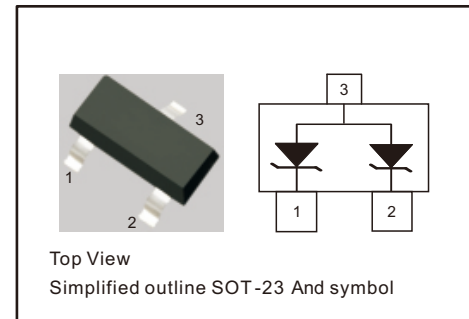




Plastic-Encapsulate ESD Protection Diodes

Features

- 350 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 : 12V



Applications

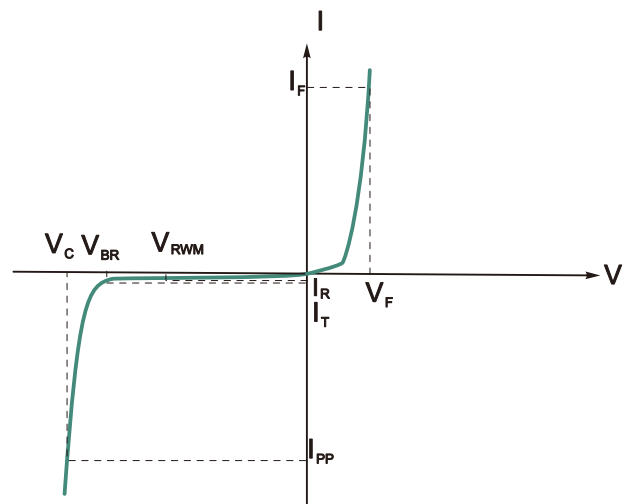
- Cell Phone Handsets and Accessories
- Microprocessor based equipment
- Personal Digital Assistants (PDA's)
- Notebooks, Desktops, and Servers
- Portable Instrumentation
- Networking and Telecom
- Serial and Parallel Ports
- Peripherals

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 μs)	Ppk	350	W
Peak Pulse Current	Ipp	11	A
ESD per IEC 61000-4-2(Air)	VESD	± 30	KV
ESD per IEC 61000-4-2(Contact)		± 30	
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				12	V
Breakdown Voltage	VBR	IT=1mA	13.3			V
Reverse Leakage Current	IR	V=VRWM, $T_a=25^{\circ}\text{C}$			1	μA
Clamping Voltage	VC	IPP=1A, tp=8/20 μs			19	V
Clamping Voltage	VC	IPP=11A, tp=8/20 μs			32	V
Junction Capacitance	Cj	VR=0V , f=1MHz			130	pF



Fig.1 Power Derating Curve

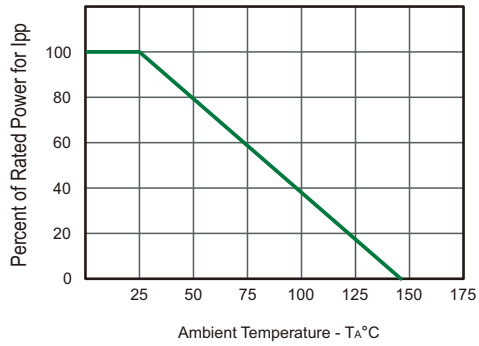


Fig.2 Contact discharge current waveform per IEC61000-4-2

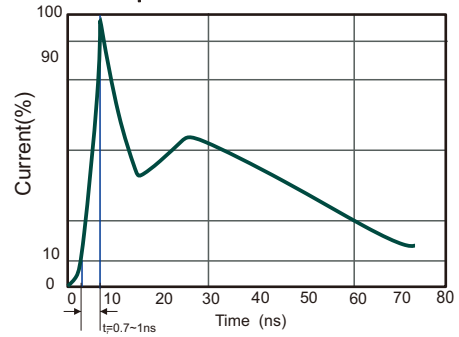
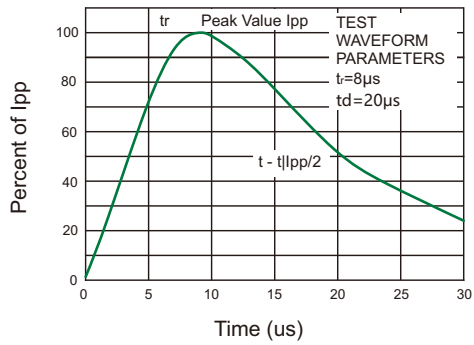
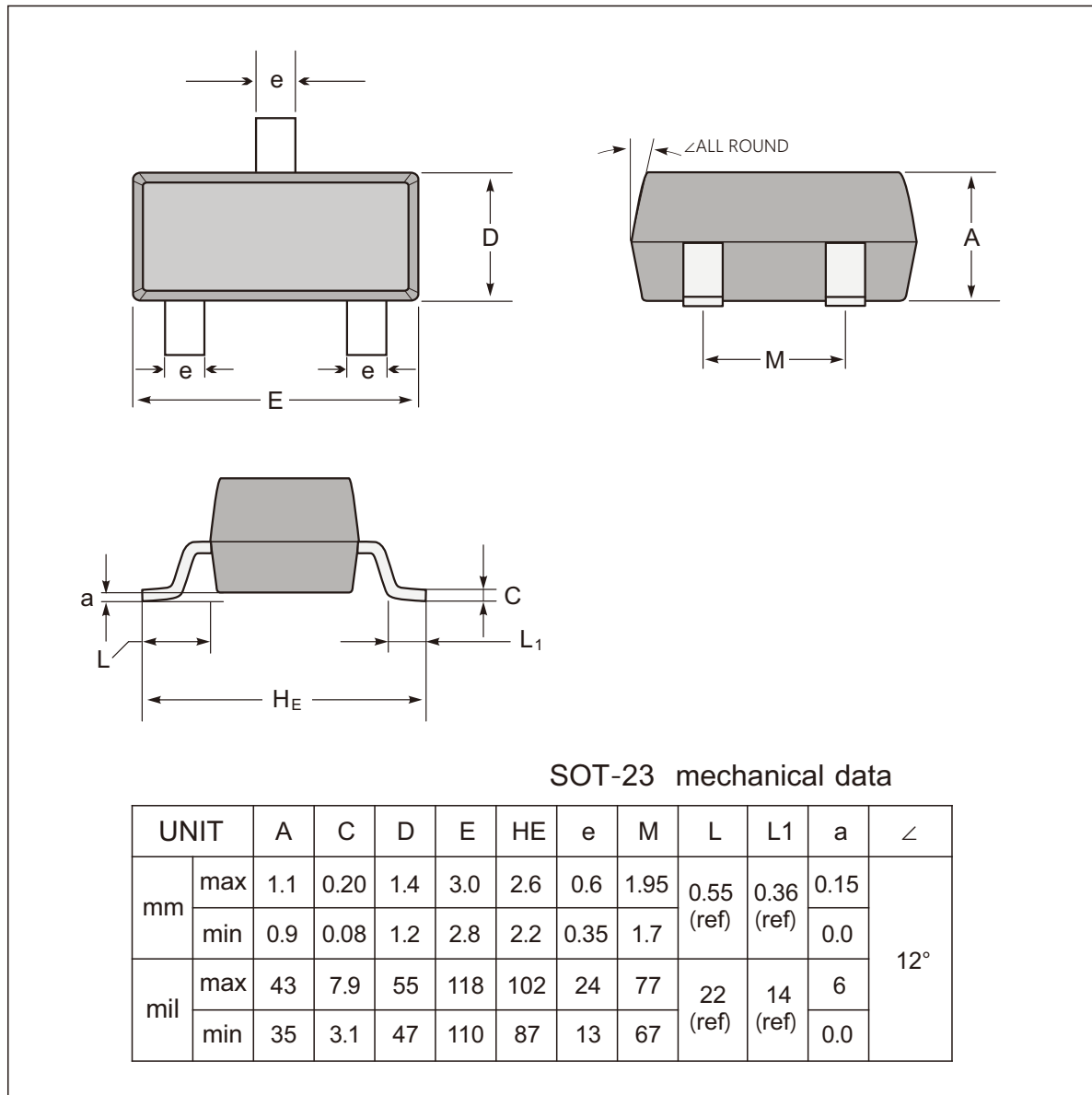


Fig.3 Pulse Waveform

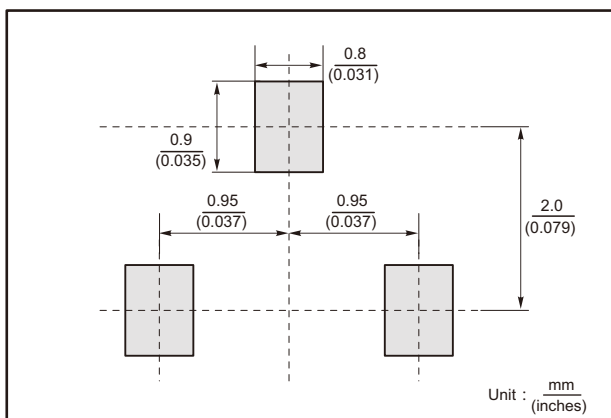




SOT-23 Package Outline Dimensions



The recommended mounting pad size



Marking

Type number	Marking code
ESD12V0T2	12U



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