

客户Customer:

日期Date: 2024年10月25日

承认书

SPECIFICATION

种 类: 固态铝电解电容器
Description: Aluminum Solid Electrolytic Capacitors
艾华料号 AISHI P/N: SVS1EM221E10E00RS502
系 列 SERIES: VS
规 格 尺 寸 ITEM: 25V220uF(Φ6.3*10)
客户料号 Customer P/N: /
编 号No.: CRS-FX-2410349

批准 Approved by			客户确认Client Confirmed	
制作 Prepared by	审核 Checked by	批准 Approved by	审核 Checked by	批准 Approved by
				

Please return one copy with your authorized signature when you accept these specifications.
Please note that no return within 6 months is considered to be approvable.

制订/修订履历表Make/revised curriculum vitae

[illegible]

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6.2 耐受能力Endurance Performance

序号 No.	项目 Item	测试方法 Test method	性能 Performance
6.2.1	负荷寿命试验 Load Life Test	电容在105±2℃，额定电压下，加载直流电5000小时后，需在室温下放置2小时才可进行测试。 After 5000 hours continuous application of DC rated working voltage at 105 ± 2℃,the measurements shall be measured after 2 hours exposed at room temperature.	容量变化：在初始值的±20%内 Capacitance change within ±20% of the initial value 损失角：小于规格值的150% tan δ ≤ 150% of the initial specified value. 等效串联电阻≤规格值的150% ESR ≤ 150% of the initial specified value. 漏电流≤0.2CV值或500μA中的任一个较大值 Leakage current ≤the larger values between 0.2CV and 500uA. 外观：没有明显的损伤 Appearance:No significant damage
6.2.2	振动试验 Resistance to Vibration	依照JIS C 5102 8.2和 JIS C 5025 To comply with JIS C 5102 8.2 and JIS C 5025 频率：10到55Hz(1分钟间隔/10→55→10Hz) Frequency: 10 to 55Hz (1 minute interval/10→55→ 10Hz) 振幅：0.75mm(整体偏移1.5mm) Amplitude : 0.75mm (Total excursion 1.5mm) 方向：X, Y, Z (3 轴) Direction : X , Y , Z (3 axes) 持续时间：2小时/轴（共6小时） Duration : 2 hours / axial (Total 6 hours)	容量在30分钟内测量，与初始值相比不应有较大的差异，其改变在±5%以内 Capacitance value should not show drastic change compared to the initial capacitance when the value is measured within 30 minutes.Prior to the completion of exam, capacitance change should be within ±5% compared to the initial value after the exam 外观：导针不得断裂 Appearance:Don't lead wire broken
6.2.3	可焊性 Solder ability	浸渍温度:235℃+5℃ Temperature of solder bath:235℃+ 5℃ 焊料:锡铅焊料 Solder: SnPb solder 浸渍时间:2秒±0.5秒 Immersion time:2s±0.5s.	至少95%的浸渍表面覆盖有新的焊料 At least 95% of surface area of the dipped portion of the terminal shall be covered with new solder.

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Figure 1 is a schematic diagram of the temperature profile for the heat treatment of the alloy. The profile shows a sequence of temperature levels: 105 ± 2 °C, Room temperature, and -55 ± 3 °C. The durations are: 30 ± 3 min at 105 °C, 5 min at Room temperature, 30 ± 3 min at -55 °C, and 5 min at -55 °C. The total duration is 30 min or less.

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The measurements should be measured after 2 hours exposed at room temperature.

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7. 物料编码PART No. SYSTEM

S	VS	1E	M	221	E10	E00	R	S502
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特殊编码 Special code(7.9)

捺印编码Marking code(7.8)

成型方式编码Terminal code(7.7)

尺寸编码Size code(7.6)

电容量编码Capacitance Code(7.5)

电容公差Capacitance tolerance Code(7.4)

电压编码Voltage Code(7.3)

系列编码Series Code(7.2)

类别编码Category Code(7.1)

7.1 类别编码Category Code

编码Code	S
类别编码Category Code	固态电容Solid Capacitor

7.2 系列编码Series Code

编码Code	VS
系列编码Series Code	VS

7.3 电压编码Voltage Code

编码Code	0E	0J	1A	1C	1E	1V	1H	1J	1B	1K
电压编码VoltageCode(W.V)	2.5	6.3	10	16	25	35	50	63	80	100

7.4 电容公差Capacitance tolerance

“M”代表 -20 % ~ +20 %

“M”stands for -20 % ~ +20 %

7.5 电容量编码Capacitance Code

编码Code	100	101	221	471	561	681	821	122
电容量Capacitance (uF)	10	100	220	470	560	680	820	1200

7.6 尺寸编码Size Code

编码Code	E4R	E06	E7C	E10	F9R	FAR	FBR	GCR
直径D (Φ)	6.3	6.3	6.3	6.3	8	8	8	10
高度H (mm)	4.5	6	7.7	10	9.5	10.5	11.5	12.5

7.7 成型方式编码 Terminal Code

编码Code	D00	E00
其他 Other	贴片、散装SMD&Bulk	贴片、编带SMD&Taping

7.8 捺印编码Marking Code

编码Code	S	R
捺印Marking	天蓝Sky blue	红色Red

7.9 特殊编码 Special Code

“S502”代表“5000小时”“S502”stands for“5000hours”

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纹波电流频率系数Frequency coefficient for ripple current

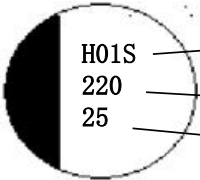
频率Frequency	$120\text{Hz} \leq f < 1\text{ kHz}$	$1\text{ kHz} \leq f < 10\text{ kHz}$	$10\text{ kHz} \leq f < 100\text{ kHz}$	$100\text{ kHz} \leq f < 300\text{ kHz}$
系数Coefficient	0.05	0.3	0.7	1

11. 捺印Marking

除非另有说明，捺印应该清晰地印在电容上

Unless otherwise specified. Capacitor shall be clearly marked on it body.

负极
Negative Polarity

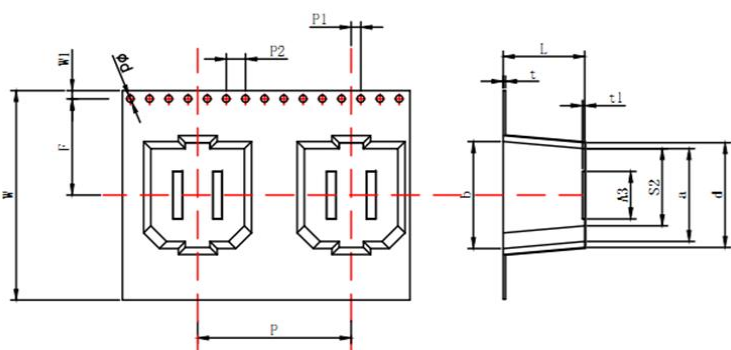


H:	年编码Year code	2024年
01:	周编码Week code	
S:	系列Series	VS
额定电容Rated Capacitance		220
额定电压Rated voltage		25
印字油墨为红色The colour of marking ink is red.		

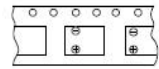
年份代码

年份	2020	2021	2022	2023	2024	2025	2026	2027
代码	C	D	E	F	H	J	K	N
年份	2028	2029	2030	2031	2032	2033	2034	2035
代码	P	Q	S	T	U	V	X	Y

12. 匣盒带Box cassette (单位Unit:mm)



极性Polarity



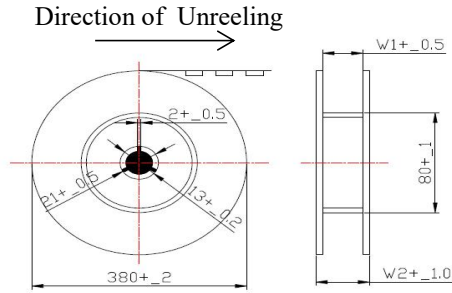
Direction of Unreeling

尺寸编码 Size Code	Φd	L	P	P1	P2	t	t1	W	W1	F	A1	A2	A3	S1	S2	a	b	c	d
E10	1.5	11.0	12.0	2.0	4.0	0.5	0.35	16.0	1.75	7.5	2.5	0.8	3.5	4.3	5.2	6.8	7.8	1.6	8.0

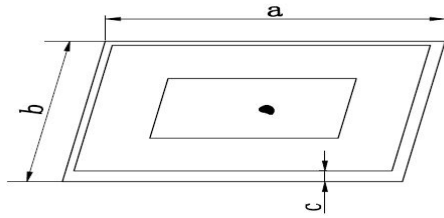
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13. 包装 Packing

Bulk: Standard

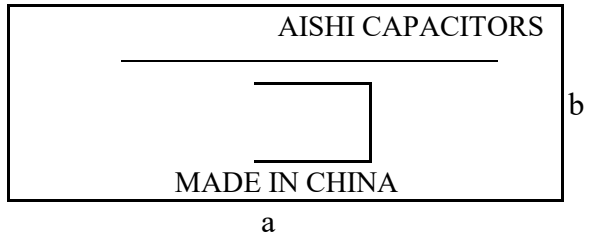


plastic carrier reel



Zipper bag

Aishi	
P/N:	
CUSTOMER P/N	
SIZE:	
Q'TY	
DATE	



13.1 编带包装 Tape Packing

编带 Taping: 标准 Standard

分类 Classification	标准 Standard			
产品尺寸 Product size D*L(mm)	承载卷轴 Carrier reel/ (pcs)	外包箱 Outer carton/ (plastic carrier reel) 390*225*390 (mm)	承载卷轴尺寸 Carrier reel size/ (mm)	
			W1±1	W2±1.0
6.3*4.5	1200	10	18	22
6.3*6	1000	10	18	22
6.3*9	800	10	18	22
6.3*10	600	10	18	22

产品尺寸 Product size D*L(mm)	承载卷轴 Carrier reel/ (pcs)	外包箱 Outer carton/ (paper carrier reel) 390*225*390 (mm)	承载卷轴尺寸 Carrier reel size/ (mm)	
			W1±1	W2±1.0
8*9.5	600	6	26	32
8*11.5	500	6	26	32
10*12.5	500	6	26	32
10*16.5	300	6	26	32

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14. 操作注意事项Operating Precautions

14.1 极性Polarity

AishiCAP是具有正负极的固态铝电解电容，使用中不可反接，若接反，则电容会因为漏电流不断增大或短路而造成寿命缩短。
AishiCAP is a solid aluminum electrolytic capacitor with positive and negative electrodes. Do not reverse the polarity when using.
If it is used with the polarities reversed, its life may shorten because of increasing leakage current or short circuit.

14.2禁止电路 Prohibited circuits

为避免漏电流增加而带来的影响，AishiCAP不可使用在下列电路中：

To avoid the effect of increased leakage current, AishiCAP cannot be used in the following circuits

- 1)高阻抗电路1) High impedance circuits;
2)耦合电路2) Coupling circuits;
3)时限恒量电路3) Time constant circuits;
4)为提高耐电压而串联两个或多个电容于电路中
4) Connection of two or more capacitors in series for higher withstand voltage;
5)对漏电流敏感的线路5)A line sensitive to leakage current

* 除漏电流的波动上升外，电容的使用条件如在承认书中规定的高温 and 低温，温升和耐性条件都会影响电容量。若电容作为时限恒量电容使用，因其对电容量的变动的敏感性，电容量的改变会造成影响。不要将其作为时限恒量电容使用，同时若因电压原因要串联多个AishiCAP电容，请联系湖南艾华集团股份有限公司。

* In addition to the leakage current fluctuation above, the operational conditions such as characteristics at high and low temperature, damp heat and endurance stipulated in the specifications will affect the capacitance. The fluctuation of the capacitance may cause problem if it is used as a time constant capacitor, which is extremely sensitive to the fluctuation of the capacitance. Do not use it as a time constant capacitor. Additionally, please contact Hunan Aihua Group Co., Ltd. for usage of two or more AishiCAP in series for voltage proof.

6)ON-OFF电路6)ON-OFF circuits

请勿在一天内频繁开-关10000次以上的ON-OFF电路中使用本产品。用于此类电路时，请务必将电路条件等告知我们。

Do not use this product in an on-off circuit that frequently turns on-off more than 10000 times in a day. When used in such circuits, please be sure to inform us of circuit conditions, etc

14.3 电压Over voltage

电压若超过额定电压，即便只是一瞬间也可能造成短路

Over voltage exceeding the rated voltage may not be applied even for an instant as it may cause a short circuit.

14.4快速充放电Rapid charge and discharge

快速充放电是不适用的（为了维持高的可靠性）。若充放瞬间电流超过10A或10倍允许纹波电流超过10A，为防止快速的充放电造成电容短路、漏电增大及容量衰减，电路中应加上一个保护电路用以分流过大的电流。

Rapid charging and discharging is unsuitable (for maintenance of high-proof reliability). If the instantaneous current of charging and discharging is more than 10A or 10 times of the allowable ripple current is more than 10A, in order to prevent the capacitor short ,leakage increase and capacity reduction caused by rapid charging and discharging, a protection circuit shall be added to the circuit to reduce the excessive current.

14.5 焊接注意事项 Considerations when soldering

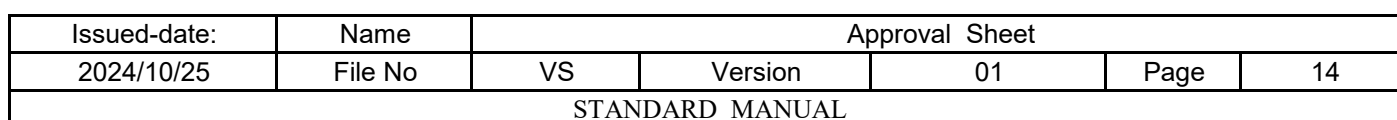
焊接条件要在承认书的规定范围内。若没有遵守承认书的条件，则电容漏电流可能急剧增加，容量衰减。

The soldering conditions are to be within the range prescribed in specifications. If the specifications are not followed, there is a possibility of the cosmetic deflection, the intensive increase of leakage current, and the capacitance reduction.

使用需知Things to be noted before mounting.

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Recommended reflow soldering condition



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