

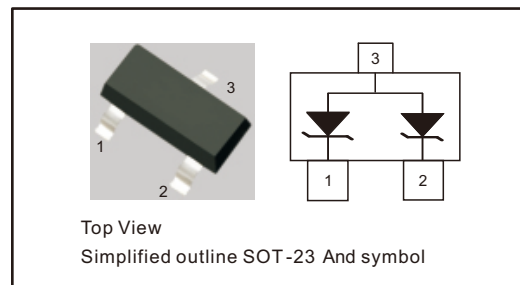
Plastic-Encapsulate ESD Protection Diodes

Features

- 300 Watts Peak Pulse Power per (8/20 μ s)
- IEC61000-4-2 (ESD) \pm 30kV (air), \pm 30kV (contact)
- Protects one bidirectional line or two unidirectional lines
- Low clamping voltage
- Low leakage current
- Working voltages : 5.2V

PINNING

PIN	DESCRIPTION
1, 2	Cathode
3	Anode



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 (Ta = 25 $^{\circ}$ C)

Parameter	Symbol	Value	Unit
Peak Pulse Power(8/20 μ s)	P _{pk}	300	W
ESD per IEC 61000-4-2(Air) ESD per IEC 61000-4-2(Contact)	V _{ESD}	\pm 30 \pm 30	kV
Maximum Junction Temperature	T _J	150	$^{\circ}$ C
Storage Temperature Range	T _{stg}	-55 to +150	$^{\circ}$ C

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

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse Stand-off Voltage	V _{RWM}				5.2	V
Breakdown Voltage	V _{BR}	I _T =1mA	6.1		7.2	V
Reverse Leakage Current	I _R	V=V _{RWM} , Ta=25 $^{\circ}$ C		0.15	1	μ A
Clamping Voltage	V _C	I _{PP} =1A, t _p =8/20 μ s			9	V
		I _{PP} =26A, t _p =8/20 μ s			15	V
Junction Capacitance	C _j	V _R =0V, f=1MHz		166		pF



Fig.1 Power Derating Curve

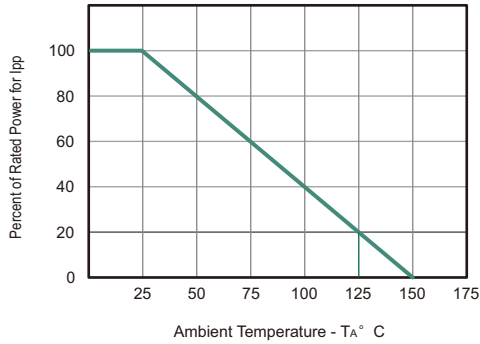


Fig.2 Contact discharge current waveform per IEC61000-4-2

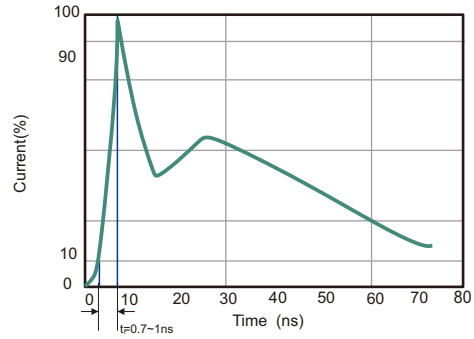


Fig.3 Pulse Waveform

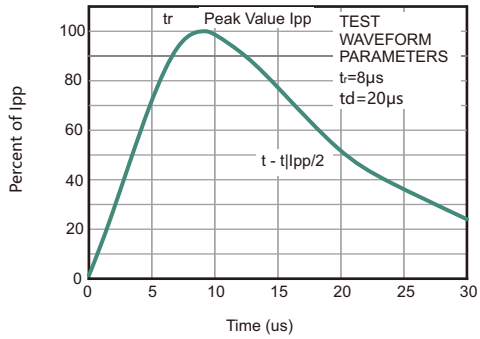


Fig.4 Peak Pulse Power vs. Pulse Time

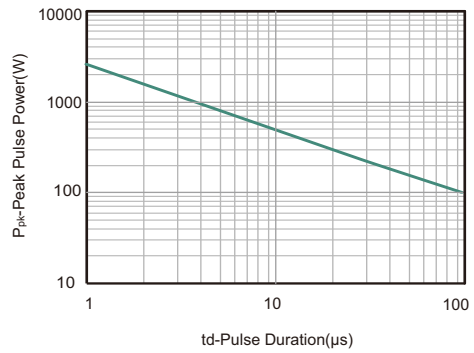
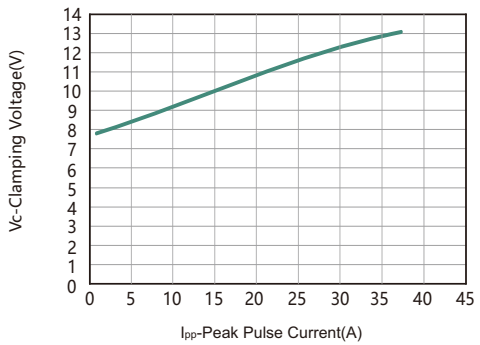
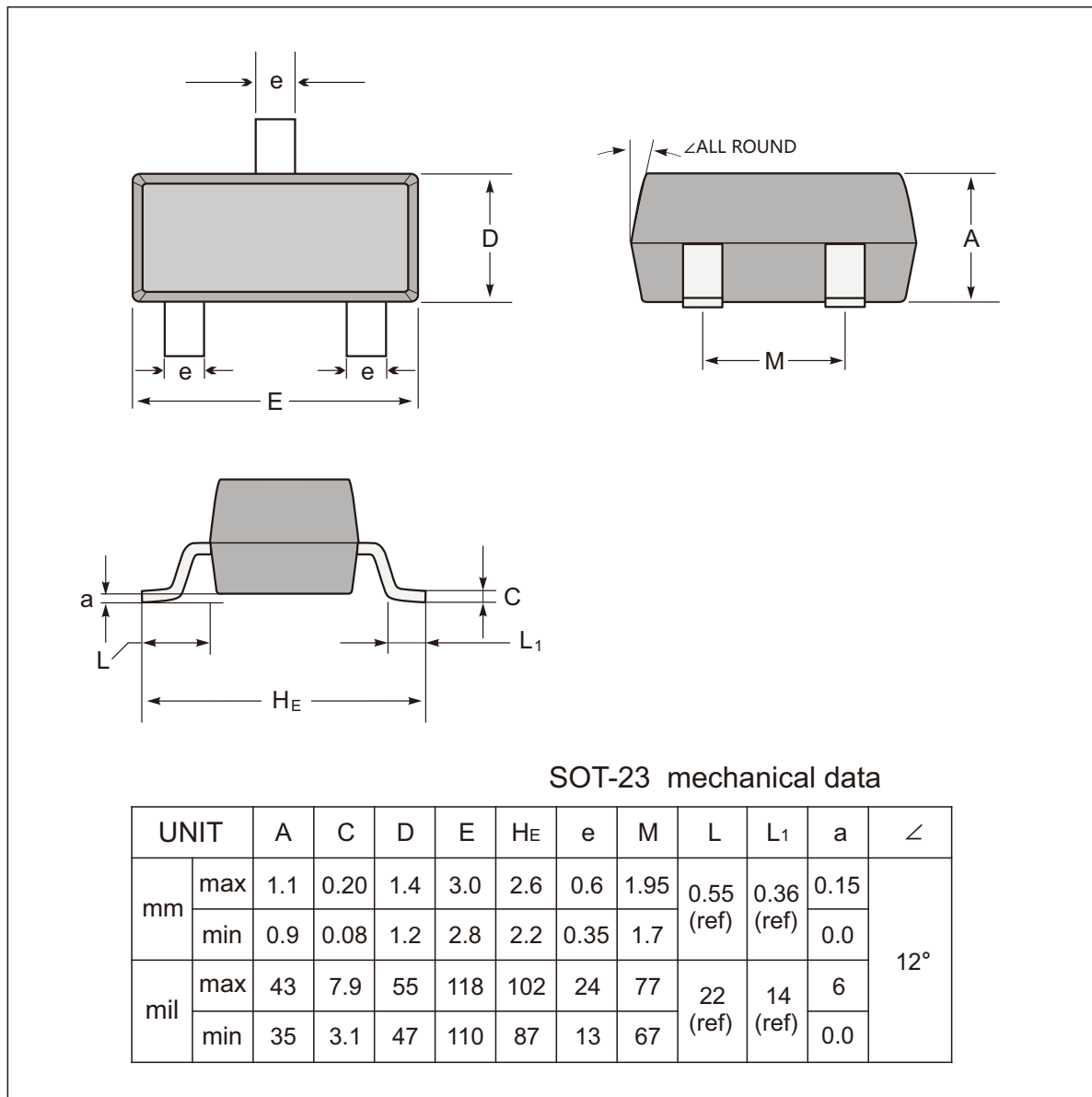


Fig.5 Clamping Voltage vs. Peak Pulse Current

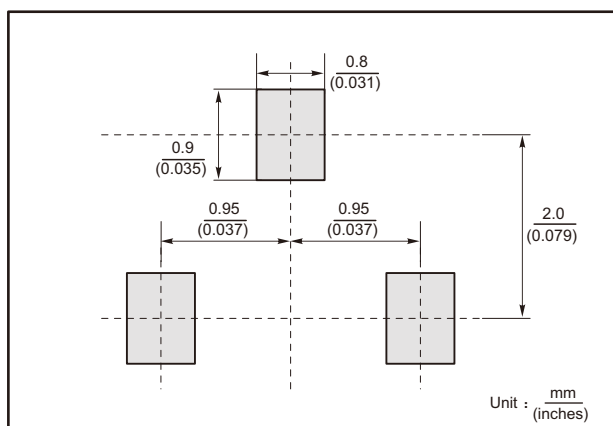




SOT-23 Package Outline Dimensions



The recommended mounting pad size



Marking

Type number	Marking code
ESD5V2T2	300



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