

## 规 格 书

## PROUCT APPROVAL SHEET

客户名称: 立创商城

Customer

品 名: 径向引线独石电容器

Product Name Radial Leaded Mlcc

规 格: 104K100V P=5.08 L=10 1210 平肩

Product Spec

料 号: CT4-1210B104K101F3-Y

Spec

版 本 号: V3.1

Version Number

日 期: 2025-06-06

Date



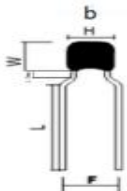
| 客 户<br>Customer |               |                | 制 造<br>Manufacturer |               |                |
|-----------------|---------------|----------------|---------------------|---------------|----------------|
| 确 认<br>Approval |               |                | 确 认<br>Approval     |               |                |
| 检验<br>Inspector | 审核<br>Checker | 批准<br>Approver | 拟制<br>Designer      | 审核<br>Checker | 批准<br>Approver |
|                 |               |                | 周潇潇                 | 刘斌            | 刘大鹏            |

| 规格型号<br>Product Name | 容量范围<br>Capacitance | 损耗<br>DF | 绝缘电阻<br>IR           | 耐压范围<br>Breakdown Voltage | 判定<br>Result |
|----------------------|---------------------|----------|----------------------|---------------------------|--------------|
| CT4-1210B104K101F3   | 90~110nF            | ≤3.5%    | ≥1×10 <sup>9</sup> Ω | 100V×2.5 倍                | OK           |

## 订货代码 Ordering Code

|   |                                    |                                                                     |                                             |           |                      |                                                       |                          |  |
|---|------------------------------------|---------------------------------------------------------------------|---------------------------------------------|-----------|----------------------|-------------------------------------------------------|--------------------------|--|
| A | 产品类别<br>Product Type               |                                                                     |                                             |           | B                    | 本体外形尺寸规格（长×宽）<br>Nominal Body Size（Length×Width±0.05） |                          |  |
|   | CT4                                | CT4 II 类径向引线独石电容器<br>CT4 Class II radial lead monolithic capacitors |                                             |           |                      | 1210                                                  | 3.20×2.50mm              |  |
| C | 温度特性<br>Temperature Characteristic |                                                                     |                                             |           | D                    | 标称容量<br>Nominal Capacitance C                         |                          |  |
|   | B                                  | X7R                                                                 | ±15%                                        | -55～+125℃ |                      | 104                                                   | 0.1uF                    |  |
| E | 容量偏差<br>Tolerance                  |                                                                     |                                             |           | F                    | 额定电压<br>Rated Voltage                                 |                          |  |
|   | K                                  | ±10%                                                                |                                             |           |                      | 101                                                   | 100V                     |  |
| G | 包装方式<br>Packaging Style            |                                                                     |                                             |           | H                    | 脚距（单位：mm）<br>Lead Space（Unit：mm）                      |                          |  |
|   | Blank                              | 散包装 1000PCS/包<br>Bulk 1000PCS/BAG                                   |                                             |           |                      | F3                                                    | 5.08mm                   |  |
| I | 引线材质<br>Wire material              |                                                                     | 规 格<br>Specifications                       |           | 线 径<br>Wire diameter |                                                       | 导电率<br>Line conductivity |  |
|   |                                    |                                                                     | 盐雾线<br>Salt spray line                      |           |                      |                                                       |                          |  |
|   |                                    |                                                                     | 镀锡铜包钢线<br>Tin plated copper clad steel wire |           | Φ0.50mm±0.05mm       |                                                       | 16.6~18%                 |  |
|   |                                    |                                                                     | 镀锡铜线<br>Tin plated copper wire              |           |                      |                                                       |                          |  |

尺寸、工作电压及容量关系表 Size Code and Voltage VS Capacitance

| 尺寸<br>规格<br>Size<br>Code | 外形<br>Shape                                                                         | 尺寸 (单位: mm)<br>Dimensions (Unit: mm) |           |         |         |         | 工作<br>电压<br>Voltage |
|--------------------------|-------------------------------------------------------------------------------------|--------------------------------------|-----------|---------|---------|---------|---------------------|
|                          |                                                                                     | F<br>(脚距)                            | L<br>(脚长) | H (宽)   | W (高)   | T (厚)   |                     |
| 1210                     |  | 5.08±0.5                             | 10±2      | 6.0 Max | 6.5 Max | 5.0 Max | 100V                |

## 通用型引线MLCC可靠性及测试方法

## Reliability and Test Method for General Leaded MLCC

| 项目<br>Item                          | 技术要求<br>Technical Specification |                                                                                                                                                                                                                       | 测试方法和备注<br>Test methods and remarks.                                                                        |                             |                                  |
|-------------------------------------|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|-----------------------------|----------------------------------|
| 容量<br>Capacitance<br>(C)            | I 类<br>Class I                  | 应符合指的误差级别<br>With in the specified tolerance.                                                                                                                                                                         | 标称容量<br>Capacitance                                                                                         | 测试频率<br>Measuring Frequency | 测试电压<br>Measuring Voltage        |
|                                     |                                 |                                                                                                                                                                                                                       | <100pF                                                                                                      | 1MHZ±10%                    | 1.0V                             |
|                                     |                                 |                                                                                                                                                                                                                       | ≥100pF                                                                                                      | 100KHZ±10%                  |                                  |
|                                     |                                 |                                                                                                                                                                                                                       | ≥1000pF                                                                                                     | 1KHZ±10%                    |                                  |
|                                     | II 类<br>Class II                | 应符合指的误差级别<br>Wit hi n the specified tolerance.                                                                                                                                                                        | 对于 II 类电容器，测试前应先预处理<br>For class II capacitor, pr e treatment should be taken before the test               |                             |                                  |
|                                     |                                 |                                                                                                                                                                                                                       | 测试频率<br>Measuring Frequency                                                                                 | 测试电压<br>Measuring voltage   |                                  |
|                                     |                                 |                                                                                                                                                                                                                       | <10 μ F 1KHZ<br>≥10 μ F120Hz                                                                                | B:<br>1.0V                  | E/Y(F)<br><1uF/0.5V<br>≥1uF/1.0V |
| 损耗角正切<br>Dissipation Factor<br>(DF) | I 类<br>Class I                  | C, R≥50pF<br>DF≤0.15%<br>C, R<50pF<br>DF≤1.5【(150/C, R)+7】×10-4                                                                                                                                                       | 标称容量<br>Capacitance                                                                                         | 测试频率<br>Measuring Frequency | 测试电压<br>Measuring Voltage        |
|                                     |                                 |                                                                                                                                                                                                                       | <100pF                                                                                                      | 1MHZ±10%                    | 1.0V                             |
|                                     |                                 |                                                                                                                                                                                                                       | ≥100pF                                                                                                      | 100KHZ±10%                  |                                  |
|                                     |                                 |                                                                                                                                                                                                                       | ≥1000pF                                                                                                     | 1KHZ±10%                    |                                  |
|                                     | II 类<br>Class II                | B<br>100V<1 μ F DF≤2.5%<br>50V≥1 μ F , DF≤3.5%<br>25V≥10 μ F , DF≤7.5%<br>16V≥10 μ F , DF≤10%<br>10V≥10 μ F , DF≤15%<br><br>E/<br>Y<br>(F<br>)<br><br>(≥1 μ F C, R≥0.1 μ F )<br>≤15%(C,R≥1 μ F )<br>0402≥0.1 μ F ≤15% | ≤10uF 测试频率:1KHZ±10%; 测试电压: 1.0V<br>≥10uF 测试频率:120Hz±10%;测试电压: 1.0V<br>Measuring Frequency Measuring voltage |                             |                                  |
|                                     |                                 |                                                                                                                                                                                                                       | 测试频率<br>Measuring Frequency<br>测试电压: 0.5V<br>Measuring voltage                                              |                             |                                  |
|                                     |                                 |                                                                                                                                                                                                                       | 测试频率<br>Measuring Frequency<br>测试电压: 1.0V<br>Measuring voltage                                              |                             |                                  |
| 绝缘电阻<br>Insulation Resistance       | I 类<br>Class I                  | C≤10nF<br>IR≥10000MΩ                                                                                                                                                                                                  | 测试电压:额定电压<br>Measuring voltage: Rated voltage<br>测试时间: 60±5 秒                                               |                             |                                  |
|                                     | II 类<br>Class II                | C≤25nF<br>IR≥4000MΩ<br>C>25nF<br>R.C÷100sΩF                                                                                                                                                                           | Du ration:60±5S                                                                                             |                             |                                  |

| 项目<br>Item                           | 技术要求<br>Technical Specification                        | 测试方法和备注<br>Test Method and Remarks                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|--------------------------------------|--------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 耐电压<br>Withstand voltage             | 不应有介质被击穿或损伤<br>Should not have the breakdown or damage | <p>端之间 Between terminals</p> <p>测试电压 Measuring Voltage: 持续时间: 5±1秒 Duration: 5±1s</p> <p>I类: 300%额定电压 Class I: 300% Rated voltage</p> <p>II类: <math>U, R \leq 500V</math> 额定电压 2.5UR Class II: <math>U, 2.5 UR</math> R rated voltage 500 v or less</p> <p>II类: <math>U, R &gt; 500V \leq 1000V</math> 额定电压 1.5UR</p> <p>Class II: <math>U R &gt; 1.5 UR</math> 500 v rated voltage 1000 v or less</p> <p>II类: <math>U, R &gt; 1000V</math> 额定电压 1.2UR Class II: <math>U R &gt; 1.2 UR</math> rated voltage 1000 v</p> <p>I类充/放电电流不应超过50mA</p> <p>I kind of charge/discharge current should not exceed 50 ma</p> <p>II类小尺寸芯片充/放电电流不应超过30mA</p> <p>Class II small size chips charge/discharge current should not exceed 30 ma</p> <p>II类充/放电电流不应超过50mA</p> <p>Class II charge/discharge current should not exceed 50 ma</p>                                                   |
|                                      |                                                        | <p>端子与外装间 Between terminals and body:</p> <p>施加电压: 2.5UR 持续时间: 1~5s</p> <p>Voltage: 2.5 times rated voltage Duration: 1~5s</p> <p>金属制小球法 Metal ball method</p> <p>将电容器本体插入盛满直径为1mm的金属小球的容器中, 但保留距端头处2mm的本体不插入。试验电压施加在短路回路端子和金属小球之间。</p> <p>Insert the capacitor body filled with a diameter of 1 mm metal ball in the container, but keep away from the end of 2 mm ontology is not inserted. Test voltage applied between the short circuit loop terminal and a metal ball.</p>                                                                                                                                                                                                                                                                                                                                                                                             |
| 可焊性<br>Solderability                 | 上锡率应大于75%<br>The tin rate should be greater than 75%   | <p>将电容器引线浸入含有25%松香的酒精溶液中, 然后浸入温度为: <math>230 \pm 5^\circ C</math> 的金属焊锡 (Sn) 中 <math>2 \pm 0.5</math> 秒, 注意: 电容器本体底面距离锡面约1.5~2mm。</p> <p>Capacitor lead into the alcohol solution containing 25% rosin, then immersed temperature: <math>230 \pm 5^\circ C</math> metal solder (Sn) <math>2 \pm 0.5</math> seconds, note: capacitor body bottom tin surface distance is about 1.5 ~ 2 mm.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 耐焊接热<br>Resistance To Soldering Heat | 项目                                                     | $\Delta C/C \leq$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                                      | Class I                                                | $\pm 2.5\%$ or $\pm 0.25p$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                                      | B                                                      | $\pm 10\%$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                                      | E/Y(F)                                                 | $\pm 20\%$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                                      | 外观无可见损伤<br>No visible damage                           | <p>锡温: <math>260 \pm 5^\circ C</math> Solder temperature: <math>260 \pm 5^\circ C</math> 时间: 10±1s Duration: 10±1s</p> <p>浸入条件: 将电容器插入厚度为1.6mm, 孔径为1.0mm的PC板。</p> <p>Immersion conditions: insert the capacitor thickness of 1.6 mm, pore size of 1.0 mm PC board.</p> <p>对于I类介质, 试验后, 应在标准条件下恢复4~24小时才测试。</p> <p>In class I medium, after the test, should be in the standard recovery under the condition of 4 ~ 24 hours to test.</p> <p>对于II类介质, 在试验前应先行进行如下预处理: 150 (-10, +0), 1小时, 接着在标准条件下恢复48±4小时。</p> <p>For class II medium, should undertake the following first pre-treatment before test: the 150 (-10 + 0), 1 hour, Then under the condition of standard to restore 48 + 4 hours.</p> <p>恢复: 对于II类介质试验后, 应在标准条件下恢复48±4小时后才测试。</p> <p>Recovery: for class II medium after test, should be under standard conditions to restore 48 + 4 hours after the test.</p> |

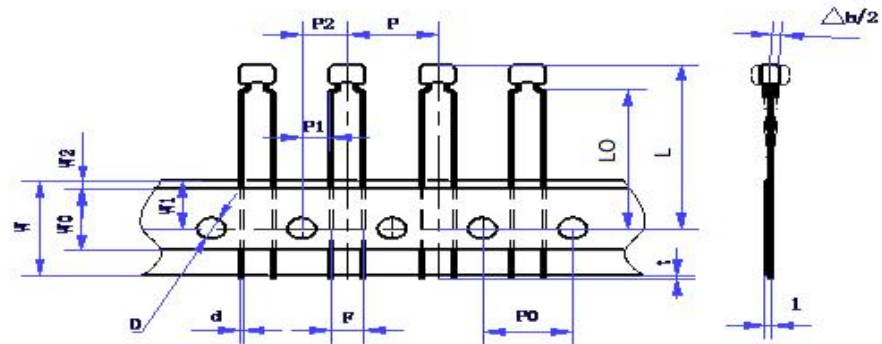
若测试结果有争议时, 仲裁试验用标准大气条件为:

温度:  $25 \pm 2^\circ C$ , 相对湿度:  $\leq 65\%$ , 气压: 86~106kPa

If in case of any dispute over the test results, the arbitration in standard atmospheric conditions for test: Temperature:  $25 \pm 2^\circ C$ , relative humidity:  $\leq 65\%$ , atmospheric pressure: 86 ~ 106 kpa



包装形式  
Packaging Style

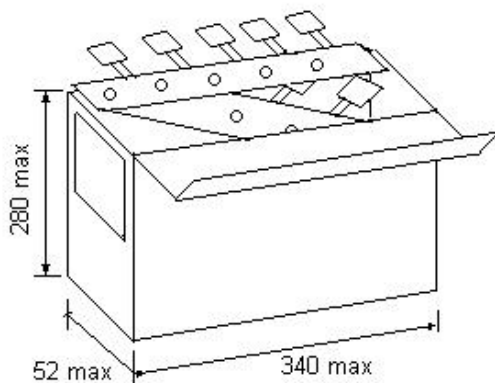


| 代号<br>Code | P    | P0   | P1          | P2   | d    | Δh | W    | W0 | W1   | W2   | L    | LO    | D    | t    |
|------------|------|------|-------------|------|------|----|------|----|------|------|------|-------|------|------|
| 尺寸<br>Dim. | 12.7 | 12.7 | 3.85<br>5.1 | 6.35 | 0.5  | 0  | 18.5 | 8  | 9    | 1.5  | 26   | 15~20 | 4.0  | 0.7  |
| 误差<br>Tol. | ±0.2 | ±0.2 | 0.7         | ±1.3 | ±0.1 | ±2 | ±1   | ±2 | ±0.5 | ±1.5 | Max. | ±0.5  | ±0.2 | Max. |

注意Note:

P1=3.85mm for F=5.08mm; P1=5.1mm for F=2.54mm.

盒带包装  
Ammo Packaging



卷带包装  
Tape and Reel Packaging

