

ESS2005
ESS2012
ESS2018
ESS2024

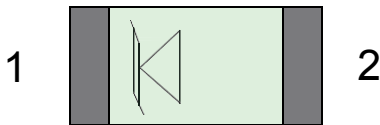
电源专用



1 What is Andason (ESS Series) Suppressor ?

Our Andason ESS Suppressor designed to dispel ESD Surge and Pulse attacks. It is particularly well-suited to protect power supplies of difference systems.

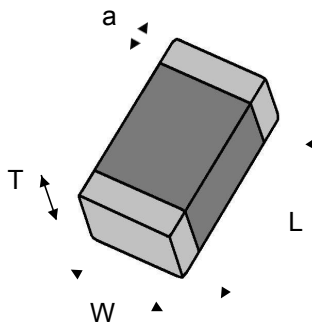
All of ESS suppressor improve by mixture of Polymers. So each device of ESS suppressor could safely dissipate electro-static Surge Attacks. It can provide high speed reaction and great discharging.



2 Application

- * USB 2.0 / 3.0 (USB+) Surge & ESD protection.
- * Car Audio Powers and keyboards protection.
- * Microprocessors、PLC、Industrial Controller.
- * Power protections of Integration Circuits.
- * More Powers and Control Interfaces.
- * Power input and Output of Adapter.

View of Dimensions



	0805 (2012)
	2.00 ± 0.20
	1.25 ± 0.20
	1.40 max
	0.50 ± 0.20

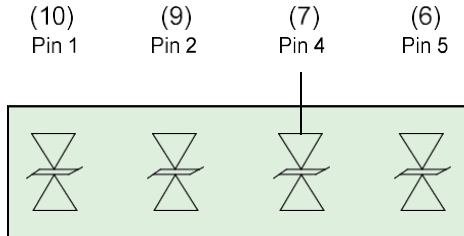
Part No.	Voltages			Currents		Response Time of ESD Start
	Vdc	ESD Trigger	Clamping	DC leakage	Ipeak	
ESS2005	5.5V	6.72 ~ 10.20V	< 22V	< 50uA	40A	< 1ns
ESS2012	12V	14.5 ~ 21.5V	< 47V			
ESS2018	18V	21.6 ~ 32.4V	< 71V			
ESS2024	24V	28.8 ~ 43.2V	< 95V			

ESD Standard	IEC6100-4-2
RoHs	Version 2.0
Amount of Package	7" Reel package with 4,000 pcs.
Range of Temperature on operation	-50~+85°C
Range of Temperature on storage	-50~+125°C

ESD6VP

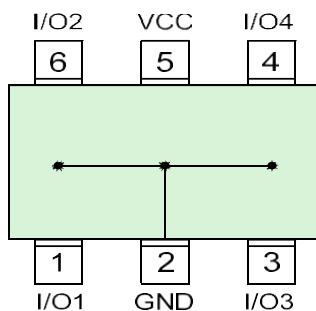


4 - Channels ESD Protection Array

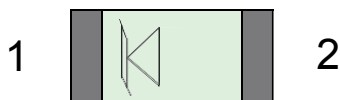


□ Polymer Barriers

ESD6VP8U-N Ultra Low Capacitance
ESD6V10FC Ultra Low Capacitance



ESD6V23T6C Ultra Low Capacitance



Bi-direction ESD Protection Device

ESD6VP2FC **ESD6VP1005**
ESD6VP2F3 **ESD6VP572**
ESD6VP2F15 **ESD6VP3S125**
ESD6VP5SC
ESD6VP5S3
ESD6VP9SC
ESD6VP9S2

1 What is Andason (ESD6VP Series)Suppressor ?

Our Andason ESD6VP is a synthetic enhance series of ESD series. They still are providing more low capacitance ESD transient voltage suppressor which provides a very high level of protection for sensitive electronic components that may be subjected to electrostatic discharge. It is particularly well-suited to protect systems with high speed communication lines from ESD, EFT, and lighting.

All of **PTVS** improve by mixture of Polymers. So each device of ESD6VP series could safely dissipate electrostatic Surge Attack.

Polymer Barriers can effectively increase internal isolation between each channels and improved crosstalk.

2 Features

- 1.Protects four bidirectional I/O lines
- 2.Working voltage: 5V
- 3.Low leakage current
- 4.Low operating and clamping voltages
- 5.Fast response to ESD : ~ 1ns
- 6.ESD protection for IEC61000-4-2 Level 4 / RoHS Compliant
- 7.Fixed capacitance suitable for high-speed I/O port transient voltage protection.

**“ Polymer Improvement”
Method**

- ◆ Transient protection for data lines to
IEC 61000-4-2 (ESD)
±15kV (air)
±8kV (contact)
- IEC 61000-4-4 (EFT)
40A (5/50ns)

ESD6VP Series Polymer

3 Application

- Data Lines of HDMI protection
- USB 2.0 / 3.0 Power and Data Line
- DVD Players, and Docking System etc.
- Applications for I/O Port for Mother Board and Notebook
- Cellular Handsets and Accessories
- Cordless Phone
- Notebooks and Handhelds
- MID (Mobile Internet Device) & Tablet Computer.
- Portable Instrumentation
- Digital Cameras
- DVB, DVI and other Digital Video System.
- High Definition Multi-Media Interface Protection
- (RS232, USB, PS2, VGA, Audio), Set-Top Box, MP3 Players,
- Monitors and Notebook Computers
- HDSL, IDSL Secondary IC Side Protection



Reverse Stand - Off Voltage V_{RWM}	Max. 5.0 V
Reverse Leakage Current I_R	Typical 0.01 uA Max. 1.0 uA
Operating Junction Temperature	-55 ~ 150 °C
Storage Temperature Range	-55 ~ 150 °C
Lead Soldering Temperature	260 °C (10 sec)

4 Selection

ABSOLUTE MAXIMUM RATINGS

(TA=25°C Unless otherwise noted)

Parameter			ESD6VP														
			8U-N	10FC	23T6C	2FC	2F3	2F15	1005	9SC	9S2	5SC	5S3	572	3S125		
Peak Pulse Power (tp = 8/20 us)	Ppk		250	200	180	120	100	110	135	125	110	125	150	250	980	W	
Maximum Peak Pulse Current (tp = 8/20 us)	Ipp		30	20	13	7.5	7.5	7.5	-	-	-	-	-	10	-	A	
ESD per IEC 61000 – 4 – 2 (Air)	Vpp		±17	±15	±17	±15										KV	
ESD per IEC 61000 – 4 – 2 (Contact)	Vpp		±12	±10	±12	± 8										KV	
Reverse breakdown Voltage VBR	Min.	V	5.9	6.0	6.0	5.6	5.6	5.6	5.2	5.6	5.6	5.6	5.8	6.0	6.0	V	
	Typical	V	6.9	7.0	7.0	-	6.7	6.7	7.2	-	6.7	-	-	-	-	V	
	Max.	V	-	-	10	8.5	7.9	7.9	8.8	8.5	7.9	8.5	7.8	8.5	8.0	V	
Clamping Voltage VC	Max.	V	11	12	10	10	10.8	10	12	10	11.5	11.5	11.5	11.5	9.2	V	
Junction (I/O to Ground) Capacitance Cj	Typical	pF	0.3	0.5	0.5	0.3	3	15	5	0.3	2	0.4	3	5	125	pF	
	Max.	pF	0.7	0.8	0.8	-	-	20	-	-	-	-	-	10	150	pF	
Case of Component			DFN-10		SOT23-6L		DFN1006-2L		0402		SOD-923		SOD-523		SOD-723	SOD-323	
Amount per Reel (7 inch Dimension)			3,000			10,000				8,000		3,000					

Interfaces	Recommend 1	Recommend 2
Line Out - L	ESL100503 or ESL160503	
Line In - R / L		
Video Out Composite		
Keyboard / Touch Screen		
Reset Input of Chips		
USB 2.0 Data (- +)	ESS2005	
3.3V Power (+)		
USB Power 5 VDC (+)	ESS2012	ESL160903
DVB Power 12 V	ESS2018	ESL162403
USB 3.0 Data (- +)	ESD6VP2FC	ESD1005D
Antenna / RF Amplifier	ESD6VP2FC	ESD1005D
HDMI / DVI / BNC	ESD1005D ESD6VP8U	ESD6VP10FC ESD6VP23T6C

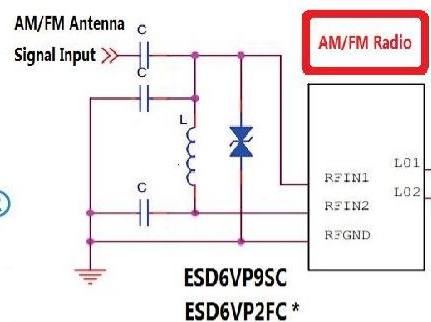
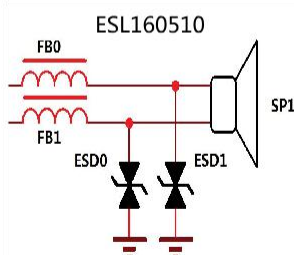
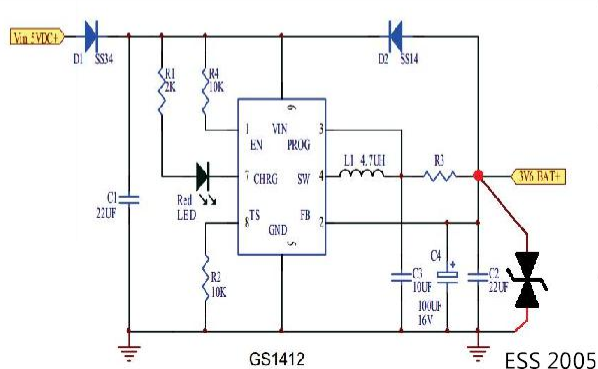
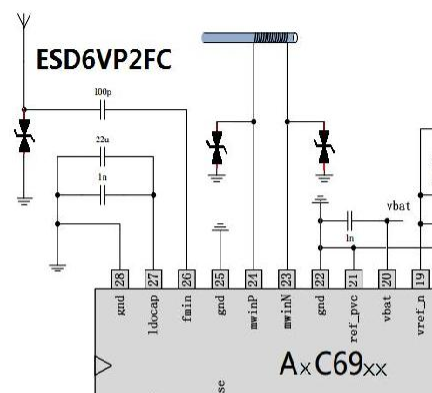
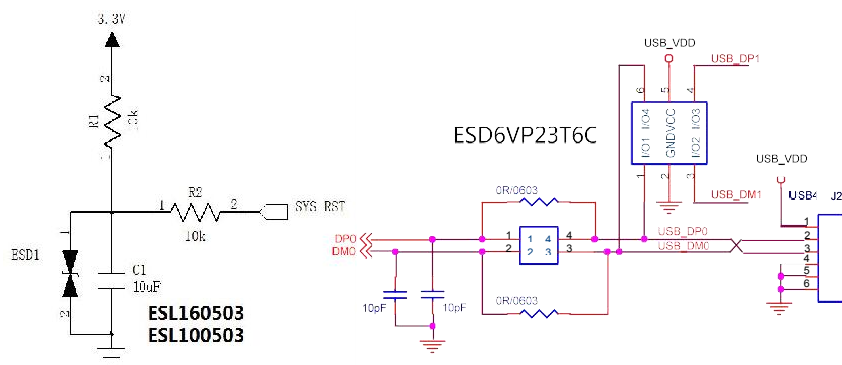
* Recommended to enquire detail application from our Sales-Engineers in special cases.

* Please refer single Specification Sheet and understand their detail.

建议直接询问销售工程师；查询实际应用及安排免费技术支持。

请参考个别型号的独立规格书内容, 了解相关参数更新。

Real Applications of ESD Suppressor



ANDASON®

