

客户Customer:

日期Date: 2024年7月6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: SPZ0JM271D07O00RAXXX
系 列 SERIES: PZ
规 格 尺 寸 ITEM: 6.3V270uF(Φ5*7)
客户料号 Customer P/N: /
编 号No.: CRS-FX-2407178

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
 陈璐怡 技术部	 黄玉明 技术部	 张超 技术部		

Please return one copy with your authorized signature when you accept these specifications.
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制订/修订履历表Make/revised curriculum vitae

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1.概述Scope

此承认书使用于含有导电高分子电解质的PZ系列固态电解电容

These specifications specify PZ series of the Aluminum Solid Capacitors with Conductive Polymer Electrolyte.

2.使用温度范围Operating Temperature Range (-55~105℃)

使用温度范围是指电容在额定电压下可以稳定运行的环境温度范围

Operating temperature range is the range of ambient temperature at which the capacitor can be operated continuously at rated voltage.

3.特性Characteristics

除非另有说明，标准的测量和测试环境条件如下：

Unless otherwise specified, the standard range of atmospheric conditions for making measurements and tests are as follows.

环境温度Ambient temperature : 15 to 35°C

大气压力Air pressure: 86kpa to 106kpa

若对结果有疑问，测试则按如下标准进行

If there may be doubt on the results, measurements shall be made within the following limits.

环境温度Ambient temperature : 20±2℃

大气压力Air pressure: 86kpa to 106kpa

4. 额定电压、浪涌电压和额定温度 Rated voltage, Surge voltage and Rated temperature

额定电压 Rated voltage(V)	额定温度 Rated temperature(°C)	浪涌电压 Surge voltage (V)
2.5	105	2.88
6.3	105	7.25
6.8	105	7.82
7	105	8.05
7.5	105	8.63
10	105	11.5
12	105	13.8
16	105	18.4
20	105	23
25	105	28.75
35	105	40.25
50	105	57.5
63	105	72.45
80	105	92
100	105	115

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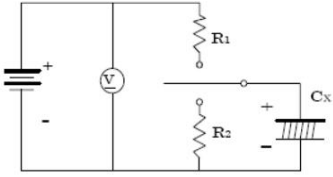
6.2 耐受能力Endurance Performance

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2000小时后，需在室温下放置2小时才可进行测试。 After 2000 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	温度：235 ± 5 °C Temperature : 235 ± 5 °C 持续时间：2 ± 0.5秒 Duration : 2 ± 0.5 seconds 焊料:25wt%的松香(JIS K5902)//乙醇(JIS K 8101) Flux:Rosin (JIS K5902)//Ethanol(JIS K8101); About 25 wt.%	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 time for the 105 °C and -55 °C segments is indicated as 'or less'.

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序号 No.	项目 Item	测试方法 Test method	性能 Performance
6.2.7	浪涌电压 Surge voltage	额定浪涌电压充电30s后，在室温下放电5min30s。这一过程重复1000次，每一次循环的时间为6min，测试温度为15℃-35℃。测试电路如下图所示： Rated surge voltage shall be applied (switch on) for 30 seconds and then shall be applied (switch off) with discharge for 5min30 seconds at room temperature. This cycle shall be repeated for 1000 cycles. Duration of one cycle is 6 minutes. Test temperature: 15℃-35℃ The test circuit is as follows:	漏电流$\leq 0.2C_V$值或500μA中的任一较大值 Leakage current $\leq$ the larger values between 0.2C_V and 500μA. 容量改变在初始值的$\pm 20\%$内 Capacitance change Within $\pm 20\%$ of the initial value 损失角$\leq$规格值的150% $\tan\delta \leq 150\%$ of the initial value. 等效串联电阻$\leq$规格值的150% ESR$\leq 150\%$ of the initial specified value.
Test circuit :  ⓧ : DC voltmeter R1: Protective resistor 1kΩ R2: Discharging resistor 1kΩ Cx: Capacitor under test (10pcs) 备注：若浪涌电压测试标准不能满足整机实际ON/OFF要求，请在样品阶段与我司RD确认，并将具体测试要求反馈给我司，包括测试电压、浪涌电流、充放频率、循环次数、测试温度及性能表现等。Remark: If the surge voltage test standard is inconsistent with the actual ON/OFF requirements of the machine, Please confirm with our RD at the sample stage. And feedback the specific test requirements to our company, including test voltage, surge current, charge and discharge frequency, cycle times, test temperature and performance, etc.			

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序号 No.	项目 Item	测试方法 Test method	性能 Performance																								
6.2.8	端子强度 Terminal Strength	测试方法 Test method 端子抗拉强度： 沿电容器端子引线方向施加拉力（如下表），30±1s Tensile strength of termination: A static load (stated in the table below) shall be applied to the terminal in the axial direction and acting in a direction away from the body for 30±1sec. <table><tr><td>引线直径Φ</td><td>0.45 mm</td><td>0.5 mm</td><td>0.6 mm</td><td>0.8 mm</td><td>1.0 mm</td></tr><tr><td>拉力N</td><td colspan="2">5N</td><td colspan="2">10N</td><td>25N</td></tr></table> 端子抗弯强度： 在电容器引线施加固定重力（如下表），然后，将电容器弯折90°后回到原位，再向相反方向弯折90°后回到原位。 上述过程在5秒内完成。 Bending strength of termination: Hang the specified dead weight (stated in the table below), then bent the body through 90°, return to the original position.Next bent it in opposite direction through 90°with the same speed, again return to the original position. Carry out this operation in about 5 sec. <table><tr><td>引线直径Φ</td><td>0.45 mm</td><td>0.5 mm</td><td>0.6 mm</td><td>0.8 mm</td><td>1.0 mm</td></tr><tr><td>拉力N</td><td colspan="2">2.5N</td><td colspan="2">5N</td><td>10N</td></tr></table>	引线直径Φ	0.45 mm	0.5 mm	0.6 mm	0.8 mm	1.0 mm	拉力N	5N		10N		25N	引线直径Φ	0.45 mm	0.5 mm	0.6 mm	0.8 mm	1.0 mm	拉力N	2.5N		5N		10N	特性 Performance 测量电容器应无接触不良、LC 超0.2CV值或500μA中的任一个较大值、开路或短路，无可见机械损伤 When the capacitor is measured, there shall be no intermittent contacts, no over the larger LC values between 0.2CV and 500uA, or open or short-circuiting. There shall be no such mechanical damage.
引线直径Φ	0.45 mm	0.5 mm	0.6 mm	0.8 mm	1.0 mm																						
拉力N	5N		10N		25N																						
引线直径Φ	0.45 mm	0.5 mm	0.6 mm	0.8 mm	1.0 mm																						
拉力N	2.5N		5N		10N																						
6.2.9	高温储存 High temperature storage	电容在105℃±2℃下放置1000小时后，需在室温下放置2小时才可进行测试。 Capacitor is placed under 105 ℃± 2 ℃ after 1000 hours, should be placed at room temperature 2 hours can be tested.	容量变化：在初始值的±10%内 Capacitance change within ±10% 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.																								

备注 REMARKS

如果有任何疑问，在电压处理后测量漏电流。

电压：直流额定电压适用于电容器在105℃下120分钟。

需在室温下放置2小时才可进行测试

If any doubt arises, measure the leakage current after following voltage treatment.

Voltage treatment : DC rated voltage are applied to the capacitors for 120 minutes at 105℃.

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

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S	PZ	OJ	M	271	D07	O00	R	AXXX
								特殊编码 Special code(7.9)
								奈印编码 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)

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

编码Code	PZ
系列编码Series Code	PZ

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

“M”代表 -20 % ~ +20 % “M”stands for -20 % ~ +20 %

编码Code	220	121	271	471	561	681	821	122
电容量Capacitance (uF)	22	120	270	470	560	680	820	1200

编码Code	D07	B08	E05	E08	E11	F09	F16	G12	G18
直径D (Φ)	5	5.5	6.3	6.3	6.3	8	8	10	10
高度H (mm)	7	8	5	8	11	9	16	12	18

编码Code	O00	C35	P35	C48
其他 Other	平豆散装 Platform rubber& Inbulk	平豆剪脚 Platform rubber & Lead Cut3.5±0.5mm	平豆编带 Platform rubber& Taping	平豆剪脚 Platform rubber& Lead Cut4.8±0.3mm

编码Code	S	R
捺印Marking	天蓝Sky blue	红色Red

“AXXX” 代表正常品, “AXXX” stands for normal products.

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存放时间超过3年的电解电容器应报废处理 If storage time more than three years,the products need to be discarded

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