

# 产品承认书

客户名称: \_\_\_\_\_

产品名称: 多层片式陶瓷电容器 (MLCC)

客户料号: \_\_\_\_\_

芯声料号: \_\_\_\_\_

| 芯声/博睿通 |  |  | 客户 |    |    |
|--------|--|--|----|----|----|
|        |  |  | 检查 | 审核 | 核准 |
|        |  |  |    |    |    |

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## 1. 范围及介质分类

此规格书适用于下面列出的所有系列的片式多层陶瓷电容器（英文缩写 MLCC）：

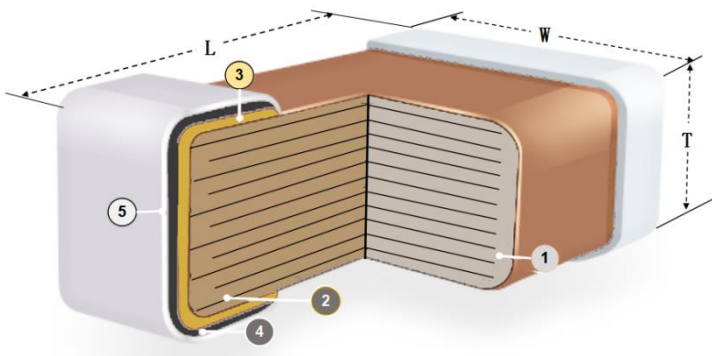
产品尺寸规格：0201、0402、0603、0805、1206、1210；

介质分类：NP0(COG)、X7R、X5R、X6S；

I 类电容器：NP0 系列，此类介质材料的电容器电性能稳定，容值几乎不随温度、电压和时间的变化而变化。包括常规、中高压 NP0 产品。适用于低损耗，稳定性要求高的电路中，如滤波器、谐振器和计时电路等。

II 类电容器：X7R、X5R、X6S 系列，此类介质材料的电容器具有较高的介电常数，容量相比 I 类电容器高，具有较稳定的温度特性，适用于容量范围广，如隔直、耦合、旁路等电路中。

## 2. 产品结构示意图



| 序号 | 名称   |
|----|------|
| 1  | 陶瓷介质 |
| 2  | 内电极  |
| 3  | 外电极  |
| 4  | 镍层   |
| 5  | 锡层   |

### 3. 产品型号命名规则

C
SA
0402
X7R
104
K
500
G
T

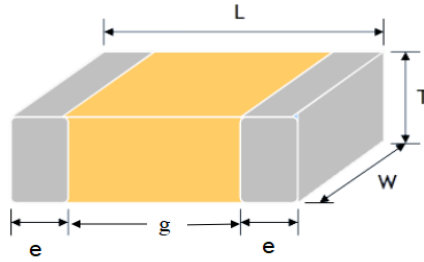
①
②
③
④
⑤
⑥
⑦
⑧
⑨

|                        |   |                        |                       |                        |                       |                |              |              |               |               |            |          |          |          |          |          |          |          |           |           |           |           |  |  |  |
|------------------------|---|------------------------|-----------------------|------------------------|-----------------------|----------------|--------------|--------------|---------------|---------------|------------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|-----------|-----------|--|--|--|
| ①                      | C: MLCC   |                        |                       |                        |                       |                |              |              |               |               |            |          |          |          |          |          |          |          |           |           |           |           |  |  |  |
| ②                      | <p>特殊应用</p> <p>SA: 一般品</p> <p>IA: 工业级产品</p> <p>AA: 车用</p> <p>QA: Microwave</p> <p>FA: High Q</p>  |                        |                       |                        |                       |                |              |              |               |               |            |          |          |          |          |          |          |          |           |           |           |           |  |  |  |
| ③                      | <p>产品尺寸: EIA</p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td>01R5 (0402)</td> <td>0201 (0603)</td> <td>0402 (1005)</td> <td>0603 (1608)</td> <td>0805 (2012)</td> </tr> <tr> <td>1206 (3216)</td> <td>1210 (3225)</td> <td></td> <td></td> <td></td> </tr> </table>  | 01R5 (0402)            | 0201 (0603)           | 0402 (1005)            | 0603 (1608)           | 0805 (2012)    | 1206 (3216)  | 1210 (3225)  |               |               |            |          |          |          |          |          |          |          |           |           |           |           |  |  |  |
| 01R5 (0402)            | 0201 (0603)   | 0402 (1005)            | 0603 (1608)           | 0805 (2012)            |                       |                |              |              |               |               |            |          |          |          |          |          |          |          |           |           |           |           |  |  |  |
| 1206 (3216)            | 1210 (3225)   |                        |                       |                        |                       |                |              |              |               |               |            |          |          |          |          |          |          |          |           |           |           |           |  |  |  |
| ④                      | <p>电容温度特性</p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td>NPO (BME)</td> <td>X7R (BME)</td> <td>X5R (BME)</td> <td>X6S (BME)</td> </tr> </table>   | NPO (BME)              | X7R (BME)             | X5R (BME)              | X6S (BME)             |                |              |              |               |               |            |          |          |          |          |          |          |          |           |           |           |           |  |  |  |
| NPO (BME)              | X7R (BME)   | X5R (BME)              | X6S (BME)             |                        |                       |                |              |              |               |               |            |          |          |          |          |          |          |          |           |           |           |           |  |  |  |
| ⑤                      | <p>电容容值</p> <p>容值<math>\geq 10\text{pF}</math> 的表示方式:</p> <p>First Two <math>\times 10^{\text{third}}</math></p> <p>104=10<math>\times 10^4\text{pF}</math>=100nF</p> <p>123=12<math>\times 10^3\text{pF}</math>=12nF</p> <p>容值<math>&lt; 10\text{pF}</math> 的表示方式: 0R2=0.2pF</p>   |                        |                       |                        |                       |                |              |              |               |               |            |          |          |          |          |          |          |          |           |           |           |           |  |  |  |
| ⑥                      | <p>容值误差值</p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td>A: <math>\pm 0.05\text{pF}</math></td> <td>B: <math>\pm 0.1\text{pF}</math></td> <td>C: <math>\pm 0.25\text{pF}</math></td> <td>D: <math>\pm 0.5\text{pF}</math></td> <td>F: <math>\pm 1.0\%</math></td> </tr> <tr> <td>G: <math>\pm 2\%</math></td> <td>J: <math>\pm 5\%</math></td> <td>K: <math>\pm 10\%</math></td> <td>M: <math>\pm 20\%</math></td> <td>Z: 80/-20%</td> </tr> </table>  | A: $\pm 0.05\text{pF}$ | B: $\pm 0.1\text{pF}$ | C: $\pm 0.25\text{pF}$ | D: $\pm 0.5\text{pF}$ | F: $\pm 1.0\%$ | G: $\pm 2\%$ | J: $\pm 5\%$ | K: $\pm 10\%$ | M: $\pm 20\%$ | Z: 80/-20% |          |          |          |          |          |          |          |           |           |           |           |  |  |  |
| A: $\pm 0.05\text{pF}$ | B: $\pm 0.1\text{pF}$   | C: $\pm 0.25\text{pF}$ | D: $\pm 0.5\text{pF}$ | F: $\pm 1.0\%$         |                       |                |              |              |               |               |            |          |          |          |          |          |          |          |           |           |           |           |  |  |  |
| G: $\pm 2\%$           | J: $\pm 5\%$  | K: $\pm 10\%$          | M: $\pm 20\%$         | Z: 80/-20%             |                       |                |              |              |               |               |            |          |          |          |          |          |          |          |           |           |           |           |  |  |  |
| ⑦                      | <p>额定电压: (单位: V)</p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td>2R5: 2.5</td> <td>4R0: 4</td> <td>6R3: 6.3</td> <td>100: 10</td> <td>160: 16</td> <td>250: 25</td> <td>350: 35</td> <td>500: 50</td> </tr> <tr> <td>630: 63</td> <td>800: 80</td> <td>101: 100</td> <td>201: 200</td> <td>251: 250</td> <td>401: 400</td> <td>451: 450</td> <td>501: 500</td> </tr> <tr> <td>631: 630</td> <td>102: 1000</td> <td>202: 2000</td> <td>302: 3000</td> <td>402: 4000</td> <td></td> <td></td> <td></td> </tr> </table> | 2R5: 2.5               | 4R0: 4                | 6R3: 6.3               | 100: 10               | 160: 16        | 250: 25      | 350: 35      | 500: 50       | 630: 63       | 800: 80    | 101: 100 | 201: 200 | 251: 250 | 401: 400 | 451: 450 | 501: 500 | 631: 630 | 102: 1000 | 202: 2000 | 302: 3000 | 402: 4000 |  |  |  |
| 2R5: 2.5               | 4R0: 4  | 6R3: 6.3               | 100: 10               | 160: 16                | 250: 25               | 350: 35        | 500: 50      |              |               |               |            |          |          |          |          |          |          |          |           |           |           |           |  |  |  |
| 630: 63                | 800: 80   | 101: 100               | 201: 200              | 251: 250               | 401: 400              | 451: 450       | 501: 500     |              |               |               |            |          |          |          |          |          |          |          |           |           |           |           |  |  |  |
| 631: 630               | 102: 1000   | 202: 2000              | 302: 3000             | 402: 4000              |                       |                |              |              |               |               |            |          |          |          |          |          |          |          |           |           |           |           |  |  |  |
| ⑧                      | <p>产品厚度 (单位: mm)</p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td>A: 0.125</td> <td>B: 0.130</td> <td>C: 0.180</td> <td>D: 0.200</td> <td>E: 0.300</td> <td>F: 0.450</td> <td>G: 0.500</td> <td>H: 0.600</td> </tr> <tr> <td>J: 0.800</td> <td>K: 0.850</td> <td>L: 1.150</td> <td>M: 1.250</td> <td>N: 1.600</td> <td>P: 1.900</td> <td>Q: 2.000</td> <td>R: 2.500</td> </tr> </table>   | A: 0.125               | B: 0.130              | C: 0.180               | D: 0.200              | E: 0.300       | F: 0.450     | G: 0.500     | H: 0.600      | J: 0.800      | K: 0.850   | L: 1.150 | M: 1.250 | N: 1.600 | P: 1.900 | Q: 2.000 | R: 2.500 |          |           |           |           |           |  |  |  |
| A: 0.125               | B: 0.130  | C: 0.180               | D: 0.200              | E: 0.300               | F: 0.450              | G: 0.500       | H: 0.600     |              |               |               |            |          |          |          |          |          |          |          |           |           |           |           |  |  |  |
| J: 0.800               | K: 0.850  | L: 1.150               | M: 1.250              | N: 1.600               | P: 1.900              | Q: 2.000       | R: 2.500     |              |               |               |            |          |          |          |          |          |          |          |           |           |           |           |  |  |  |
| ⑨                      | <p>包装方式</p> <p>B= 散装/袋装</p> <p>T= 编带/卷装 (默认 7inch 卷盘)</p> <p>S= 特殊包装 (按客户要求)</p>  |                        |                       |                        |                       |                |              |              |               |               |            |          |          |          |          |          |          |          |           |           |           |           |  |  |  |

### 4. 产品尺寸和温度系数/特性

|            |      |         |
|------------|------|---------|
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## 4.1 产品尺寸



| 规格<br>EIA | 尺寸<br>说明 | L<br>(mm)        | W<br>(mm)        | e<br>(mm) | g min<br>(mm) | T<br>(mm)        | 代码 |
|-----------|----------|------------------|------------------|-----------|---------------|------------------|----|
| 0201      | standard | 0.60±0.03        | 0.30±0.03        | 0.1~0.2   | 0.2           | 0.30±0.03        | E  |
|           | *        | 0.60-0.03/+ 0.1  | 0.30-0.03/+ 0.1  | 0.1~0.25  | 0.2           | 0.30-0.03/+ 0.1  | E  |
| 0402      | standard | 1.00±0.10        | 0.50±0.10        | 0.15~0.3  | 0.4           | 0.50±0.10        | G  |
|           | *        | 1.00-0.05/+ 0.20 | 0.50-0.05/+ 0.20 | 0.15~0.35 | 0.4           | 0.50-0.05/+ 0.20 | G  |
| 0603      | standard | 1.60±0.10        | 0.80±0.10        | 0.2~0.6   | 0.5           | 0.80±0.10        | J  |
|           | *        | 1.60±0.20        | 0.80±0.20        | 0.2~0.65  | 0.5           | 0.80±0.20        | J  |
| 0805      | standard | 2.00±0.10        | 1.25±0.10        | 0.2~0.7   | 0.7           | 0.60±0.10        | H  |
|           |          |                  |                  |           |               | 0.85±0.10        | K  |
|           |          |                  |                  |           |               | 1.25±0.20        | M  |
|           | *        | 2.00±0.20        | 1.25±0.20        | 0.2~0.7   | 0.7           | 0.60±0.10        | H  |
|           |          |                  |                  |           |               | 0.85±0.20        | K  |
|           |          |                  |                  |           |               | 1.25±0.20        | M  |
| 1206      | standard | 3.20±0.20        | 1.60±0.20        | 0.3~0.8   | 1.6           | 0.85±0.10        | K  |
|           |          |                  |                  |           |               | 1.25±0.20        | M  |
|           |          |                  |                  |           |               | 1.6±0.20         | N  |
|           | *        | 3.20±0.30        | 1.60±0.30        | 0.3~0.8   | 1.6           | 0.85±0.10        | K  |
|           |          |                  |                  |           |               | 1.25±0.20        | M  |
|           |          |                  |                  |           |               | 1.6±0.30         | N  |
| 1210      | standard | 3.20±0.30        | 2.5±0.20         | 0.3~0.8   | 1.6           | 0.85±0.10        | K  |
|           |          |                  |                  |           |               | 1.25±0.20        | M  |
|           |          |                  |                  |           |               | 1.6±0.20         | N  |
|           |          |                  |                  |           |               | 2.0±0.20         | Q  |
|           |          |                  |                  |           |               | 2.5±0.30         | R  |
|           | *        | 3.20±0.40        | 2.5±0.30         | 0.3~0.8   | 1.6           | 0.85±0.10        | K  |
|           |          |                  |                  |           |               | 1.25±0.20        | M  |
|           |          |                  |                  |           |               | 1.6±0.30         | N  |
|           |          |                  |                  |           |               | 2.0±0.20         | Q  |
|           |          |                  |                  |           |               | 2.5±0.30         | R  |

\* 标识为产品特殊尺寸规格

## 4.2 产品材质温度系数/特性

| 材质 | 工作温度范围 | 温度系数/特性 |
|----|--------|---------|
|----|--------|---------|

|        |            |           |
|--------|------------|-----------|
| NPO 系列 | -55℃~+125℃ | 0±30ppm/℃ |
| X7R 系列 | -55℃~+125℃ | ±15%      |
| X5R 系列 | -55℃~+85℃  | ±15%      |
| X6S 系列 | -55℃~+105℃ | ±22%      |

## 5. 产品容值范围及电压

| 尺寸 EIA<br>(mm) | 额定<br>电压    | 容值范围       |             |             |                 | 厚度<br>(mm)        | 代码       |
|----------------|-------------|------------|-------------|-------------|-----------------|-------------------|----------|
|                |             | NPO 系列     | X7R 系列      | X5R 系列      | X6S 系列          |                   |          |
| 0201<br>(0603) | 6.3V        | —          | 15nF~100nF  | 220nF~2.2μF | 220nF~1.0μF     | 0.3-0.03/ + 0.1   | E        |
|                |             |            | 100pF~10nF  | 12nF~100nF  | 150pF~100nF     | 0.3±0.03          | E        |
|                | 10V         | —          | 15nF~100nF  | 220nF~2.2μF | 220nF           | 0.3-0.03/ + 0.1   | E        |
|                |             |            | 100pF~10nF  | 150nF~470nF | 150pF~100nF     | 0.3±0.03          | E        |
|                | 16V         | —          | —           | 220nF~1.0μF | —               | 0.3-0.03/ + 0.1   | E        |
|                |             |            | 100pF~10nF  | 3.3nF~100nF | 100pF~100nF     | 0.3±0.03          | E        |
| 25V            | —           | —          | 220nF~470nF | —           | 0.3-0.03/ + 0.1 | E                 |          |
| 50V            | 0.1pF~470pF | 100pF~10nF | 100pF~100nF | 100pF~22nF  | 0.3±0.03        | E                 |          |
| 0402<br>(1005) | 6.3V        | —          | 100pF~1.0μF | 2.2μF~4.7μF | 2.2μF~4.7μF     | 0.50-0.05/ + 0.20 | G        |
|                |             |            |             | 100pF~1.0μF | 100pF~1.0μF     | 0.5±0.10          | G        |
|                | 10V         | —          | 100pF~470nF | 2.2μF~4.7μF | 2.2μF~4.7μF     | 0.50-0.05/ + 0.20 | G        |
|                |             |            |             | 100pF~1.0μF | 100pF~1.0μF     | 0.5±0.10          | G        |
|                | 16V         | —          | 220nF~470nF | 2.2μF       | 2.2μF           | 0.50-0.05/ + 0.20 | G        |
|                |             |            | 100pF~100nF | 100pF~1.0μF | 100pF~1.0μF     | 0.5±0.10          | G        |
|                | 25V         | —          | —           | 2.2μF       | 2.2μF           | 0.50-0.05/ + 0.20 | G        |
|                |             |            |             | 0.5pF~1.0nF | 100pF~220nF     | 100pF~1.0uF       | 0.5±0.10 |
|                | 50V         | —          | —           | 1.0μF       | 1.0μF           | 0.50-0.05/ + 0.20 | G        |
|                |             |            |             | 0.5pF~1.0nF | 100pF~100nF     | 100pF~470nF       | 0.5±0.10 |

| 尺寸 EIA<br>(mm) | 额定<br>电压 | 容值范围   |        |        |        | 厚度<br>(mm) | 代码 |
|----------------|----------|--------|--------|--------|--------|------------|----|
|                |          | NPO 系列 | X7R 系列 | X5R 系列 | X6S 系列 |            |    |



|                |             |             |             |             |             |             |           |
|----------------|-------------|-------------|-------------|-------------|-------------|-------------|-----------|
| 0603<br>(1608) | 6.3V        | —           | 470nF~10μF  | 4.7μF~10μF  | 4.7μF~10μF  | 0.8±0.20    | J         |
|                |             |             | 100pF~100nF | 220pF~2.2μF | 220pF~2.2μF | 0.8±0.10    | J         |
|                | 10V         | —           | 220nF~4.7μF | 4.7μF~10μF  | 4.7μF~10μF  | 0.8±0.20    | J         |
|                |             |             | 100pF~100nF | 220pF~2.2μF | 220pF~2.2μF | 0.8±0.10    | J         |
|                | 16V         | —           | 220nF~2.2μF | 2.2μF~4.7μF | 2.2μF~4.7μF | 0.8±0.20    | J         |
|                |             |             | 100pF~180nF | 220pF~1.0μF | 220pF~1.0μF | 0.8±0.10    | J         |
|                | 25V         | —           | 120nF~1.0μF | 330nF~2.2μF | 330nF~2.2μF | 0.8±0.20    | J         |
|                |             |             | 0.5pF~2.2nF | 100pF~100nF | 220pF~220nF | 220pF~220nF | 0.8±0.10  |
| 50V            | —           | 33nF~470nF  | 220nF~1.0μF | 220nF~1.0μF | 0.8±0.20    | J           |           |
|                |             | 0.5pF~1.5nF | 100pF~27nF  | 220pF~100nF | 220pF~100nF | 0.8±0.10    | J         |
| 100V           | 0.5pF~820pF | 100pF~22nF  | —           | —           | 0.8±0.10    | J           |           |
| 200V           | 0.5pF~470pF | 100pF~6.8nF | —           | —           | 0.8±0.10    | J           |           |
| 250V           | 0.5pF~470pF | 100pF~6.8nF | —           | —           | 0.8±0.10    | J           |           |
| 0805<br>(2012) | 6.3V        | —           | 2.2μF~22μF  | 2.2μF~22μF  | 2.2μF~22μF  | 1.25±0.20   | M         |
|                |             |             | 1.5nF~1.0μF | 1.5nF~1.0μF | 1.5nF~1.0μF | 0.85±0.10   | K         |
|                |             |             | 330pF~1.0nF | 330pF~1.0nF | 330pF~1.0nF | 0.85±0.10   | K         |
|                |             |             |             |             |             | 0.60±0.10   | H         |
|                |             |             | 220pF~270pF | 220pF~270pF | 220pF~270pF | 0.85±0.10   | K         |
|                |             |             |             |             |             | 0.60±0.10   |           |
|                | 10V         | —           | 2.2μF~22μF  | 2.2μF~22μF  | 2.2μF~22μF  | 1.25±0.20   | M         |
|                |             |             | 1.5nF~1.0μF | 1.5nF~1.0μF | 1.5nF~1.0μF | 0.85±0.10   | K         |
|                |             |             | 330pF~1.0nF | 330pF~1.0nF | 330pF~1.0nF | 0.85±0.10   | K         |
|                |             |             |             |             |             | 0.60±0.10   | H         |
|                |             |             | 220pF~270pF | 220pF~270pF | 220pF~270pF | 0.85±0.10   | K         |
|                |             |             | 0.5pF~2.7nF |             |             | 0.60±0.10   | H         |
|                | 16V         | —           | 4.7μF~10μF  | 4.7μF~10μF  | 4.7μF~10μF  | 1.25±0.20   | M         |
|                |             |             | 470nF~2.2μF | 470nF~2.2μF | 470nF~2.2μF | 1.25±0.20   | M         |
|                |             |             | 1.5nF~330nF | 1.5nF~330nF | 1.5nF~330nF | 0.85±0.10   | K         |
|                |             |             | 330pF~1.0nF | 330pF~1.0nF | 330pF~1.0nF | 0.60±0.10   | H         |
|                |             |             |             |             |             | 0.85±0.10   | K         |
|                |             |             | 3.3nF~6.8nF | 220pF~270pF | 220pF~270pF | 220pF~270pF | 0.85±0.10 |
| 0.5pF~2.7nF    | 220pF~270pF | 220pF~270pF | 220pF~270pF | 0.60±0.10   | H           |             |           |

| 尺寸 EIA | 额定 | 容值范围 | 厚度 | 代码 |
|--------|----|------|----|----|
|--------|----|------|----|----|

| (mm)           | 电压   | NPO 系列      | X7R 系列      | X5R 系列      | X6S 系列      | (mm)      |   |
|----------------|------|-------------|-------------|-------------|-------------|-----------|---|
| 0805<br>(2012) | 25V  | —           | 2.2μF~4.7μF | 2.2μF~4.7μF | 2.2μF~4.7μF | 1.25±0.20 | M |
|                |      |             | 470nF~1.0μF | 470nF~1.0μF | 470nF~1.0μF | 0.85±0.10 | K |
|                |      |             | 1.5nF~330nF | 1.5nF~330nF | 1.5nF~330nF | 1.25±0.20 | M |
|                |      |             | 330pF~1nF   | 330pF~1nF   | 330pF~1nF   | 0.85±0.10 | K |
|                |      |             |             |             |             | 0.85±0.10 | K |
|                |      |             |             |             |             | 0.60±0.10 | H |
|                |      | 3.3nF~5.6nF | 220pF~270pF | 220pF~270pF | 220pF~270pF | 0.85±0.10 | K |
|                |      | 0.5pF~2.7nF | 220pF~270pF | 220pF~270pF | 220pF~270pF | 0.60±0.10 | H |
|                | 50V  | —           | 1.0μF       | 1.0μF       | 1.0μF       | 1.25±0.20 | M |
|                |      |             | 680nF       | 680nF       | 680nF       | 0.85±0.10 | K |
|                |      |             | 220nF~470nF | 220nF~470nF | 220nF~470nF | 0.85±0.10 | K |
|                |      |             |             |             |             | 1.25±0.20 | M |
|                |      |             | 1.5nF~180nF | 1.5nF~180nF | 1.5nF~180nF | 0.85±0.10 | K |
|                |      |             | 330pF~1nF   | 330pF~1nF   | 330pF~1nF   | 0.85±0.10 | K |
|                |      |             |             | 0.60±0.10   | H           |           |   |
|                |      | 220pF~270pF | 220pF~270pF | 220pF~270pF | 220pF~270pF | 0.85±0.10 | K |
|                |      | 0.5pF~2.7nF | 220pF~270pF | 220pF~270pF | 220pF~270pF | 0.60±0.10 | H |
|                | 100V | —           | 330pF~100nF |             |             | 0.85±0.10 | K |
|                |      |             | 220pF~270nF |             |             | 1.25±0.20 | M |
|                |      |             |             |             |             | 0.85±0.10 | K |
|                |      |             | 0.5pF~2.2nF | 100pF~200pF |             | 0.60±0.10 | H |
|                | 250V | —           | 15nF~47nF   |             |             | 1.25±0.20 | M |
|                |      |             | 330pF~10nF  |             |             | 0.85±0.10 | K |
|                |      |             | 220pF~270nF |             |             | 1.25±0.20 | M |
| 0.5pF~1.5nF    |      |             | 100pF~200pF |             | 0.85±0.10   | K         |   |
|                |      |             | 0.60±0.10   | H           |             |           |   |
| 1206<br>(3216) | 6.3V | —           | 4.7μF~100μF | 4.7μF~100μF | 4.7μF~100μF | 1.60±0.30 | N |
|                |      |             |             |             |             | 1.60±0.20 | N |
|                |      |             | 470nF~2.2μF | 470nF~2.2μF | 470nF~2.2μF | 1.25±0.20 | M |
|                |      | 220pF~330nF | 220pF~330nF | 220pF~330nF | 0.85±0.10   | K         |   |
|                | 10V  | —           | 4.7μF~22μF  | 4.7μF~22μF  | 4.7μF~22μF  | 1.60±0.30 | N |
|                |      |             |             |             |             | 1.60±0.20 | N |
|                |      |             | 470nF~2.2μF | 470nF~2.2μF | 470nF~2.2μF | 1.25±0.20 | M |
|                |      | 220pF~330nF | 220pF~330nF | 220pF~330nF | 0.85±0.10   | K         |   |
|                | 16V  | —           | 4.7μF~10μF  | 4.7μF~10μF  | 4.7μF~10μF  | 1.60±0.30 | N |
|                |      |             |             |             |             | 1.60±0.20 | N |
| 10nF           |      |             | 470nF~2.2μF | 470nF~2.2μF | 470nF~2.2μF | 1.25±0.20 | M |
| 0.5pF~6.8nF    |      |             | 220pF~330nF | 220pF~330nF | 220pF~330nF | 0.85±0.10 | K |





| 尺寸 EIA<br>(mm) | 额定<br>电压 | 容值范围        |             |             |             | 厚度<br>(mm) | 代码 |
|----------------|----------|-------------|-------------|-------------|-------------|------------|----|
|                |          | NPO 系列      | X7R 系列      | X5R 系列      | X6S 系列      |            |    |
| 1206<br>(3216) | 25V      | —           | 4.7μF       | 4.7μF       | 4.7μF       | 1.60±0.30  | N  |
|                |          | —           | —           | —           | —           | 1.60±0.20  | N  |
|                |          | 10nF        | 470nF~2.2uF | 470nF~2.2uF | 470nF~2.2uF | 1.25±0.20  | M  |
|                |          | 0.5pF~6.8nF | 220pF~330nF | 220pF~330nF | 220pF~330nF | 0.85±0.15  | K  |
|                | 50V      | —           | 680nF~1.0uF | 680nF~1.0uF | 680nF~1.0uF | 1.60±0.20  | N  |
|                |          | —           | —           | —           | —           | 1.25±0.20  | M  |
|                |          | 0.5pF~5.6nF | 220pF~330nF | 220pF~330nF | 220pF~330nF | 0.85±0.10  | K  |
|                | 100V     | —           | 680nF~1.0μF | —           | —           | 1.60±0.20  | N  |
|                |          | —           | 470nF       | —           | —           | 1.25±0.20  | M  |
|                |          | 0.5pF~5.6nF | 220pF~330nF | —           | —           | 0.85±0.15  | K  |
|                | 250V     | —           | 100pF~100nF | —           | —           | 1.25±0.20  | M  |
|                |          | 0.5pF~1.5nF | —           | —           | —           | 0.85±0.15  | K  |
|                | 500V     | —           | 100pF~22nF  | —           | —           | 1.25±0.20  | M  |
|                |          | 0.5pF~1.5nF | —           | —           | —           | 0.85±0.15  | K  |
|                | 630V     | —           | 100pF~22nF  | —           | —           | 1.25±0.20  | M  |
|                |          | 0.5pF~1.5nF | —           | —           | —           | 0.85±0.15  | K  |
|                | 1000V    | 100pF~470pF | 100pF~10nF  | —           | —           | 1.25±0.20  | M  |
|                |          | 0.5pF~82pF  | —           | —           | —           | 0.85±0.15  | K  |
|                | 2000V    | 22pf~120pF  | 100pF~1.0nF | —           | —           | 1.25±0.20  | M  |
|                |          | 0.5pF~20pF  | —           | —           | —           | 0.85±0.15  | K  |
| 1210<br>(3225) | 6.3V     | —           | 10μF~100μF  | 10μF~100μF  | 10μF~100μF  | 2.50±0.30  | R  |
|                |          | —           | 680nF~4.7μF | 680nF~4.7μF | 680nF~4.7μF | 1.60±0.20  | N  |
|                |          | —           | 470nF       | 470nF       | 470nF       | 2.0±0.20   | Q  |
|                | 10V      | —           | 10μF~47μF   | 10μF~47μF   | 10μF~47μF   | 2.50±0.30  | R  |
|                |          | —           | 680nF~4.7μF | 680nF~4.7μF | 680nF~4.7μF | 1.60±0.20  | N  |
|                |          | —           | 470nF       | 470nF       | 470nF       | 2.0±0.20   | Q  |
|                | 16V      | —           | 22μF        | 22μF        | 22μF        | 2.50±0.30  | R  |
|                |          | —           | 10μF        | 10μF        | 10μF        | 2.0±0.20   | Q  |
|                |          | —           | 680nF~4.7μF | 680nF~4.7μF | 680nF~4.7μF | 1.60±0.20  | N  |
|                |          | —           | 470nF       | 470nF       | 470nF       | 2.0±0.20   | Q  |
|                | 25V      | —           | 10μF        | 10μF        | 10μF        | 2.50±0.30  | R  |
|                |          | —           | 4.7μF       | 4.7μF       | 4.7μF       | 2.0±0.20   | Q  |
|                |          | —           | 680nF~2.2μF | 680nF~2.2μF | 680nF~2.2μF | 1.60±0.20  | N  |
|                |          | —           | 470nF       | 470nF       | 470nF       | 2.0±0.20   | Q  |



| 尺寸 EIA<br>(mm) | 额定<br>电压 | 容值范围        |             |             |             | 厚度<br>(mm) | 代码         |           |   |
|----------------|----------|-------------|-------------|-------------|-------------|------------|------------|-----------|---|
|                |          | NP0 系列      | X7R 系列      | X5R 系列      | X6S 系列      |            |            |           |   |
| 1210<br>(3225) | 50V      | —           | 680nF~2.2μF | 680nF~2.2μF | 680nF~2.2μF | 1.60±0.20  | N          |           |   |
|                |          | —           | 470nF       | 470nF       | 470nF       | 2.0±0.20   | Q          |           |   |
|                |          | 100pF~3.3nF | —           | —           | —           | 0.85±0.10  | K          |           |   |
|                | 100V     | —           | —           | 68nF~1.0μF  | —           | —          | 2.0±0.20   | Q         |   |
|                |          |             |             | 330nF~470nF |             |            | 2.0±0.20   | Q         |   |
|                |          |             |             | 150nF~220nF |             |            | 1.60±0.20  | N         |   |
|                |          |             |             | 220pF~100nF |             |            | 1.25±0.20  | M         |   |
|                | 250V     | —           | —           | 220nF       | —           | —          | 2.0±0.20   | Q         |   |
|                |          |             |             | 150nF       |             |            | 1.60±0.20  | N         |   |
|                |          |             |             | 220pF~100nF |             |            | 1.25±0.20  | M         |   |
|                | 500V     | —           | —           | 47nF        | —           | —          | 2.0±0.20   | Q         |   |
|                |          |             |             | 22nF~33nF   |             |            | 1.60±0.20  | N         |   |
|                |          |             |             | 2.7nF       |             |            | 220pF~15nF | 1.25±0.20 | M |
|                |          |             |             | 100pF~2.2nF |             |            | —          | 0.85±0.10 | K |
|                | 630V     | —           | —           | 47nF        | —           | —          | 2.0±0.20   | Q         |   |
|                |          |             |             | 22nF~33nF   |             |            | 1.60±0.20  | N         |   |
|                |          |             |             | 220pF~15nF  |             |            | 1.25±0.20  | M         |   |
|                | 1000V    | —           | —           | 560pF~1.0nF | —           | —          | 1.25±0.20  | M         |   |
|                |          |             |             | 100pF~470pF |             |            | —          | 0.85±0.10 | K |
|                | 2000V    | —           | —           | 120pf~220pF | —           | —          | 1.25±0.20  | M         |   |
| 10pF~100pF     |          |             |             | —           |             |            | 0.85±0.10  | K         |   |

注:

- 1) X7R、X5R、X6S 组别采用 E12 系列, NP0(C0G)组别采用 E24 系列, 10pF 以下规格允许使用整数标称值, 如:1.0pF、2.0pF、3.0pF 等。
- 2) 对于同尺寸、材质、容量的产品, 额定电压可以由高往低覆盖。

## X5R 系列产品

| 尺寸   | HRE 料号              | 材质  | 容值    | 容差   | 耐压  |
|------|---------------------|-----|-------|------|-----|
| 0201 | CSA0201X5R101K500ET | X5R | 100pF | ±10% | 50V |
|      | CSA0201X5R121K500ET | X5R | 120pF | ±10% | 50V |
|      | CSA0201X5R151K500ET | X5R | 150pF | ±10% | 50V |
|      | CSA0201X5R181K500ET | X5R | 180pF | ±10% | 50V |
|      | CSA0201X5R221K500ET | X5R | 220pF | ±10% | 50V |
|      | CSA0201X5R271K500ET | X5R | 270pF | ±10% | 50V |
|      | CSA0201X5R331K500ET | X5R | 330pF | ±10% | 50V |
|      | CSA0201X5R391K500ET | X5R | 390pF | ±10% | 50V |
|      | CSA0201X5R471K500ET | X5R | 470pF | ±10% | 50V |
|      | CSA0201X5R561K500ET | X5R | 560pF | ±10% | 50V |
|      | CSA0201X5R681K500ET | X5R | 680pF | ±10% | 50V |
|      | CSA0201X5R821K500ET | X5R | 820pF | ±10% | 50V |
|      | CSA0201X5R102K500ET | X5R | 1.0nF | ±10% | 50V |
|      | CSA0201X5R152K500ET | X5R | 1.5nF | ±10% | 50V |
|      | CSA0201X5R182K500ET | X5R | 1.8nF | ±10% | 50V |
|      | CSA0201X5R222K500ET | X5R | 2.2nF | ±10% | 50V |
|      | CSA0201X5R272K500ET | X5R | 2.7nF | ±10% | 50V |
|      | CSA0201X5R332K500ET | X5R | 3.3nF | ±10% | 50V |
|      | CSA0201X5R472K500ET | X5R | 4.7nF | ±10% | 50V |
|      | CSA0201X5R562K500ET | X5R | 5.6nF | ±10% | 50V |
|      | CSA0201X5R103K500ET | X5R | 10nF  | ±10% | 50V |
|      | CSA0201X5R151K250ET | X5R | 150pF | ±10% | 25V |
|      | CSA0201X5R181K250ET | X5R | 180pF | ±10% | 25V |
|      | CSA0201X5R221K250ET | X5R | 220pF | ±10% | 25V |
|      | CSA0201X5R271K250ET | X5R | 270pF | ±10% | 25V |
|      | CSA0201X5R331K250ET | X5R | 330pF | ±10% | 25V |
|      | CSA0201X5R391K250ET | X5R | 390pF | ±10% | 25V |
|      | CSA0201X5R471K250ET | X5R | 470pF | ±10% | 25V |
|      | CSA0201X5R561K250ET | X5R | 560pF | ±10% | 25V |
|      | CSA0201X5R681K250ET | X5R | 680pF | ±10% | 25V |



| 尺寸                  | HRE 料号              | 材质    | 容值    | 容差   | 耐压  |
|---------------------|---------------------|-------|-------|------|-----|
| 0201                | CSA0201X5R821K250ET | X5R   | 820pF | ±10% | 25V |
|                     | CSA0201X5R102K250ET | X5R   | 1.0nF | ±10% | 25V |
|                     | CSA0201X5R152K250ET | X5R   | 1.5nF | ±10% | 25V |
|                     | CSA0201X5R182K250ET | X5R   | 1.8nF | ±10% | 25V |
|                     | CSA0201X5R222K250ET | X5R   | 2.2nF | ±10% | 25V |
|                     | CSA0201X5R272K250ET | X5R   | 2.7nF | ±10% | 25V |
|                     | CSA0201X5R332K250ET | X5R   | 3.3nF | ±10% | 25V |
|                     | CSA0201X5R472K250ET | X5R   | 4.7nF | ±10% | 25V |
|                     | CSA0201X5R562K250ET | X5R   | 5.6nF | ±10% | 25V |
|                     | CSA0201X5R103K250ET | X5R   | 10nF  | ±10% | 25V |
|                     | CSA0201X5R153K250ET | X5R   | 15nF  | ±10% | 25V |
|                     | CSA0201X5R223K250ET | X5R   | 22nF  | ±10% | 25V |
|                     | CSA0201X5R333K250ET | X5R   | 33nF  | ±10% | 25V |
|                     | CSA0201X5R473K250ET | X5R   | 47nF  | ±10% | 25V |
|                     | CSA0201X5R563K250ET | X5R   | 56nF  | ±10% | 25V |
|                     | CSA0201X5R683K250ET | X5R   | 68nF  | ±10% | 25V |
|                     | CSA0201X5R823K250ET | X5R   | 82nF  | ±10% | 25V |
|                     | CSA0201X5R104K250ET | X5R   | 100nF | ±10% | 25V |
|                     | CSA0201X5R151K160ET | X5R   | 150pF | ±10% | 16V |
|                     | CSA0201X5R181K160ET | X5R   | 180pF | ±10% | 16V |
|                     | CSA0201X5R221K160ET | X5R   | 220pF | ±10% | 16V |
|                     | CSA0201X5R271K160ET | X5R   | 270pF | ±10% | 16V |
|                     | CSA0201X5R331K160ET | X5R   | 330pF | ±10% | 16V |
|                     | CSA0201X5R391K160ET | X5R   | 390pF | ±10% | 16V |
|                     | CSA0201X5R471K160ET | X5R   | 470pF | ±10% | 16V |
|                     | CSA0201X5R561K160ET | X5R   | 560pF | ±10% | 16V |
|                     | CSA0201X5R681K160ET | X5R   | 680pF | ±10% | 16V |
|                     | CSA0201X5R821K160ET | X5R   | 820pF | ±10% | 16V |
|                     | CSA0201X5R102K160ET | X5R   | 1.0nF | ±10% | 16V |
|                     | CSA0201X5R152K160ET | X5R   | 1.5nF | ±10% | 16V |
|                     | CSA0201X5R182K160ET | X5R   | 1.8nF | ±10% | 16V |
|                     | CSA0201X5R222K160ET | X5R   | 2.2nF | ±10% | 16V |
|                     | CSA0201X5R272K160ET | X5R   | 2.7nF | ±10% | 16V |
| CSA0201X5R332K160ET | X5R                 | 3.3nF | ±10%  | 16V  |     |
| CSA0201X5R472K160ET | X5R                 | 4.7nF | ±10%  | 16V  |     |
| CSA0201X5R562K160ET | X5R                 | 5.6nF | ±10%  | 16V  |     |
| CSA0201X5R103K160ET | X5R                 | 10nF  | ±10%  | 16V  |     |



| 尺寸                  | HRE 料号              | 材质    | 容值    | 容差   | 耐压  |
|---------------------|---------------------|-------|-------|------|-----|
| 0201                | CSA0201X5R153K160ET | X5R   | 15nF  | ±10% | 16V |
|                     | CSA0201X5R223K160ET | X5R   | 22nF  | ±10% | 16V |
|                     | CSA0201X5R333K160ET | X5R   | 33nF  | ±10% | 16V |
|                     | CSA0201X5R473K160ET | X5R   | 47nF  | ±10% | 16V |
|                     | CSA0201X5R563K160ET | X5R   | 56nF  | ±10% | 16V |
|                     | CSA0201X5R683K160ET | X5R   | 68nF  | ±10% | 16V |
|                     | CSA0201X5R823K160ET | X5R   | 82nF  | ±10% | 16V |
|                     | CSA0201X5R104K160ET | X5R   | 100nF | ±10% | 16V |
|                     | CSA0201X5R151K100ET | X5R   | 150pF | ±10% | 10V |
|                     | CSA0201X5R181K100ET | X5R   | 180pF | ±10% | 10V |
|                     | CSA0201X5R221K100ET | X5R   | 220pF | ±10% | 10V |
|                     | CSA0201X5R271K100ET | X5R   | 270pF | ±10% | 10V |
|                     | CSA0201X5R331K100ET | X5R   | 330pF | ±10% | 10V |
|                     | CSA0201X5R391K100ET | X5R   | 390pF | ±10% | 10V |
|                     | CSA0201X5R471K100ET | X5R   | 470pF | ±10% | 10V |
|                     | CSA0201X5R561K100ET | X5R   | 560pF | ±10% | 10V |
|                     | CSA0201X5R681K100ET | X5R   | 680pF | ±10% | 10V |
|                     | CSA0201X5R821K100ET | X5R   | 820pF | ±10% | 10V |
|                     | CSA0201X5R102K100ET | X5R   | 1.0nF | ±10% | 10V |
|                     | CSA0201X5R152K100ET | X5R   | 1.5nF | ±10% | 10V |
|                     | CSA0201X5R182K100ET | X5R   | 1.8nF | ±10% | 10V |
|                     | CSA0201X5R222K100ET | X5R   | 2.2nF | ±10% | 10V |
|                     | CSA0201X5R272K100ET | X5R   | 2.7nF | ±10% | 10V |
|                     | CSA0201X5R332K100ET | X5R   | 3.3nF | ±10% | 10V |
|                     | CSA0201X5R472K100ET | X5R   | 4.7nF | ±10% | 10V |
|                     | CSA0201X5R562K100ET | X5R   | 5.6nF | ±10% | 10V |
|                     | CSA0201X5R103K100ET | X5R   | 10nF  | ±10% | 10V |
|                     | CSA0201X5R153K100ET | X5R   | 15nF  | ±10% | 10V |
|                     | CSA0201X5R223K100ET | X5R   | 22nF  | ±10% | 10V |
|                     | CSA0201X5R333K100ET | X5R   | 33nF  | ±10% | 10V |
|                     | CSA0201X5R473K100ET | X5R   | 47nF  | ±10% | 10V |
|                     | CSA0201X5R563K100ET | X5R   | 56nF  | ±10% | 10V |
|                     | CSA0201X5R683K100ET | X5R   | 68nF  | ±10% | 10V |
|                     | CSA0201X5R823K100ET | X5R   | 82nF  | ±10% | 10V |
| CSA0201X5R104K100ET | X5R                 | 100nF | ±10%  | 10V  |     |
| CSA0201X5R151K6R3ET | X5R                 | 150pF | ±10%  | 6.3V |     |
| CSA0201X5R181K6R3ET | X5R                 | 180pF | ±10%  | 6.3V |     |



| 尺寸                  | HRE 料号              | 材质    | 容值    | 容差   | 耐压   |
|---------------------|---------------------|-------|-------|------|------|
| 0201                | CSA0201X5R221K6R3ET | X5R   | 220pF | ±10% | 6.3V |
|                     | CSA0201X5R271K6R3ET | X5R   | 270pF | ±10% | 6.3V |
|                     | CSA0201X5R331K6R3ET | X5R   | 330pF | ±10% | 6.3V |
|                     | CSA0201X5R391K6R3ET | X5R   | 390pF | ±10% | 6.3V |
|                     | CSA0201X5R471K6R3ET | X5R   | 470pF | ±10% | 6.3V |
|                     | CSA0201X5R561K6R3ET | X5R   | 560pF | ±10% | 6.3V |
|                     | CSA0201X5R681K6R3ET | X5R   | 680pF | ±10% | 6.3V |
|                     | CSA0201X5R821K6R3ET | X5R   | 820pF | ±10% | 6.3V |
|                     | CSA0201X5R102K6R3ET | X5R   | 1.0nF | ±10% | 6.3V |
|                     | CSA0201X5R152K6R3ET | X5R   | 1.5nF | ±10% | 6.3V |
|                     | CSA0201X5R182K6R3ET | X5R   | 1.8nF | ±10% | 6.3V |
|                     | CSA0201X5R222K6R3ET | X5R   | 2.2nF | ±10% | 6.3V |
|                     | CSA0201X5R272K6R3ET | X5R   | 2.7nF | ±10% | 6.3V |
|                     | CSA0201X5R332K6R3ET | X5R   | 3.3nF | ±10% | 6.3V |
|                     | CSA0201X5R472K6R3ET | X5R   | 4.7nF | ±10% | 6.3V |
|                     | CSA0201X5R562K6R3ET | X5R   | 5.6nF | ±10% | 6.3V |
|                     | CSA0201X5R103K6R3ET | X5R   | 10nF  | ±10% | 6.3V |
|                     | CSA0201X5R153K6R3ET | X5R   | 15nF  | ±10% | 6.3V |
|                     | CSA0201X5R223K6R3ET | X5R   | 22nF  | ±10% | 6.3V |
|                     | CSA0201X5R333K6R3ET | X5R   | 33nF  | ±10% | 6.3V |
|                     | CSA0201X5R473K6R3ET | X5R   | 47nF  | ±10% | 6.3V |
|                     | CSA0201X5R563K6R3ET | X5R   | 56nF  | ±10% | 6.3V |
|                     | CSA0201X5R683K6R3ET | X5R   | 68nF  | ±10% | 6.3V |
|                     | CSA0201X5R823K6R3ET | X5R   | 82nF  | ±10% | 6.3V |
|                     | CSA0201X5R104K6R3ET | X5R   | 100nF | ±10% | 6.3V |
|                     | CSA0201X5R224K6R3ET | X5R   | 220nF | ±10% | 6.3V |
|                     | CSA0201X5R334K6R3ET | X5R   | 330nF | ±10% | 6.3V |
|                     | CSA0201X5R474K6R3ET | X5R   | 470nF | ±10% | 6.3V |
| CSA0201X5R105K6R3ET | X5R                 | 1.0uF | ±10%  | 6.3V |      |
| 0402                | CSA0402X5R101K500GT | X5R   | 100pF | ±10% | 50V  |
|                     | CSA0402X5R121K500GT | X5R   | 120pF | ±10% | 50V  |
|                     | CSA0402X5R151K500GT | X5R   | 150pF | ±10% | 50V  |
|                     | CSA0402X5R181K500GT | X5R   | 180pF | ±10% | 50V  |
|                     | CSA0402X5R201K500GT | X5R   | 200pF | ±10% | 50V  |
|                     | CSA0402X5R221K500GT | X5R   | 220pF | ±10% | 50V  |
|                     | CSA0402X5R271K500GT | X5R   | 270pF | ±10% | 50V  |
|                     | CSA0402X5R331K500GT | X5R   | 330pF | ±10% | 50V  |



| 尺寸                  | HRE 料号              | 材质    | 容值    | 容差   | 耐压  |
|---------------------|---------------------|-------|-------|------|-----|
| 0402                | CSA0402X5R391K500GT | X5R   | 390pF | ±10% | 50V |
|                     | CSA0402X5R471K500GT | X5R   | 470pF | ±10% | 50V |
|                     | CSA0402X5R561K500GT | X5R   | 560pF | ±10% | 50V |
|                     | CSA0402X5R681K500GT | X5R   | 680pF | ±10% | 50V |
|                     | CSA0402X5R821K500GT | X5R   | 820pF | ±10% | 50V |
|                     | CSA0402X5R102K500GT | X5R   | 1.0nF | ±10% | 50V |
|                     | CSA0402X5R152K500GT | X5R   | 1.5nF | ±10% | 50V |
|                     | CSA0402X5R182K500GT | X5R   | 1.8nF | ±10% | 50V |
|                     | CSA0402X5R222K500GT | X5R   | 2.2nF | ±10% | 50V |
|                     | CSA0402X5R272K500GT | X5R   | 2.7nF | ±10% | 50V |
|                     | CSA0402X5R332K500GT | X5R   | 3.3nF | ±10% | 50V |
|                     | CSA0402X5R472K500GT | X5R   | 4.7nF | ±10% | 50V |
|                     | CSA0402X5R562K500GT | X5R   | 5.6nF | ±10% | 50V |
|                     | CSA0402X5R103K500GT | X5R   | 10nF  | ±10% | 50V |
|                     | CSA0402X5R153K500GT | X5R   | 15nF  | ±10% | 50V |
|                     | CSA0402X5R101K250GT | X5R   | 100pF | ±10% | 25V |
|                     | CSA0402X5R121K250GT | X5R   | 120pF | ±10% | 25V |
|                     | CSA0402X5R151K250GT | X5R   | 150pF | ±10% | 25V |
|                     | CSA0402X5R181K250GT | X5R   | 180pF | ±10% | 25V |
|                     | CSA0402X5R201K250GT | X5R   | 200pF | ±10% | 25V |
|                     | CSA0402X5R221K250GT | X5R   | 220pF | ±10% | 25V |
|                     | CSA0402X5R271K250GT | X5R   | 270pF | ±10% | 25V |
|                     | CSA0402X5R331K250GT | X5R   | 330pF | ±10% | 25V |
|                     | CSA0402X5R391K250GT | X5R   | 390pF | ±10% | 25V |
|                     | CSA0402X5R471K250GT | X5R   | 470pF | ±10% | 25V |
|                     | CSA0402X5R561K250GT | X5R   | 560pF | ±10% | 25V |
|                     | CSA0402X5R681K250GT | X5R   | 680pF | ±10% | 25V |
|                     | CSA0402X5R821K250GT | X5R   | 820pF | ±10% | 25V |
|                     | CSA0402X5R102K250GT | X5R   | 1.0nF | ±10% | 25V |
|                     | CSA0402X5R152K250GT | X5R   | 1.5nF | ±10% | 25V |
|                     | CSA0402X5R182K250GT | X5R   | 1.8nF | ±10% | 25V |
|                     | CSA0402X5R222K250GT | X5R   | 2.2nF | ±10% | 25V |
|                     | CSA0402X5R272K250GT | X5R   | 2.7nF | ±10% | 25V |
| CSA0402X5R332K250GT | X5R                 | 3.3nF | ±10%  | 25V  |     |
| CSA0402X5R472K250GT | X5R                 | 4.7nF | ±10%  | 25V  |     |
| CSA0402X5R562K250GT | X5R                 | 5.6nF | ±10%  | 25V  |     |
| CSA0402X5R103K250GT | X5R                 | 10nF  | ±10%  | 25V  |     |



| 尺寸                  | HRE 料号              | 材质    | 容值    | 容差   | 耐压  |
|---------------------|---------------------|-------|-------|------|-----|
| 0402                | CSA0402X5R153K250GT | X5R   | 15nF  | ±10% | 25V |
|                     | CSA0402X5R333K250GT | X5R   | 33nF  | ±10% | 25V |
|                     | CSA0402X5R393K250GT | X5R   | 39nF  | ±10% | 25V |
|                     | CSA0402X5R473K250GT | X5R   | 47nF  | ±10% | 25V |
|                     | CSA0402X5R563K250GT | X5R   | 56nF  | ±10% | 25V |
|                     | CSA0402X5R683K250GT | X5R   | 68nF  | ±10% | 25V |
|                     | CSA0402X5R101K160GT | X5R   | 100pF | ±10% | 16V |
|                     | CSA0402X5R121K160GT | X5R   | 120pF | ±10% | 16V |
|                     | CSA0402X5R151K160GT | X5R   | 150pF | ±10% | 16V |
|                     | CSA0402X5R181K160GT | X5R   | 180pF | ±10% | 16V |
|                     | CSA0402X5R201K160GT | X5R   | 200pF | ±10% | 16V |
|                     | CSA0402X5R221K160GT | X5R   | 220pF | ±10% | 16V |
|                     | CSA0402X5R271K160GT | X5R   | 270pF | ±10% | 16V |
|                     | CSA0402X5R331K160GT | X5R   | 330pF | ±10% | 16V |
|                     | CSA0402X5R391K160GT | X5R   | 390pF | ±10% | 16V |
|                     | CSA0402X5R471K160GT | X5R   | 470pF | ±10% | 16V |
|                     | CSA0402X5R561K160GT | X5R   | 560pF | ±10% | 16V |
|                     | CSA0402X5R681K160GT | X5R   | 680pF | ±10% | 16V |
|                     | CSA0402X5R821K160GT | X5R   | 820pF | ±10% | 16V |
|                     | CSA0402X5R102K160GT | X5R   | 1.0nF | ±10% | 16V |
|                     | CSA0402X5R152K160GT | X5R   | 1.5nF | ±10% | 16V |
|                     | CSA0402X5R182K160GT | X5R   | 1.8nF | ±10% | 16V |
|                     | CSA0402X5R222K160GT | X5R   | 2.2nF | ±10% | 16V |
|                     | CSA0402X5R272K160GT | X5R   | 2.7nF | ±10% | 16V |
|                     | CSA0402X5R332K160GT | X5R   | 3.3nF | ±10% | 16V |
|                     | CSA0402X5R472K160GT | X5R   | 4.7nF | ±10% | 16V |
|                     | CSA0402X5R562K160GT | X5R   | 5.6nF | ±10% | 16V |
|                     | CSA0402X5R103K160GT | X5R   | 10nF  | ±10% | 16V |
|                     | CSA0402X5R153K160GT | X5R   | 15nF  | ±10% | 16V |
|                     | CSA0402X5R333K160GT | X5R   | 33nF  | ±10% | 16V |
|                     | CSA0402X5R393K160GT | X5R   | 39nF  | ±10% | 16V |
|                     | CSA0402X5R473K160GT | X5R   | 47nF  | ±10% | 16V |
|                     | CSA0402X5R563K160GT | X5R   | 56nF  | ±10% | 16V |
|                     | CSA0402X5R683K160GT | X5R   | 68nF  | ±10% | 16V |
| CSA0402X5R104K160GT | X5R                 | 100nF | ±10%  | 16V  |     |
| CSA0402X5R154K160GT | X5R                 | 150nF | ±10%  | 16V  |     |
| CSA0402X5R101K100GT | X5R                 | 100pF | ±10%  | 10V  |     |





| 尺寸                  | HRE 料号              | 材质    | 容值    | 容差   | 耐压   |
|---------------------|---------------------|-------|-------|------|------|
| 0402                | CSA0402X5R121K100GT | X5R   | 120pF | ±10% | 10V  |
|                     | CSA0402X5R151K100GT | X5R   | 150pF | ±10% | 10V  |
|                     | CSA0402X5R181K100GT | X5R   | 180pF | ±10% | 10V  |
|                     | CSA0402X5R201K100GT | X5R   | 200pF | ±10% | 10V  |
|                     | CSA0402X5R221K100GT | X5R   | 220pF | ±10% | 10V  |
|                     | CSA0402X5R271K100GT | X5R   | 270pF | ±10% | 10V  |
|                     | CSA0402X5R331K100GT | X5R   | 330pF | ±10% | 10V  |
|                     | CSA0402X5R391K100GT | X5R   | 390pF | ±10% | 10V  |
|                     | CSA0402X5R471K100GT | X5R   | 470pF | ±10% | 10V  |
|                     | CSA0402X5R561K100GT | X5R   | 560pF | ±10% | 10V  |
|                     | CSA0402X5R681K100GT | X5R   | 680pF | ±10% | 10V  |
|                     | CSA0402X5R821K100GT | X5R   | 820pF | ±10% | 10V  |
|                     | CSA0402X5R102K100GT | X5R   | 1.0nF | ±10% | 10V  |
|                     | CSA0402X5R152K100GT | X5R   | 1.5nF | ±10% | 10V  |
|                     | CSA0402X5R182K100GT | X5R   | 1.8nF | ±10% | 10V  |
|                     | CSA0402X5R222K100GT | X5R   | 2.2nF | ±10% | 10V  |
|                     | CSA0402X5R272K100GT | X5R   | 2.7nF | ±10% | 10V  |
|                     | CSA0402X5R332K100GT | X5R   | 3.3nF | ±10% | 10V  |
|                     | CSA0402X5R472K100GT | X5R   | 4.7nF | ±10% | 10V  |
|                     | CSA0402X5R562K100GT | X5R   | 5.6nF | ±10% | 10V  |
|                     | CSA0402X5R103K100GT | X5R   | 10nF  | ±10% | 10V  |
|                     | CSA0402X5R153K100GT | X5R   | 15nF  | ±10% | 10V  |
|                     | CSA0402X5R333K100GT | X5R   | 33nF  | ±10% | 10V  |
|                     | CSA0402X5R393K100GT | X5R   | 39nF  | ±10% | 10V  |
|                     | CSA0402X5R473K100GT | X5R   | 47nF  | ±10% | 10V  |
|                     | CSA0402X5R563K100GT | X5R   | 56nF  | ±10% | 10V  |
|                     | CSA0402X5R683K100GT | X5R   | 68nF  | ±10% | 10V  |
|                     | CSA0402X5R104K100GT | X5R   | 100nF | ±10% | 10V  |
|                     | CSA0402X5R154K100GT | X5R   | 150nF | ±10% | 10V  |
|                     | CSA0402X5R184K100GT | X5R   | 180nF | ±10% | 10V  |
|                     | CSA0402X5R224K100GT | X5R   | 220nF | ±10% | 10V  |
|                     | CSA0402X5R101K6R3GT | X5R   | 100pF | ±10% | 6.3V |
|                     | CSA0402X5R121K6R3GT | X5R   | 120pF | ±10% | 6.3V |
| CSA0402X5R151K6R3GT | X5R                 | 150pF | ±10%  | 6.3V |      |
| CSA0402X5R181K6R3GT | X5R                 | 180pF | ±10%  | 6.3V |      |
| CSA0402X5R201K6R3GT | X5R                 | 200pF | ±10%  | 6.3V |      |
| CSA0402X5R221K6R3GT | X5R                 | 220pF | ±10%  | 6.3V |      |



| 尺寸                  | HRE 料号              | 材质    | 容值    | 容差   | 耐压   |
|---------------------|---------------------|-------|-------|------|------|
| 0402                | CSA0402X5R271K6R3GT | X5R   | 270pF | ±10% | 6.3V |
|                     | CSA0402X5R331K6R3GT | X5R   | 330pF | ±10% | 6.3V |
|                     | CSA0402X5R391K6R3GT | X5R   | 390pF | ±10% | 6.3V |
|                     | CSA0402X5R471K6R3GT | X5R   | 470pF | ±10% | 6.3V |
|                     | CSA0402X5R561K6R3GT | X5R   | 560pF | ±10% | 6.3V |
|                     | CSA0402X5R681K6R3GT | X5R   | 680pF | ±10% | 6.3V |
|                     | CSA0402X5R821K6R3GT | X5R   | 820pF | ±10% | 6.3V |
|                     | CSA0402X5R102K6R3GT | X5R   | 1.0nF | ±10% | 6.3V |
|                     | CSA0402X5R152K6R3GT | X5R   | 1.5nF | ±10% | 6.3V |
|                     | CSA0402X5R182K6R3GT | X5R   | 1.8nF | ±10% | 6.3V |
|                     | CSA0402X5R222K6R3GT | X5R   | 2.2nF | ±10% | 6.3V |
|                     | CSA0402X5R272K6R3GT | X5R   | 2.7nF | ±10% | 6.3V |
|                     | CSA0402X5R332K6R3GT | X5R   | 3.3nF | ±10% | 6.3V |
|                     | CSA0402X5R472K6R3GT | X5R   | 4.7nF | ±10% | 6.3V |
|                     | CSA0402X5R562K6R3GT | X5R   | 5.6nF | ±10% | 6.3V |
|                     | CSA0402X5R103K6R3GT | X5R   | 10nF  | ±10% | 6.3V |
|                     | CSA0402X5R153K6R3GT | X5R   | 15nF  | ±10% | 6.3V |
|                     | CSA0402X5R333K6R3GT | X5R   | 33nF  | ±10% | 6.3V |
|                     | CSA0402X5R393K6R3GT | X5R   | 39nF  | ±10% | 6.3V |
|                     | CSA0402X5R473K6R3GT | X5R   | 47nF  | ±10% | 6.3V |
|                     | CSA0402X5R563K6R3GT | X5R   | 56nF  | ±10% | 6.3V |
|                     | CSA0402X5R683K6R3GT | X5R   | 68nF  | ±10% | 6.3V |
|                     | CSA0402X5R104K6R3GT | X5R   | 100nF | ±10% | 6.3V |
|                     | CSA0402X5R154K6R3GT | X5R   | 150nF | ±10% | 6.3V |
|                     | CSA0402X5R184K6R3GT | X5R   | 180nF | ±10% | 6.3V |
|                     | CSA0402X5R224K6R3GT | X5R   | 220nF | ±10% | 6.3V |
|                     | CSA0402X5R274K6R3GT | X5R   | 270nF | ±10% | 6.3V |
|                     | CSA0402X5R334K6R3GT | X5R   | 330nF | ±10% | 6.3V |
|                     | CSA0402X5R474K6R3GT | X5R   | 470nF | ±10% | 6.3V |
|                     | CSA0402X5R684K6R3GT | X5R   | 680nF | ±10% | 6.3V |
|                     | CSA0402X5R105K6R3GT | X5R   | 1.0uF | ±10% | 6.3V |
|                     | CSA0402X5R225K6R3GT | X5R   | 2.2uF | ±10% | 6.3V |
| CSA0402X5R475M6R3GT | X5R                 | 4.7uF | ±20%  | 6.3V |      |
| 0603                | CSA0603X5R221K500JT | X5R   | 220pF | ±10% | 50V  |
|                     | CSA0603X5R271K500JT | X5R   | 270pF | ±10% | 50V  |
|                     | CSA0603X5R331K500JT | X5R   | 330pF | ±10% | 50V  |
|                     | CSA0603X5R391K500JT | X5R   | 390pF | ±10% | 50V  |



| 尺寸                  | HRE 料号              | 材质    | 容值    | 容差   | 耐压  |
|---------------------|---------------------|-------|-------|------|-----|
| 0603                | CSA0603X5R471K500JT | X5R   | 470pF | ±10% | 50V |
|                     | CSA0603X5R561K500JT | X5R   | 560pF | ±10% | 50V |
|                     | CSA0603X5R681K500JT | X5R   | 680pF | ±10% | 50V |
|                     | CSA0603X5R821K500JT | X5R   | 820pF | ±10% | 50V |
|                     | CSA0603X5R102K500JT | X5R   | 1.0nF | ±10% | 50V |
|                     | CSA0603X5R152K500JT | X5R   | 1.5nF | ±10% | 50V |
|                     | CSA0603X5R182K500JT | X5R   | 1.8nF | ±10% | 50V |
|                     | CSA0603X5R222K500JT | X5R   | 2.2nF | ±10% | 50V |
|                     | CSA0603X5R272K500JT | X5R   | 2.7nF | ±10% | 50V |
|                     | CSA0603X5R332K500JT | X5R   | 3.3nF | ±10% | 50V |
|                     | CSA0603X5R472K500JT | X5R   | 4.7nF | ±10% | 50V |
|                     | CSA0603X5R562K500JT | X5R   | 5.6nF | ±10% | 50V |
|                     | CSA0603X5R682K500JT | X5R   | 6.8nF | ±10% | 50V |
|                     | CSA0603X5R103K500JT | X5R   | 10nF  | ±10% | 50V |
|                     | CSA0603X5R153K500JT | X5R   | 15nF  | ±10% | 50V |
|                     | CSA0603X5R183K500JT | X5R   | 18nF  | ±10% | 50V |
|                     | CSA0603X5R223K500JT | X5R   | 22nF  | ±10% | 50V |
|                     | CSA0603X5R273K500JT | X5R   | 27nF  | ±10% | 50V |
|                     | CSA0603X5R333K500JT | X5R   | 33nF  | ±10% | 50V |
|                     | CSA0603X5R393K500JT | X5R   | 39nF  | ±10% | 50V |
|                     | CSA0603X5R473K500JT | X5R   | 47nF  | ±10% | 50V |
|                     | CSA0603X5R563K500JT | X5R   | 56nF  | ±10% | 50V |
|                     | CSA0603X5R683K500JT | X5R   | 68nF  | ±10% | 50V |
|                     | CSA0603X5R104K500JT | X5R   | 100nF | ±10% | 50V |
|                     | CSA0603X5R154K500JT | X5R   | 150nF | ±10% | 50V |
|                     | CSA0603X5R184K500JT | X5R   | 180nF | ±10% | 50V |
|                     | CSA0603X5R224K500JT | X5R   | 220nF | ±10% | 50V |
|                     | CSA0603X5R274K500JT | X5R   | 270nF | ±10% | 50V |
|                     | CSA0603X5R334K500JT | X5R   | 330nF | ±10% | 50V |
|                     | CSA0603X5R474K500JT | X5R   | 470nF | ±10% | 50V |
|                     | CSA0603X5R221K250JT | X5R   | 220pF | ±10% | 25V |
|                     | CSA0603X5R271K250JT | X5R   | 270pF | ±10% | 25V |
|                     | CSA0603X5R331K250JT | X5R   | 330pF | ±10% | 25V |
| CSA0603X5R391K250JT | X5R                 | 390pF | ±10%  | 25V  |     |
| CSA0603X5R471K250JT | X5R                 | 470pF | ±10%  | 25V  |     |
| CSA0603X5R561K250JT | X5R                 | 560pF | ±10%  | 25V  |     |
| CSA0603X5R681K250JT | X5R                 | 680pF | ±10%  | 25V  |     |



| 尺寸                  | HRE 料号              | 材质    | 容值    | 容差   | 耐压  |
|---------------------|---------------------|-------|-------|------|-----|
| 0603                | CSA0603X5R821K250JT | X5R   | 820pF | ±10% | 25V |
|                     | CSA0603X5R102K250JT | X5R   | 1.0nF | ±10% | 25V |
|                     | CSA0603X5R152K250JT | X5R   | 1.5nF | ±10% | 25V |
|                     | CSA0603X5R182K250JT | X5R   | 1.8nF | ±10% | 25V |
|                     | CSA0603X5R222K250JT | X5R   | 2.2nF | ±10% | 25V |
|                     | CSA0603X5R272K250JT | X5R   | 2.7nF | ±10% | 25V |
|                     | CSA0603X5R332K250JT | X5R   | 3.3nF | ±10% | 25V |
|                     | CSA0603X5R472K250JT | X5R   | 4.7nF | ±10% | 25V |
|                     | CSA0603X5R562K250JT | X5R   | 5.6nF | ±10% | 25V |
|                     | CSA0603X5R682K250JT | X5R   | 6.8nF | ±10% | 25V |
|                     | CSA0603X5R103K250JT | X5R   | 10nF  | ±10% | 25V |
|                     | CSA0603X5R153K250JT | X5R   | 15nF  | ±10% | 25V |
|                     | CSA0603X5R183K250JT | X5R   | 18nF  | ±10% | 25V |
|                     | CSA0603X5R223K250JT | X5R   | 22nF  | ±10% | 25V |
|                     | CSA0603X5R273K250JT | X5R   | 27nF  | ±10% | 25V |
|                     | CSA0603X5R333K250JT | X5R   | 33nF  | ±10% | 25V |
|                     | CSA0603X5R393K250JT | X5R   | 39nF  | ±10% | 25V |
|                     | CSA0603X5R473K250JT | X5R   | 47nF  | ±10% | 25V |
|                     | CSA0603X5R563K250JT | X5R   | 56nF  | ±10% | 25V |
|                     | CSA0603X5R683K250JT | X5R   | 68nF  | ±10% | 25V |
|                     | CSA0603X5R104K250JT | X5R   | 100nF | ±10% | 25V |
|                     | CSA0603X5R154K250JT | X5R   | 150nF | ±10% | 25V |
|                     | CSA0603X5R184K250JT | X5R   | 180nF | ±10% | 25V |
|                     | CSA0603X5R224K250JT | X5R   | 220nF | ±10% | 25V |
|                     | CSA0603X5R274K250JT | X5R   | 270nF | ±10% | 25V |
|                     | CSA0603X5R334K250JT | X5R   | 330nF | ±10% | 25V |
|                     | CSA0603X5R474K250JT | X5R   | 470nF | ±10% | 25V |
|                     | CSA0603X5R684K250JT | X5R   | 680nF | ±10% | 25V |
|                     | CSA0603X5R105K250JT | X5R   | 1.0uF | ±10% | 25V |
|                     | CSA0603X5R221K160JT | X5R   | 220pF | ±10% | 16V |
|                     | CSA0603X5R271K160JT | X5R   | 270pF | ±10% | 16V |
|                     | CSA0603X5R331K160JT | X5R   | 330pF | ±10% | 16V |
|                     | CSA0603X5R391K160JT | X5R   | 390pF | ±10% | 16V |
|                     | CSA0603X5R471K160JT | X5R   | 470pF | ±10% | 16V |
|                     | CSA0603X5R561K160JT | X5R   | 560pF | ±10% | 16V |
|                     | CSA0603X5R681K160JT | X5R   | 680pF | ±10% | 16V |
| CSA0603X5R821K160JT | X5R                 | 820pF | ±10%  | 16V  |     |



| 尺寸                  | HRE 料号              | 材质    | 容值    | 容差   | 耐压  |
|---------------------|---------------------|-------|-------|------|-----|
| 0603                | CSA0603X5R102K160JT | X5R   | 1.0nF | ±10% | 16V |
|                     | CSA0603X5R152K160JT | X5R   | 1.5nF | ±10% | 16V |
|                     | CSA0603X5R182K160JT | X5R   | 1.8nF | ±10% | 16V |
|                     | CSA0603X5R222K160JT | X5R   | 2.2nF | ±10% | 16V |
|                     | CSA0603X5R272K160JT | X5R   | 2.7nF | ±10% | 16V |
|                     | CSA0603X5R332K160JT | X5R   | 3.3nF | ±10% | 16V |
|                     | CSA0603X5R472K160JT | X5R   | 4.7nF | ±10% | 16V |
|                     | CSA0603X5R562K160JT | X5R   | 5.6nF | ±10% | 16V |
|                     | CSA0603X5R682K160JT | X5R   | 6.8nF | ±10% | 16V |
|                     | CSA0603X5R103K160JT | X5R   | 10nF  | ±10% | 16V |
|                     | CSA0603X5R153K160JT | X5R   | 15nF  | ±10% | 16V |
|                     | CSA0603X5R183K160JT | X5R   | 18nF  | ±10% | 16V |
|                     | CSA0603X5R223K160JT | X5R   | 22nF  | ±10% | 16V |
|                     | CSA0603X5R273K160JT | X5R   | 27nF  | ±10% | 16V |
|                     | CSA0603X5R333K160JT | X5R   | 33nF  | ±10% | 16V |
|                     | CSA0603X5R393K160JT | X5R   | 39nF  | ±10% | 16V |
|                     | CSA0603X5R473K160JT | X5R   | 47nF  | ±10% | 16V |
|                     | CSA0603X5R563K160JT | X5R   | 56nF  | ±10% | 16V |
|                     | CSA0603X5R683K160JT | X5R   | 68nF  | ±10% | 16V |
|                     | CSA0603X5R104K160JT | X5R   | 100nF | ±10% | 16V |
|                     | CSA0603X5R154K160JT | X5R   | 150nF | ±10% | 16V |
|                     | CSA0603X5R184K160JT | X5R   | 180nF | ±10% | 16V |
|                     | CSA0603X5R224K160JT | X5R   | 220nF | ±10% | 16V |
|                     | CSA0603X5R274K160JT | X5R   | 270nF | ±10% | 16V |
|                     | CSA0603X5R334K160JT | X5R   | 330nF | ±10% | 16V |
|                     | CSA0603X5R474K160JT | X5R   | 470nF | ±10% | 16V |
|                     | CSA0603X5R684K160JT | X5R   | 680nF | ±10% | 16V |
|                     | CSA0603X5R105K160JT | X5R   | 1.0uF | ±10% | 16V |
|                     | CSA0603X5R225K100JT | X5R   | 2.2uF | ±10% | 16V |
|                     | CSA0603X5R221K100JT | X5R   | 220pF | ±10% | 10V |
|                     | CSA0603X5R271K100JT | X5R   | 270pF | ±10% | 10V |
|                     | CSA0603X5R331K100JT | X5R   | 330pF | ±10% | 10V |
|                     | CSA0603X5R391K100JT | X5R   | 390pF | ±10% | 10V |
|                     | CSA0603X5R471K100JT | X5R   | 470pF | ±10% | 10V |
| CSA0603X5R561K100JT | X5R                 | 560pF | ±10%  | 10V  |     |
| CSA0603X5R681K100JT | X5R                 | 680pF | ±10%  | 10V  |     |
| CSA0603X5R821K100JT | X5R                 | 820pF | ±10%  | 10V  |     |



| 尺寸                  | HRE 料号              | 材质    | 容值    | 容差   | 耐压   |
|---------------------|---------------------|-------|-------|------|------|
| 0603                | CSA0603X5R102K100JT | X5R   | 1.0nF | ±10% | 10V  |
|                     | CSA0603X5R152K100JT | X5R   | 1.5nF | ±10% | 10V  |
|                     | CSA0603X5R182K100JT | X5R   | 1.8nF | ±10% | 10V  |
|                     | CSA0603X5R222K100JT | X5R   | 2.2nF | ±10% | 10V  |
|                     | CSA0603X5R272K100JT | X5R   | 2.7nF | ±10% | 10V  |
|                     | CSA0603X5R332K100JT | X5R   | 3.3nF | ±10% | 10V  |
|                     | CSA0603X5R472K100JT | X5R   | 4.7nF | ±10% | 10V  |
|                     | CSA0603X5R562K100JT | X5R   | 5.6nF | ±10% | 10V  |
|                     | CSA0603X5R682K100JT | X5R   | 6.8nF | ±10% | 10V  |
|                     | CSA0603X5R103K100JT | X5R   | 10nF  | ±10% | 10V  |
|                     | CSA0603X5R153K100JT | X5R   | 15nF  | ±10% | 10V  |
|                     | CSA0603X5R183K100JT | X5R   | 18nF  | ±10% | 10V  |
|                     | CSA0603X5R223K100JT | X5R   | 22nF  | ±10% | 10V  |
|                     | CSA0603X5R273K100JT | X5R   | 27nF  | ±10% | 10V  |
|                     | CSA0603X5R333K100JT | X5R   | 33nF  | ±10% | 10V  |
|                     | CSA0603X5R393K100JT | X5R   | 39nF  | ±10% | 10V  |
|                     | CSA0603X5R473K100JT | X5R   | 47nF  | ±10% | 10V  |
|                     | CSA0603X5R563K100JT | X5R   | 56nF  | ±10% | 10V  |
|                     | CSA0603X5R683K100JT | X5R   | 68nF  | ±10% | 10V  |
|                     | CSA0603X5R104K100JT | X5R   | 100nF | ±10% | 10V  |
|                     | CSA0603X5R154K100JT | X5R   | 150nF | ±10% | 10V  |
|                     | CSA0603X5R184K100JT | X5R   | 180nF | ±10% | 10V  |
|                     | CSA0603X5R224K100JT | X5R   | 220nF | ±10% | 10V  |
|                     | CSA0603X5R274K100JT | X5R   | 270nF | ±10% | 10V  |
|                     | CSA0603X5R334K100JT | X5R   | 330nF | ±10% | 10V  |
|                     | CSA0603X5R474K100JT | X5R   | 470nF | ±10% | 10V  |
|                     | CSA0603X5R684K100JT | X5R   | 680nF | ±10% | 10V  |
|                     | CSA0603X5R105K100JT | X5R   | 1.0uF | ±10% | 10V  |
|                     | CSA0603X5R225K100JT | X5R   | 2.2uF | ±10% | 10V  |
|                     | CSA0603X5R475K100JT | X5R   | 4.7uF | ±10% | 10V  |
|                     | CSA0603X5R221K6R3JT | X5R   | 220pF | ±10% | 6.3V |
|                     | CSA0603X5R271K6R3JT | X5R   | 270pF | ±10% | 6.3V |
|                     | CSA0603X5R331K6R3JT | X5R   | 330pF | ±10% | 6.3V |
|                     | CSA0603X5R391K6R3JT | X5R   | 390pF | ±10% | 6.3V |
|                     | CSA0603X5R471K6R3JT | X5R   | 470pF | ±10% | 6.3V |
|                     | CSA0603X5R561K6R3JT | X5R   | 560pF | ±10% | 6.3V |
| CSA0603X5R681K6R3JT | X5R                 | 680pF | ±10%  | 6.3V |      |



| 尺寸                  | HRE 料号              | 材质    | 容值    | 容差   | 耐压   |
|---------------------|---------------------|-------|-------|------|------|
| 0603                | CSA0603X5R821K6R3JT | X5R   | 820pF | ±10% | 6.3V |
|                     | CSA0603X5R102K6R3JT | X5R   | 1.0nF | ±10% | 6.3V |
|                     | CSA0603X5R152K6R3JT | X5R   | 1.5nF | ±10% | 6.3V |
|                     | CSA0603X5R182K6R3JT | X5R   | 1.8nF | ±10% | 6.3V |
|                     | CSA0603X5R222K6R3JT | X5R   | 2.2nF | ±10% | 6.3V |
|                     | CSA0603X5R272K6R3JT | X5R   | 2.7nF | ±10% | 6.3V |
|                     | CSA0603X5R332K6R3JT | X5R   | 3.3nF | ±10% | 6.3V |
|                     | CSA0603X5R472K6R3JT | X5R   | 4.7nF | ±10% | 6.3V |
|                     | CSA0603X5R562K6R3JT | X5R   | 5.6nF | ±10% | 6.3V |
|                     | CSA0603X5R682K6R3JT | X5R   | 6.8nF | ±10% | 6.3V |
|                     | CSA0603X5R103K6R3JT | X5R   | 10nF  | ±10% | 6.3V |
|                     | CSA0603X5R153K6R3JT | X5R   | 15nF  | ±10% | 6.3V |
|                     | CSA0603X5R183K6R3JT | X5R   | 18nF  | ±10% | 6.3V |
|                     | CSA0603X5R223K6R3JT | X5R   | 22nF  | ±10% | 6.3V |
|                     | CSA0603X5R273K6R3JT | X5R   | 27nF  | ±10% | 6.3V |
|                     | CSA0603X5R333K6R3JT | X5R   | 33nF  | ±10% | 6.3V |
|                     | CSA0603X5R393K6R3JT | X5R   | 39nF  | ±10% | 6.3V |
|                     | CSA0603X5R473K6R3JT | X5R   | 47nF  | ±10% | 6.3V |
|                     | CSA0603X5R563K6R3JT | X5R   | 56nF  | ±10% | 6.3V |
|                     | CSA0603X5R683K6R3JT | X5R   | 68nF  | ±10% | 6.3V |
|                     | CSA0603X5R104K6R3JT | X5R   | 100nF | ±10% | 6.3V |
|                     | CSA0603X5R154K6R3JT | X5R   | 150nF | ±10% | 6.3V |
|                     | CSA0603X5R184K6R3JT | X5R   | 180nF | ±10% | 6.3V |
|                     | CSA0603X5R224K6R3JT | X5R   | 220nF | ±10% | 6.3V |
|                     | CSA0603X5R274K6R3JT | X5R   | 270nF | ±10% | 6.3V |
|                     | CSA0603X5R334K6R3JT | X5R   | 330nF | ±10% | 6.3V |
|                     | CSA0603X5R474K6R3JT | X5R   | 470nF | ±10% | 6.3V |
|                     | CSA0603X5R684K6R3JT | X5R   | 680nF | ±10% | 6.3V |
|                     | CSA0603X5R105K6R3JT | X5R   | 1.0uF | ±10% | 6.3V |
|                     | CSA0603X5R225K6R3JT | X5R   | 2.2uF | ±10% | 6.3V |
| CSA0603X5R475K6R3JT | X5R                 | 4.7uF | ±10%  | 6.3V |      |
| CSA0603X5R106M6R3JT | X5R                 | 10uF  | ±20%  | 6.3V |      |
| 0805                | CSA0805X5R221K500KT | X5R   | 220pF | ±10% | 50V  |
|                     | CSA0805X5R271K500KT | X5R   | 270pF | ±10% | 50V  |
|                     | CSA0805X5R331K500KT | X5R   | 330pF | ±10% | 50V  |
|                     | CSA0805X5R391K500KT | X5R   | 390pF | ±10% | 50V  |
|                     | CSA0805X5R471K500KT | X5R   | 470pF | ±10% | 50V  |



| 尺寸                  | HRE 料号              | 材质    | 容值    | 容差   | 耐压  |
|---------------------|---------------------|-------|-------|------|-----|
| 0805                | CSA0805X5R561K500KT | X5R   | 560pF | ±10% | 50V |
|                     | CSA0805X5R681K500KT | X5R   | 680pF | ±10% | 50V |
|                     | CSA0805X5R821K500KT | X5R   | 820pF | ±10% | 50V |
|                     | CSA0805X5R102K500KT | X5R   | 1.0nF | ±10% | 50V |
|                     | CSA0805X5R152K500KT | X5R   | 1.5nF | ±10% | 50V |
|                     | CSA0805X5R182K500KT | X5R   | 1.8nF | ±10% | 50V |
|                     | CSA0805X5R222K500KT | X5R   | 2.2nF | ±10% | 50V |
|                     | CSA0805X5R272K500KT | X5R   | 2.7nF | ±10% | 50V |
|                     | CSA0805X5R332K500KT | X5R   | 3.3nF | ±10% | 50V |
|                     | CSA0805X5R472K500KT | X5R   | 4.7nF | ±10% | 50V |
|                     | CSA0805X5R562K500KT | X5R   | 5.6nF | ±10% | 50V |
|                     | CSA0805X5R682K500KT | X5R   | 6.8nF | ±10% | 50V |
|                     | CSA0805X5R103K500KT | X5R   | 10nF  | ±10% | 50V |
|                     | CSA0805X5R153K500KT | X5R   | 15nF  | ±10% | 50V |
|                     | CSA0805X5R183K500KT | X5R   | 18nF  | ±10% | 50V |
|                     | CSA0805X5R223K500KT | X5R   | 22nF  | ±10% | 50V |
|                     | CSA0805X5R273K500KT | X5R   | 27nF  | ±10% | 50V |
|                     | CSA0805X5R333K500KT | X5R   | 33nF  | ±10% | 50V |
|                     | CSA0805X5R393K500KT | X5R   | 39nF  | ±10% | 50V |
|                     | CSA0805X5R473K500KT | X5R   | 47nF  | ±10% | 50V |
|                     | CSA0805X5R563K500KT | X5R   | 56nF  | ±10% | 50V |
|                     | CSA0805X5R683K500KT | X5R   | 68nF  | ±10% | 50V |
|                     | CSA0805X5R104K500KT | X5R   | 100nF | ±10% | 50V |
|                     | CSA0805X5R154K500KT | X5R   | 150nF | ±10% | 50V |
|                     | CSA0805X5R184K500KT | X5R   | 180nF | ±10% | 50V |
|                     | CSA0805X5R224K500KT | X5R   | 220nF | ±10% | 50V |
|                     | CSA0805X5R274K500KT | X5R   | 270nF | ±10% | 50V |
|                     | CSA0805X5R334K500KT | X5R   | 330nF | ±10% | 50V |
|                     | CSA0805X5R474K500KT | X5R   | 470nF | ±10% | 50V |
|                     | CSA0805X5R684K500KT | X5R   | 680nF | ±10% | 50V |
|                     | CSA0805X5R105K500MT | X5R   | 1.0uF | ±10% | 50V |
|                     | CSA0805X5R221K250KT | X5R   | 220pF | ±10% | 25V |
|                     | CSA0805X5R271K250KT | X5R   | 270pF | ±10% | 25V |
| CSA0805X5R331K250KT | X5R                 | 330pF | ±10%  | 25V  |     |
| CSA0805X5R391K250KT | X5R                 | 390pF | ±10%  | 25V  |     |
| CSA0805X5R471K250KT | X5R                 | 470pF | ±10%  | 25V  |     |
| CSA0805X5R561K250KT | X5R                 | 560pF | ±10%  | 25V  |     |





| 尺寸                  | HRE 料号              | 材质    | 容值    | 容差   | 耐压  |
|---------------------|---------------------|-------|-------|------|-----|
| 0805                | CSA0805X5R681K250KT | X5R   | 680pF | ±10% | 25V |
|                     | CSA0805X5R821K250KT | X5R   | 820pF | ±10% | 25V |
|                     | CSA0805X5R102K250KT | X5R   | 1.0nF | ±10% | 25V |
|                     | CSA0805X5R152K250KT | X5R   | 1.5nF | ±10% | 25V |
|                     | CSA0805X5R182K250KT | X5R   | 1.8nF | ±10% | 25V |
|                     | CSA0805X5R222K250KT | X5R   | 2.2nF | ±10% | 25V |
|                     | CSA0805X5R272K250KT | X5R   | 2.7nF | ±10% | 25V |
|                     | CSA0805X5R332K250KT | X5R   | 3.3nF | ±10% | 25V |
|                     | CSA0805X5R472K250KT | X5R   | 4.7nF | ±10% | 25V |
|                     | CSA0805X5R562K250KT | X5R   | 5.6nF | ±10% | 25V |
|                     | CSA0805X5R682K250KT | X5R   | 6.8nF | ±10% | 25V |
|                     | CSA0805X5R103K250KT | X5R   | 10nF  | ±10% | 25V |
|                     | CSA0805X5R153K250KT | X5R   | 15nF  | ±10% | 25V |
|                     | CSA0805X5R183K250KT | X5R   | 18nF  | ±10% | 25V |
|                     | CSA0805X5R223K250KT | X5R   | 22nF  | ±10% | 25V |
|                     | CSA0805X5R273K250KT | X5R   | 27nF  | ±10% | 25V |
|                     | CSA0805X5R333K250KT | X5R   | 33nF  | ±10% | 25V |
|                     | CSA0805X5R393K250KT | X5R   | 39nF  | ±10% | 25V |
|                     | CSA0805X5R473K250KT | X5R   | 47nF  | ±10% | 25V |
|                     | CSA0805X5R563K250KT | X5R   | 56nF  | ±10% | 25V |
|                     | CSA0805X5R683K250KT | X5R   | 68nF  | ±10% | 25V |
|                     | CSA0805X5R104K250KT | X5R   | 100nF | ±10% | 25V |
|                     | CSA0805X5R154K250KT | X5R   | 150nF | ±10% | 25V |
|                     | CSA0805X5R184K250KT | X5R   | 180nF | ±10% | 25V |
|                     | CSA0805X5R224K250KT | X5R   | 220nF | ±10% | 25V |
|                     | CSA0805X5R274K250KT | X5R   | 270nF | ±10% | 25V |
|                     | CSA0805X5R334K250KT | X5R   | 330nF | ±10% | 25V |
|                     | CSA0805X5R474K250MT | X5R   | 470nF | ±10% | 25V |
|                     | CSA0805X5R684K250MT | X5R   | 680nF | ±10% | 25V |
|                     | CSA0805X5R105K250MT | X5R   | 1.0uF | ±10% | 25V |
|                     | CSA0805X5R225K250MT | X5R   | 2.2uF | ±10% | 25V |
|                     | CSA0805X5R475K250MT | X5R   | 4.7uF | ±10% | 25V |
|                     | CSA0805X5R221K160KT | X5R   | 220pF | ±10% | 16V |
| CSA0805X5R271K160KT | X5R                 | 270pF | ±10%  | 16V  |     |
| CSA0805X5R331K160KT | X5R                 | 330pF | ±10%  | 16V  |     |
| CSA0805X5R391K160KT | X5R                 | 390pF | ±10%  | 16V  |     |
| CSA0805X5R471K160KT | X5R                 | 470pF | ±10%  | 16V  |     |



| 尺寸                  | HRE 料号              | 材质    | 容值    | 容差   | 耐压  |
|---------------------|---------------------|-------|-------|------|-----|
| 0805                | CSA0805X5R561K160KT | X5R   | 560pF | ±10% | 16V |
|                     | CSA0805X5R681K160KT | X5R   | 680pF | ±10% | 16V |
|                     | CSA0805X5R821K160KT | X5R   | 820pF | ±10% | 16V |
|                     | CSA0805X5R102K160KT | X5R   | 1.0nF | ±10% | 16V |
|                     | CSA0805X5R152K160KT | X5R   | 1.5nF | ±10% | 16V |
|                     | CSA0805X5R182K160KT | X5R   | 1.8nF | ±10% | 16V |
|                     | CSA0805X5R222K160KT | X5R   | 2.2nF | ±10% | 16V |
|                     | CSA0805X5R272K160KT | X5R   | 2.7nF | ±10% | 16V |
|                     | CSA0805X5R332K160KT | X5R   | 3.3nF | ±10% | 16V |
|                     | CSA0805X5R472K160KT | X5R   | 4.7nF | ±10% | 16V |
|                     | CSA0805X5R562K160KT | X5R   | 5.6nF | ±10% | 16V |
|                     | CSA0805X5R682K160KT | X5R   | 6.8nF | ±10% | 16V |
|                     | CSA0805X5R103K160KT | X5R   | 10nF  | ±10% | 16V |
|                     | CSA0805X5R153K160KT | X5R   | 15nF  | ±10% | 16V |
|                     | CSA0805X5R183K160KT | X5R   | 18nF  | ±10% | 16V |
|                     | CSA0805X5R223K160KT | X5R   | 22nF  | ±10% | 16V |
|                     | CSA0805X5R273K160KT | X5R   | 27nF  | ±10% | 16V |
|                     | CSA0805X5R333K160KT | X5R   | 33nF  | ±10% | 16V |
|                     | CSA0805X5R393K160KT | X5R   | 39nF  | ±10% | 16V |
|                     | CSA0805X5R473K160KT | X5R   | 47nF  | ±10% | 16V |
|                     | CSA0805X5R563K160KT | X5R   | 56nF  | ±10% | 16V |
|                     | CSA0805X5R683K160KT | X5R   | 68nF  | ±10% | 16V |
|                     | CSA0805X5R104K160KT | X5R   | 100nF | ±10% | 16V |
|                     | CSA0805X5R154K160KT | X5R   | 150nF | ±10% | 16V |
|                     | CSA0805X5R184K160KT | X5R   | 180nF | ±10% | 16V |
|                     | CSA0805X5R224K160KT | X5R   | 220nF | ±10% | 16V |
|                     | CSA0805X5R274K160KT | X5R   | 270nF | ±10% | 16V |
|                     | CSA0805X5R334K160KT | X5R   | 330nF | ±10% | 16V |
|                     | CSA0805X5R474K160MT | X5R   | 470nF | ±10% | 16V |
|                     | CSA0805X5R684K160MT | X5R   | 680nF | ±10% | 16V |
|                     | CSA0805X5R105K160MT | X5R   | 1.0uF | ±10% | 16V |
|                     | CSA0805X5R225K160MT | X5R   | 2.2uF | ±10% | 16V |
|                     | CSA0805X5R475K160MT | X5R   | 4.7uF | ±10% | 16V |
|                     | CSA0805X5R106M160MT | X5R   | 10uF  | ±20% | 16V |
| CSA0805X5R221K100KT | X5R                 | 220pF | ±10%  | 10V  |     |
| CSA0805X5R271K100KT | X5R                 | 270pF | ±10%  | 10V  |     |
| CSA0805X5R331K100KT | X5R                 | 330pF | ±10%  | 10V  |     |



| 尺寸                  | HRE 料号              | 材质    | 容值    | 容差   | 耐压  |
|---------------------|---------------------|-------|-------|------|-----|
| 0805                | CSA0805X5R391K100KT | X5R   | 390pF | ±10% | 10V |
|                     | CSA0805X5R471K100KT | X5R   | 470pF | ±10% | 10V |
|                     | CSA0805X5R561K100KT | X5R   | 560pF | ±10% | 10V |
|                     | CSA0805X5R681K100KT | X5R   | 680pF | ±10% | 10V |
|                     | CSA0805X5R821K100KT | X5R   | 820pF | ±10% | 10V |
|                     | CSA0805X5R102K100KT | X5R   | 1.0nF | ±10% | 10V |
|                     | CSA0805X5R152K100KT | X5R   | 1.5nF | ±10% | 10V |
|                     | CSA0805X5R182K100KT | X5R   | 1.8nF | ±10% | 10V |
|                     | CSA0805X5R222K100KT | X5R   | 2.2nF | ±10% | 10V |
|                     | CSA0805X5R272K100KT | X5R   | 2.7nF | ±10% | 10V |
|                     | CSA0805X5R332K100KT | X5R   | 3.3nF | ±10% | 10V |
|                     | CSA0805X5R472K100KT | X5R   | 4.7nF | ±10% | 10V |
|                     | CSA0805X5R562K100KT | X5R   | 5.6nF | ±10% | 10V |
|                     | CSA0805X5R682K100KT | X5R   | 6.8nF | ±10% | 10V |
|                     | CSA0805X5R103K100KT | X5R   | 10nF  | ±10% | 10V |
|                     | CSA0805X5R153K100KT | X5R   | 15nF  | ±10% | 10V |
|                     | CSA0805X5R183K100KT | X5R   | 18nF  | ±10% | 10V |
|                     | CSA0805X5R223K100KT | X5R   | 22nF  | ±10% | 10V |
|                     | CSA0805X5R273K100KT | X5R   | 27nF  | ±10% | 10V |
|                     | CSA0805X5R333K100KT | X5R   | 33nF  | ±10% | 10V |
|                     | CSA0805X5R393K100KT | X5R   | 39nF  | ±10% | 10V |
|                     | CSA0805X5R473K100KT | X5R   | 47nF  | ±10% | 10V |
|                     | CSA0805X5R563K100KT | X5R   | 56nF  | ±10% | 10V |
|                     | CSA0805X5R683K100KT | X5R   | 68nF  | ±10% | 10V |
|                     | CSA0805X5R104K100KT | X5R   | 100nF | ±10% | 10V |
|                     | CSA0805X5R154K100KT | X5R   | 150nF | ±10% | 10V |
|                     | CSA0805X5R184K100KT | X5R   | 180nF | ±10% | 10V |
|                     | CSA0805X5R224K100KT | X5R   | 220nF | ±10% | 10V |
|                     | CSA0805X5R274K100KT | X5R   | 270nF | ±10% | 10V |
|                     | CSA0805X5R334K100KT | X5R   | 330nF | ±10% | 10V |
|                     | CSA0805X5R474K100KT | X5R   | 470nF | ±10% | 10V |
|                     | CSA0805X5R684K100KT | X5R   | 680nF | ±10% | 10V |
|                     | CSA0805X5R105K100KT | X5R   | 1.0uF | ±10% | 10V |
| CSA0805X5R225K100MT | X5R                 | 2.2uF | ±10%  | 10V  |     |
| CSA0805X5R475K100MT | X5R                 | 4.7uF | ±10%  | 10V  |     |
| CSA0805X5R106M100MT | X5R                 | 10uF  | ±20%  | 10V  |     |
| CSA0805X5R226M100MT | X5R                 | 22uF  | ±20%  | 10V  |     |



| 尺寸                  | HRE 料号              | 材质    | 容值    | 容差   | 耐压   |
|---------------------|---------------------|-------|-------|------|------|
| 0805                | CSA0805X5R221K6R3KT | X5R   | 220pF | ±10% | 6.3V |
|                     | CSA0805X5R271K6R3KT | X5R   | 270pF | ±10% | 6.3V |
|                     | CSA0805X5R331K6R3KT | X5R   | 330pF | ±10% | 6.3V |
|                     | CSA0805X5R391K6R3KT | X5R   | 390pF | ±10% | 6.3V |
|                     | CSA0805X5R471K6R3KT | X5R   | 470pF | ±10% | 6.3V |
|                     | CSA0805X5R561K6R3KT | X5R   | 560pF | ±10% | 6.3V |
|                     | CSA0805X5R681K6R3KT | X5R   | 680pF | ±10% | 6.3V |
|                     | CSA0805X5R821K6R3KT | X5R   | 820pF | ±10% | 6.3V |
|                     | CSA0805X5R102K6R3KT | X5R   | 1.0nF | ±10% | 6.3V |
|                     | CSA0805X5R152K6R3KT | X5R   | 1.5nF | ±10% | 6.3V |
|                     | CSA0805X5R182K6R3KT | X5R   | 1.8nF | ±10% | 6.3V |
|                     | CSA0805X5R222K6R3KT | X5R   | 2.2nF | ±10% | 6.3V |
|                     | CSA0805X5R272K6R3KT | X5R   | 2.7nF | ±10% | 6.3V |
|                     | CSA0805X5R332K6R3KT | X5R   | 3.3nF | ±10% | 6.3V |
|                     | CSA0805X5R472K6R3KT | X5R   | 4.7nF | ±10% | 6.3V |
|                     | CSA0805X5R562K6R3KT | X5R   | 5.6nF | ±10% | 6.3V |
|                     | CSA0805X5R682K6R3KT | X5R   | 6.8nF | ±10% | 6.3V |
|                     | CSA0805X5R103K6R3KT | X5R   | 10nF  | ±10% | 6.3V |
|                     | CSA0805X5R153K6R3KT | X5R   | 15nF  | ±10% | 6.3V |
|                     | CSA0805X5R183K6R3KT | X5R   | 18nF  | ±10% | 6.3V |
|                     | CSA0805X5R223K6R3KT | X5R   | 22nF  | ±10% | 6.3V |
|                     | CSA0805X5R273K6R3KT | X5R   | 27nF  | ±10% | 6.3V |
|                     | CSA0805X5R333K6R3KT | X5R   | 33nF  | ±10% | 6.3V |
|                     | CSA0805X5R393K6R3KT | X5R   | 39nF  | ±10% | 6.3V |
|                     | CSA0805X5R473K6R3KT | X5R   | 47nF  | ±10% | 6.3V |
|                     | CSA0805X5R563K6R3KT | X5R   | 56nF  | ±10% | 6.3V |
|                     | CSA0805X5R683K6R3KT | X5R   | 68nF  | ±10% | 6.3V |
|                     | CSA0805X5R104K6R3KT | X5R   | 100nF | ±10% | 6.3V |
|                     | CSA0805X5R154K6R3KT | X5R   | 150nF | ±10% | 6.3V |
|                     | CSA0805X5R184K6R3KT | X5R   | 180nF | ±10% | 6.3V |
|                     | CSA0805X5R224K6R3KT | X5R   | 220nF | ±10% | 6.3V |
|                     | CSA0805X5R274K6R3KT | X5R   | 270nF | ±10% | 6.3V |
|                     | CSA0805X5R334K6R3KT | X5R   | 330nF | ±10% | 6.3V |
| CSA0805X5R474K6R3KT | X5R                 | 470nF | ±10%  | 6.3V |      |
| CSA0805X5R684K6R3KT | X5R                 | 680nF | ±10%  | 6.3V |      |
| CSA0805X5R105K6R3KT | X5R                 | 1.0uF | ±10%  | 6.3V |      |
| CSA0805X5R225K6R3MT | X5R                 | 2.2uF | ±10%  | 6.3V |      |



| 尺寸                  | HRE 料号              | 材质    | 容值    | 容差   | 耐压   |
|---------------------|---------------------|-------|-------|------|------|
| 0805                | CSA0805X5R475K6R3MT | X5R   | 4.7uF | ±10% | 6.3V |
|                     | CSA0805X5R106M6R3MT | X5R   | 10uF  | ±20% | 6.3V |
|                     | CSA0805X5R226M6R3MT | X5R   | 22uF  | ±20% | 6.3V |
|                     | CSA0805X5R476M6R3MT | X5R   | 47uF  | ±20% | 6.3V |
| 1206                | CSA1206X5R221K500KT | X5R   | 220pF | ±10% | 50V  |
|                     | CSA1206X5R271K500KT | X5R   | 270pF | ±10% | 50V  |
|                     | CSA1206X5R331K500KT | X5R   | 330pF | ±10% | 50V  |
|                     | CSA1206X5R391K500KT | X5R   | 390pF | ±10% | 50V  |
|                     | CSA1206X5R471K500KT | X5R   | 470pF | ±10% | 50V  |
|                     | CSA1206X5R561K500KT | X5R   | 560pF | ±10% | 50V  |
|                     | CSA1206X5R681K500KT | X5R   | 680pF | ±10% | 50V  |
|                     | CSA1206X5R821K500KT | X5R   | 820pF | ±10% | 50V  |
|                     | CSA1206X5R102K500KT | X5R   | 1.0nF | ±10% | 50V  |
|                     | CSA1206X5R152K500KT | X5R   | 1.5nF | ±10% | 50V  |
|                     | CSA1206X5R182K500KT | X5R   | 1.8nF | ±10% | 50V  |
|                     | CSA1206X5R222K500KT | X5R   | 2.2nF | ±10% | 50V  |
|                     | CSA1206X5R272K500KT | X5R   | 2.7nF | ±10% | 50V  |
|                     | CSA1206X5R332K500KT | X5R   | 3.3nF | ±10% | 50V  |
|                     | CSA1206X5R472K500KT | X5R   | 4.7nF | ±10% | 50V  |
|                     | CSA1206X5R562K500KT | X5R   | 5.6nF | ±10% | 50V  |
|                     | CSA1206X5R682K500KT | X5R   | 6.8nF | ±10% | 50V  |
|                     | CSA1206X5R103K500KT | X5R   | 10nF  | ±10% | 50V  |
|                     | CSA1206X5R153K500KT | X5R   | 15nF  | ±10% | 50V  |
|                     | CSA1206X5R183K500KT | X5R   | 18nF  | ±10% | 50V  |
|                     | CSA1206X5R223K500KT | X5R   | 22nF  | ±10% | 50V  |
|                     | CSA1206X5R273K500KT | X5R   | 27nF  | ±10% | 50V  |
|                     | CSA1206X5R333K500KT | X5R   | 33nF  | ±10% | 50V  |
|                     | CSA1206X5R393K500KT | X5R   | 39nF  | ±10% | 50V  |
|                     | CSA1206X5R473K500KT | X5R   | 47nF  | ±10% | 50V  |
|                     | CSA1206X5R563K500KT | X5R   | 56nF  | ±10% | 50V  |
|                     | CSA1206X5R683K500KT | X5R   | 68nF  | ±10% | 50V  |
|                     | CSA1206X5R104K500KT | X5R   | 100nF | ±10% | 50V  |
|                     | CSA1206X5R154K500KT | X5R   | 150nF | ±10% | 50V  |
|                     | CSA1206X5R184K500KT | X5R   | 180nF | ±10% | 50V  |
|                     | CSA1206X5R224K500KT | X5R   | 220nF | ±10% | 50V  |
|                     | CSA1206X5R274K500KT | X5R   | 270nF | ±10% | 50V  |
| CSA1206X5R334K500KT | X5R                 | 330nF | ±10%  | 50V  |      |



| 尺寸                  | HRE 料号              | 材质    | 容值    | 容差   | 耐压  |
|---------------------|---------------------|-------|-------|------|-----|
| 1206                | CSA1206X5R474K500MT | X5R   | 470nF | ±10% | 50V |
|                     | CSA1206X5R684K500NT | X5R   | 680nF | ±10% | 50V |
|                     | CSA1206X5R105K500NT | X5R   | 1.0uF | ±10% | 50V |
|                     | CSA1206X5R221K250KT | X5R   | 220pF | ±10% | 25V |
|                     | CSA1206X5R271K250KT | X5R   | 270pF | ±10% | 25V |
|                     | CSA1206X5R331K250KT | X5R   | 330pF | ±10% | 25V |
|                     | CSA1206X5R391K250KT | X5R   | 390pF | ±10% | 25V |
|                     | CSA1206X5R471K250KT | X5R   | 470pF | ±10% | 25V |
|                     | CSA1206X5R561K250KT | X5R   | 560pF | ±10% | 25V |
|                     | CSA1206X5R681K250KT | X5R   | 680pF | ±10% | 25V |
|                     | CSA1206X5R821K250KT | X5R   | 820pF | ±10% | 25V |
|                     | CSA1206X5R102K250KT | X5R   | 1.0nF | ±10% | 25V |
|                     | CSA1206X5R152K250KT | X5R   | 1.5nF | ±10% | 25V |
|                     | CSA1206X5R182K250KT | X5R   | 1.8nF | ±10% | 25V |
|                     | CSA1206X5R222K250KT | X5R   | 2.2nF | ±10% | 25V |
|                     | CSA1206X5R272K250KT | X5R   | 2.7nF | ±10% | 25V |
|                     | CSA1206X5R332K250KT | X5R   | 3.3nF | ±10% | 25V |
|                     | CSA1206X5R472K250KT | X5R   | 4.7nF | ±10% | 25V |
|                     | CSA1206X5R562K250KT | X5R   | 5.6nF | ±10% | 25V |
|                     | CSA1206X5R682K250KT | X5R   | 6.8nF | ±10% | 25V |
|                     | CSA1206X5R103K250KT | X5R   | 10nF  | ±10% | 25V |
|                     | CSA1206X5R153K250KT | X5R   | 15nF  | ±10% | 25V |
|                     | CSA1206X5R183K250KT | X5R   | 18nF  | ±10% | 25V |
|                     | CSA1206X5R223K250KT | X5R   | 22nF  | ±10% | 25V |
|                     | CSA1206X5R273K250KT | X5R   | 27nF  | ±10% | 25V |
|                     | CSA1206X5R333K250KT | X5R   | 33nF  | ±10% | 25V |
|                     | CSA1206X5R393K250KT | X5R   | 39nF  | ±10% | 25V |
|                     | CSA1206X5R473K250KT | X5R   | 47nF  | ±10% | 25V |
|                     | CSA1206X5R563K250KT | X5R   | 56nF  | ±10% | 25V |
|                     | CSA1206X5R683K250KT | X5R   | 68nF  | ±10% | 25V |
|                     | CSA1206X5R104K250KT | X5R   | 100nF | ±10% | 25V |
|                     | CSA1206X5R154K250KT | X5R   | 150nF | ±10% | 25V |
|                     | CSA1206X5R184K250KT | X5R   | 180nF | ±10% | 25V |
|                     | CSA1206X5R224K250KT | X5R   | 220nF | ±10% | 25V |
| CSA1206X5R274K250KT | X5R                 | 270nF | ±10%  | 25V  |     |
| CSA1206X5R334K250KT | X5R                 | 330nF | ±10%  | 25V  |     |
| CSA1206X5R474K250MT | X5R                 | 470nF | ±10%  | 25V  |     |

| 尺寸                  | HRE 料号              | 材质    | 容值    | 容差   | 耐压  |
|---------------------|---------------------|-------|-------|------|-----|
| 1206                | CSA1206X5R684K250MT | X5R   | 680nF | ±10% | 25V |
|                     | CSA1206X5R105K250MT | X5R   | 1.0uF | ±10% | 25V |
|                     | CSA1206X5R225K250MT | X5R   | 2.2uF | ±10% | 25V |
|                     | CSA1206X5R475K250NT | X5R   | 4.7uF | ±10% | 25V |
|                     | CSA1206X5R221K160KT | X5R   | 220pF | ±10% | 16V |
|                     | CSA1206X5R271K160KT | X5R   | 270pF | ±10% | 16V |
|                     | CSA1206X5R331K160KT | X5R   | 330pF | ±10% | 16V |
|                     | CSA1206X5R391K160KT | X5R   | 390pF | ±10% | 16V |
|                     | CSA1206X5R471K160KT | X5R   | 470pF | ±10% | 16V |
|                     | CSA1206X5R561K160KT | X5R   | 560pF | ±10% | 16V |
|                     | CSA1206X5R681K160KT | X5R   | 680pF | ±10% | 16V |
|                     | CSA1206X5R821K160KT | X5R   | 820pF | ±10% | 16V |
|                     | CSA1206X5R102K160KT | X5R   | 1.0nF | ±10% | 16V |
|                     | CSA1206X5R152K160KT | X5R   | 1.5nF | ±10% | 16V |
|                     | CSA1206X5R182K160KT | X5R   | 1.8nF | ±10% | 16V |
|                     | CSA1206X5R222K160KT | X5R   | 2.2nF | ±10% | 16V |
|                     | CSA1206X5R272K160KT | X5R   | 2.7nF | ±10% | 16V |
|                     | CSA1206X5R332K160KT | X5R   | 3.3nF | ±10% | 16V |
|                     | CSA1206X5R472K160KT | X5R   | 4.7nF | ±10% | 16V |
|                     | CSA1206X5R562K160KT | X5R   | 5.6nF | ±10% | 16V |
|                     | CSA1206X5R682K160KT | X5R   | 6.8nF | ±10% | 16V |
|                     | CSA1206X5R103K160KT | X5R   | 10nF  | ±10% | 16V |
|                     | CSA1206X5R153K160KT | X5R   | 15nF  | ±10% | 16V |
|                     | CSA1206X5R183K160KT | X5R   | 18nF  | ±10% | 16V |
|                     | CSA1206X5R223K160KT | X5R   | 22nF  | ±10% | 16V |
|                     | CSA1206X5R273K160KT | X5R   | 27nF  | ±10% | 16V |
|                     | CSA1206X5R333K160KT | X5R   | 33nF  | ±10% | 16V |
|                     | CSA1206X5R393K160KT | X5R   | 39nF  | ±10% | 16V |
|                     | CSA1206X5R473K160KT | X5R   | 47nF  | ±10% | 16V |
|                     | CSA1206X5R563K160KT | X5R   | 56nF  | ±10% | 16V |
|                     | CSA1206X5R683K160KT | X5R   | 68nF  | ±10% | 16V |
|                     | CSA1206X5R104K160KT | X5R   | 100nF | ±10% | 16V |
|                     | CSA1206X5R154K160KT | X5R   | 150nF | ±10% | 16V |
|                     | CSA1206X5R184K160KT | X5R   | 180nF | ±10% | 16V |
| CSA1206X5R224K160KT | X5R                 | 220nF | ±10%  | 16V  |     |
| CSA1206X5R274K160KT | X5R                 | 270nF | ±10%  | 16V  |     |
| CSA1206X5R334K160KT | X5R                 | 330nF | ±10%  | 16V  |     |

| 尺寸                  | HRE 料号              | 材质    | 容值    | 容差   | 耐压  |
|---------------------|---------------------|-------|-------|------|-----|
| 1206                | CSA1206X5R474K160MT | X5R   | 470nF | ±10% | 16V |
|                     | CSA1206X5R684K160MT | X5R   | 680nF | ±10% | 16V |
|                     | CSA1206X5R105K160MT | X5R   | 1.0uF | ±10% | 16V |
|                     | CSA1206X5R225K160MT | X5R   | 2.2uF | ±10% | 16V |
|                     | CSA1206X5R475K160NT | X5R   | 4.7uF | ±10% | 16V |
|                     | CSA1206X5R106M160NT | X5R   | 10uF  | ±20% | 16V |
|                     | CSA1206X5R221K100KT | X5R   | 220pF | ±10% | 10V |
|                     | CSA1206X5R271K100KT | X5R   | 270pF | ±10% | 10V |
|                     | CSA1206X5R331K100KT | X5R   | 330pF | ±10% | 10V |
|                     | CSA1206X5R391K100KT | X5R   | 390pF | ±10% | 10V |
|                     | CSA1206X5R471K100KT | X5R   | 470pF | ±10% | 10V |
|                     | CSA1206X5R561K100KT | X5R   | 560pF | ±10% | 10V |
|                     | CSA1206X5R681K100KT | X5R   | 680pF | ±10% | 10V |
|                     | CSA1206X5R821K100KT | X5R   | 820pF | ±10% | 10V |
|                     | CSA1206X5R102K100KT | X5R   | 1.0nF | ±10% | 10V |
|                     | CSA1206X5R152K100KT | X5R   | 1.5nF | ±10% | 10V |
|                     | CSA1206X5R182K100KT | X5R   | 1.8nF | ±10% | 10V |
|                     | CSA1206X5R222K100KT | X5R   | 2.2nF | ±10% | 10V |
|                     | CSA1206X5R272K100KT | X5R   | 2.7nF | ±10% | 10V |
|                     | CSA1206X5R332K100KT | X5R   | 3.3nF | ±10% | 10V |
|                     | CSA1206X5R472K100KT | X5R   | 4.7nF | ±10% | 10V |
|                     | CSA1206X5R562K100KT | X5R   | 5.6nF | ±10% | 10V |
|                     | CSA1206X5R682K100KT | X5R   | 6.8nF | ±10% | 10V |
|                     | CSA1206X5R103K100KT | X5R   | 10nF  | ±10% | 10V |
|                     | CSA1206X5R153K100KT | X5R   | 15nF  | ±10% | 10V |
|                     | CSA1206X5R183K100KT | X5R   | 18nF  | ±10% | 10V |
|                     | CSA1206X5R223K100KT | X5R   | 22nF  | ±10% | 10V |
|                     | CSA1206X5R273K100KT | X5R   | 27nF  | ±10% | 10V |
|                     | CSA1206X5R333K100KT | X5R   | 33nF  | ±10% | 10V |
|                     | CSA1206X5R393K100KT | X5R   | 39nF  | ±10% | 10V |
|                     | CSA1206X5R473K100KT | X5R   | 47nF  | ±10% | 10V |
|                     | CSA1206X5R563K100KT | X5R   | 56nF  | ±10% | 10V |
|                     | CSA1206X5R683K100KT | X5R   | 68nF  | ±10% | 10V |
| CSA1206X5R104K100KT | X5R                 | 100nF | ±10%  | 10V  |     |
| CSA1206X5R154K100KT | X5R                 | 150nF | ±10%  | 10V  |     |
| CSA1206X5R184K100KT | X5R                 | 180nF | ±10%  | 10V  |     |
| CSA1206X5R224K100KT | X5R                 | 220nF | ±10%  | 10V  |     |





| 尺寸                  | HRE 料号              | 材质    | 容值    | 容差   | 耐压   |
|---------------------|---------------------|-------|-------|------|------|
| 1206                | CSA1206X5R274K100KT | X5R   | 270nF | ±10% | 10V  |
|                     | CSA1206X5R334K100KT | X5R   | 330nF | ±10% | 10V  |
|                     | CSA1206X5R474K100MT | X5R   | 470nF | ±10% | 10V  |
|                     | CSA1206X5R684K100MT | X5R   | 680nF | ±10% | 10V  |
|                     | CSA1206X5R105K100MT | X5R   | 1.0uF | ±10% | 10V  |
|                     | CSA1206X5R225K100MT | X5R   | 2.2uF | ±10% | 10V  |
|                     | CSA1206X5R475K100NT | X5R   | 4.7uF | ±10% | 10V  |
|                     | CSA1206X5R106M100NT | X5R   | 10uF  | ±20% | 10V  |
|                     | CSA1206X5R226M100NT | X5R   | 22uF  | ±20% | 10V  |
|                     | CSA1206X5R221K6R3KT | X5R   | 220pF | ±10% | 6.3V |
|                     | CSA1206X5R271K6R3KT | X5R   | 270pF | ±10% | 6.3V |
|                     | CSA1206X5R331K6R3KT | X5R   | 330pF | ±10% | 6.3V |
|                     | CSA1206X5R391K6R3KT | X5R   | 390pF | ±10% | 6.3V |
|                     | CSA1206X5R471K6R3KT | X5R   | 470pF | ±10% | 6.3V |
|                     | CSA1206X5R561K6R3KT | X5R   | 560pF | ±10% | 6.3V |
|                     | CSA1206X5R681K6R3KT | X5R   | 680pF | ±10% | 6.3V |
|                     | CSA1206X5R821K6R3KT | X5R   | 820pF | ±10% | 6.3V |
|                     | CSA1206X5R102K6R3KT | X5R   | 1.0nF | ±10% | 6.3V |
|                     | CSA1206X5R152K6R3KT | X5R   | 1.5nF | ±10% | 6.3V |
|                     | CSA1206X5R182K6R3KT | X5R   | 1.8nF | ±10% | 6.3V |
|                     | CSA1206X5R222K6R3KT | X5R   | 2.2nF | ±10% | 6.3V |
|                     | CSA1206X5R272K6R3KT | X5R   | 2.7nF | ±10% | 6.3V |
|                     | CSA1206X5R332K6R3KT | X5R   | 3.3nF | ±10% | 6.3V |
|                     | CSA1206X5R472K6R3KT | X5R   | 4.7nF | ±10% | 6.3V |
|                     | CSA1206X5R562K6R3KT | X5R   | 5.6nF | ±10% | 6.3V |
|                     | CSA1206X5R682K6R3KT | X5R   | 6.8nF | ±10% | 6.3V |
|                     | CSA1206X5R103K6R3KT | X5R   | 10nF  | ±10% | 6.3V |
|                     | CSA1206X5R153K6R3KT | X5R   | 15nF  | ±10% | 6.3V |
|                     | CSA1206X5R183K6R3KT | X5R   | 18nF  | ±10% | 6.3V |
|                     | CSA1206X5R223K6R3KT | X5R   | 22nF  | ±10% | 6.3V |
|                     | CSA1206X5R273K6R3KT | X5R   | 27nF  | ±10% | 6.3V |
|                     | CSA1206X5R333K6R3KT | X5R   | 33nF  | ±10% | 6.3V |
|                     | CSA1206X5R393K6R3KT | X5R   | 39nF  | ±10% | 6.3V |
|                     | CSA1206X5R473K6R3KT | X5R   | 47nF  | ±10% | 6.3V |
|                     | CSA1206X5R563K6R3KT | X5R   | 56nF  | ±10% | 6.3V |
|                     | CSA1206X5R683K6R3KT | X5R   | 68nF  | ±10% | 6.3V |
| CSA1206X5R104K6R3KT | X5R                 | 100nF | ±10%  | 6.3V |      |



| 尺寸                  | HRE 料号              | 材质                  | 容值    | 容差    | 耐压   |
|---------------------|---------------------|---------------------|-------|-------|------|
| 1206                | CSA1206X5R154K6R3KT | X5R                 | 150nF | ±10%  | 6.3V |
|                     | CSA1206X5R184K6R3KT | X5R                 | 180nF | ±10%  | 6.3V |
|                     | CSA1206X5R224K6R3KT | X5R                 | 220nF | ±10%  | 6.3V |
|                     | CSA1206X5R274K6R3KT | X5R                 | 270nF | ±10%  | 6.3V |
|                     | CSA1206X5R334K6R3KT | X5R                 | 330nF | ±10%  | 6.3V |
|                     | CSA1206X5R474K6R3MT | X5R                 | 470nF | ±10%  | 6.3V |
|                     | CSA1206X5R684K6R3MT | X5R                 | 680nF | ±10%  | 6.3V |
|                     | CSA1206X5R105K6R3MT | X5R                 | 1.0uF | ±10%  | 6.3V |
|                     | CSA1206X5R225K6R3MT | X5R                 | 2.2uF | ±10%  | 6.3V |
|                     | CSA1206X5R475K6R3NT | X5R                 | 4.7uF | ±10%  | 6.3V |
|                     | CSA1206X5R106M6R3NT | X5R                 | 10uF  | ±20%  | 6.3V |
|                     | CSA1206X5R226M6R3NT | X5R                 | 22uF  | ±20%  | 6.3V |
|                     | CSA1206X5R476M6R3NT | X5R                 | 47uF  | ±20%  | 6.3V |
|                     | 1210                | CSA1210X5R474K500QT | X5R   | 470nF | ±10% |
| CSA1210X5R684K500NT |                     | X5R                 | 680nF | ±10%  | 50V  |
| CSA1210X5R105K500NT |                     | X5R                 | 1.0uF | ±10%  | 50V  |
| CSA1210X5R225K500NT |                     | X5R                 | 2.2uF | ±10%  | 50V  |
| CSA1210X5R474K250QT |                     | X5R                 | 470nF | ±10%  | 25V  |
| CSA1210X5R684K250QT |                     | X5R                 | 680nF | ±10%  | 25V  |
| CSA1210X5R105K250NT |                     | X5R                 | 1.0uF | ±10%  | 25V  |
| CSA1210X5R225K250NT |                     | X5R                 | 2.2uF | ±10%  | 25V  |
| CSA1210X5R475K250NT |                     | X5R                 | 4.7uF | ±10%  | 25V  |
| CSA1210X5R106K250RT |                     | X5R                 | 10uF  | ±10%  | 25V  |
| CSA1210X5R474K160QT |                     | X5R                 | 470nF | ±10%  | 16V  |
| CSA1210X5R684K160NT |                     | X5R                 | 680nF | ±10%  | 16V  |
| CSA1210X5R105K160NT |                     | X5R                 | 1.0uF | ±10%  | 16V  |
| CSA1210X5R225K160NT |                     | X5R                 | 2.2uF | ±10%  | 16V  |
| CSA1210X5R475K160NT |                     | X5R                 | 4.7uF | ±10%  | 16V  |
| CSA1210X5R106K160QT |                     | X5R                 | 10uF  | ±10%  | 16V  |
| CSA1210X5R226K160RT |                     | X5R                 | 22uF  | ±10%  | 16V  |
| CSA1210X5R474K100QT |                     | X5R                 | 470nF | ±10%  | 10V  |
| CSA1210X5R684K100NT |                     | X5R                 | 680nF | ±10%  | 10V  |
| CSA1210X5R105K100NT |                     | X5R                 | 1.0uF | ±10%  | 10V  |
| CSA1210X5R225K100NT |                     | X5R                 | 2.2uF | ±10%  | 10V  |
| CSA1210X5R475K100NT |                     | X5R                 | 4.7uF | ±10%  | 10V  |
| CSA1210X5R106K100RT |                     | X5R                 | 10uF  | ±10%  | 10V  |
| CSA1210X5R226K100RT |                     | X5R                 | 22uF  | ±10%  | 10V  |



| 尺寸   | HRE 料号              | 材质  | 容值    | 容差   | 耐压   |
|------|---------------------|-----|-------|------|------|
| 1210 | CSA1210X5R476K100RT | X5R | 47uF  | ±10% | 10V  |
|      | CSA1210X5R474K6R3QT | X5R | 470nF | ±10% | 6.3V |
|      | CSA1210X5R684K6R3NT | X5R | 680nF | ±10% | 6.3V |
|      | CSA1210X5R105K6R3NT | X5R | 1.0uF | ±10% | 6.3V |
|      | CSA1210X5R225K6R3NT | X5R | 2.2uF | ±10% | 6.3V |
|      | CSA1210X5R475K6R3NT | X5R | 4.7uF | ±10% | 6.3V |
|      | CSA1210X5R106K6R3RT | X5R | 10uF  | ±10% | 6.3V |
|      | CSA1210X5R226K6R3RT | X5R | 22uF  | ±10% | 6.3V |
|      | CSA1210X5R476K6R3RT | X5R | 47uF  | ±10% | 6.3V |
|      | CSA1210X5R107M6R3RT | X5R | 100uF | ±20% | 6.3V |

## 6. 技术要求和测试条件:

### 6.1 外观:

6.1.1 要求: 电容陶瓷本体和端电极无明显伤痕。

6.1.2 测试方法: 在 10 倍显微镜下目测。

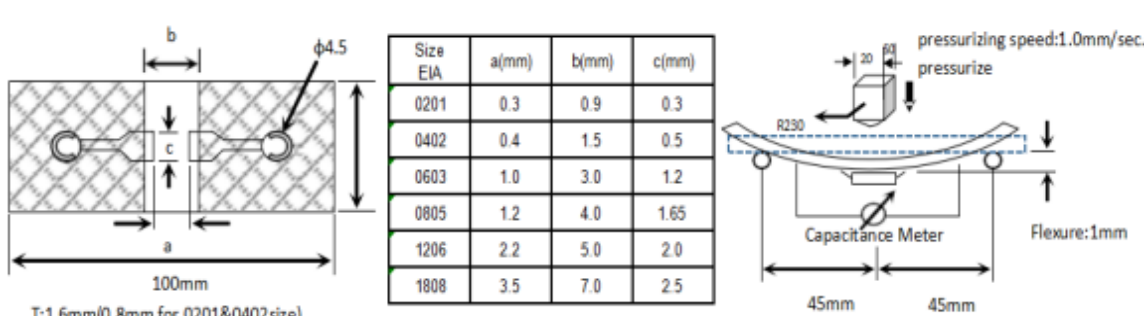
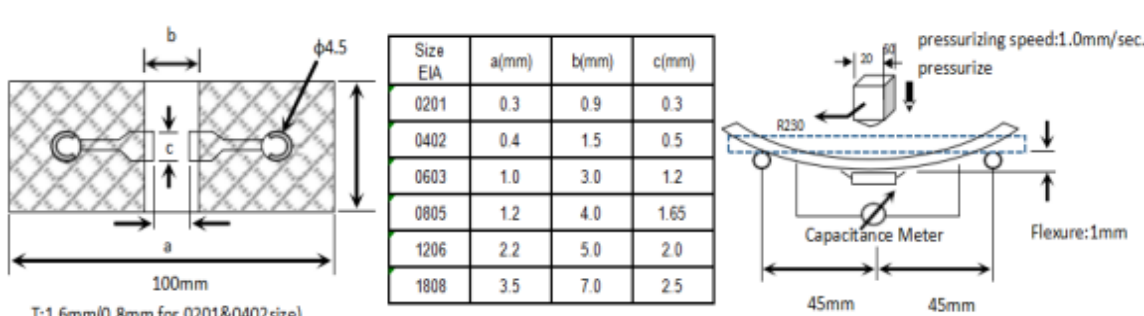
## 6.2 尺寸规格

6.2.1 要求: 产品的外形和尺寸应符合 4.1 图表要求。

6.2.2 测试方法: 使用精度不低于 0.01 mm 的量具测量。

## 6.3 电性能和测试条件:

| 序号   | 项目                | 技术规格  |  |                      |      | 测试条件   |
|------|-------------------|---|--|----------------------|------|--|
| 1    | 电容量<br>(C)        | 符合标称电容量及其允许偏差范围<br>(二类材质 (X7R、X5R、X6S) 电容量测前, 需对样品进行 150°C±10 °C, 1 小时热处理, 再常温静置 24 小时) |  |                      |      |  |
| 2    | 损耗<br>DF/Tan<br>δ | NPO   | Cap < 30pF, DF ≤ 1/(400+20°C)(C:pF);<br>Cap ≥ 30pF, DF ≤ 10*10 <sup>-4</sup> |                      |      | 测试温度: 25°C±3°C<br>测试湿度: <70%RH<br><br><b>NPO(C0G):</b><br>C ≤ 1000pF,<br>测试频率: 1MHz±10%<br>测试电压: 1.0Vrms±0.2Vrms<br>C > 1000pF,<br>测试频率: 1KHz±10%<br>测试电压: 1.0Vrms±0.2Vrms<br><br><b>X7R/X5R/X6S</b><br>C ≤ 10μF<br>测试频率: 1KHz±10%<br>测试电压: 1.0Vrms±0.2Vrms<br>C > 10μF<br>测试频率: 120Hz±24Hz<br>测试电压: 0.5Vrms±0.1Vrms |
|      |                   |   | 尺寸   | 电压                   | 容值范围 |  |
|      |                   | 0201  | ≤25V   | Cap ≤ 0.47uF         | ≤10% |  |
|      |                   |   | >25V   | Cap ≤ 0.01uF         | ≤7%  |  |
|      |                   | 0402  | ≤25V   | Cap ≤ 0.47uF         | ≤7%  |  |
|      |                   |   | >25V   | Cap > 0.47uF         | ≤10% |  |
|      |                   | 0603  | ≤25V   | Cap ≤ 0.47uF         | ≤7%  |  |
|      |                   |   | >25V   | 0.1uF < Cap ≤ 0.22uF | ≤7%  |  |
|      |                   | 0805  | ≤25V   | Cap ≤ 1uF            | ≤7%  |  |
|      |                   |   | >25V   | Cap > 1uF            | ≤10% |  |
|      |                   | 1206  | ≤25V   | Cap ≤ 0.47uF         | ≤7%  |  |
|      |                   |   | >25V   | Cap > 0.47uF         | ≤10% |  |
|      |                   | 1206  | ≤25V   | Cap < 2.2uF          | ≤7%  |  |
|      |                   |   | >25V   | 2.2uF ≤ Cap ≤ 47uF   | ≤10% |  |
|      |                   | 1210  | ≤25V   | Cap < 1uF            | ≤7%  |  |
|      |                   |   | >25V   | 1uF ≤ Cap < 47uF     | ≤10% |  |
| 1210 | ≤25V              | Cap < 2.2uF   | ≤7%  |                      |      |  |
|      | >25V              | 2.2uF ≤ Cap ≤ 47uF  | ≤10%   |                      |      |  |

| 序号       | 项目           | 技术规格   |  | 测试条件   |  |       |       |       |      |     |     |     |      |     |     |     |      |     |     |     |      |     |     |      |      |     |     |     |      |
|----------|--------------|--|--|--|--|-------|-------|-------|------|-----|-----|-----|------|-----|-----|-----|------|-----|-----|-----|------|-----|-----|------|------|-----|-----|-----|------|
| 3        | 绝缘阻抗<br>I.R. | $UR \leq 50V$ , $Ri \geq 10G\Omega$ 或 $Ri \cdot C \geq 100\Omega \cdot F$<br>(大于其中较小的数值)<br>$UR > 50V$ , $Ri \geq 4G\Omega$ 或 $Ri \cdot C \geq 100\Omega \cdot F$<br>(大于其中较小的数值) |  | 测试温度: $25^\circ C \pm 3^\circ C$<br>$U_{测} = U_R$<br>直流电压<br>充电时间: $60 \pm 5$ 秒  |  |       |       |       |      |     |     |     |      |     |     |     |      |     |     |     |      |     |     |      |      |     |     |     |      |
| 4        | 耐电压          | 不应有电介质被击穿或损伤   |  | $U_R \leq 50V$<br>NP0/C0G: $3 \cdot U_R$ , 5 秒, 最大电流不超过 50mA<br>X5R/X7R: $2.5 \cdot U_R$ , 5 秒, 最大电流不超过 50mA.<br>$100V \leq U_R < 200V$<br>$2.5 \cdot U_R$ , 5 秒, 最大电流不超过 50mA.<br>$200V \leq U_R \leq 1000V$<br>$1.5 \cdot U_R$ , 5 秒, 最大电流不超过 50mA.<br>$U_R > 1000V$<br>$1.2 \cdot U_R$ , 5 秒, 最大电流不超过 50mA. |  |       |       |       |      |     |     |     |      |     |     |     |      |     |     |     |      |     |     |      |      |     |     |     |      |
| 5        | 温度特性         | NP0(C0G)   | 容量变化在 $\pm 30ppm/^\circ C$ 以内  | X5R/X7R/X6S 先 $150^\circ C$ 预处理 1 小时, 放置 24h 后进行测量。<br>在 $t_1$ 、 $25^\circ C$ 、 $t_2$ 下测量电容量, 符合相应的容量变化特性<br>NP0: $t_1-55^\circ C, t_2 125^\circ C$<br>X5R: $t_1-55^\circ C, t_2 285^\circ C$<br>X7R: $t_1-55^\circ C, t_2 125^\circ C$  |  |       |       |       |      |     |     |     |      |     |     |     |      |     |     |     |      |     |     |      |      |     |     |     |      |
|          |              | X7R/X5R  | 容量变化在 $\pm 15\%$ 以内  |  |  |       |       |       |      |     |     |     |      |     |     |     |      |     |     |     |      |     |     |      |      |     |     |     |      |
|          |              | X6S  | 容量变化在 $\pm 22\%$ 以内  |  |  |       |       |       |      |     |     |     |      |     |     |     |      |     |     |     |      |     |     |      |      |     |     |     |      |
| 6        | 附着力          | 外观无可见损伤  |  | 施加 5N 的平行推力, 并保持 $10 \pm 1$ 秒。<br>*2N for 0603(EIA 0201).  |  |       |       |       |      |     |     |     |      |     |     |     |      |     |     |     |      |     |     |      |      |     |     |     |      |
| 7        | 端电极的结合强度     | 当按如下所示板子弯曲 1mm 时: 外观: 无可见损伤;<br>容量变化: NP0 (C0G): $\Delta C/C \leq \pm 5\%$ 或 $\pm 0.5pF$ (取较大值);<br>X7R/X5R/X6S: $\Delta C/C \leq \pm 12.5\%$ ;                                  |  |  |  |       |       |       |      |     |     |     |      |     |     |     |      |     |     |     |      |     |     |      |      |     |     |     |      |
|          |              | <br>T: 1.6mm (0.8mm for 0201&0402 size)   | <table border="1"> <thead> <tr> <th>Size EIA</th> <th>a(mm)</th> <th>b(mm)</th> <th>c(mm)</th> </tr> </thead> <tbody> <tr> <td>0201</td> <td>0.3</td> <td>0.9</td> <td>0.3</td> </tr> <tr> <td>0402</td> <td>0.4</td> <td>1.5</td> <td>0.5</td> </tr> <tr> <td>0603</td> <td>1.0</td> <td>3.0</td> <td>1.2</td> </tr> <tr> <td>0805</td> <td>1.2</td> <td>4.0</td> <td>1.65</td> </tr> <tr> <td>1206</td> <td>2.2</td> <td>5.0</td> <td>2.0</td> </tr> <tr> <td>1808</td> <td>3.5</td> <td>7.0</td> <td>2.5</td> </tr> </tbody> </table> | Size EIA   |  | a(mm) | b(mm) | c(mm) | 0201 | 0.3 | 0.9 | 0.3 | 0402 | 0.4 | 1.5 | 0.5 | 0603 | 1.0 | 3.0 | 1.2 | 0805 | 1.2 | 4.0 | 1.65 | 1206 | 2.2 | 5.0 | 2.0 | 1808 |
| Size EIA | a(mm)        | b(mm)  | c(mm)  |  |  |       |       |       |      |     |     |     |      |     |     |     |      |     |     |     |      |     |     |      |      |     |     |     |      |
| 0201     | 0.3          | 0.9  | 0.3  |  |  |       |       |       |      |     |     |     |      |     |     |     |      |     |     |     |      |     |     |      |      |     |     |     |      |
| 0402     | 0.4          | 1.5  | 0.5  |  |  |       |       |       |      |     |     |     |      |     |     |     |      |     |     |     |      |     |     |      |      |     |     |     |      |
| 0603     | 1.0          | 3.0  | 1.2  |  |  |       |       |       |      |     |     |     |      |     |     |     |      |     |     |     |      |     |     |      |      |     |     |     |      |
| 0805     | 1.2          | 4.0  | 1.65   |  |  |       |       |       |      |     |     |     |      |     |     |     |      |     |     |     |      |     |     |      |      |     |     |     |      |
| 1206     | 2.2          | 5.0  | 2.0  |  |  |       |       |       |      |     |     |     |      |     |     |     |      |     |     |     |      |     |     |      |      |     |     |     |      |
| 1808     | 3.5          | 7.0  | 2.5  |  |  |       |       |       |      |     |     |     |      |     |     |     |      |     |     |     |      |     |     |      |      |     |     |     |      |

| 序号 | 项目             | 技术规格   | 测试条件  |    |        |    |   |                |         |   |    |         |   |                |         |   |    |          |
|----|----------------|--|---|----|--------|----|---|----------------|---------|---|----|---------|---|----------------|---------|---|----|----------|
| 8  | 端头可焊性          | 上锡良好，端头润湿率大于 90%   | 将测试电容浸入含松香的乙醇溶液 3-5 秒，在 80~140℃ 预热 30~60 秒，浸入 235±5℃ 的熔融锡液 2.0±0.2 秒，浸入 10mm。   |    |        |    |   |                |         |   |    |         |   |                |         |   |    |          |
| 9  | 耐焊接热           | 外观无明显损伤异常<br>NP0(C0G): 容量变化在±2.5%或±0.25pF (取较大值)<br>X7R/X5R: 容量变化在±15%以内;<br>X6S: 容量变化在±22%以内;<br>DF&IR 符合初值的要求  | II类材质 150℃、1 小时预热处理后放置 24±1 小时初始值测量。然后 110~140℃ 预热 30~60 秒，浸入 260±5℃ 的锡槽中 10±1 秒，浸入深度 10mm；然后在室温放置 24±2 小时<br>NP0(C0G)或 48±4 小时 (X7R、X5R) 后进行外观检查与电性测试。   |    |        |    |   |                |         |   |    |         |   |                |         |   |    |          |
| 10 | 温度快速变化         | 外观无明显损伤异常<br>NP0(C0G): 容量变化在±2.5%或±0.25pF (取较大值)<br>X7R/X5R: 容量变化在±15%以内;<br>X6S: 容量变化在±22%以内;<br>DF&IR 符合初值的要求  | 按下列步骤进行 5 次循环:<br><table border="1" style="margin-left: 20px;"> <thead> <tr> <th>步骤</th> <th>温度(°C)</th> <th>时间</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>t<sub>1</sub></td> <td>30 min.</td> </tr> <tr> <td>2</td> <td>25</td> <td>2~5min.</td> </tr> <tr> <td>3</td> <td>t<sub>2</sub></td> <td>30 min.</td> </tr> <tr> <td>4</td> <td>25</td> <td>2~5 min.</td> </tr> </tbody> </table> NP0:t <sub>1</sub> -55℃,t <sub>2</sub> 125℃<br>X5R:t <sub>1</sub> -55℃,t <sub>2</sub> 85℃<br>X7R:t <sub>1</sub> -55℃,t <sub>2</sub> 125℃<br>然后在室温放置 24±2 小时<br>NP0(C0G)或 48±4 小时 (X7R、X5R) 后进行外观检查与电性测试。<br>II类材质 150℃、1 小时预热处理后放置 24±1 小时初始值测量。 | 步骤 | 温度(°C) | 时间 | 1 | t <sub>1</sub> | 30 min. | 2 | 25 | 2~5min. | 3 | t <sub>2</sub> | 30 min. | 4 | 25 | 2~5 min. |
| 步骤 | 温度(°C)         | 时间   |   |    |        |    |   |                |         |   |    |         |   |                |         |   |    |          |
| 1  | t <sub>1</sub> | 30 min.  |   |    |        |    |   |                |         |   |    |         |   |                |         |   |    |          |
| 2  | 25             | 2~5min.  |   |    |        |    |   |                |         |   |    |         |   |                |         |   |    |          |
| 3  | t <sub>2</sub> | 30 min.  |   |    |        |    |   |                |         |   |    |         |   |                |         |   |    |          |
| 4  | 25             | 2~5 min.   |   |    |        |    |   |                |         |   |    |         |   |                |         |   |    |          |
| 11 | 稳态湿热           | 外观无明显可见损伤<br>NP0(C0G):<br>容量变化在±5%或 ±0.5pF (取较大值) 以内<br>C<10pF, Q≥200+10°C;<br>10≤C<30pF, Q≥275+2.5°C<br>C≥30pF, Q≥350<br>IR: >1GΩ 或 Ri°C≧10Ω·F(取较小值)<br>X5R/X7R/X6S:<br>容量变化在±12.5%以内<br>DF 为初始值的 2 倍以下<br>IR:大于 1000MΩ 或 10Ω·F(取较小值) | 测试温度: 40±2℃ 湿度:<br>90~95% RH 测试时间: 500 ±12hrs<br>在室温下放置 24±2 (NP0) 或 48±4(X7R、X5R) 小时以后测量。<br>II类材质 150℃、1 小时预热处理后放置 24±1 小时初始值测量。  |    |        |    |   |                |         |   |    |         |   |                |         |   |    |          |

| 序号 | 项目   | 技术规格   | 测试条件   |
|----|------|--|--|
| 12 | 耐湿负荷 | 外观无明显可见损伤<br>NP0(C0G):<br>容量变化在 $\pm 7.5\%$ 或 $\pm 0.75\text{pF}$ (取较大值) 以内<br>$C < 30\text{pF}$ , $Q \geq 100 + 10/3 \cdot C_p$ ;<br>$C \geq 30\text{pF}$ , $Q \geq 350$<br>IR: $> 500\text{M}\Omega$ 或 $R_i \cdot C \geq 5\Omega \cdot \text{F}$ (取较小值)<br>X5R/X7R/X6S<br>容量变化在 $\pm 12.5\%$ 以内<br>DF 为初始值的 2 倍以下<br>IR: 大于 $500\text{M}\Omega$ 或 $5\Omega \cdot \text{F}$ (取较小值)  | 测试温度: $40 \pm 2^\circ\text{C}$<br>湿度: 90~95% RH<br>电压: 额定电压<br>测试时间: $500 \pm 12\text{hrs}$<br>在室温下放置 $24 \pm 2$ (NP0) 或 $48 \pm 4$ (X7R/X5R) 小时以后测量<br>* II 类材质在 $40 \pm 2^\circ\text{C}$ 温度下, 将电容加额定直流电压 1hrs. 去掉电压, 将电容器在室温下放置 $48 \pm 4\text{hrs}$ 测量初始电容值。  |
| 13 | 寿命试验 | 外观无明显可见损伤<br>NP0(C0G):<br>容量变化在 $\pm 3\%$ 或 $\pm 0.3\text{pF}$ (取较大值) 以内<br>$C < 10\text{pF}$ , $Q \geq 200 + 10 \cdot C$ ;<br>$10 \leq C_p < 30\text{pF}$ , $Q \geq 275 + 2.5 \cdot C$<br>$C \geq 30\text{pF}$ , $Q \geq 350$<br>IR: $> 1\text{G}\Omega$ 或 $R_i \cdot C \geq 5\Omega \cdot \text{F}$ (取较小值)<br>X5R/X7R/X6S:<br>容量变化在 $\pm 12.5\%$ 以内<br>DF 为初始值的 2 倍以下<br>IR: 大于 $1000\text{M}\Omega$ 或 $5\Omega \cdot \text{F}$ (取较小值) | 测试温度:<br>NP0/X7R: $125^\circ\text{C}$ ; X5R: $85^\circ\text{C}$<br>温度 $\pm 3^\circ\text{C}$<br>电压: $U_R < 100\text{V}$ 1.5 倍额定电压<br>测试时间: 1000 小时<br>在室温下放置 $24 \pm 2$ (NP0) 或 $48 \pm 4$ (X7R/X5R) 小时后测量<br>* II 类材质电容器的初始值测量在限类别温度 $\pm 3^\circ\text{C}$ , 将电容器加 1.5 倍额定直流电压 1 小时去掉电压, 将电容器在室温下放置 $48 \pm 4\text{hrs}$ 测量初始电容值 |

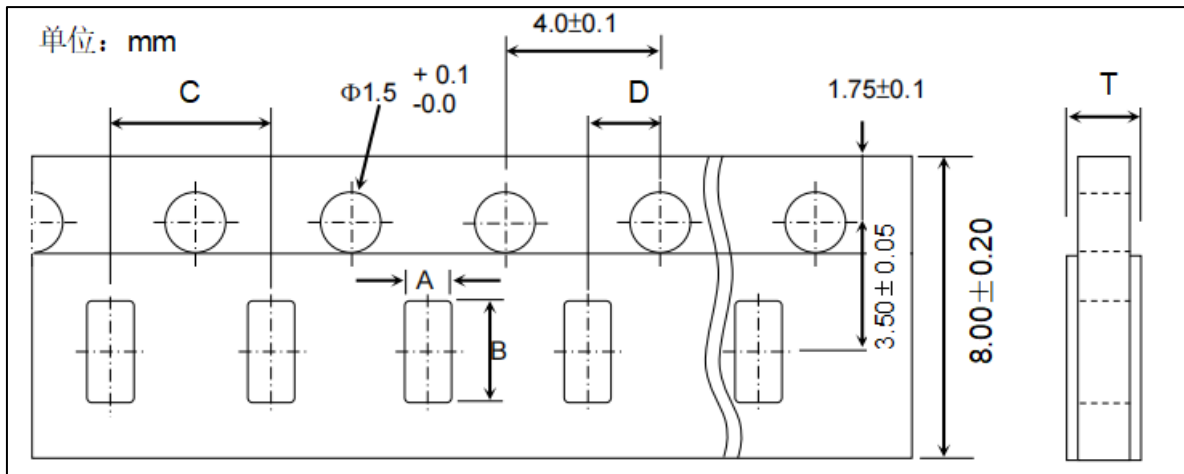
## 7. 产品包装

7.1 载带卷盘包装是目前最常见的包装方式, 一个直径为 180mm (7") 的卷轴可包含 1000~15000 个电容, 也可按照客户的要求进行卷盘包装。

7.2 编带式包装 (尺寸与对应数量)

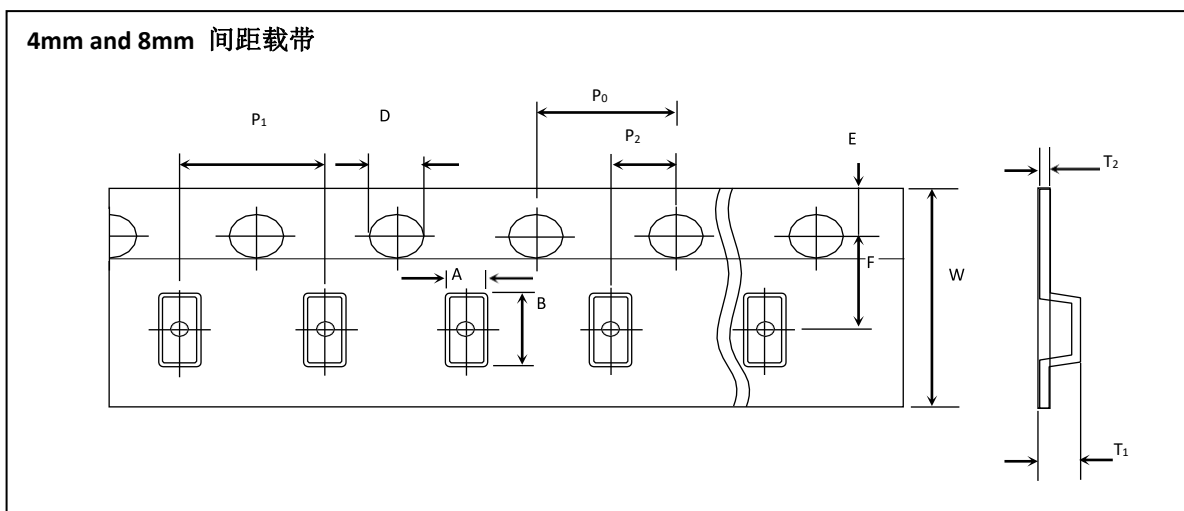
| 规格 Type | 尺寸 Size (mm) |      |      | 编带规格       |                 |
|---------|--------------|------|------|------------|-----------------|
|         | 长度 L         | 宽度 W | 厚度 T | 包装数量 (pcs) | 包材 (默认卷盘 7inch) |
| 0201    | 0.60         | 0.30 | 0.30 | 15,000     | 纸带              |
| 0402    | 1.00         | 0.50 | 0.50 | 10,000     | 纸带              |
| 0603    | 1.60         | 0.80 | 0.80 | 4,000      | 纸带              |
| 0805    | 2.00         | 1.25 | 0.60 | 4,000      | 纸带              |
|         |              |      | 0.85 | 4,000      | 纸带              |
|         |              |      | 1.25 | 3,000      | 塑胶带             |
| 1206    | 3.20         | 1.60 | 0.85 | 4,000      | 纸带              |
|         |              |      | 1.25 | 3,000      | 塑胶带             |
|         |              |      | 1.60 | 2,000      | 塑胶带             |
| 1210    | 3.20         | 2.50 | 1.25 | 2,000      | 塑胶带             |
|         |              |      | 1.60 | 2,000      | 塑胶带             |
|         |              |      | 2.00 | 1,000      | 塑胶带             |
|         |              |      | 2.50 | 1,000      | 塑胶带             |

### 7.3 纸带尺寸



| Type | A (mm)          | B (mm)          | C (mm)         | D (mm)         | T (mm)  |
|------|-----------------|-----------------|----------------|----------------|---------|
| 0201 | $0.36 \pm 0.03$ | $0.67 \pm 0.03$ | $2.0 \pm 0.10$ | $2.0 \pm 0.05$ | 0.42max |
| 0402 | $0.65 \pm 0.10$ | $1.15 \pm 0.10$ | $2.0 \pm 0.05$ | $2.0 \pm 0.05$ | 0.8max  |
| 0603 | $1.05 \pm 0.10$ | $1.85 \pm 0.10$ | $4.0 \pm 0.10$ | $2.0 \pm 0.10$ | 1.1max  |
| 0805 | $1.55 \pm 0.15$ | $2.3 \pm 0.15$  | $4.0 \pm 0.10$ | $2.0 \pm 0.10$ | 1.1max  |
| 1206 | $1.95 \pm 0.15$ | $3.5 \pm 0.15$  | $4.0 \pm 0.10$ | $2.0 \pm 0.10$ | 1.1max  |

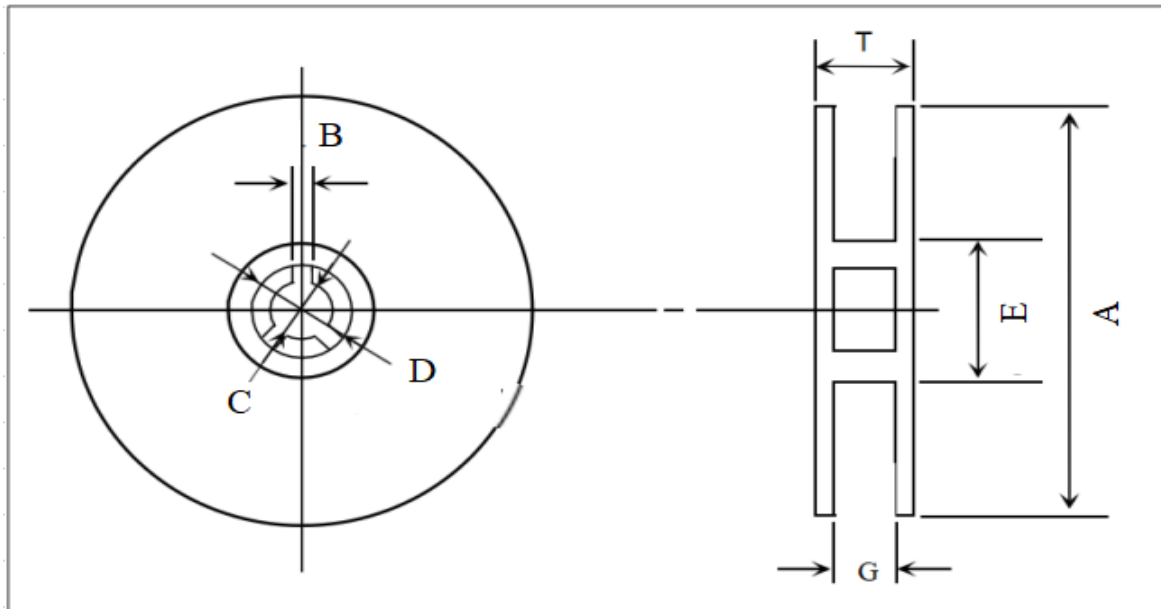
### 7.4 塑料带尺寸





| 标注代码 | 4 mm 间距 (mm)       |                    |                    |                    |
|------|--------------------|--------------------|--------------------|--------------------|
|      | 0603<br>(1608)     | 0805<br>(2012)     | 1206<br>(3216)     | 1210<br>(3225)     |
| P1   | 4±0.1              | 4±0.1              | 4±0.1              | 4±0.1              |
| P0   | 4±0.1              | 4±0.1              | 4±0.1              | 4±0.1              |
| P2   | 2±0.05             | 2±0.05             | 2±0.05             | 2±0.05             |
| A    | 1.2±0.2            | 1.45±0.2           | 1.9±0.2            | 2.8±0.2            |
| B    | 2.0±0.2            | 2.3±0.2            | 3.5±0.2            | 3.6±0.2            |
| W    | 8±0.3              | 8±0.2              | 8±0.2              | 8±0.2              |
| E    | 1.75±0.1           | 1.75±0.1           | 1.75±0.1           | 1.75±0.1           |
| F    | 3.5±0.05           | 3.5±0.05           | 3.5±0.05           | 3.5±0.05           |
| D    | 1.5<br>(+0.1/-0.0) | 1.5<br>(+0.1/-0.0) | 1.5<br>(+0.1/-0.0) | 1.5<br>(+0.1/-0.0) |
| T1   | 1.4 max.           | 2.5 max.           | 2.5 max.           | 2.5 max.           |
| T2   | 0.25±0.1           | 0.305±0.1          | 0.30±0.1           | 0.30±0.1           |

## 7.5 圆盘尺寸



| 圆盘尺寸   | A<br>(mm) | B<br>(mm) | C<br>(mm) | D<br>(mm) | E<br>(mm) | G<br>(mm) | T<br>(mm) |
|--------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 7"Reel | Φ178±2.0  | 2.0±0.5   | Φ13±1.0   | Φ21±0.8   | Φ50 或更大   | 10±1.0    | 13±1.0    |

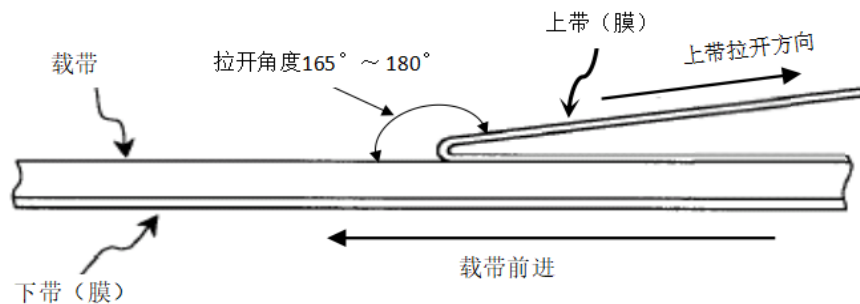
## 7.6 产品包装方式和规格:

通常情况下使用  $\Phi 180\text{mm}$  (7") 的料盘进行包装, 每 5 盘封装为一盒, 每 12 盒为一整箱。不足整盒的单独用一小盒包装。也可以按照客户的要求进行包装。

| Size EIA | 载带     | 料盘尺寸 | 盘/盒 | 盒/箱 |
|----------|--------|------|-----|-----|
| 0201     | 纸带     | 7"   | 5   | 12  |
| 0402     | 纸带     | 7"   | 5   | 12  |
| 0603     | 纸带     | 7"   | 5   | 12  |
| 0805     | 纸带/塑料带 | 7"   | 5   | 12  |
| 1206     | 纸带/塑料带 | 7"   | 5   | 12  |
| 1210     | 塑料带    | 7"   | 5   | 12  |

## 7.7 卷装带使用说明

成品在使用时, 上带(膜)以  $300 \pm 10\text{mm}/\text{min}$  的速度,  $165^\circ \sim 180^\circ$  的角度(如下图)剥离载带时, 剥离强度在  $0.1\text{N} \sim 0.7\text{N}$ 。



## 8. 运输与储存方法

8.1 运输: 包装的产品适应现代交通工具运输, 在运输过程中要防止雨淋和酸碱腐蚀, 不得重力抛掷和猛力挤压。

8.2 储存: 确保产品可焊性良好的贮存期限为: 自生产之日保存期为一年, 产品使用之前请勿拆开编带(在包装好已交付的情况下), 编带拆开, 产品应在三个月内使用。

储存温度:  $5^\circ\text{C} \sim 40^\circ\text{C}$

储存相对湿度:  $< 70\%$

## 9. 使用注意事项:

多层片式瓷介电容器 (MLCC) 在超出本承认书或相关说明书中所述使用频率的恶劣工作环境, 或外界机械力超压作用下, 电容有可能会短路、开路, 或者有可能会冒烟、燃烧甚至爆炸, 所以在使用的时候, 首先应考虑按本承认书的有关说明来进行, 如有不明之处, 请联系我们技术部、品管部或生产部。

|            |      |          |
|------------|------|----------|
| 版本日期       | 版序   | 页次       |
| 2022/03/17 | V1.1 | 42 / 111 |

## 9.1 焊接时焊料的用量：

A. 焊料过多这样会因电容端头压力过大而引起电容受损；



B. 焊料太少固定力量不足,可能会引起电容芯片与线路接触不良



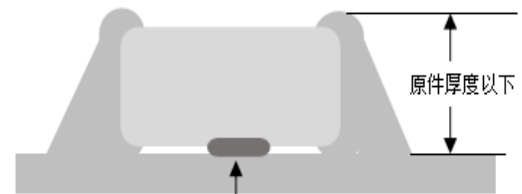
### 9.1.3 推荐的焊料用量

A. 回流焊接的最佳焊料用量



原件最小厚度的1/3

B 波峰焊接的最佳焊料用量



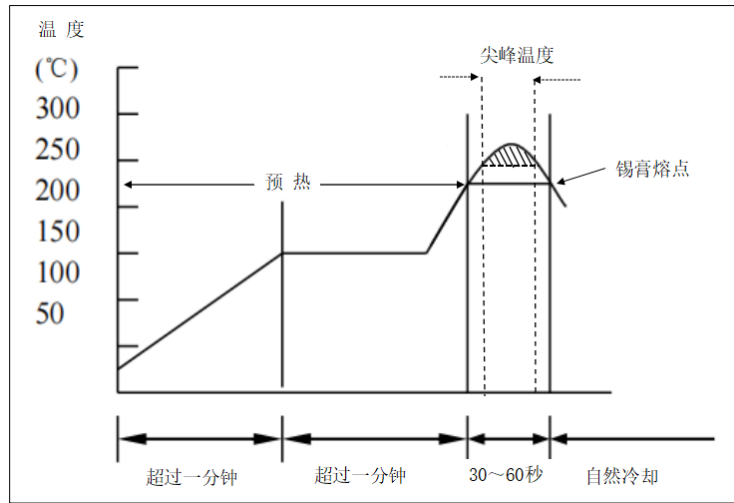
粘合剂

C. 使用烙铁返修时的最佳焊料量



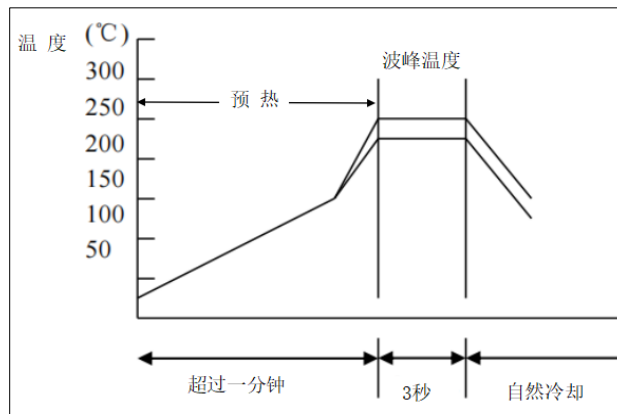
## 9.2 推荐焊接温度曲线图

### 9.2.1 回流焊接



| 焊锡类型 | Pb-Sn 焊接      | 无铅焊接          |
|------|---------------|---------------|
| 尖峰温度 | 230°C ~ 250°C | 240°C ~ 260°C |
| 尖峰时间 | 3s ~ 10s      | 3s ~ 10s      |

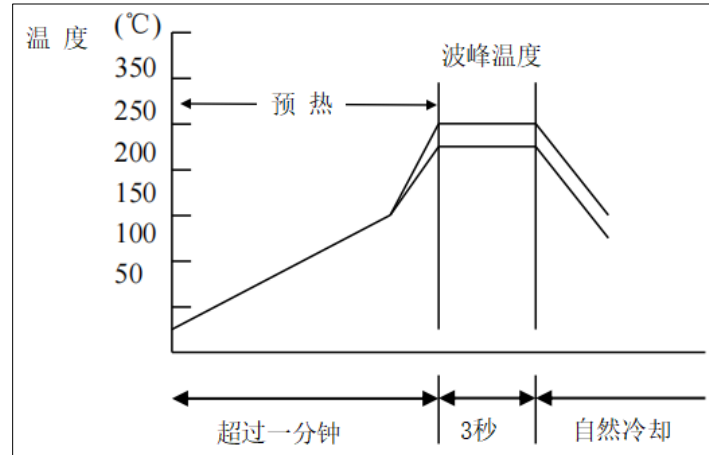
### 9.2.1 波峰焊接



| 焊锡类型 | Pb-Sn 焊接      | 无铅焊接          |
|------|---------------|---------------|
| 尖峰温度 | 230°C ~ 260°C | 240°C ~ 270°C |
| 尖峰时间 | 3s 内          | 3s 内          |

### 9.2.3 手工焊接

手工焊接很容易因为电容局部受热不均而引起瓷体微裂或局部爆裂现象。因此,使用电烙铁手工焊接时应仔细操作,并对电烙铁的尖端的选择和尖端温度控制应多加小心.



| 预热                                | 烙铁头温度                      | 烙铁功率              | 烙铁头直径  | 焊接时间             | 锡膏量                | 注意事项         |
|-----------------------------------|----------------------------|-------------------|--------|------------------|--------------------|--------------|
| $\Delta \leq 130^{\circ}\text{C}$ | $\leq 350^{\circ}\text{C}$ | $\leq 20\text{W}$ | 建议 1mm | $\leq 3\text{s}$ | $\leq 1/2$<br>电容高度 | 烙铁头勿直接接触陶瓷本体 |

版序修订历史:

| 版序   | 版本日期         | 修订内容 |
|------|--------------|------|
| V1.0 | 2021. 11. 15 | 第一版  |
| V1.1 | 2022. 03. 17 | 第一版  |
|      |              |      |

\*正式版本以最新签核版为准。

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