

### Features

- Ultra low leakage: nA level
- Low clamping voltage
- Complies with following standards:
  - IEC 61000-4-2 (ESD) immunity test
    - Air discharge:  $\pm 23\text{kV}$
    - Contact discharge:  $\pm 23\text{kV}$
  - IEC61000-4-4 (EFT) 40A (5/50ns)
- RoHS Compliant
- AEC-Q101 qualified

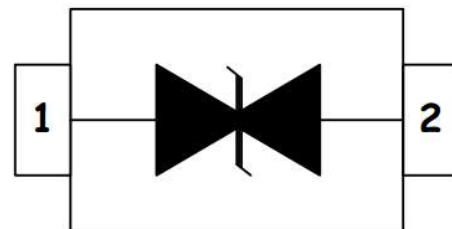
### Dimensions SOD-323



### Applications

- USB 2.0 power and data line
- Set-top box and digital TV
- Digital video interface (DVI)
- Notebook Computers
- SIM Ports
- 10/100 Ethernet
- LIN BUS

### Pin Configuration



### Mechanical Characteristics

- Package: SOD-323
- Lead Finish: Lead Free
- UL Flammability Classification Rating 94V-0
- Quantity Per Reel: 3000pcs
- Reel Size: 7 inch

### Absolute Maximum Ratings (Tamb=25°C unless otherwise specified)

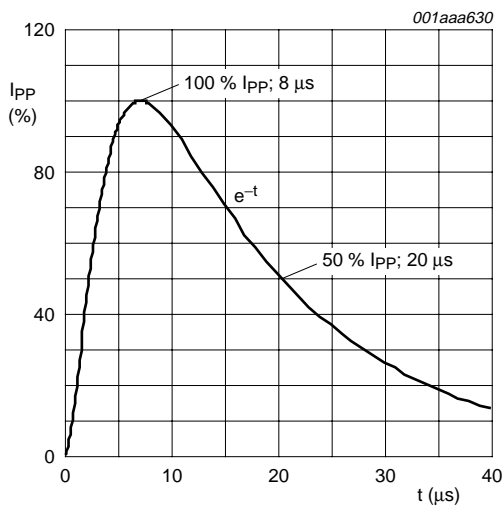
Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 $\mu$ s)	Ppp	160	W
ESD per IEC 61000-4-2 (Air)	V <sub>ESD</sub>	$\pm 23$	Kv
ESD per IEC 61000-4-2 (Contact)		$\pm 23$	
Operating Temperature Range	T <sub>J</sub>	-55 to +125	°C
Storage Temperature Range	T <sub>STJ</sub>	-55 to +150	°C

## Electrical Characteristics (TA=25°C unless otherwise specified)

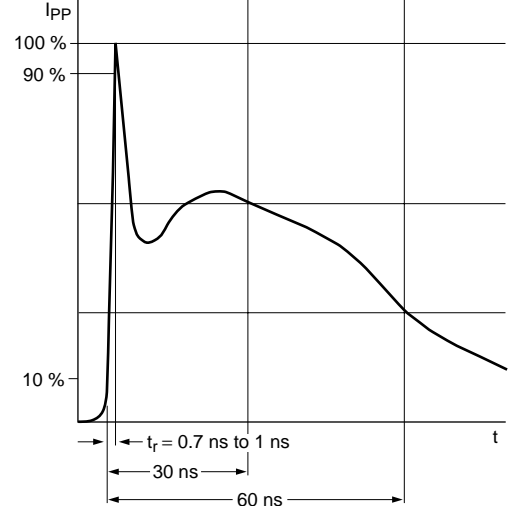
Part Number	Device Marking	V <sub>RWM</sub> (V)	V <sub>BR</sub> (V)	I <sub>T</sub> (mA)	V <sub>C</sub> @1A	V <sub>C</sub>		I <sub>R</sub> μA (Max)	C (Pf) (Typ.)
						(Max)	(@A)		
PESD1LIN	AM	15	18.9	5	25	44	5	0.05	13
		24	27.8	5	40	70	3	0.05	13

## Characteristic Curves

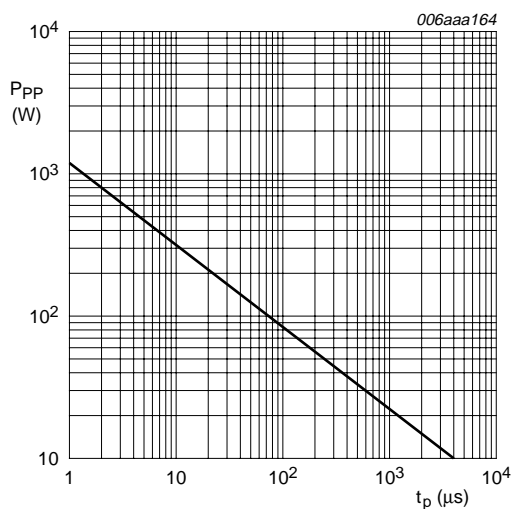
**Fig 1. 8/20 μs pulse waveform according to IEC 61000-4-5**



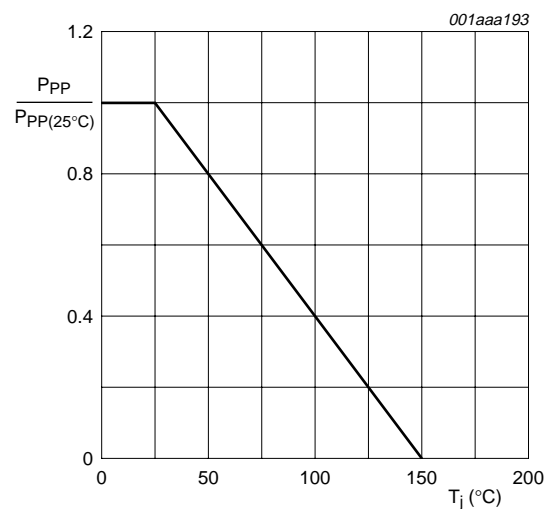
**Fig 2. ESD pulse waveform according to IEC 61000-4-2**



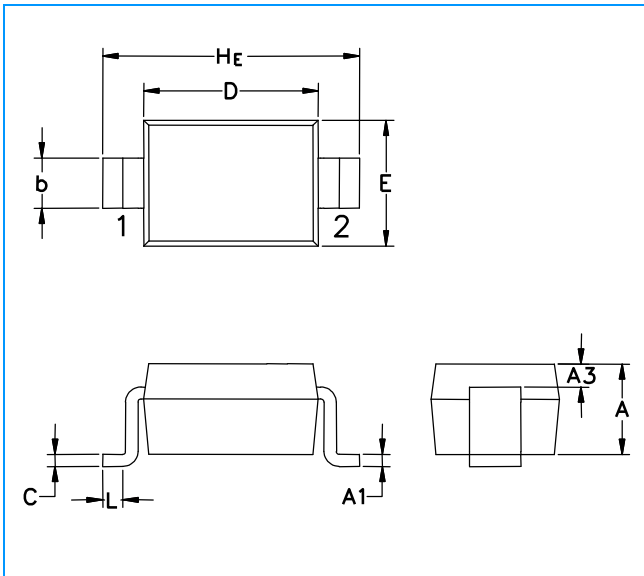
**Fig 3. Peak pulse power as a function of exponential pulse duration; typical values**



**Fig 4. Relative variation of peak pulse power as a function of junction temperature; typical values**

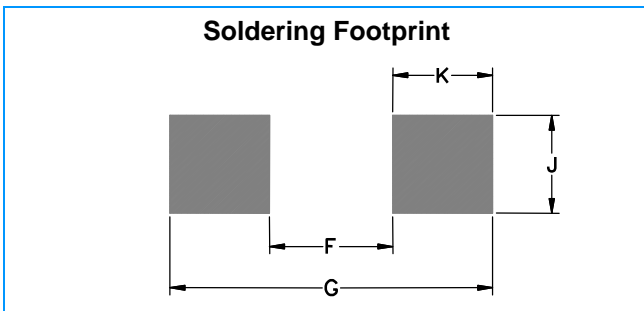


## SOD-323 Package Outline & Dimensions



Symbol	Millimeters			Inches		
	Min.	Nom.	Max.	Min.	Nom.	Max.
A	0.80	0.90	1.00	0.031	0.035	0.040
A1	0.00	0.05	0.10	0.000	0.002	0.004
A3	0.15 REF			0.006 REF		
b	0.25	0.32	0.40	0.010	0.012	0.016
C	0.089	0.12	0.177	0.003	0.005	0.007
D	1.60	1.70	1.80	0.062	0.066	0.070
E	1.15	1.25	1.35	0.045	0.049	0.053
L	0.08			0.003		
HE	2.30	2.50	2.70	0.090	0.098	0.105

### Soldering Footprint



Symbol	Millimeters	Inches
F	1.60	0.063
G	2.85	0.112
J	0.83	0.033
K	0.63	0.025