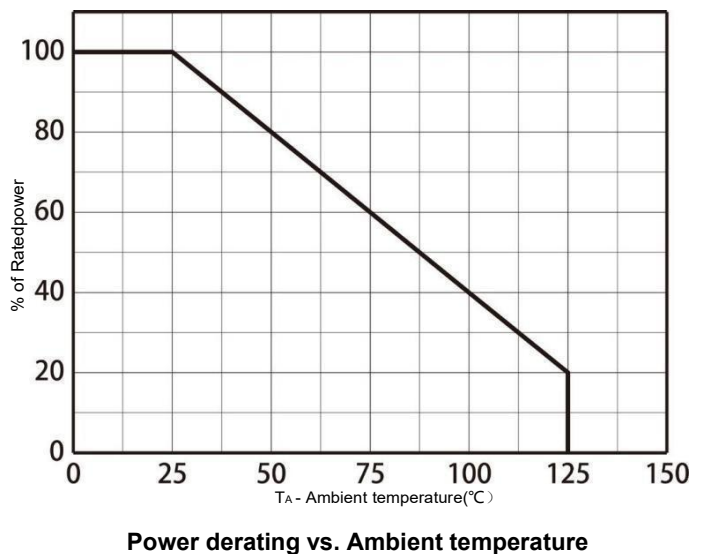
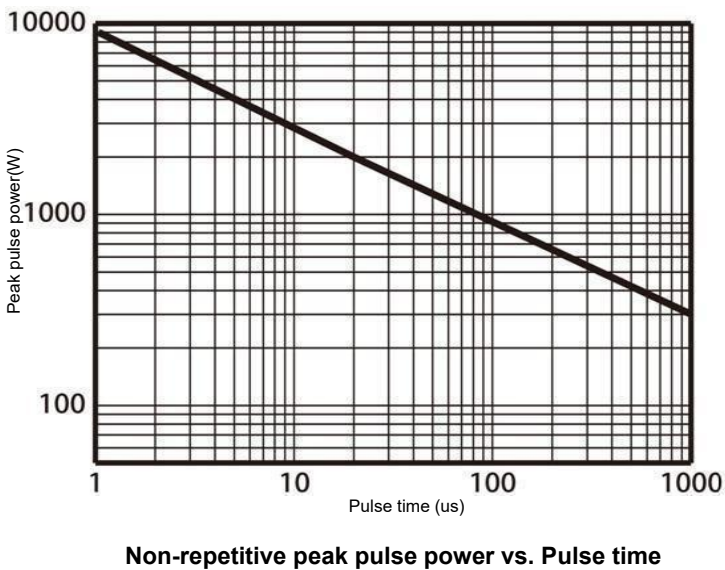
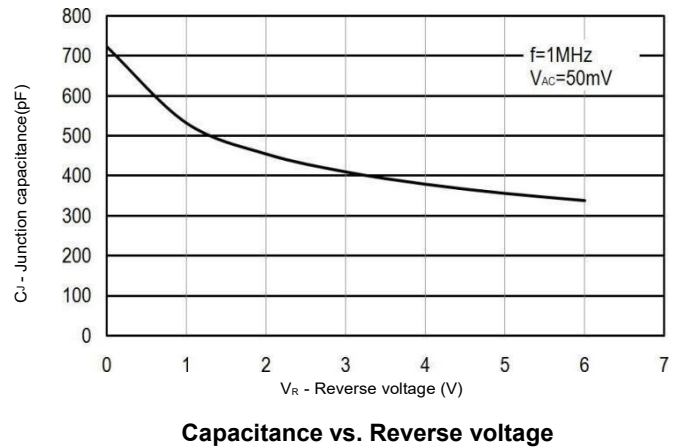
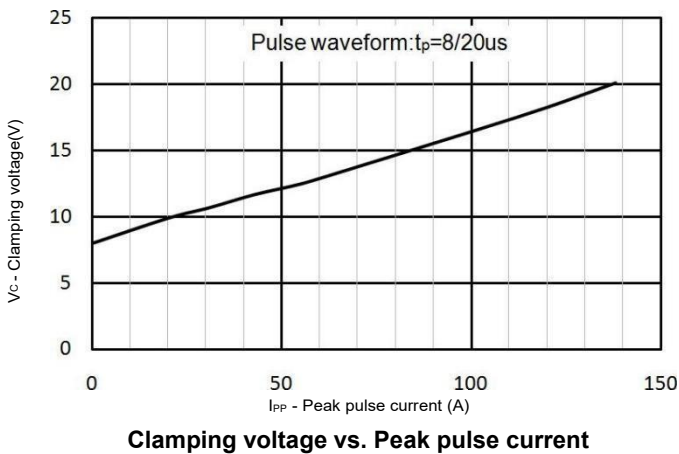
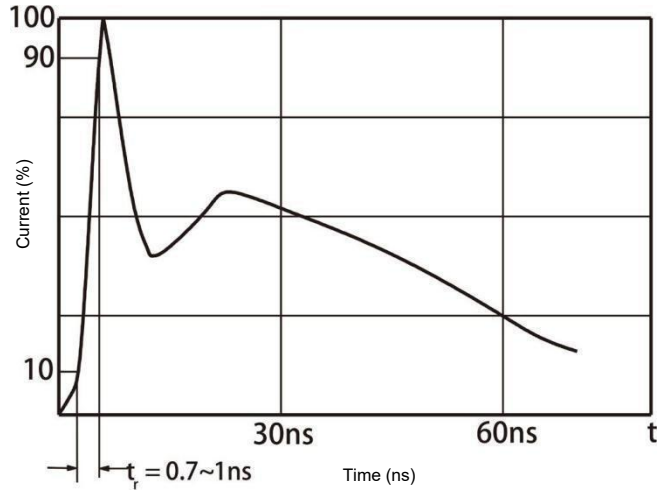
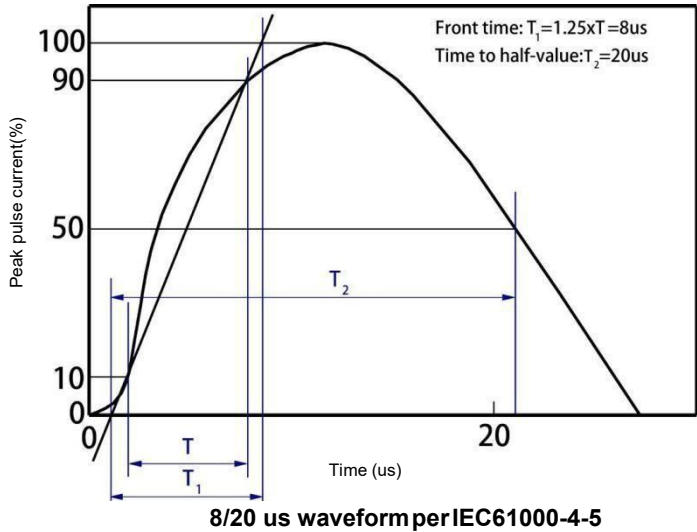
Rating	Symbol	Value	Units
Peak Pulse Power ( $t_p = 8/20\mu s$ )	$P_{PK}$	2500	W
ESD according to IEC61000-4-2 air discharge	$V_{ESD}$	$\pm 30$	kV
ESD according to IEC61000-4-2 contact discharge		$\pm 30$	kV
Lead Soldering Temperature	$T_L$	260 (10 sec)	$^{\circ}C$
Operating Temperature	$T_{OP}$	-55 to +125	$^{\circ}C$
Storage Temperature	$T_{STG}$	-55 to +150	$^{\circ}C$

### Electrical Characteristics ( $T_a=25^{\circ}C$ , unless otherwise noted)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Stand-off Voltage	$V_{RWM}$				7	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T=1mA$	7.5	8	9	V
Reverse Leakage Current	$I_R$	$V_{RWM}=7V$			1	$\mu A$
Peak Pulse Current	$I_{PP}$	$t_p = 8/20\mu s$			130	A
Clamping Voltage	$V_C$	$I_{PP}=70A$ $t_p = 8/20\mu s$		17	19	V
Clamping Voltage	$V_C$	$I_{PP}=105A$ $t_p = 8/20\mu s$		20	25	V
Junction Capacitance	$C_j$	$V_R=0V$ $f = 1MHz$	300	400	500	pF

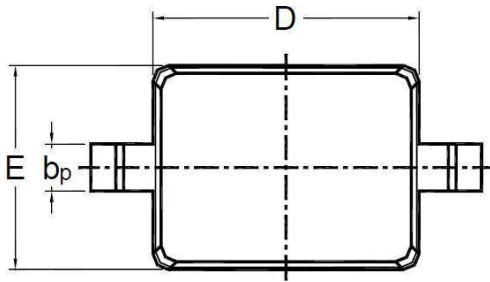
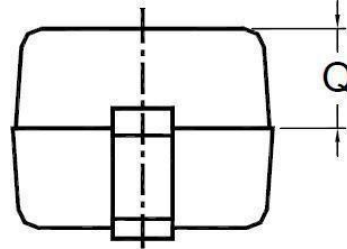
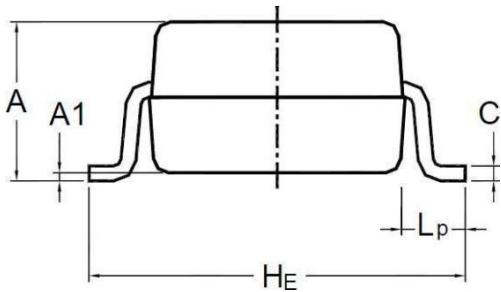


### Typical Characteristics (Ta=25°C, unless otherwise noted)



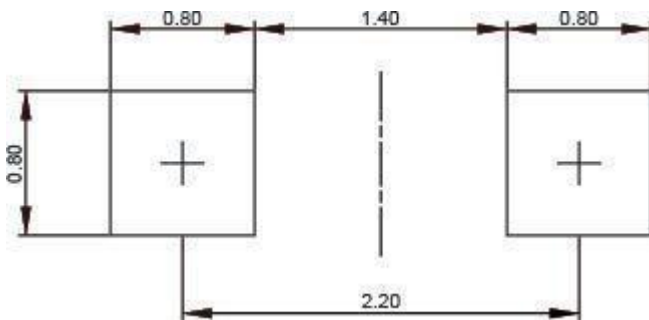


### Package Outline Dimensions (SOD-323)



Dim	Inches		Millimeters	
	MIN	MAX	MIN	MAX
A	0.031	0.043	0.8	1.0
A <sub>1</sub>	0.000	0.004	0	0.1
b <sub>p</sub>	0.010	0.016	0.25	0.4
C	0.000	0.006	0	0.15
D	0.063	0.071	1.6	1.8
E	0.045	0.053	1.15	1.35
H <sub>E</sub>	0.091	0.110	2.3	2.8
L <sub>P</sub>	0.004	0.020	0.1	0.5
Q	0.012	0.020	0.3	0.5

### Recommend Land Pattern (Unit: mm)



Note:

This recommended land pattern is for reference purpose only.



### Load With Information

