

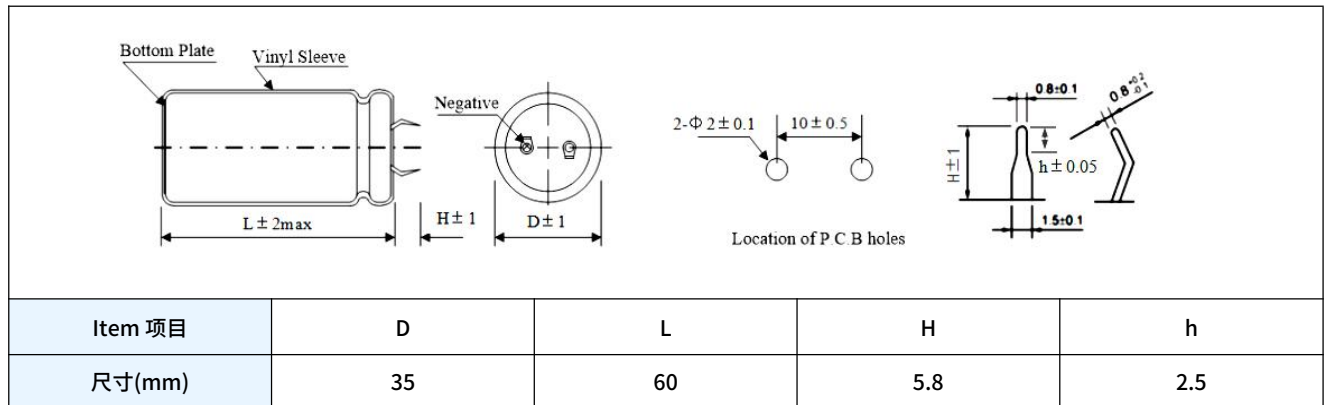
**承 认 书**  
**APPROVAL SHEET**

|               |                      |
|---------------|----------------------|
| 客户料号          |                      |
| Customer P/N  |                      |
| 客户名称          |                      |
| Customer Name |                      |
| 产品名称          | Snap-in型铝电解电容        |
| Product Name  |                      |
| 型号规格          | RXA 390uF 600V 35X60 |
| Specification |                      |
| 厂商料号          | RXA600V390M35X60     |
| Vendor P/N    |                      |
| 发行日期          | 2026/3/10            |
| Issue Date    |                      |

|   |                                  |
|---|----------------------------------|
| <b>发行单位</b><br><b>ISSUED EPARTMENT</b>  |                                  |
|  |                                  |
| <b>制作</b><br><b>PREPARED BY</b>   | <b>贺金欢</b><br><b>HE JIN HUAN</b> |
| <b>批准</b><br><b>APPROVED</b>  | <b>李伟业</b><br><b>LI WEI YE</b>   |

|   |  |
|---|--|
| <b>客户承认</b><br><b>APPROVED COLUMN</b>                           |  |
| <input type="checkbox"/> 合格<br><br><input type="checkbox"/> 不合格 |  |
| <b>审核</b><br><b>CHECKED</b>                                     |  |
| <b>批准</b><br><b>APPROVED</b>                                    |  |

### 1.外形尺寸图 (Dimensions)



### 2.规格特性表(Specification and Specifications Table)

| 料号 Part Number             | RXA600V390M35X60 | 备注 Note |
|----------------------------|------------------|---------|
| 系列 Series                  | RXA              |         |
| 标称容量 CAP(uF)               | 390              |         |
| 额定电压 WV(V)                 | 600              |         |
| 尺寸 Size DxL(mm)            | 35×60            |         |
| 容差 Tolerance 120Hz         | - 20%~20%        |         |
| 损失角 DF(%)120Hzmax          | 20               |         |
| 漏电流 LC(uA)60smax           | 1451.2           |         |
| 阻抗 ESR(Ω)100KHzmax         | N/A              |         |
| 纹波电流 R.C(mA)120Hz/105°Cmax | 2100             |         |
| 浪涌电压 SV(V)                 | 650              |         |
| 寿命 Life(Hrs)               | 2000             |         |
| 套管颜色和材质 Sleeve             | 黑底白字 PET         |         |
| 工作温度 TEMP(°C)              | -40~105          |         |

执行标准(Execution standard) :JISC 5101-4

测试环境(In the test environment) :温度 T 20±2°C , 湿度 RH 65%±5%

### 3. 纹波电流修正系数(Multiplier for Ripple Current)

#### 3.1 频率系数 Frequency Multipliers

| Freq      | 50Hz/60Hz | 120Hz | 300Hz | 1KHz | 10KHz | 100KHz |
|-----------|-----------|-------|-------|------|-------|--------|
| 6.3V~100V | 0.88      | 1.0   | 1.01  | 1.03 | 1.05  | 1.08   |
| 160V~250V | 0.75      | 1.0   | 1.17  | 1.32 | 1.45  | 1.50   |
| 315V~450V | 0.74      | 1.0   | 1.16  | 1.30 | 1.41  | 1.43   |
| 500V~550V | 0.72      | 1.0   | 1.15  | 1.30 | 1.40  | 1.40   |

#### 3.2 温度系数 Temperature Multipliers

| 温度系数 Temperature Multipliers |      |      |      |      |      |
|------------------------------|------|------|------|------|------|
| Temperatue(°C)               | ≤45  | 60   | 70   | 85   | 105  |
| Multiplier                   | 1.65 | 1.50 | 1.30 | 1.20 | 1.00 |

#### 4. 套管标识示意图 (Marking)

|   |   |
|---|---|
|  | 1. 公司商标(Logo)   |
|   | 2. 工作最高温度与容量范围<br>(Operating Temperature Range and Capacitance Tolerance) |
|   | 3. 电容器规格(额定电压和容量)<br>Capacitance and Rated Voltage                        |
|   | 4. 产品系列(Series)   |
|   | 5. 胶管材质(Material PET)   |
|   | 6. 负极表示带 (Polarity bar)   |
|   | 7. 颜色印字 Sleeve Color :黑底白字  |

#### 5. 材料表(Material table)

|  |                    |                                      |
|--|--------------------|--------------------------------------|
| 序号<br>NO   | 构成部件<br>Component  | 材质成分<br>Material                     |
| 1  | 正极箔<br>Al Foil(+)  | 高纯铝<br>Aluminum 99.99%或 99.98%       |
| 2  | 负极箔<br>Al Foil(-)  | 高纯铝<br>Aluminum 99.7%                |
| 3  | 电解纸<br>Separator   | 木材纸浆、有机纤维<br>paper puCP、Cellulose    |
| 4  | 电解液<br>Electrolyte | 乙二醇+有机酸盐<br>Glycol+organic acid salt |
| 5  | 盖板<br>Cover disc   | 粘胶树脂<br>Viscose resin                |
| 6  | 铆钉<br>Rivet        | 铝<br>Aluminum                        |
| 7  | 导箔条<br>Tab         | 铝<br>Aluminum                        |
| 8  | 铝壳<br>Case         | 铝<br>Aluminum                        |
| 9  | 套管<br>Sleeve       | 聚对苯二甲酸乙二醇酯<br>PET                    |
| 10   | 垫片<br>Bottom disc  | 聚丙烯<br>PP                            |

注:电容产品和构成材料均满足 ROHS2.0、REACH、HF 禁用环境管理物质要求。

## 6.测试与试验项目 (Test item)

| No                                  | 项目 Items                             | 条件 Conditions  | 判定 Decide   |                       |                      |         |                                     |      |      |      |    |                                     |      |      |      |      |   |      |     |         |    |     |     |         |  |         |  |      |      |     |      |      |  |      |  |
|-------------------------------------|--------------------------------------|--|---|-----------------------|----------------------|---------|-------------------------------------|------|------|------|----|-------------------------------------|------|------|------|------|---|------|-----|---------|----|-----|-----|---------|--|---------|--|------|------|-----|------|------|--|------|--|
| 1                                   | 静电容量<br>Capacitance                  | 测试频率:120Hz±10Hz<br>Test Frequency : 120Hz±10Hz<br>测试电压:≤ 0.5Vrms +1.0V.DC  | 1.容量偏差符合 2.规格特性表<br>Tolerance capacitance see the table 2   |                       |                      |         |                                     |      |      |      |    |                                     |      |      |      |      |   |      |     |         |    |     |     |         |  |         |  |      |      |     |      |      |  |      |  |
| 2                                   | 耗角正切值<br>Dissipation Factor          | 测试电压:≤ 0.5Vrms +1.0V.DC<br>测试温度:20±2°C<br>Test Temperature:20±2°C  | 2.耗角正切值: Dissipation Factor<br><table border="1"> <tr> <td>Vote(V)</td> <td>63</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> </tr> <tr> <td>tanδ</td> <td>0.6</td> <td>0.55</td> <td>0.5</td> <td>0.45</td> <td>0.4</td> <td>0.35</td> <td>0.3</td> </tr> <tr> <td>Vote(V)</td> <td>80</td> <td>100</td> <td>120</td> <td colspan="2">160~450</td> <td colspan="2">500~550</td> </tr> <tr> <td>tanδ</td> <td>0.25</td> <td>0.2</td> <td>0.16</td> <td colspan="2">0.15</td> <td colspan="2">0.20</td> </tr> </table> | Vote(V)               | 63                   | 10      | 16                                  | 25   | 35   | 50   | 63 | tanδ                                | 0.6  | 0.55 | 0.5  | 0.45 | 0.4   | 0.35 | 0.3 | Vote(V) | 80 | 100 | 120 | 160~450 |  | 500~550 |  | tanδ | 0.25 | 0.2 | 0.16 | 0.15 |  | 0.20 |  |
| Vote(V)                             | 63                                   | 10   | 16  | 25                    | 35                   | 50      | 63                                  |      |      |      |    |                                     |      |      |      |      |   |      |     |         |    |     |     |         |  |         |  |      |      |     |      |      |  |      |  |
| tanδ                                | 0.6                                  | 0.55   | 0.5   | 0.45                  | 0.4                  | 0.35    | 0.3                                 |      |      |      |    |                                     |      |      |      |      |   |      |     |         |    |     |     |         |  |         |  |      |      |     |      |      |  |      |  |
| Vote(V)                             | 80                                   | 100  | 120   | 160~450               |                      | 500~550 |                                     |      |      |      |    |                                     |      |      |      |      |   |      |     |         |    |     |     |         |  |         |  |      |      |     |      |      |  |      |  |
| tanδ                                | 0.25                                 | 0.2  | 0.16  | 0.15                  |                      | 0.20    |                                     |      |      |      |    |                                     |      |      |      |      |   |      |     |         |    |     |     |         |  |         |  |      |      |     |      |      |  |      |  |
| 3                                   | 漏电流<br>Leakage Current               | 测试电压:600 V<br>Test Voltage:600 V<br>充电时间:5 分钟<br>Charging :5min<br>测试温度;20±2°C<br>Test Temperature: 20±2°C   | 漏电流 $\leq 3\sqrt{CV}$<br>$I \leq 3\sqrt{CV}$  |                       |                      |         |                                     |      |      |      |    |                                     |      |      |      |      |   |      |     |         |    |     |     |         |  |         |  |      |      |     |      |      |  |      |  |
| 4                                   | 温度循环<br>Temperature Cycle            | <table border="1"> <tr> <td rowspan="2">周期<br/>One<br/>Cycle</td> <td>温度<br/>Temperature(°C)</td> <td rowspan="2">时间 Time<br/>(minutes)</td> </tr> <tr> <td>低温特性</td> </tr> <tr> <td rowspan="2">Rated low category<br/>temperature±3</td> <td>25°C</td> <td>30±3</td> </tr> <tr> <td>3max</td> <td></td> </tr> <tr> <td rowspan="2">Rated low category<br/>temperature±3</td> <td>25°C</td> <td>30±3</td> </tr> <tr> <td>3max</td> <td></td> </tr> </table> <p>循环次数 Total number of cycles: 5</p> | 周期<br>One<br>Cycle  | 温度<br>Temperature(°C) | 时间 Time<br>(minutes) | 低温特性    | Rated low category<br>temperature±3 | 25°C | 30±3 | 3max |    | Rated low category<br>temperature±3 | 25°C | 30±3 | 3max |      | 1.外观无损坏<br>No appearance defect.<br>2.容量变化率在±5%以内<br>Capacitance change within ±5%<br>3.损失角小于规格值<br>DF smaller than specification value.<br>4.泄漏电流小于规格值<br>Leakage current smaller than specifica |      |     |         |    |     |     |         |  |         |  |      |      |     |      |      |  |      |  |
| 周期<br>One<br>Cycle                  | 温度<br>Temperature(°C)                | 时间 Time<br>(minutes)   |   |                       |                      |         |                                     |      |      |      |    |                                     |      |      |      |      |   |      |     |         |    |     |     |         |  |         |  |      |      |     |      |      |  |      |  |
|                                     | 低温特性                                 |  |   |                       |                      |         |                                     |      |      |      |    |                                     |      |      |      |      |   |      |     |         |    |     |     |         |  |         |  |      |      |     |      |      |  |      |  |
| Rated low category<br>temperature±3 | 25°C                                 | 30±3   |   |                       |                      |         |                                     |      |      |      |    |                                     |      |      |      |      |   |      |     |         |    |     |     |         |  |         |  |      |      |     |      |      |  |      |  |
|                                     | 3max                                 |  |   |                       |                      |         |                                     |      |      |      |    |                                     |      |      |      |      |   |      |     |         |    |     |     |         |  |         |  |      |      |     |      |      |  |      |  |
| Rated low category<br>temperature±3 | 25°C                                 | 30±3   |   |                       |                      |         |                                     |      |      |      |    |                                     |      |      |      |      |   |      |     |         |    |     |     |         |  |         |  |      |      |     |      |      |  |      |  |
|                                     | 3max                                 |  |   |                       |                      |         |                                     |      |      |      |    |                                     |      |      |      |      |   |      |     |         |    |     |     |         |  |         |  |      |      |     |      |      |  |      |  |
| 5                                   | 耐焊接热<br>Resistance to Soldering Heat | 预热时间: 120±2 秒<br>Warm up time :120±2 seconds 达到 120±2°C<br>to reach 120±2°C<br>焊锡炉温度: 260±5°C .<br>Solder bath temperature: 260±5°C .<br>焊料成分:<br>Solder bath composition:<br>Sn-96.5% , Ag-3.0% , Cu-0.5%<br>浸入深度: 1.5~2.0mm<br>Immersion depth: 1.5 to 2.0mm<br>浸入时间: 10±1 秒<br>Immersion duration: 10±1 seconds   | 1.无外观缺陷<br>No appearance defect<br>2.容量变化在±5%以内<br>Capacitance change within ±5%<br>3.损失角小于规定值<br>D.F.smaller than specification value.<br>4.泄漏电流值小于规定值<br>Leakage current smaller than specification value.  |                       |                      |         |                                     |      |      |      |    |                                     |      |      |      |      |   |      |     |         |    |     |     |         |  |         |  |      |      |     |      |      |  |      |  |
| 6                                   | 可焊性<br>Solder Ability                | 焊锡炉温度: 235±5°C .<br>Solder bath temperature: 235±5°C .<br>焊料成分:<br>Solder bath composition:<br>Sn-96.5% , Ag-3.0% , Cu-0.5%<br>浸入深度: 1.5~2.0mm<br>Immersion depth: 1.5 to 2.0mm<br>浸入时间: 10±1 秒<br>Immersion duration: 10±1 seconds  | 锡液要覆盖导电针浸入表面积的 95%以上<br>A minimum of 95% the immersed surface is to be coated with the new solder.  |                       |                      |         |                                     |      |      |      |    |                                     |      |      |      |      |   |      |     |         |    |     |     |         |  |         |  |      |      |     |      |      |  |      |  |

### 6.测试与试验项目 (Test item)

| No                            | 项目<br>Items   | 条件<br>Conditions  | 判定<br>Decide   |                  |            |                     |    |                  |  |
|-------------------------------|---|---|--|------------------|------------|---------------------|----|------------------|--|
| 7                             | 低温特性<br>(最大阻抗比)<br>Low<br>Temperature<br>Charcteriistics<br>(MaxImpedance<br>Ratio) | 工作电压 working Voltage (v)  | 6.3 10 16 25 35 50 63 100  |                  |            |                     |    |                  |  |
|                               |   | 阻抗 Impedance Z(-40°C)/Z(+20°C)  | 8 6 4 3 3 3 3 3  |                  |            |                     |    |                  |  |
|                               |   | 工作电压 working Voltage (v)  | 160 200 250 400 420 450 500 550  |                  |            |                     |    |                  |  |
|                               |   | 阻抗 Impedance Z(-25°C)/Z(+20°C)  | 3 3 4 6 6 8 8 8  |                  |            |                     |    |                  |  |
| 8                             | 高湿度储存<br>High<br>Humidity<br>storage  | 温度: 40±2°C<br>Temperature:40±2°C<br>相对湿度: 90%至 95%<br>Relative humidity :90 to 95%<br>持续时间: 240±8 hours<br>Duration : 240±8 hours   | 1.无电气或机械损坏.<br>No electrical or mechanical damage.<br>2.容量变化率在±15%以内.<br>Capacitance change within ±15%.<br>3.损失角值小于规定值.<br>DF smaller than specification value.<br>4.泄漏电流小于规定值.<br>Leakage current smaller than specification value.  |                  |            |                     |    |                  |  |
| 9                             | 防爆<br>Vent  | 反向电压试验: 电压设定为 100±5V.<br>Reverse voltage test: Voltage set to 100±5V.<br><table border="1" style="margin-left: 20px;"> <tr> <td>电容直径<br/>Capacitor<br/>diameter</td> <td>电流<br/>Current(A)</td> <td>时间<br/>Time</td> </tr> <tr> <td>More than<br/>22.5mm</td> <td>10</td> <td>30 分钟内<br/>Within</td> </tr> </table> | 电容直径<br>Capacitor<br>diameter  | 电流<br>Current(A) | 时间<br>Time | More than<br>22.5mm | 10 | 30 分钟内<br>Within | 在测试期间或之后, 电容器不应发生爆炸、闪光、火焰、火花或火灾, 也不应从外壳中喷出任何金属.<br>There shall be no explosion,flash,flame,spark or fire from the capacitor during or after the test,nor shall there be expulsion of any metal from the casing |
| 电容直径<br>Capacitor<br>diameter | 电流<br>Current(A)  | 时间<br>Time  |  |                  |            |                     |    |                  |  |
| More than<br>22.5mm           | 10  | 30 分钟内<br>Within  |  |                  |            |                     |    |                  |  |
| 10                            | 振动<br>Vibration   | 频率范围: 10 Hz 至 55 Hz<br>Frequency range : 10 Hz to 55 Hz<br>振幅: 0.75 毫米<br>Amplitude :0.75 mm<br>总持续时间: 3×2h. X-Y-Z 方向各 2 小时<br>Total duration: 3× 2h.<br>x-y-z directions each for 2 hours  | 1.外观:无明显的损伤或电解液漏出<br>Appearance: No visible damage or leakage of electrolyte.<br>2.电容量变化: 初始值的±5%以内<br>Capacitance change: within ±5% of the initial value.  |                  |            |                     |    |                  |  |
| 11                            | 高温负荷<br>Load Life   | 试验温度: 105±2°C<br>Test Temp: 105±2°C<br>额定电压: 600 V<br>Rated Voltage: 600V<br>试验时间: 2000(+72 -0)小时<br>Test Time: 2000(+72 -0)hours<br>在室温放置 16 小时后再测试。<br>Restore them to room temperature for 16 hours before testing.  | 1.外观:无明显的损伤或电解液漏出<br>Appearance: No visible damage or leakage of electrolyte.<br>2.电容量变化:初始值的±20%以内.<br>Capacitance change: within ±20% of the initial value.<br>3.损耗角正切: ≤200%规定值<br>tanδ: ≤200% of specified value<br>4.漏电流: ≤规定值<br>Leakage Current: ≤Specified value             |                  |            |                     |    |                  |  |
| 12                            | 高温储存<br>Shelf Life  | 试验温度:105±2°C<br>Test Temp: 105±2°C<br>试验时间:1000 (+72 -0) 小时<br>Test Time: 1000 (+72 -0) hours<br>在室温放置 16 小时后再测试。<br>Restore them to room temperature for 16hours before testing.   | 1.外观:无明显的损伤或电解液漏出<br>Appearance: No visible damage or leakage of electrolyte.<br>2.电容量变化:初始值的±20%以内.<br>VCapacitance change: within ±20% of the initial value.<br>3.损耗角正切: ≤200%规定值<br>tgδ: ≤200% of specified value<br>4.漏电流: ≤200%规定值<br>Leakage Current: ≤200% of specified value |                  |            |                     |    |                  |  |

## 6.测试与试验项目 (Test item)

| No     | 项目<br>Items           | 条件<br>Conditions  | 判定<br>Decide |     |     |     |     |     |    |    |     |        |    |    |    |    |    |    |     |     |        |     |     |     |     |     |     |     |     |        |     |     |     |     |     |     |     |     |   |
|--------|-----------------------|---|--------------|-----|-----|-----|-----|-----|----|----|-----|--------|----|----|----|----|----|----|-----|-----|--------|-----|-----|-----|-----|-----|-----|-----|-----|--------|-----|-----|-----|-----|-----|-----|-----|-----|---|
| 13     | 浪涌电压<br>Surge Voltage | <p>试验温度: 15~35 °C, Test Temp: 15~35 °C<br/>                     试验电压: 浪涌电压 Test voltage: surge voltage<br/>                     施加浪涌电压 30 秒,然后放电 330 秒,<br/>                     共循环 1000 次.<br/>                     Charge surge voltage for 30 seconds and discharge for 330<br/>                     seconds. Repeat this cycle 1000 times.</p> <table border="1"> <tr> <td>UR (V)</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>80</td> <td>100</td> </tr> <tr> <td>S.V(V)</td> <td>13</td> <td>20</td> <td>32</td> <td>44</td> <td>63</td> <td>79</td> <td>100</td> <td>125</td> </tr> </table><br><table border="1"> <tr> <td>UR (V)</td> <td>160</td> <td>200</td> <td>250</td> <td>350</td> <td>400</td> <td>450</td> <td>500</td> <td>550</td> </tr> <tr> <td>S.V(V)</td> <td>200</td> <td>250</td> <td>300</td> <td>400</td> <td>450</td> <td>500</td> <td>550</td> <td>600</td> </tr> </table> | UR (V)       | 10  | 16  | 25  | 35  | 50  | 63 | 80 | 100 | S.V(V) | 13 | 20 | 32 | 44 | 63 | 79 | 100 | 125 | UR (V) | 160 | 200 | 250 | 350 | 400 | 450 | 500 | 550 | S.V(V) | 200 | 250 | 300 | 400 | 450 | 500 | 550 | 600 | <p>1. 电容量变化:初始值的±15%以内<br/>                     Capacitance change: within ±15% of the<br/>                     initial value.<br/>                     2. 损耗角正切: ≤规定值<br/>                     Tgδ: ≤ Specified value<br/>                     3. 漏电流: ≤规定值<br/>                     Leakage current: ≤ Specified value<br/>                     4. 外观: 无可见损伤<br/>                     Appearance: No visible damage</p> |
| UR (V) | 10                    | 16  | 25           | 35  | 50  | 63  | 80  | 100 |    |    |     |        |    |    |    |    |    |    |     |     |        |     |     |     |     |     |     |     |     |        |     |     |     |     |     |     |     |     |   |
| S.V(V) | 13                    | 20  | 32           | 44  | 63  | 79  | 100 | 125 |    |    |     |        |    |    |    |    |    |    |     |     |        |     |     |     |     |     |     |     |     |        |     |     |     |     |     |     |     |     |   |
| UR (V) | 160                   | 200   | 250          | 350 | 400 | 450 | 500 | 550 |    |    |     |        |    |    |    |    |    |    |     |     |        |     |     |     |     |     |     |     |     |        |     |     |     |     |     |     |     |     |   |
| S.V(V) | 200                   | 250   | 300          | 400 | 450 | 500 | 550 | 600 |    |    |     |        |    |    |    |    |    |    |     |     |        |     |     |     |     |     |     |     |     |        |     |     |     |     |     |     |     |     |   |