

/ Descriptions

SOT-23 TVS

TVS Array in a SOT23 Plastic Package.

/ Features

1ns

30KV

IEC61000-4-2

4

ESD

AEC-Q101

Small package, Response Time is Typically<1 ns, ESD>30 kV per Human Body Model, IEC61000-4-2 Level 4 ESD Protection, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

/ Applications

ESD

USB 2.0

IEC 61000-4-2(ESD)

±30kV (

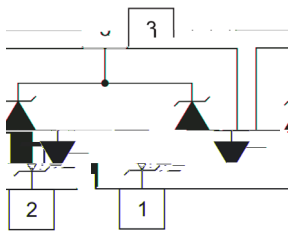
), ±30kV ()

ESD protection for high-speed data lines, such as USB 2.0, set-top boxes, monitors and so on.

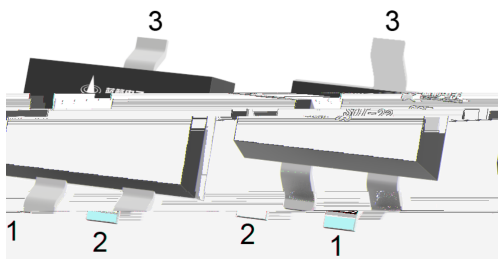
According to IEC 61000-4-2 (ESD) Standard: ± 30kV (air discharge), ± 30kV (contact discharge) ,

Meet the stringent requirements of automotive applications.

/ Equivalent Circuit



/ Pinning



PIN: See Equivalent Circuit.

/ Marking

See Marking Instructions.

/ Absolute Maximum Ratings($T_a=25^\circ\text{C}$)

Parameter	Symbol	Rating	Unit
Peak Pulse Power ($t_p = 8/20\mu\text{s}$)	P_{PP}	350	W
Peak Pulse Current ($t_p = 8/20\mu\text{s}$)	I_{PP}	8.0	A
ESD per IEC 61000-4-2 (Air)	V_{ESD1}	± 30	kV
ESD per IEC 61000-4-2 (Contact)	V_{ESD2}	± 30	kV
Operating Temperature	T_{OPR}	-55 to +150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55 to +150	$^\circ\text{C}$

/ Electrical Characteristics($T_a=25^\circ\text{C}$)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse Stand-Off Voltage	V_{RWM}				24	V
Reverse Breakdown Voltage	V_{BR}	$I_t=1\text{mA}$	26.7			V
Reverse Leakage Current	I_R	$V_{RWM}=24\text{V}$ $T=25$			1	μA
Clamping Voltage	V_C	$I_{PP}=1.0\text{A}$ $t_p=8/20\mu\text{S}$			33	V
	V_C	$I_{PP}=8.0\text{A}$ $t_p=8/20\mu\text{S}$			44	V
Capacitance. Any I/O pin to GND	C_J	$V_R=0\text{V}$ $f=1\text{MHz}$		25	30	pF

/ Electrical Characteristic Curve

Fig.1 Non-Repetitive Pulse Power vs.Pulse Time

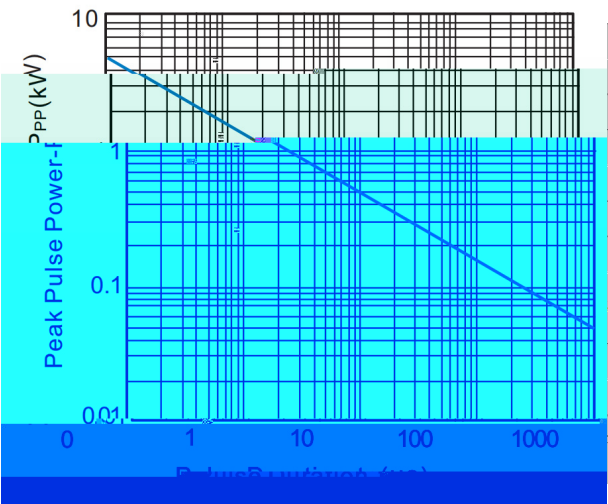
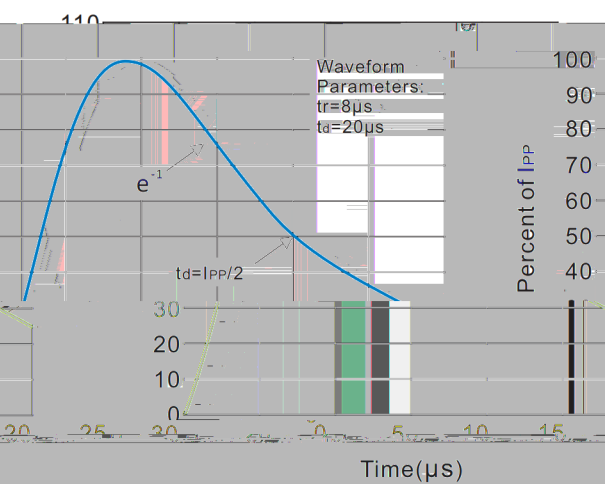


Fig.2 Pulse Waveform

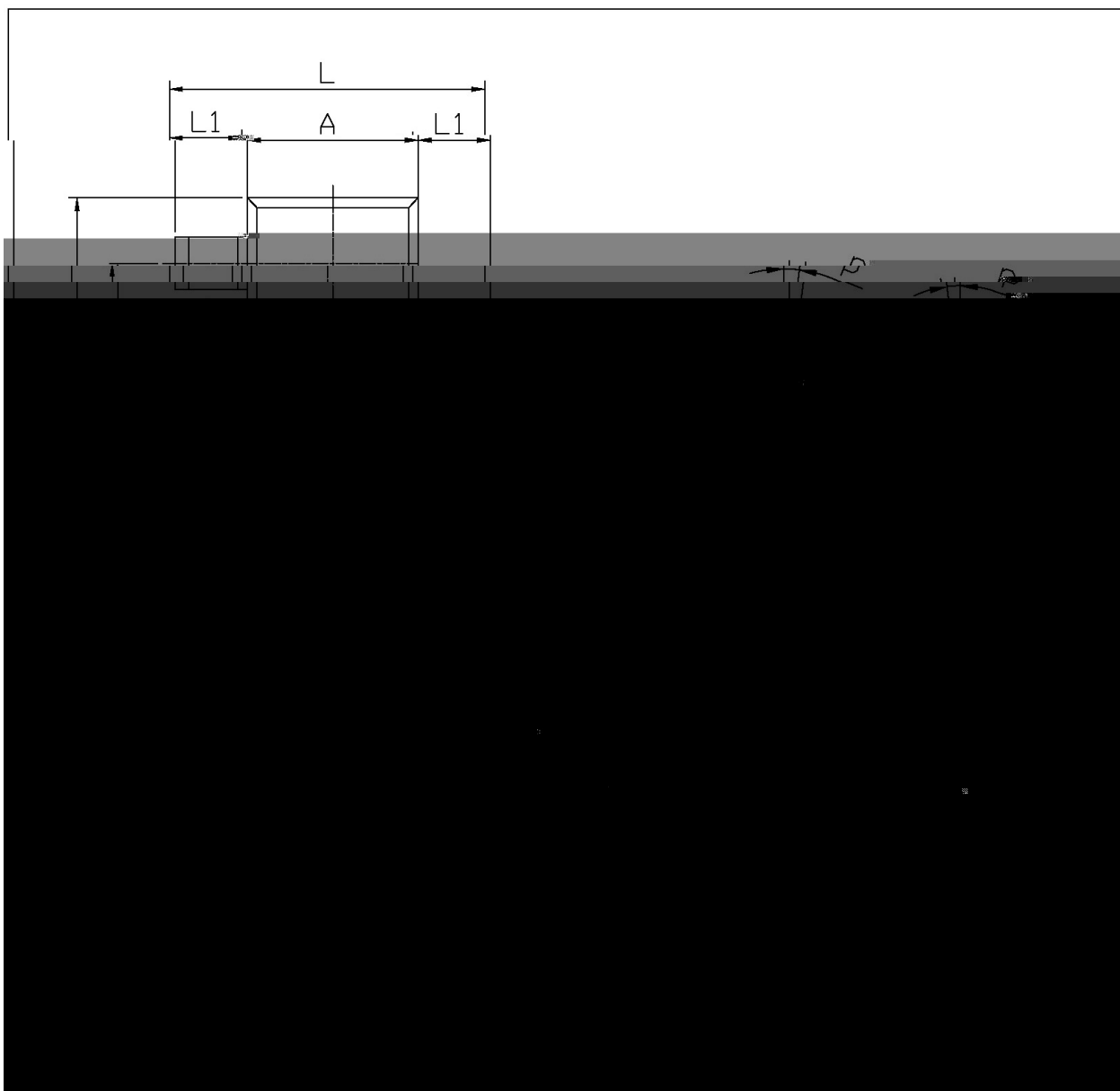




/ Package Dimensions

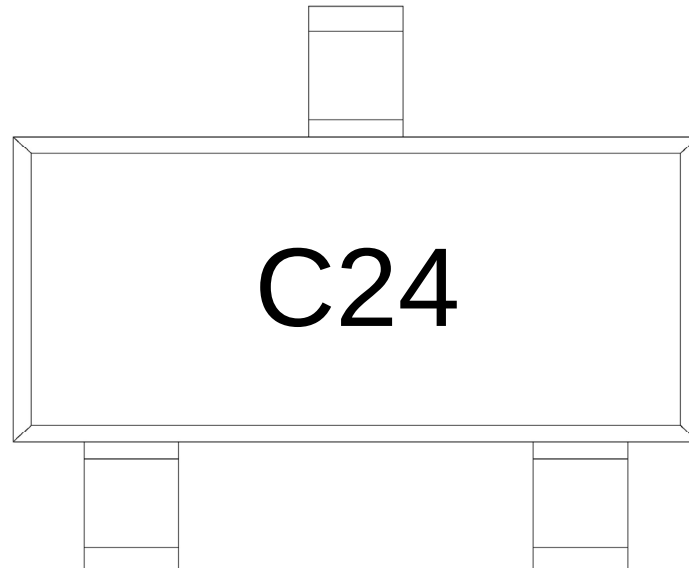
SOT-23

单位: mm





/ Marking Instructions

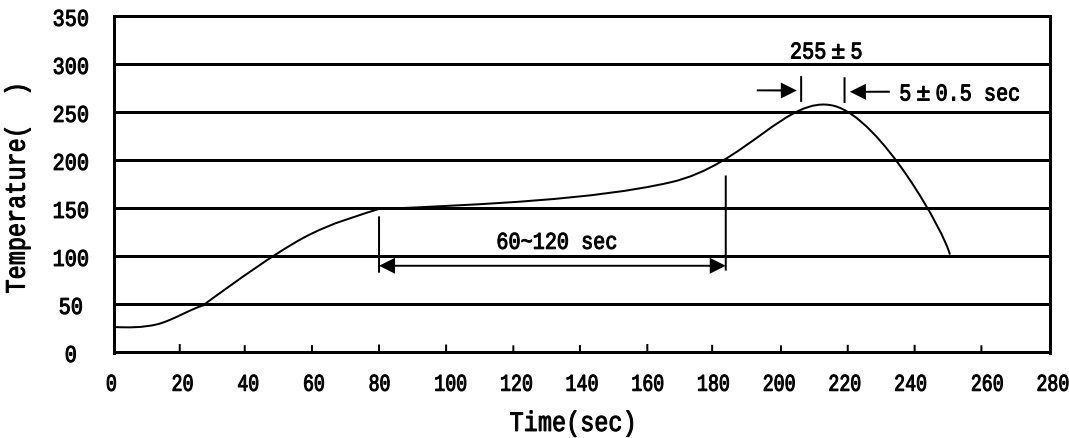


C24

Note:

C24: Product Type Code

() / Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- 1

150 200

60 120sec;

1.Preheating:150~200 , Time:60~120sec.
- 2

255±5

5±0.5sec;

2.Peak Temp.:255±5 , Duration:5±0.5sec.
- 3

2 10 /sec.

3.Cooling Speed: 2~10 /sec.

/ Resistance to Soldering Heat Test Conditions

260±5 10±1 sec. Temp.:260±5 Time:10±1 sec

/ Packaging SPEC.

/ REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
SOT-23	3,000	10	30,000	6	180,000	7 ×8	180×120×180	390×385×205

/ Notices