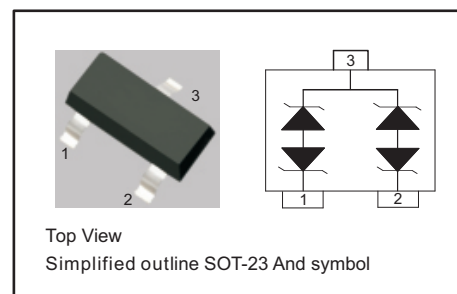


## Plastic-Encapsulate ESD Protection Diode

### Features

- 250 Watts Peak Pulse Power per (8/20 $\mu$ s)
- IEC61000-4-2 (ESD)  $\pm$ 30kV (air),  $\pm$ 30kV (contact)
- Protects two bidirectional line
- Low clamping voltage
- Low leakage current



### Applications

- USB Modules
- HDMI Ports
- LVDs

### Mechanical Characteristics

- Package: SOT-23
- Flammability Rating: UL 94V-0
- High temperature soldering guaranteed: 260 $^{\circ}$ C /10s
- Packaging: Tape and Reel

### Absolute Maximum Ratings And Characteristics (Ta = 25 $^{\circ}$ C)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 $\mu$ S)	P <sub>pk</sub>	250	W
Peak Pulse Current	I <sub>pp</sub>	15	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V <sub>ESD</sub>	$\pm$ 30 $\pm$ 30	KV
Operating Temperature Range	T <sub>J</sub>	-55 to +150	$^{\circ}$ C
Storage Temperature Range	T <sub>stg</sub>	-55 to +150	$^{\circ}$ C

### Characteristics at Ta = 25 $^{\circ}$ C

Parameter	Symbol	Conditions	Minimum	Typical	Maximum	Units
Reverse stand-off voltage	V <sub>RWM</sub>				5	V
Breakdown Voltage	V <sub>BR</sub>	I <sub>T</sub> =5mA	6.0		9.0	V
Reverse Leakage Current	I <sub>R</sub>	V=V <sub>RWM</sub> , T <sub>a</sub> =25 $^{\circ}$ C			1.0	$\mu$ A
Clamping Voltage	V <sub>C</sub>	I <sub>PP</sub> =15A, t <sub>p</sub> =8/20 $\mu$ s			12	V
Junction Capacitance	C <sub>j</sub>	V <sub>R</sub> =0V, f=1HMz		45		pF



Fig.1 Power Derating Curve

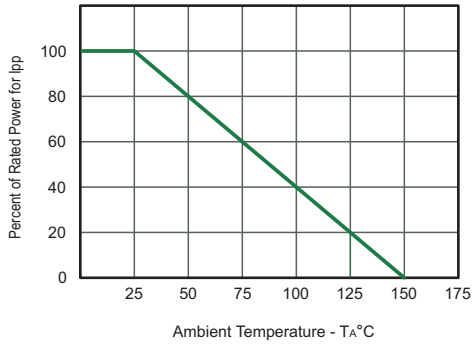


Fig.2 Contact discharge current waveform per IEC61000-4-2

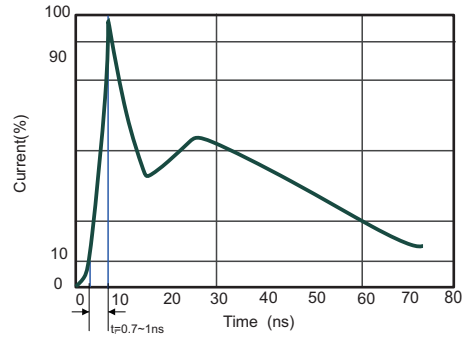
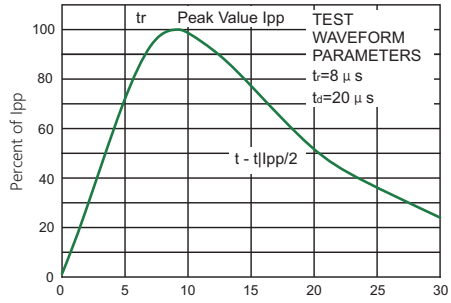
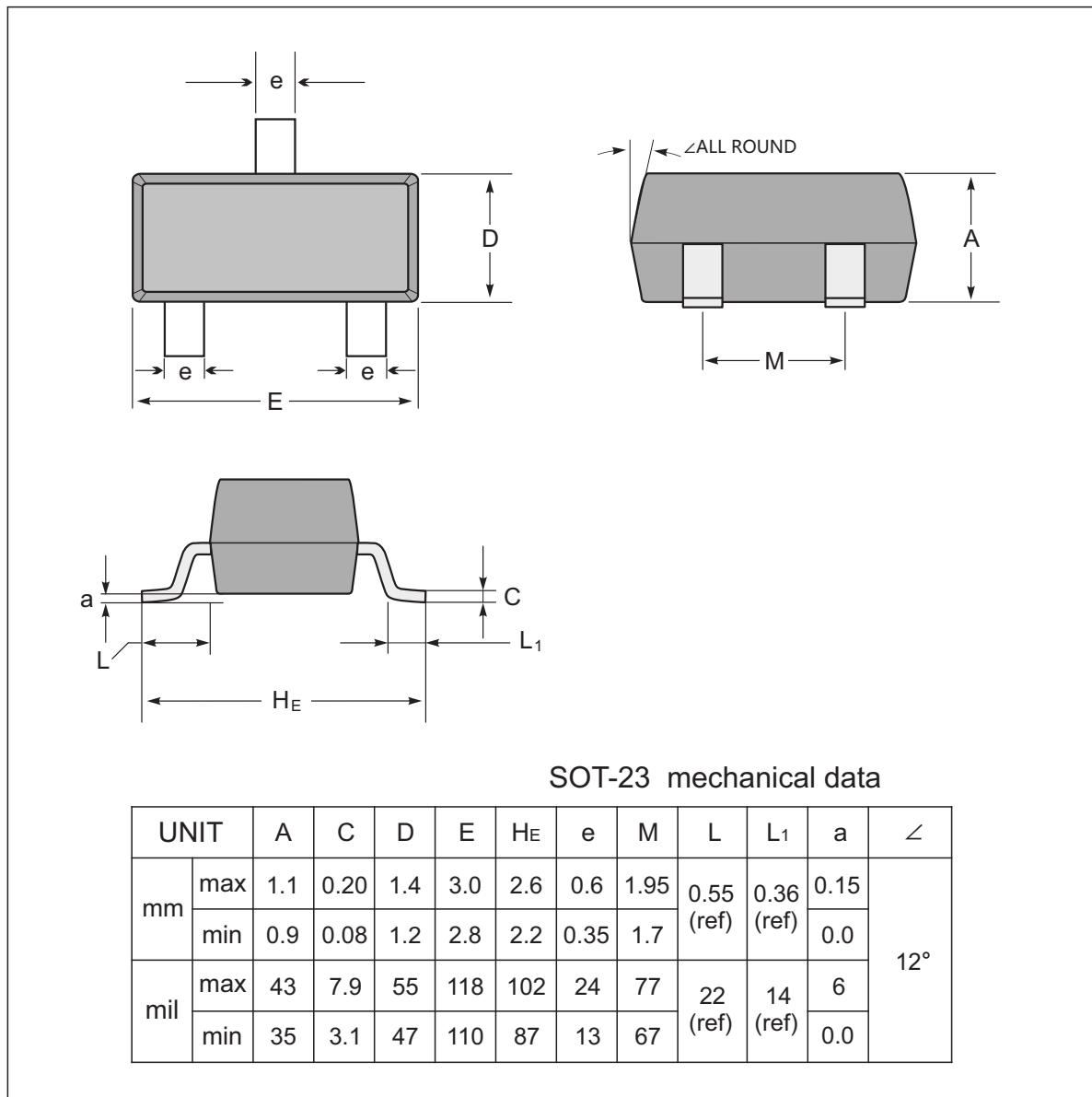


Fig.3 Pulse Waveform

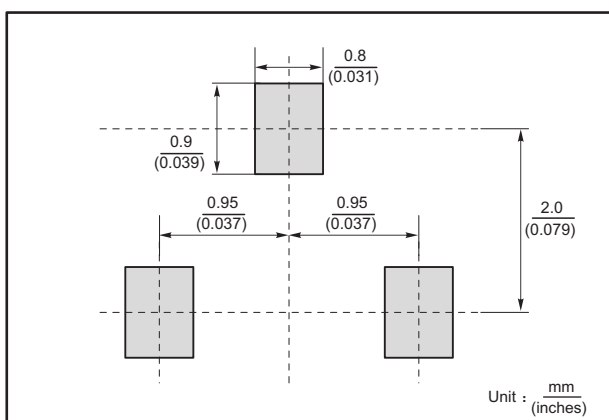




### SOT-23 Package Outline Dimensions



#### The recommended mounting pad size



#### Marking

Type number	Marking code
ESDB5V0T2LP	2R1



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