

## Маркировка

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | CL         | 10         | C          | 101        | J | B | 8 | N | N | N  | C  |                            |  |  |          |  |            |            |            |            |            |       |       |       |       |       |       |       |      |       |       |   |      |       |      |      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------|------------|------------|---|---|---|---|---|----|----|----------------------------|--|--|----------|--|------------|------------|------------|------------|------------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|---|------|-------|------|------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1          | 2          | 3          | 4          | 5 | 6 | 7 | 8 | 9 | 10 | 11 |                            |  |  |          |  |            |            |            |            |            |       |       |       |       |       |       |       |      |       |       |   |      |       |      |      |
| 1. Тип                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |            |            |            |   |   |   |   |   |    |    |                            |  |  |          |  |            |            |            |            |            |       |       |       |       |       |       |       |      |       |       |   |      |       |      |      |
| CL=Многослойный керамический ЧИП-конденсатор                                                                                                                                                                                                                                                                                                                                                                                                                                         |            |            |            |            |   |   |   |   |   |    |    |                            |  |  |          |  |            |            |            |            |            |       |       |       |       |       |       |       |      |       |       |   |      |       |      |      |
| 2. Тип(Размер)– inch(mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            |            |            |            |   |   |   |   |   |    |    |                            |  |  |          |  |            |            |            |            |            |       |       |       |       |       |       |       |      |       |       |   |      |       |      |      |
| 02=01005(0402)    21=0805(2012)    43=1812(4532)<br>03=0201(0603)    31=1206(3216)    55=2220(5750)<br>05=0402(1005)    32=1210(3225)<br>10=0603(1608)    42=1808(4520)                                                                                                                                                                                                                                                                                                              |            |            |            |            |   |   |   |   |   |    |    |                            |  |  |          |  |            |            |            |            |            |       |       |       |       |       |       |       |      |       |       |   |      |       |      |      |
| ★ 3. Температурная характеристика(ТКЕ)                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |            |            |            |   |   |   |   |   |    |    |                            |  |  |          |  |            |            |            |            |            |       |       |       |       |       |       |       |      |       |       |   |      |       |      |      |
| <table border="1"> <thead> <tr> <th colspan="3">Class I</th> <th colspan="2">Class II</th> </tr> </thead> <tbody> <tr> <td>C=C0G</td> <td>S=S2H</td> <td>L=S2L</td> <td>A=X5R</td> <td>F=Y5V</td> </tr> <tr> <td>P=P2H</td> <td>T=T2H</td> <td></td> <td>B=X7R</td> <td>X=X6S</td> </tr> <tr> <td>R=R2H</td> <td>U=U2J</td> <td></td> <td>Y=X7S</td> <td></td> </tr> </tbody> </table>                                                                                               |            |            |            |            |   |   |   |   |   |    |    | Class I                    |  |  | Class II |  | C=C0G      | S=S2H      | L=S2L      | A=X5R      | F=Y5V      | P=P2H | T=T2H |       | B=X7R | X=X6S | R=R2H | U=U2J |      | Y=X7S |       |   |      |       |      |      |
| Class I                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            |            | Class II   |            |   |   |   |   |   |    |    |                            |  |  |          |  |            |            |            |            |            |       |       |       |       |       |       |       |      |       |       |   |      |       |      |      |
| C=C0G                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | S=S2H      | L=S2L      | A=X5R      | F=Y5V      |   |   |   |   |   |    |    |                            |  |  |          |  |            |            |            |            |            |       |       |       |       |       |       |       |      |       |       |   |      |       |      |      |
| P=P2H                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | T=T2H      |            | B=X7R      | X=X6S      |   |   |   |   |   |    |    |                            |  |  |          |  |            |            |            |            |            |       |       |       |       |       |       |       |      |       |       |   |      |       |      |      |
| R=R2H                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | U=U2J      |            | Y=X7S      |            |   |   |   |   |   |    |    |                            |  |  |          |  |            |            |            |            |            |       |       |       |       |       |       |       |      |       |       |   |      |       |      |      |
| ★★ 4. Номинальна емкость                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            |            |            |            |   |   |   |   |   |    |    |                            |  |  |          |  |            |            |            |            |            |       |       |       |       |       |       |       |      |       |       |   |      |       |      |      |
| Первые две цифры обозначают значение, третья - количество нулей.<br>Пример 106=10×10 <sup>6</sup> =10000000.<br>Буква R обозначает десятичную точку.<br>Пример 1R5=1.5                                                                                                                                                                                                                                                                                                               |            |            |            |            |   |   |   |   |   |    |    |                            |  |  |          |  |            |            |            |            |            |       |       |       |       |       |       |       |      |       |       |   |      |       |      |      |
| 5. Допуск                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            |            |            |            |   |   |   |   |   |    |    |                            |  |  |          |  |            |            |            |            |            |       |       |       |       |       |       |       |      |       |       |   |      |       |      |      |
| A=±0.05pF    D=±0.5pF    J=±5%    Z=+80/-20%<br>B=±0.1pF    F=±1pF, ±1%*    K=±10%<br>C=±0.25pF    G=±2%    M=±20%<br>*Для значений ≤ 10pF, F=±1pF<br>Значение > 10pF, F=±1%                                                                                                                                                                                                                                                                                                         |            |            |            |            |   |   |   |   |   |    |    |                            |  |  |          |  |            |            |            |            |            |       |       |       |       |       |       |       |      |       |       |   |      |       |      |      |
| 6.Номинальное напряжение                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            |            |            |            |   |   |   |   |   |    |    |                            |  |  |          |  |            |            |            |            |            |       |       |       |       |       |       |       |      |       |       |   |      |       |      |      |
| R=4B    O=16B    B=50B    E=250B    H=630B    K=3000B<br>Q=6.3B    A=25B    C=100B    F=350B    I=1000B<br>P=10B    L=35B    D=200B    G=500B    J=2000B                                                                                                                                                                                                                                                                                                                             |            |            |            |            |   |   |   |   |   |    |    |                            |  |  |          |  |            |            |            |            |            |       |       |       |       |       |       |       |      |       |       |   |      |       |      |      |
| *** 7.Толщина                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |            |            |            |   |   |   |   |   |    |    |                            |  |  |          |  |            |            |            |            |            |       |       |       |       |       |       |       |      |       |       |   |      |       |      |      |
| 3 = 0.30мм    A = 0.65мм    F = 1.25мм    L = 3.20мм    S = 1.35мм<br>5 = 0.50мм    C = 0.85мм    H = 1.60мм    M = 1.15мм    U = 1.80мм<br>8 = 0.80мм    D = 1.00мм    I = 2.00мм    P = 1.15мм    V = 2.50мм<br>9 = 0.90мм    E = 1.10мм    J = 2.50мм    Q = 1.25мм    Y = 1.25мм                                                                                                                                                                                                 |            |            |            |            |   |   |   |   |   |    |    |                            |  |  |          |  |            |            |            |            |            |       |       |       |       |       |       |       |      |       |       |   |      |       |      |      |
| 8. Выводы                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            |            |            |            |   |   |   |   |   |    |    |                            |  |  |          |  |            |            |            |            |            |       |       |       |       |       |       |       |      |       |       |   |      |       |      |      |
| A= Normal Product Pd / Ag / Ni barrier / Sn 100%<br>N= Normal Product Ni / Cu / Ni barrier / Sn 100%<br>G= Normal Product Cu / Cu / Ni barrier / Sn 100%<br>L= Low profile Ni / Cu / Ni barrier / Sn 100%<br>S= Normal Product Ni/Cu/Ag-Epoxy/Ni barrier /Sn100%                                                                                                                                                                                                                     |            |            |            |            |   |   |   |   |   |    |    |                            |  |  |          |  |            |            |            |            |            |       |       |       |       |       |       |       |      |       |       |   |      |       |      |      |
| 9. Продукт                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            |            |            |            |   |   |   |   |   |    |    |                            |  |  |          |  |            |            |            |            |            |       |       |       |       |       |       |       |      |       |       |   |      |       |      |      |
| A= Array (2-элемента)    L= LICC<br>B= Array (4-элемента)    N= Normal                                                                                                                                                                                                                                                                                                                                                                                                               |            |            |            |            |   |   |   |   |   |    |    |                            |  |  |          |  |            |            |            |            |            |       |       |       |       |       |       |       |      |       |       |   |      |       |      |      |
| <table border="1"> <thead> <tr> <th colspan="5">* Допуск по размеру корпус</th> </tr> <tr> <th>Размер Код</th> <th>0201(0603)</th> <th>0402(1005)</th> <th>0603(1608)</th> <th>0805(2012)</th> </tr> </thead> <tbody> <tr> <td>S</td> <td>±0.05</td> <td>±0.07</td> <td>±0.07</td> <td></td> </tr> <tr> <td>Q</td> <td>±0.07</td> <td>±0.1</td> <td>±0.15</td> <td>±0.15</td> </tr> <tr> <td>R</td> <td>±0.1</td> <td>±0.15</td> <td>±0.2</td> <td>±0.2</td> </tr> </tbody> </table> |            |            |            |            |   |   |   |   |   |    |    | * Допуск по размеру корпус |  |  |          |  | Размер Код | 0201(0603) | 0402(1005) | 0603(1608) | 0805(2012) | S     | ±0.05 | ±0.07 | ±0.07 |       | Q     | ±0.07 | ±0.1 | ±0.15 | ±0.15 | R | ±0.1 | ±0.15 | ±0.2 | ±0.2 |
| * Допуск по размеру корпус                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            |            |            |            |   |   |   |   |   |    |    |                            |  |  |          |  |            |            |            |            |            |       |       |       |       |       |       |       |      |       |       |   |      |       |      |      |
| Размер Код                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 0201(0603) | 0402(1005) | 0603(1608) | 0805(2012) |   |   |   |   |   |    |    |                            |  |  |          |  |            |            |            |            |            |       |       |       |       |       |       |       |      |       |       |   |      |       |      |      |
| S                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ±0.05      | ±0.07      | ±0.07      |            |   |   |   |   |   |    |    |                            |  |  |          |  |            |            |            |            |            |       |       |       |       |       |       |       |      |       |       |   |      |       |      |      |
| Q                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ±0.07      | ±0.1       | ±0.15      | ±0.15      |   |   |   |   |   |    |    |                            |  |  |          |  |            |            |            |            |            |       |       |       |       |       |       |       |      |       |       |   |      |       |      |      |
| R                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ±0.1       | ±0.15      | ±0.2       | ±0.2       |   |   |   |   |   |    |    |                            |  |  |          |  |            |            |            |            |            |       |       |       |       |       |       |       |      |       |       |   |      |       |      |      |
| 10. Резерв                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            |            |            |            |   |   |   |   |   |    |    |                            |  |  |          |  |            |            |            |            |            |       |       |       |       |       |       |       |      |       |       |   |      |       |      |      |
| N = зарезервированно для будущего использования                                                                                                                                                                                                                                                                                                                                                                                                                                      |            |            |            |            |   |   |   |   |   |    |    |                            |  |  |          |  |            |            |            |            |            |       |       |       |       |       |       |       |      |       |       |   |      |       |      |      |
| 11. Упаковка                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            |            |            |            |   |   |   |   |   |    |    |                            |  |  |          |  |            |            |            |            |            |       |       |       |       |       |       |       |      |       |       |   |      |       |      |      |
| B = Рассыпь    O = Бумажная лента катушка 10"    E = Пластиковая лента катушка 7"<br>P = Рассыпью в кассете    D = Бумажная лента катушка 13"(10,000шт.)    F = Пластиковая лента катушка 13"<br>C = Бумажная лента катушка 7"    L = Бумажная лента катушка 13"(15,000шт.)    S = Пластиковая лента катушка 10"                                                                                                                                                                     |            |            |            |            |   |   |   |   |   |    |    |                            |  |  |          |  |            |            |            |            |            |       |       |       |       |       |       |       |      |       |       |   |      |       |      |      |

## Class I (Температурная компенсация)

| Буква | EIA Код | Диапазон рабочих температур(°C) | Температурный коэффициент (ppm/°C) |
|-------|---------|---------------------------------|------------------------------------|
| C     | C0G     | -55 ~ +125                      | 0 ±30                              |
| P     | P2H     | -55 ~ +125                      | -150 ±60                           |
| R     | R2H     | -55 ~ +125                      | -220 ±60                           |
| S     | S2H     | -55 ~ +125                      | -330 ±60                           |
| T     | T2H     | -55 ~ +125                      | -470 ±60                           |
| U     | U2J     | -55 ~ +125                      | -750 ±120                          |
| L     | S2L     | -55 ~ +125                      | -1000 ~ +350                       |

★

## Class II (С высокой диэлектрической проницаемостью)

| Буква | EIA Код | Диапазон рабочих температур(°C) | Изменение емкости(ΔC %) |
|-------|---------|---------------------------------|-------------------------|
| A     | X5R     | -55 ~ + 85                      | ±15                     |
| B     | X7R     | -55 ~ +125                      | ±15                     |
| X     | X6S     | -55 ~ +105                      | ±22                     |
| F     | Y5V     | -30 ~ + 85                      | -82 ~ +22               |
| Y     | X7S     | -55 ~ +125                      | ±22                     |

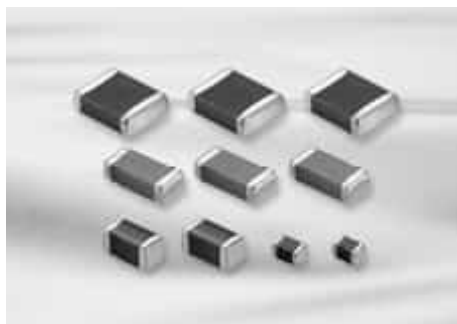
★★

| Серия | TC                | Шаг изменения емкости |     |     |     |     |     |     |     |     |     |     |     |
|-------|-------------------|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| E-3   | Y5V               | 1.0                   |     |     |     | 2.2 |     |     |     | 4.7 |     |     |     |
| E-6   | X5R<br>X7R<br>X6S | 1.0                   |     | 1.5 |     | 2.2 |     | 3.3 |     | 4.7 |     | 6.8 |     |
| E-12  | C0G<br>TC series  | 1.0                   | 1.2 | 1.5 | 1.8 | 2.2 | 2.7 | 3.3 | 3.9 | 4.7 | 5.6 | 6.8 | 8.2 |

★★★

| Размер      | Код | Толщина(мм) | Допуск(мм) | Размер     | Код | Толщина(мм) | Допуск(мм) |
|-------------|-----|-------------|------------|------------|-----|-------------|------------|
| 01005(0402) | 2   | 0.20        | ±0.02      | 1210(3225) | H   | 1.60        | ±0.20      |
| 0201(0603)  | 3   | 0.30        | ±0.03      |            | U   | 1.80        | ±0.20      |
| 0402(1005)  | 5   | 0.50        | ±0.05      |            | I   | 2.00        | ±0.20      |
| 0603(1608)  | 5   | 0.50        | +0.0/-0.1  |            | J   | 2.50        | ±0.20      |
|             | 8   | 0.80        | ±0.10      |            | V   | 2.50        | ±0.30      |
| 0805(2012)  | A   | 0.65        | ±0.10      | 1808(4520) | F   | 1.25        | ±0.20      |
|             | C   | 0.85        | ±0.10      |            | H   | 1.60        | ±0.20      |
|             | D   | 1.00        | ±0.15      |            | I   | 2.00        | ±0.20      |
|             | F   | 1.25        | ±0.10      | 1812(4532) | F   | 1.25        | ±0.20      |
|             | Q   | 1.25        | ±0.15      |            | H   | 1.60        | ±0.20      |
| 1206(3216)  | Y   | 1.25        | ±0.2       |            | I   | 2.00        | ±0.20      |
|             | C   | 0.85        | ±0.15      |            | J   | 2.50        | ±0.20      |
|             |     |             | *±0.10     |            | L   | 3.20        | ±0.30      |
|             | D   | 1.00        | ±0.15      | 2220(5750) | F   | 1.25        | ±0.20      |
|             | E   | 1.10        | ±0.10      |            | H   | 1.60        | ±0.20      |
|             | P   | 1.15        | ±0.10      |            | I   | 2.00        | ±0.20      |
| 1210(3225)  | F   | 1.25        | ±0.15      |            | J   | 2.50        | ±0.20      |
|             | H   | 1.60        | ±0.20      |            | L   | 3.20        | ±0.30      |
|             | C   | 0.85        | ±0.15      |            |     |             |            |
|             |     |             | *±0.10     |            |     |             |            |
|             | 9   | 0.90        | ±0.10      |            |     |             |            |
|             | M   | 1.15        | ±0.10      |            |     |             |            |
|             | F   | 1.25        | ±0.20      |            |     |             |            |
|             | S   | 1.35        | ±0.15      |            |     |             |            |

# Чип-керамика общего назначения



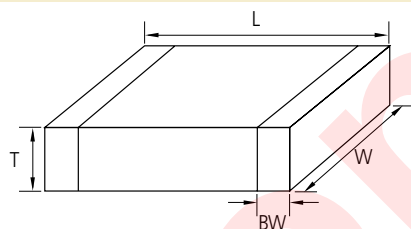
## Характеристики

- Широкий выбор размеров: от 0402 до 2220
- Широкий диапазон емкостей, ТКЕ, напряжений
- Высокая надежность работы • Высокопрочные выводы
- Ленты и катушки для поверхностного монтажа

## Применение

ННР, DSC, DVC, LCD, TV, Автомобильная навигация, модули памяти, PDA, игровые приставки и другие электронные устройства.

## Размеры



| Код | Типоразмер | Размеры(мм)     |                 |                    |         |                 |
|-----|------------|-----------------|-----------------|--------------------|---------|-----------------|
|     |            | L               | W               | T                  | Толщина | BW              |
| 05  | 0402       | $1.00 \pm 0.05$ | $0.50 \pm 0.05$ | $0.50 \pm 0.05$    | 5       | $0.2+0.15/-0.1$ |
| 10  | 0603       | $1.60 \pm 0.10$ | $0.80 \pm 0.10$ | $0.50+0.0/-0.1$    | 5       | $0.30 \pm 0.20$ |
|     |            |                 |                 | $0.80 \pm 0.10$    | 8       |                 |
| 21  | 0805       | $2.00 \pm 0.10$ | $1.25 \pm 0.10$ | $0.85 \pm 0.10$    | C       | $0.5+0.2/-0.3$  |
|     |            |                 |                 | $1.25 \pm 0.10$    | F       |                 |
|     |            | $2.00 \pm 0.15$ | $1.25 \pm 0.15$ | $1.25 \pm 0.15$    | Q       |                 |
|     |            | $2.00 \pm 0.20$ | $1.25 \pm 0.20$ | $1.25 \pm 0.20$    | Y       |                 |
| 31  | 1206       | $3.20 \pm 0.20$ | $1.60 \pm 0.20$ | $0.60 \pm 0.10$    | 6       | $0.50+0.30$     |
|     |            |                 |                 | $0.85 \pm 0.15$    | C       |                 |
|     |            |                 |                 | $0.85 \pm 0.10(*)$ |         |                 |
|     |            |                 |                 | $1.15 \pm 0.10$    | P       |                 |
|     |            | $3.20 \pm 0.15$ | $1.60 \pm 0.15$ | $1.25 \pm 0.15$    | F       |                 |
| 32  | 1210       | $3.20 \pm 0.20$ | $1.60 \pm 0.20$ | $1.60 \pm 0.20$    | H       | $0.60 \pm 0.30$ |
|     |            |                 |                 | $0.85 \pm 0.15$    | C       |                 |
|     |            |                 |                 | $0.85 \pm 0.10(*)$ |         |                 |
|     |            |                 |                 | $0.90 \pm 0.10$    | 9       |                 |
|     |            |                 |                 | $1.60 \pm 0.20$    | H       |                 |
|     |            |                 |                 | $1.80 \pm 0.20$    | U       |                 |
|     |            |                 |                 | $2.00 \pm 0.20$    | I       |                 |
| 42  | 1808       | $3.20 \pm 0.30$ | $2.50 \pm 0.20$ | $2.50 \pm 0.20$    | J       | $0.60 \pm 0.30$ |
|     |            |                 |                 | $2.50 \pm 0.20$    |         |                 |
|     |            |                 |                 | $2.50 \pm 0.20$    |         |                 |
|     |            |                 |                 | $2.50 \pm 0.20$    |         |                 |
|     |            |                 |                 | $2.50 \pm 0.20$    |         |                 |
| 43  | 1812       | $3.20 \pm 0.40$ | $2.50 \pm 0.30$ | $2.50 \pm 0.30$    | v       | $0.60 \pm 0.30$ |
|     |            |                 |                 | $2.50 \pm 0.30$    |         |                 |
| 42  | 1808       | $4.50 \pm 0.40$ | $2.00 \pm 0.20$ | $2.00 \pm 0.20$    | I       | $0.80 \pm 0.30$ |
| 43  | 1812       | $4.50 \pm 0.40$ | $3.20 \pm 0.30$ | $3.20 \pm 0.30$    | L       | $0.80 \pm 0.30$ |
| 55  | 2220       | $5.70 \pm 0.40$ | $5.00 \pm 0.40$ | $3.20 \pm 0.30$    | L       | $1.00 \pm 0.30$ |

| Размер     | Номинал.<br>напряж., В | Емкость |   |    |    |    |     |     |     |     |     |   |     |     |     |     |    |    |    |    |    |    |     |     |     |
|------------|------------------------|---------|---|----|----|----|-----|-----|-----|-----|-----|---|-----|-----|-----|-----|----|----|----|----|----|----|-----|-----|-----|
|            |                        | пФ      |   |    |    |    |     |     |     |     |     |   |     | нФ  |     |     |    |    |    |    |    |    |     |     |     |
|            |                        | 0.5     | 1 | 10 | 22 | 47 | 100 | 220 | 330 | 470 | 560 | 1 | 2.2 | 3.3 | 4.7 | 6.8 | 10 | 22 | 27 | 33 | 47 | 68 | 100 | 120 | 150 |
| 0603(1608) | 25                     |         |   |    |    |    |     |     |     |     |     |   |     |     |     |     |    |    |    |    |    |    |     |     |     |
|            | 50                     |         |   |    |    |    |     |     |     |     |     |   |     |     |     |     |    |    |    |    |    |    |     |     |     |

| Размер     | H.H., В | Емкость (мкФ) |      |      |   |     |     |    |    |    |     |
|------------|---------|---------------|------|------|---|-----|-----|----|----|----|-----|
|            |         | 0.1           | 0.22 | 0.47 | 1 | 2.2 | 4.7 | 10 | 22 | 47 | 100 |
| 0603(1608) | 4       |               |      |      |   |     |     |    |    |    |     |
|            | 6.3     |               |      |      |   |     |     |    |    |    |     |
|            | 10      |               |      |      |   |     |     |    |    |    |     |
|            | 16      |               |      |      |   |     |     |    |    |    |     |
|            | 25      |               |      |      |   |     |     |    |    |    |     |
|            | 50      |               |      |      |   |     |     |    |    |    |     |

| Размер     | Т <sub>макс</sub><br>(мм) | Н.н.В | Емкость(мкФ)                                                                         |     |     |    |    |    |    |
|------------|---------------------------|-------|--------------------------------------------------------------------------------------|-----|-----|----|----|----|----|
|            |                           |       | 1                                                                                    | 2.2 | 4.7 | 10 | 22 | 33 | 47 |
| 0603(1608) | 0.5                       | 6.3   |  |     |     |    |    |    |    |
|            |                           | 10    |  |     |     |    |    |    |    |
|            |                           | 16    |  |     |     |    |    |    |    |
|            |                           | 25    |  |     |     |    |    |    |    |

Таблица производимых номиналов (X7R)

| Размер     | Н.н.В | Емкость(мкФ)                                                                       |      |      |   |     |     |    |    |    |     |
|------------|-------|------------------------------------------------------------------------------------|------|------|---|-----|-----|----|----|----|-----|
|            |       | 0.1                                                                                | 0.22 | 0.47 | 1 | 2.2 | 4.7 | 10 | 22 | 47 | 100 |
| 0603(1608) | 6.3   |  |      |      |   |     |     |    |    |    |     |
|            | 10    |  |      |      |   |     |     |    |    |    |     |
|            | 16    |  |      |      |   |     |     |    |    |    |     |
|            | 25    |  |      |      |   |     |     |    |    |    |     |
|            | 50    |  |      |      |   |     |     |    |    |    |     |

### Таблица производимых номиналов (Y5V)

[illegible]

Таблица производимых номиналов (X6S)

| Размер     | H.H.,B | Емкость (мкФ) |      |      |   |     |     |    |    |    |     |
|------------|--------|---------------|------|------|---|-----|-----|----|----|----|-----|
|            |        | 0.1           | 0.22 | 0.47 | 1 | 2.2 | 4.7 | 10 | 22 | 47 | 100 |
| 0603(1608) | 4      |               |      |      |   |     |     |    |    |    |     |
|            | 6.3    |               |      |      |   |     |     |    |    |    |     |
|            | 10     |               |      |      |   |     |     |    |    |    |     |
|            | 16     |               |      |      |   |     |     |    |    |    |     |
|            | 25     |               |      |      |   |     |     |    |    |    |     |

## Линия продукции (C0G)

|    | Парт номер        | Размер L × W<br>(мм) | Емкость | Номин.<br>напряж.<br>(В) | Допуск  | Толщина<br>макс. (мм) |
|----|-------------------|----------------------|---------|--------------------------|---------|-----------------------|
| 1  | CL10C0R3CB8NNN □  | 1.60 × 0.80          | 0.3pF   | 50                       | ±0.25pF | 0.90                  |
| 2  | CL10C0R5CB8NNN □  |                      | 0.5pF   | 50                       | ±0.25pF | 0.90                  |
| 3  | CL10C0R75CB8NNN □ |                      | 0.75pF  | 50                       | ±0.25pF | 0.90                  |
| 4  | CL10C010CB8NNN □  |                      | 1.0pF   | 50                       | ±0.25pF | 0.90                  |
| 5  | CL10C1R2CB8NNN □  |                      | 1.2pF   | 50                       | ±0.25pF | 0.90                  |
| 6  | CL10C1R5CB8NNN □  |                      | 1.5pF   | 50                       | ±0.25pF | 0.90                  |
| 7  | CL10C1R8CB8NNN □  |                      | 1.8pF   | 50                       | ±0.25pF | 0.90                  |
| 8  | CL10C020CB8NNN □  |                      | 2.0pF   | 50                       | ±0.25pF | 0.90                  |
| 9  | CL10C2R2CB8NNN □  |                      | 2.2pF   | 50                       | ±0.25pF | 0.90                  |
| 10 | CL10C2R4CB8NNN □  |                      | 2.4pF   | 50                       | ±0.25pF | 0.90                  |
| 11 | CL10C2R5CB8NNN □  |                      | 2.5pF   | 50                       | ±0.25pF | 0.90                  |
| 12 | CL10C2R7CB8NNN □  |                      | 2.7pF   | 50                       | ±0.25pF | 0.90                  |
| 13 | CL10C030CB8NNN □  |                      | 3.0pF   | 50                       | ±0.25pF | 0.90                  |
| 14 | CL10C3R3CB8NNN □  |                      | 3.3pF   | 50                       | ±0.25pF | 0.90                  |
| 15 | CL10C3R5CB8NNN □  |                      | 3.5pF   | 50                       | ±0.25pF | 0.90                  |
| 16 | CL10C3R6CB8NNN □  |                      | 3.6pF   | 50                       | ±0.25pF | 0.90                  |
| 17 | CL10C3R9CB8NNN □  |                      | 3.9pF   | 50                       | ±0.25pF | 0.90                  |
| 18 | CL10C040CB8NNN □  |                      | 4.0pF   | 50                       | ±0.25pF | 0.90                  |
| 19 | CL10C4R3CB8NNN □  |                      | 4.3pF   | 50                       | ±0.25pF | 0.90                  |
| 20 | CL10C4R7CB8NNN □  |                      | 4.7pF   | 50                       | ±0.25pF | 0.90                  |
| 21 | CL10C050DB8NNN □  |                      | 5.0pF   | 50                       | ±0.5pF  | 0.90                  |
| 22 | CL10C5R6DB8NNN □  |                      | 5.6pF   | 50                       | ±0.5pF  | 0.90                  |
| 23 | CL10C060DB8NNN □  |                      | 6.0pF   | 50                       | ±0.5pF  | 0.90                  |
| 24 | CL10C6R2DB8NNN □  |                      | 6.2pF   | 50                       | ±0.5pF  | 0.90                  |
| 25 | CL10C6R8DB8NNN □  |                      | 6.8pF   | 50                       | ±0.5pF  | 0.90                  |
| 26 | CL10C070DB8NNN □  |                      | 7.0pF   | 50                       | ±0.5pF  | 0.90                  |
| 27 | CL10C7R5DB8NNN □  |                      | 7.5pF   | 50                       | ±0.5pF  | 0.90                  |
| 28 | CL10C080DB8NNN □  |                      | 8.0pF   | 50                       | ±0.5pF  | 0.90                  |
| 29 | CL10C8R2DB8NNN □  |                      | 8.2pF   | 50                       | ±0.5pF  | 0.90                  |
| 30 | CL10C090DB8NNN □  |                      | 9.0pF   | 50                       | ±0.5pF  | 0.90                  |
| 31 | CL10C9R1DB8NNN □  |                      | 9.1pF   | 50                       | ±0.5pF  | 0.90                  |
| 32 | CL10C100JB8NNN □  |                      | 10pF    | 50                       | ±5%     | 0.90                  |
| 33 | CL10C110JB8NNN □  |                      | 11pF    | 50                       | ±5%     | 0.90                  |
| 34 | CL10C120JB8NNN □  |                      | 12pF    | 50                       | ±5%     | 0.90                  |
| 35 | CL10C130JB8NNN □  |                      | 13pF    | 50                       | ±5%     | 0.90                  |
| 36 | CL10C140JB8NNN □  |                      | 14pF    | 50                       | ±5%     | 0.90                  |
| 37 | CL10C150JB8NNN □  |                      | 15pF    | 50                       | ±5%     | 0.90                  |
| 38 | CL10C160JB8NNN □  |                      | 16pF    | 50                       | ±5%     | 0.90                  |
| 39 | CL10C180JB8NNN □  |                      | 18pF    | 50                       | ±5%     | 0.90                  |
| 40 | CL10C200JB8NNN □  |                      | 20pF    | 50                       | ±5%     | 0.90                  |
| 41 | CL10C220JB8NNN □  |                      | 22pF    | 50                       | ±5%     | 0.90                  |
| 42 | CL10C240JB8NNN □  |                      | 24pF    | 50                       | ±5%     | 0.90                  |
| 43 | CL10C250JB8NNN □  |                      | 25pF    | 50                       | ±5%     | 0.90                  |
| 44 | CL10C270JB8NNN □  |                      | 27pF    | 50                       | ±5%     | 0.90                  |
| 45 | CL10C300JB8NNN □  |                      | 30pF    | 50                       | ±5%     | 0.90                  |
| 46 | CL10C330JB8NNN □  |                      | 33pF    | 50                       | ±5%     | 0.90                  |
| 47 | CL10C360JB8NNN □  |                      | 36pF    | 50                       | ±5%     | 0.90                  |

## Линия продукции (COG)

|    | Парт номер       | Размер L × W<br>(мм) | Емкость | Номин.<br>напряж.<br>(В) | Допуск | Толщина<br>макс. (мм) |
|----|------------------|----------------------|---------|--------------------------|--------|-----------------------|
| 48 | CL10C390JB8NNN □ | 1.60×0.80            | 39pF    | 50                       | ±5%    | 0.90                  |
| 49 | CL10C430JB8NNN □ |                      | 43pF    | 50                       | ±5%    | 0.90                  |
| 50 | CL10C470JB8NNN □ |                      | 47pF    | 50                       | ±5%    | 0.90                  |
| 51 | CL10C510JB8NNN □ |                      | 51pF    | 50                       | ±5%    | 0.90                  |
| 52 | CL10C560JB8NNN □ |                      | 56pF    | 50                       | ±5%    | 0.90                  |
| 53 | CL10C620JB8NNN □ |                      | 62pF    | 50                       | ±5%    | 0.90                  |
| 54 | CL10C680JB8NNN □ |                      | 68pF    | 50                       | ±5%    | 0.90                  |
| 55 | CL10C750JB8NNN □ |                      | 75pF    | 50                       | ±5%    | 0.90                  |
| 56 | CL10C820JB8NNN □ |                      | 82pF    | 50                       | ±5%    | 0.90                  |
| 57 | CL10C910JB8NNN □ |                      | 91pF    | 50                       | ±5%    | 0.90                  |
| 58 | CL10C101JB8NNN □ |                      | 100pF   | 50                       | ±5%    | 0.90                  |
| 59 | CL10C111JB8NNN □ |                      | 110pF   | 50                       | ±5%    | 0.90                  |
| 60 | CL10C121JB8NNN □ |                      | 120pF   | 50                       | ±5%    | 0.90                  |
| 61 | CL10C131JB8NNN □ |                      | 130pF   | 50                       | ±5%    | 0.90                  |
| 62 | CL10C151JB8NNN □ |                      | 150pF   | 50                       | ±5%    | 0.90                  |
| 63 | CL10C161JB8NNN □ |                      | 160pF   | 50                       | ±5%    | 0.90                  |
| 64 | CL10C181JB8NNN □ |                      | 180pF   | 50                       | ±5%    | 0.90                  |
| 65 | CL10C201JB8NNN □ |                      | 200pF   | 50                       | ±5%    | 0.90                  |
| 66 | CL10C221JB8NNN □ |                      | 220pF   | 50                       | ±5%    | 0.90                  |
| 67 | CL10C241JB8NNN □ |                      | 240pF   | 50                       | ±5%    | 0.90                  |
| 68 | CL10C271JB8NNN □ |                      | 270pF   | 50                       | ±5%    | 0.90                  |
| 69 | CL10C301JB8NNN □ |                      | 300pF   | 50                       | ±5%    | 0.90                  |
| 70 | CL10C331JB8NNN □ |                      | 330pF   | 50                       | ±5%    | 0.90                  |
| 71 | CL10C361JB8NNN □ |                      | 360pF   | 50                       | ±5%    | 0.90                  |
| 72 | CL10C391JB8NNN □ |                      | 390pF   | 50                       | ±5%    | 0.90                  |
| 73 | CL10C431JB8NNN □ |                      | 430pF   | 50                       | ±5%    | 0.90                  |
| 74 | CL10C471JB8NNN □ |                      | 470pF   | 50                       | ±5%    | 0.90                  |
| 75 | CL10C511JB8NNN □ |                      | 510pF   | 50                       | ±5%    | 0.90                  |
| 76 | CL10C561JB8NNN □ |                      | 560pF   | 50                       | ±5%    | 0.90                  |
| 77 | CL10C621JB8NNN □ |                      | 620pF   | 50                       | ±5%    | 0.90                  |
| 78 | CL10C681JB8NNN □ |                      | 680pF   | 50                       | ±5%    | 0.90                  |
| 79 | CL10C751JB8NNN □ |                      | 750pF   | 50                       | ±5%    | 0.90                  |
| 80 | CL10C821JB8NNN □ | 1.60×0.80            | 820pF   | 50                       | ±5%    | 0.90                  |
| 81 | CL10C102JB8NNN □ |                      | 1nF     | 50                       | ±5%    | 0.90                  |
| 82 | CL10C182JB8NNN □ |                      | 1.8nF   | 50                       | ±5%    | 0.90                  |
| 83 | CL10C222JB8NNN □ |                      | 2.2nF   | 50                       | ±5%    | 0.90                  |
| 84 | CL10C562JB8NNN □ |                      | 5.6nF   | 50                       | ±5%    | 0.90                  |

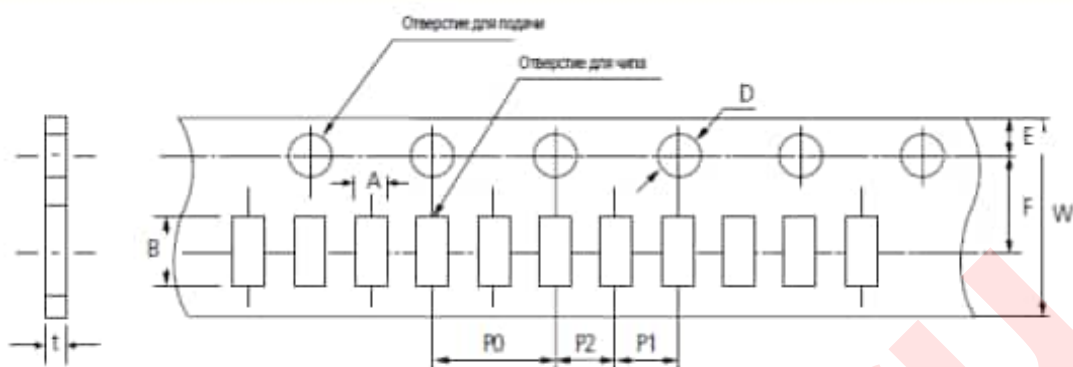
## Линия продукции (X7R)

|    | Парт номер       | Размер L × W<br>(мм) | Емкость | Номин.<br>напряж.<br>(В) | Допуск | Толщина<br>макс. (мм) |
|----|------------------|----------------------|---------|--------------------------|--------|-----------------------|
| 1  | CL10B101KB8NNN □ | 1.60 × 0.80          | 100pF   | 50                       | ±10%   | 0.9                   |
| 2  | CL10B221KB8NNN □ |                      | 220pF   | 50                       | ±10%   | 0.9                   |
| 3  | CL10B471KB8NNN □ |                      | 470pF   | 50                       | ±10%   | 0.9                   |
| 4  | CL10B681KB8NNN □ |                      | 680pF   | 50                       | ±10%   | 0.9                   |
| 5  | CL10B102KB8NNN □ |                      | 1nF     | 50                       | ±10%   | 0.9                   |
| 6  | CL10B102KA8NNN □ |                      | 1nF     | 25                       | ±10%   | 0.9                   |
| 7  | CL10B222KB8NNN □ |                      | 2.2nF   | 50                       | ±10%   | 0.9                   |
| 8  | CL10B472KB8NNN □ |                      | 4.7nF   | 50                       | ±10%   | 0.9                   |
| 9  | CL10B472KA8NNN □ |                      | 4.7nF   | 25                       | ±10%   | 0.9                   |
| 10 | CL10B682KB8NNN □ |                      | 6.8nF   | 50                       | ±10%   | 0.9                   |
| 11 | CL10B103KB8NNN □ |                      | 10nF    | 50                       | ±10%   | 0.9                   |
| 12 | CL10B103KA8NNN □ |                      | 10nF    | 25                       | ±10%   | 0.9                   |
| 13 | CL10B223KA8NNN □ |                      | 22nF    | 25                       | ±10%   | 0.9                   |
| 14 | CL10B473KB8NNN □ |                      | 47nF    | 50                       | ±10%   | 0.9                   |
| 15 | CL10B473KA8NNN □ |                      | 47nF    | 25                       | ±10%   | 0.9                   |
| 16 | CL10B683KB8NNN □ |                      | 68nF    | 50                       | ±10%   | 0.9                   |
| 17 | CL10B683KA8NNN □ |                      | 68nF    | 25                       | ±10%   | 0.9                   |
| 18 | CL10B104KB8NNN □ |                      | 100nF   | 50                       | ±10%   | 0.9                   |
| 19 | CL10B224KA8NNN □ |                      | 220nF   | 25                       | ±10%   | 0.9                   |
| 20 | CL10B224K08NNN □ |                      | 220nF   | 16                       | ±10%   | 0.9                   |
| 21 | CL10B225KQ8NNN □ |                      | 2.2μF   | 63                       | ±10%   | 0.9                   |

## Линия продукции (Y5V)

|    | Парт номер       | Размер L × W<br>(мм) | Емкость | Номин.<br>напряж.<br>(В) | Допуск   | Толщина<br>макс. (мм) |
|----|------------------|----------------------|---------|--------------------------|----------|-----------------------|
| 1  | CL10F103ZB8NNN □ | 1.60 × 0.80          | 10nF    | 50                       | +80%—20% | 0.9                   |
| 2  | CL10F223ZB8NNN □ |                      | 22nF    | 50                       | +80%—20% | 0.9                   |
| 3  | CL10F473ZB8NNN □ |                      | 47nF    | 50                       | +80%—20% | 0.9                   |
| 4  | CL10F473ZA8NNN □ |                      | 47nF    | 25                       | +80%—20% | 0.9                   |
| 5  | CL10F473ZO8NNN □ |                      | 47nF    | 16                       | +80%—20% | 0.9                   |
| 6  | CL10F683ZB8NNN □ |                      | 68nF    | 50                       | +80%—20% | 0.9                   |
| 7  | CL10F104ZB8NNN □ |                      | 100nF   | 50                       | +80%—20% | 0.9                   |
| 8  | CL10F104ZA8NNN □ |                      | 100nF   | 25                       | +80%—20% | 0.9                   |
| 9  | CL10F224ZB8NNN □ |                      | 220nF   | 50                       | +80%—20% | 0.9                   |
| 10 | CL10F224ZA8NNN □ |                      | 220nF   | 25                       | +80%—20% | 0.9                   |
| 11 | CL10F225ZP8NNN □ |                      | 2.2μF   | 10                       | +80%—20% | 0.9                   |
| 12 | CL10F225ZQ8NNN □ |                      | 2.2μF   | 6.3                      | +80%—20% | 0.9                   |

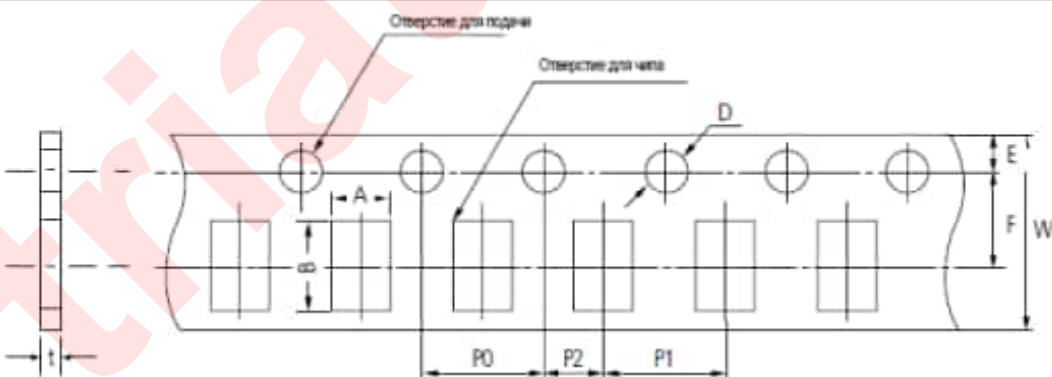
Картонные бумажные ленты(2мм)



Единица измерения: дюймы (мм)

| Обозначение |                 | A             | B             | W           | F            | E             | P1           | P2           | P0          | D                      | t             |
|-------------|-----------------|---------------|---------------|-------------|--------------|---------------|--------------|--------------|-------------|------------------------|---------------|
| Тип         |                 |               |               |             |              |               |              |              |             |                        |               |
| Размер      | 01005<br>(0402) | 0.26<br>±0.03 | 0.46<br>±0.03 | 8.0<br>±0.3 | 3.5<br>±0.05 | 1.75<br>±0.05 | 2.0<br>±0.05 | 2.0<br>±0.05 | 4.0<br>±0.1 | Ø1.550<br>±0.02        | 0.26<br>±0.03 |
|             | 0201<br>(0603)  | 0.38<br>±0.03 | 0.68<br>±0.03 |             |              |               |              |              |             |                        | 0.37<br>±0.03 |
|             | 0402<br>(1005)  | 0.62<br>±0.04 | 1.12<br>±0.04 |             |              | 1.75<br>±0.1  | 2.0<br>±0.05 | 2.0<br>±0.05 | 4.0<br>±0.1 | Ø1.5<br>+0.1/<br>-0.03 | 0.6<br>±0.05  |
|             |                 |               |               |             |              |               |              |              |             |                        | 0.37<br>±0.05 |

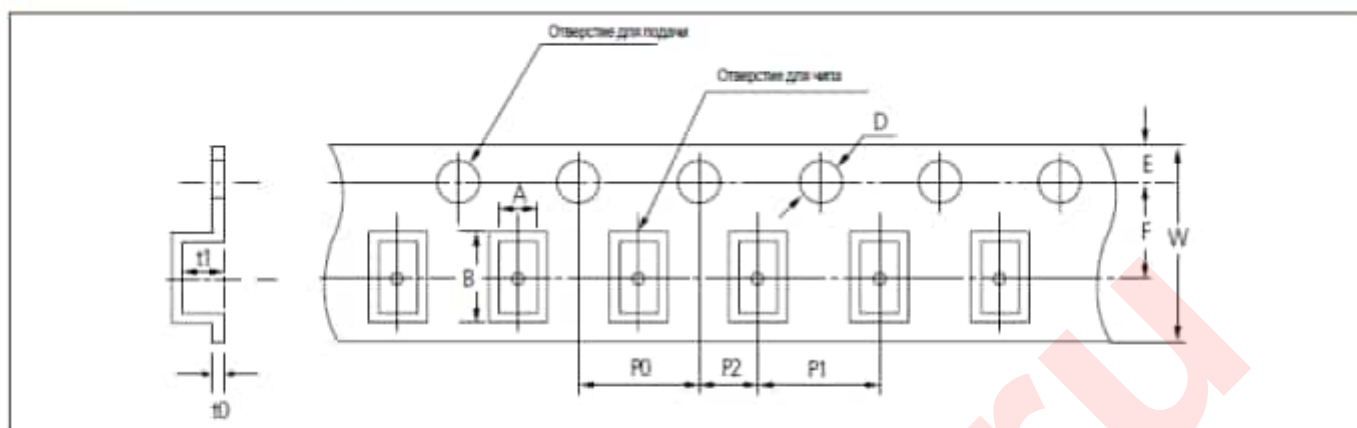
Картонные бумажные ленты(4мм)



Единица измерения: дюймы (мм)

| Обозначение |                            | A           | B           | W           | F            | E            | P1          | P2           | P0          | D            | t            |
|-------------|----------------------------|-------------|-------------|-------------|--------------|--------------|-------------|--------------|-------------|--------------|--------------|
| Тип         |                            |             |             |             |              |              |             |              |             |              |              |
| Размер      | 0504<br>(1410)             | 1.3<br>±0.2 | 1.7<br>±0.2 | 8.0<br>±0.3 | 3.5<br>±0.05 | 1.75<br>±0.1 | 4.0<br>±0.1 | 2.0<br>±0.05 | 4.0<br>±0.1 | Ø15<br>+0V-0 | 1.1<br>Below |
|             | 0603 0306<br>(1608) (0816) | 1.1<br>±0.2 | 1.9<br>±0.2 |             |              |              |             |              |             |              |              |
|             | 0805 0508<br>(2012) (1220) | 1.6<br>±0.2 | 2.4<br>±0.2 |             |              |              |             |              |             |              |              |
|             | 1206 0612<br>(3216) (1632) | 2.0<br>±0.2 | 3.6<br>±0.2 |             |              |              |             |              |             |              |              |

## Рельефные пластиковые ленты

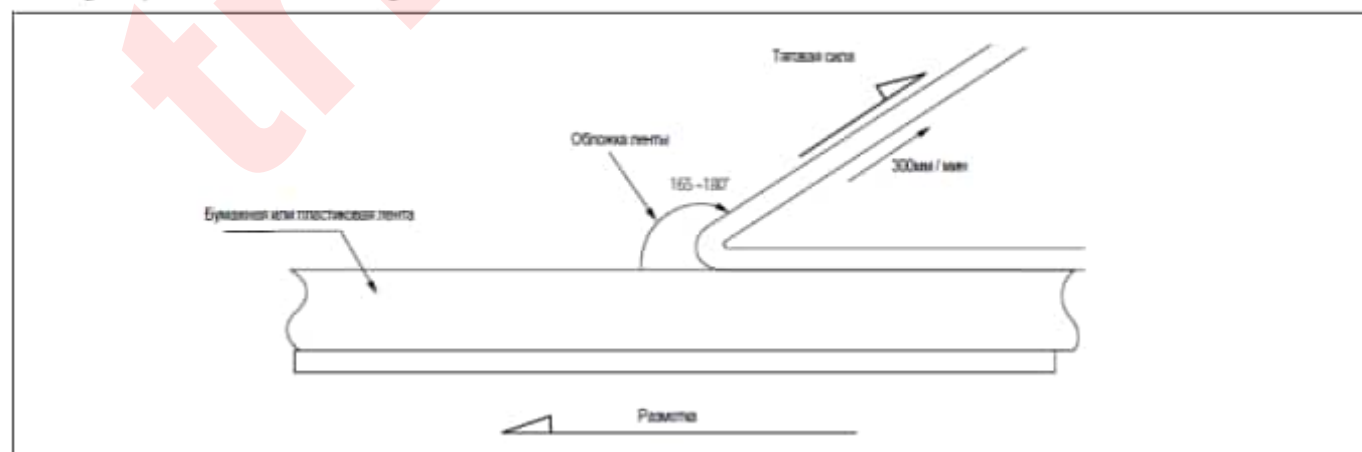


Единица измерения: дюймы (мм)

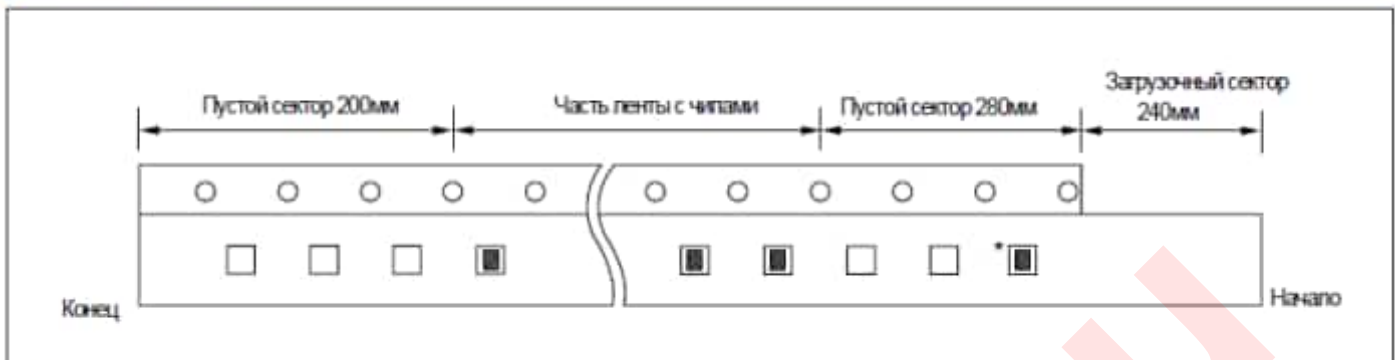
| Обозначение |                            | A             | B            | W            | F             | E            | P1          | P2           | P0          | D                   | t1         | t0           |
|-------------|----------------------------|---------------|--------------|--------------|---------------|--------------|-------------|--------------|-------------|---------------------|------------|--------------|
| Тип         |                            |               |              |              |               |              |             |              |             |                     |            |              |
| Размер      | 0603<br>(1608)             | 1.05<br>±0.15 | 1.9<br>±0.15 | 8.0<br>±0.3  | 3.5<br>±0.05  | 1.75<br>±0.1 | 4.0<br>±0.1 | 2.0<br>±0.05 | 4.0<br>±0.1 | Ø1.5<br>+0.1/<br>-0 | 2.8<br>max | 0.6<br>BELOW |
|             | 0805<br>(2012)             | 1.45<br>±0.2  | 2.3<br>±0.2  |              |               |              |             |              |             |                     |            |              |
|             | 1206 0612<br>(3216) (1632) | 1.9<br>±0.2   | 3.5<br>±0.2  |              |               |              |             |              |             |                     |            |              |
|             | 1210<br>(3225)             | 2.8<br>±0.2   | 3.6<br>±0.2  |              |               |              |             |              |             |                     |            |              |
|             | 1808<br>(4520)             | 2.3<br>±0.2   | 4.9<br>±0.2  | 12.0<br>±0.3 | 5.60<br>±0.05 | 8.0<br>±0.1  |             |              |             |                     |            |              |
|             | 1812<br>(4532)             | 3.6<br>±0.2   | 4.9<br>±0.2  |              |               |              |             |              |             |                     |            |              |
|             | 2220<br>(5750)             | 5.5<br>±0.2   | 6.2<br>±0.2  |              |               |              |             |              |             |                     |            |              |

## Раскрытие ленты

• 5 g.f ≤ Прилагаемая сила ≤ 70 g.f



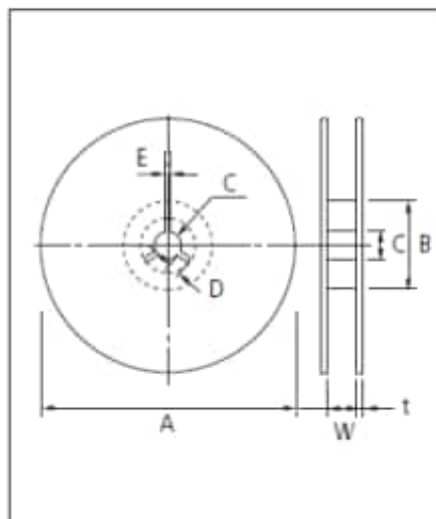
Размер ленты



- Чип используется только для определения метки упакованных чипов.  
Этот чип не используется.

[illegible]

## Размеры катушки



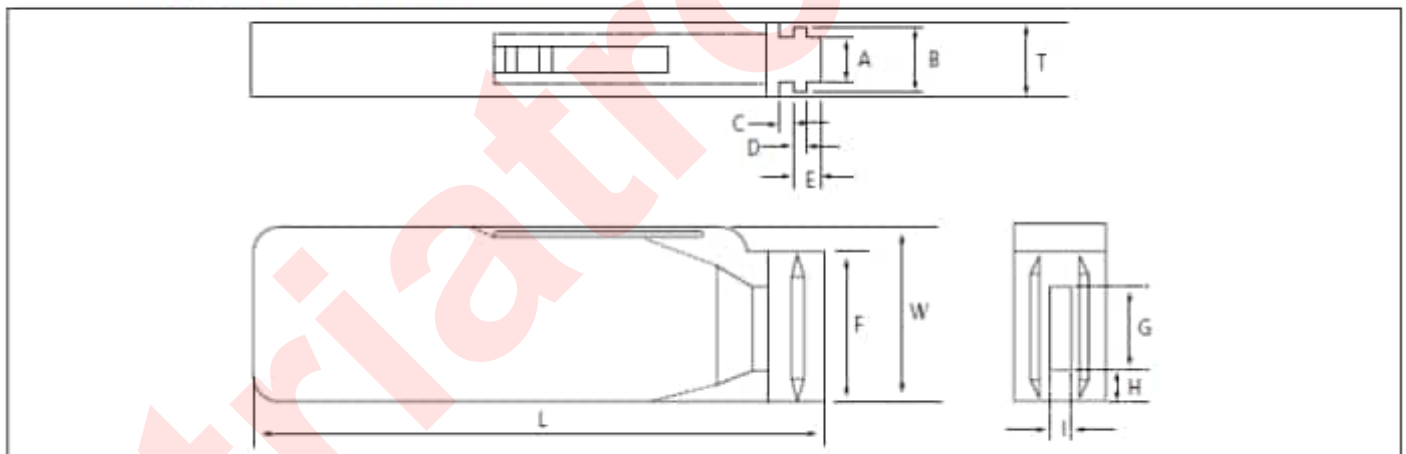
Единица измерения: мм

| Обозначение | Ширина ленты | A         | B        | C       | D     |
|-------------|--------------|-----------|----------|---------|-------|
| 7" Катушка  | 8мм          | Ø180+0/-3 | Ø60+1/-0 | Ø13±0.3 | 4±0.2 |
|             | 12мм         | Ø180+0/-3 | Ø60+1/-0 | Ø13±0.3 | 4±0.2 |
| 10" Катушка | 8мм          | Ø258+0/-3 | Ø80+1/-0 | Ø13±0.3 | 4±0.2 |
|             | 12мм         | Ø258+0/-3 | Ø80+1/-0 | Ø13±0.3 | 4±0.2 |
| 13" Катушка | 8мм          | Ø330±2.0  | Ø80±1.0  | Ø13±0.3 | 4±0.2 |
|             | 12мм         | Ø330±2.0  | Ø80±1.0  | Ø13±0.3 | 4±0.2 |

| Обозначение | Ширина ленты | E       | W      | t       |
|-------------|--------------|---------|--------|---------|
| 7" Катушка  | 8мм          | 2.0±0.5 | 9±0.5  | 1.2±0.2 |
|             | 12мм         | 2.0±0.5 | 13±0.5 | 1.2±0.2 |
| 10" Катушка | 8мм          | 2.0±0.5 | 9±0.5  | 1.8±0.2 |
|             | 12мм         | 2.0±0.5 | 13±0.5 | 1.8±0.2 |
| 13" Катушка | 8мм          | 2.0±0.5 | 9±0.5  | 2.2±0.2 |
|             | 12мм         | 2.0±0.5 | 13±0.5 | 2.2±0.2 |

## Упаковка в коробке россыпью

- Упаковка россыпью может уменьшить запас пространства и транспортные расходы.
- Эта система подачи может увеличить производительность.
- Это может устранить потери компонентов.



Единица измерения: мм

| Обозначение | A                | B              | T             | C               | D             | E               |
|-------------|------------------|----------------|---------------|-----------------|---------------|-----------------|
| Размеры     | $6.8 \pm 0.1$    | $8.8 \pm 0.1$  | $12 \pm 0.1$  | $1.5 \pm 0.1/0$ | $2 \pm 0/0.1$ | $3.0 \pm 0.2/0$ |
| Обозначение | F                | W              | G             | H               | L             | I               |
| Размеры     | $31.5 \pm 0.2/0$ | $36 \pm 0/0.2$ | $19 \pm 0.35$ | $7 \pm 0.35$    | $110 \pm 0.7$ | $5 \pm 0.35$    |

## • КОЛИЧЕСТВО

Единица измерения: дюйм (мм) шт

| Размер     | 0402(1005) | 0603(1608)       | 0805(2012) |                 |
|------------|------------|------------------|------------|-----------------|
|            |            |                  | T=0.65mm   | T=0.85mm        |
| Количество | 50,000     | 10,000 or 15,000 | 10,000     | 5,000 or 10,000 |