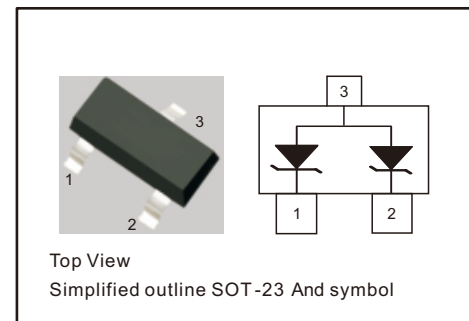


## Plastic-Encapsulate ESD Protection Diodes

### Features

- 400 Watts Peak Pulse Power per (8/20 $\mu$ s)
- IEC61000-4-2 (ESD)  $\pm 15$ kV (air),  $\pm 15$ kV (contact)
- Protects one bidirectional line or two unidirectional lines
- Low clamping voltage
- Low leakage current
- Working voltages : 20 V



### Applications

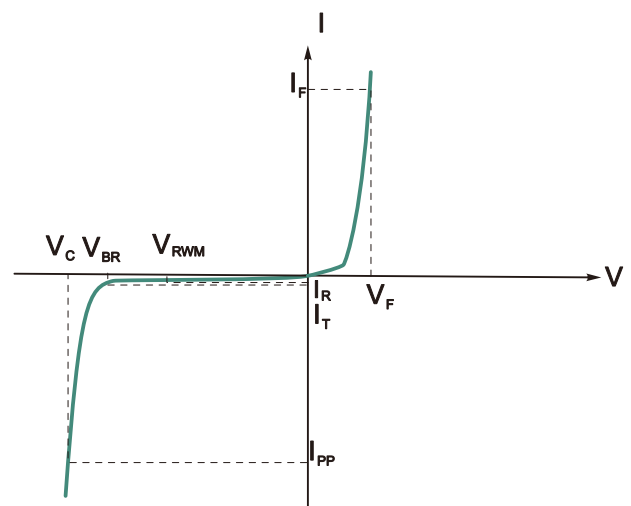
- Cell Phone Handsets and Accessories
- Microprocessor based equipment
- Personal Digital Assistants (PDA's)
- Notebooks, Desktops, and Servers
- Portable Instrumentation
- Networking and Telecom
- Serial and Parallel Ports
- Peripherals

### Mechanical Characteristics

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

### Electronics Parameter

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





MAXIMUM RATINGS( $T_a=25^{\circ}\text{C}$  unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 $\mu\text{s}$ )	Ppk	400	W
Peak Pulse Current	Ipp	8	A
ESD per IEC 61000-4-2(Air)	VESD	$\pm 15$	KV
ESD per IEC 61000-4-2(Contact)		$\pm 15$	
Operating Temperature Range	Tj	-55~+150	$^{\circ}\text{C}$
Storage Temperature Range	Tstg	-55~+150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS( $T_a=25^{\circ}\text{C}$  unless otherwise noted)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse Stand-off Voltage	VRWM				20	V
Breakdown Voltage	VBR	IT=1mA	22.3			V
Reverse Leakage Current	IR	V=VRWM, $T_a=25^{\circ}\text{C}$			1	$\mu\text{A}$
Clamping Voltage	VC	IPP=1A, tp=8/20 $\mu\text{s}$			35	V
Clamping Voltage	VC	IPP=8A, tp=8/20 $\mu\text{s}$			50	V
Junction Capacitance	Cj	VR=0V, f=1MHz			90	pF



Fig.1 Power Derating Curve

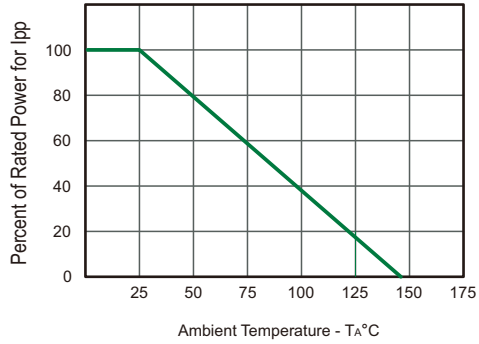


Fig.2 Contact discharge current waveform per IEC61000-4-2

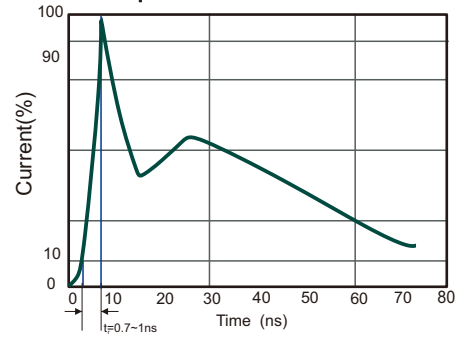
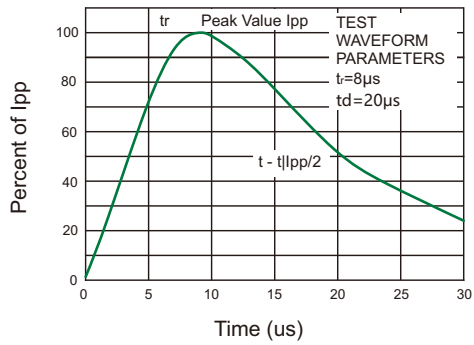
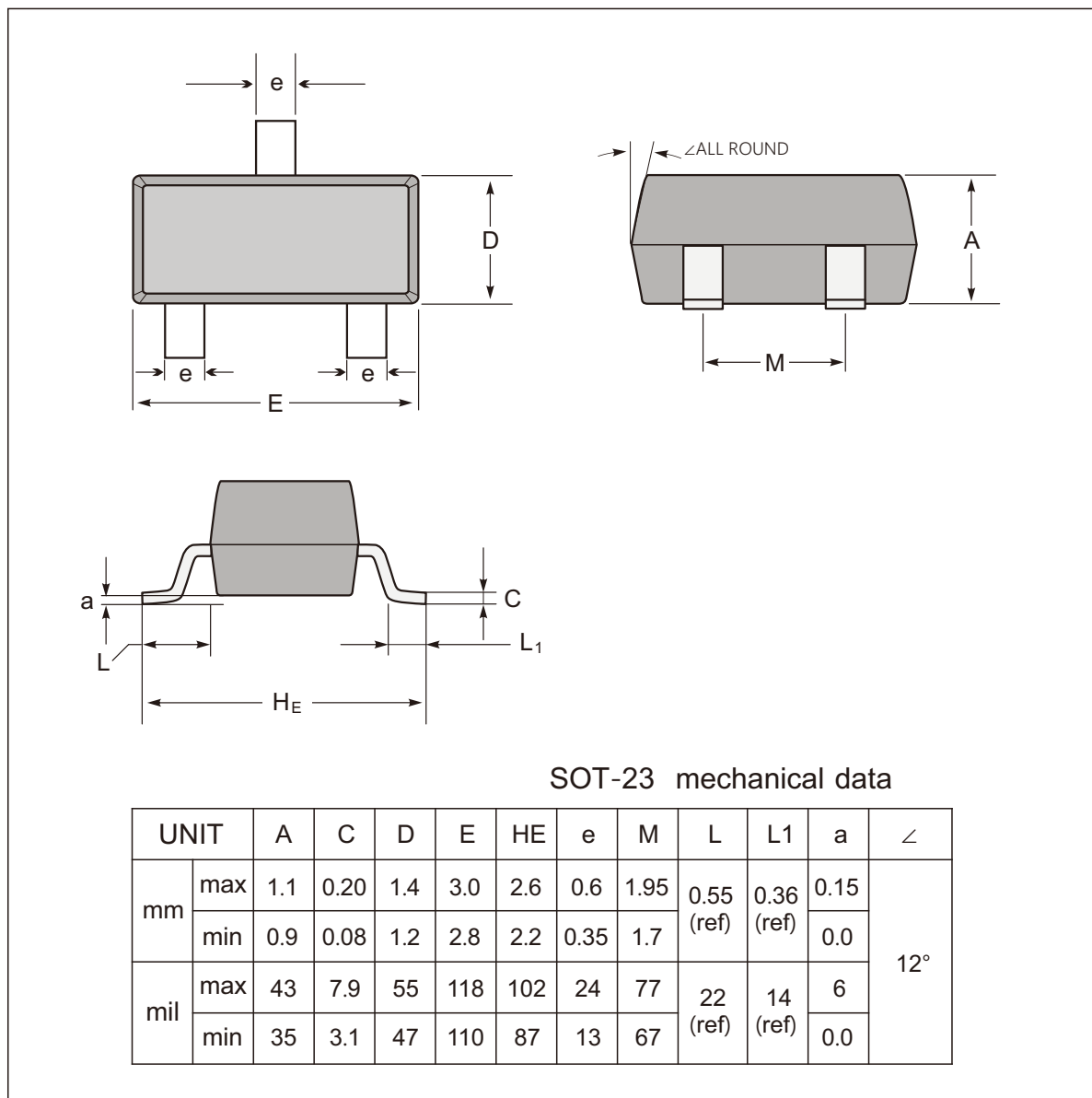


Fig.3 Pulse Waveform

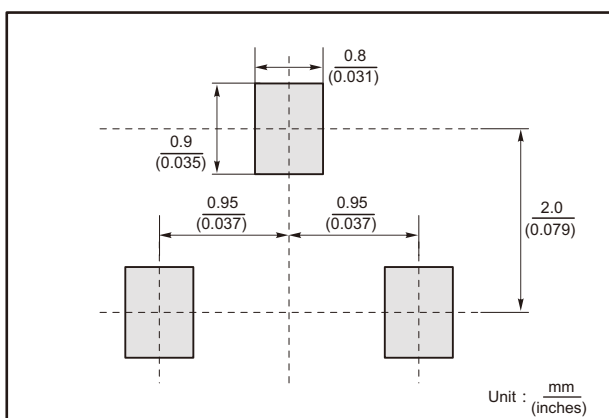




SOT-23 Package Outline Dimensions



The recommended mounting pad size



Marking

Type number	Marking code
ESD20V0T2	20U



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