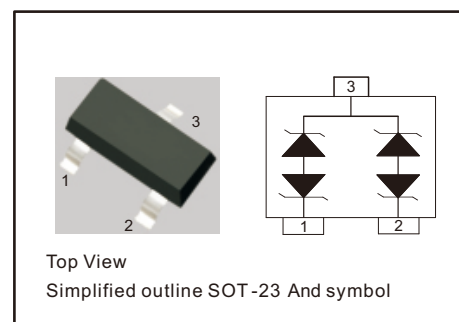


Transient Voltage Suppressors for ESD Protection

Features

- Ultra Low Capacitance: 8 pF Typ
- Low Clamping Voltage
- Working voltage:12V
- Low Leakage
- 200 Watts peak pulse power ($t_p=8/20\mu s$)

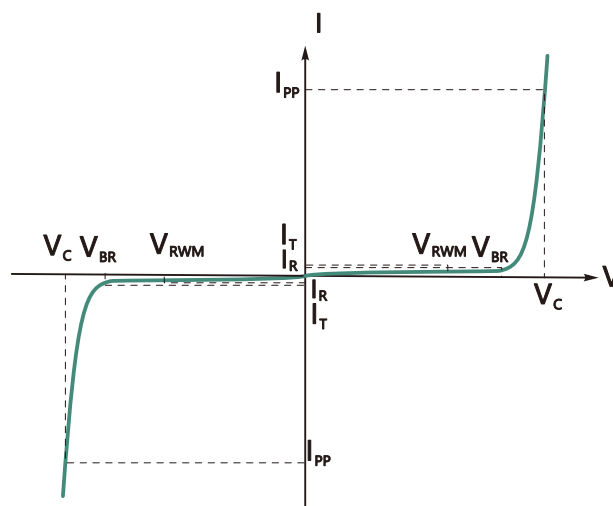


End Equipment

- Power lines
- Personal digital assistants (PDA's)
- Microprocessors based equipment
- Notebooks, Desktops, and Servers
- Cell phone Handsets and Accessories
- Portable Electronics
- Peripheral

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





Absolute Maximum Ratings And Characteristics (Ta = 25 °C)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20uS)	P _{pk}	200	W
Peak Pulse Current	I _{pp}	10	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V _{ESD}	±30 ±30	KV
Operating Temperature Range	T _J	-40 to +125	°C
Storage Temperature Range	T _{stg}	-55 to +150	°C

Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Minimum	Typical	Maximum	Units
Reverse stand-off voltage	V _{RWM}				12	V
Breakdown Voltage	V _{BR}	I _T =1mA(pin 1/2 to pin 3)	13			V
Breakdown Voltage	V _{BR}	I _T =1mA(pin 1 to pin 2)	26			V
Reverse Leakage Current	I _R	V=12V,Ta=25°C			0.1	μA
Clamping Voltage	V _C	I _{pp} =1A,tp=8/20us (pin 1/2 to pin 3)		14.2	17	V
		I _{pp} =10A,tp=8/20us (pin 1/2 to pin 3)		16	20	V
Clamping Voltage	V _C	I _{pp} =1A,tp=8/20us (pin 1 to pin 2)		29	34	V
		I _{pp} =10A,tp=8/20us (pin 1 to pin 2)		33	40	V
Junction Capacitance	C _j	V _R =0V,f=1MHz (pin 1/2 to pin 3)		8	12	pF
Junction Capacitance	C _j	V _R =0V,f=1MHz (pin 1 to pin 2)		4	6	pF



Typical Characteristics

Fig.1 Pulse Waveform

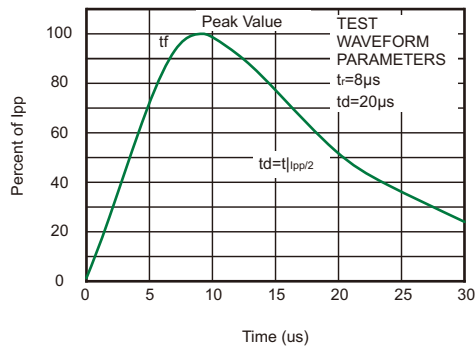


Fig.2 Power Derating Curve

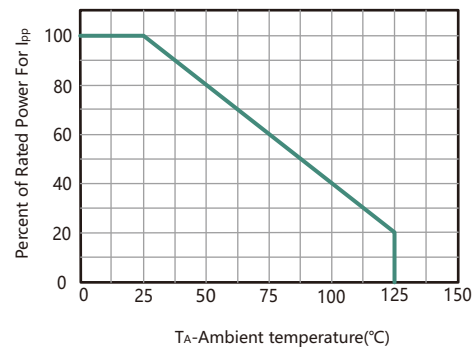
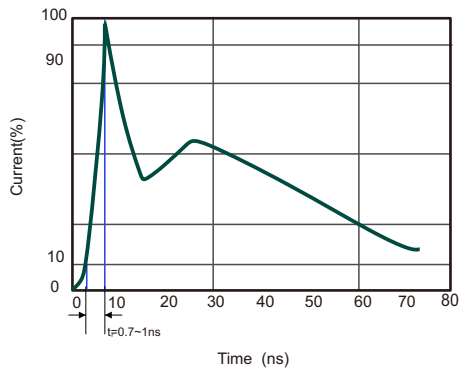
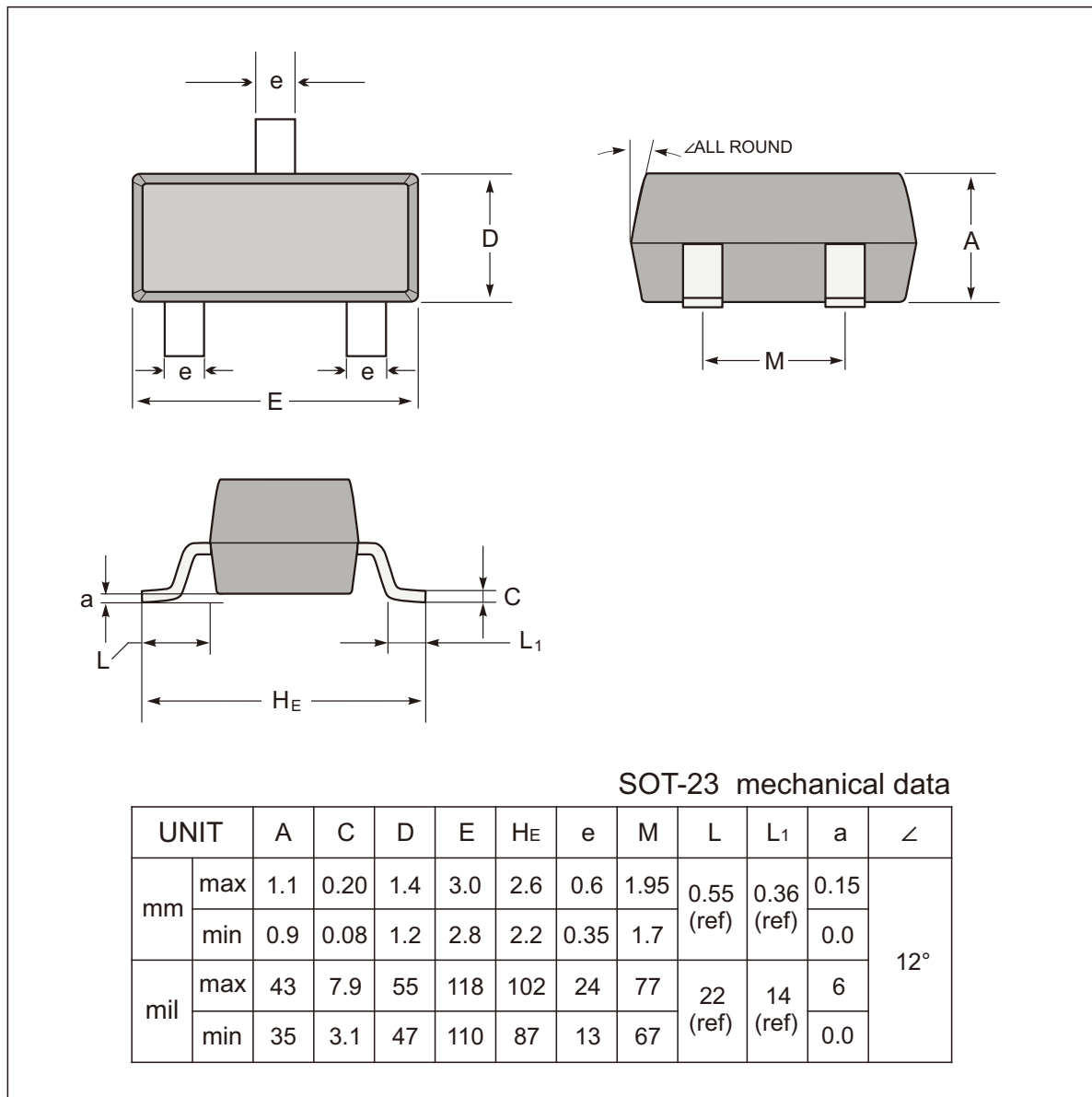


Fig.3 Contact discharge current waveform per IEC61000-4-2

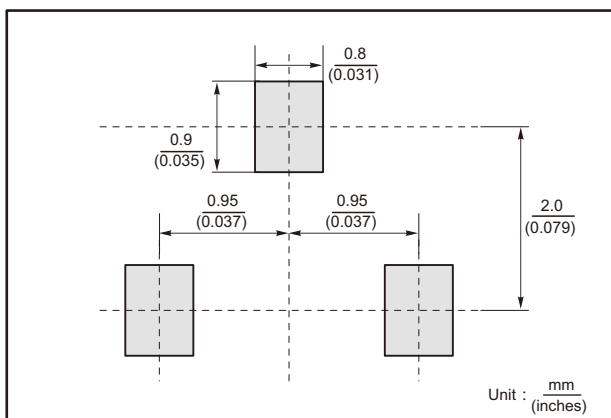




SOT-23 Package Outline Dimensions



The recommended mounting pad size



Marking

Type number	Marking code
ESDA1224T2A	M12C



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