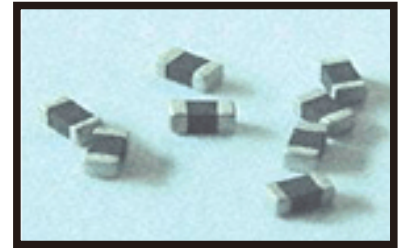


■ 片式负温度系数热敏电阻器

CHIP NTC THERMISTOR

片式NTCR具有无引线、片状化、体积小、响应快等特点。它的瓷体表面采用了玻璃层作保护，同时端头电极进行了可靠的三层电镀工艺，实现片式NTC产品优良的焊接性能、高可靠的品质特性。

The chip NTC thermistor has the features of miniature Size, no-lead, quick temperature response. The product's ceramic body are coated with glass. The termination has been carried on craft of electroplating of three layers, suit for reflow and flow solder. Has the high reliability.



• 特征 FEATURES

- 体积小, 适合高密度表面贴装。
- 玻璃釉包覆保护, 精度高、阻值漂移小。
- 优良的焊接性和耐焊性, 适合波峰焊及回流焊。
- Miniature size, suitable for SMT.
- Porcelain body and glass glaze.
- Excellent in solderability and heat resistance; ideal for wave or re-flow soldering.

• 应用 APPLICATIONS

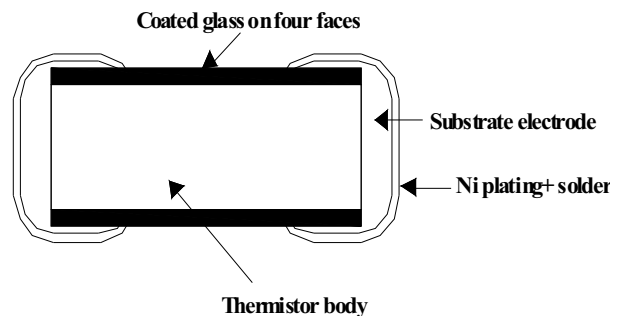
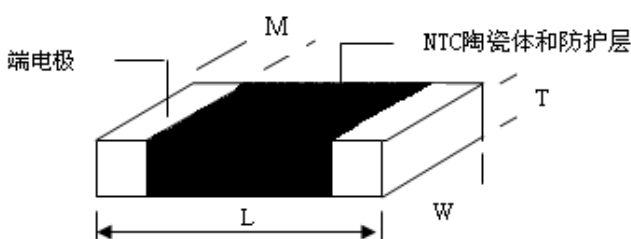
- 可充电电池、CPU的温度探测。 • Temperature Sensing in rechargeable batteries and CPU.
- IC、LCD、石英振荡器的温度补偿。 • Temperature compensation in IC、LCD、Crystal oscillator and so on.
- 需温度补偿和探测的各种电路。 • Temperature compensation or temperature sensing for various types of circuits.

• 规格型号表示方法 ORDERING CODE

CMF A 103 J 3500 H A N T
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

| ① | ② | | ③ | ④ | | ⑤ | ⑥ | | ⑦ | | ⑧ | ⑨ |
|--|----------------------------------|---------|-------------------------------------|--------------------------|-----|-------------------------------------|----------------|----|--------------------|-------|-----------------------------|-------------------------|
| 产品代号 Code | 规格尺寸 Dimensions (L×W) (mm) | | 标称阻值 R25 (Ω) Rated resistance | 阻值公差 (%) Tolerance | | 材料常数 B值 (K) Material constant | B值精度 代码 (%) | | B值温度 代码 (°C/°C) | | 端电极 Termina Electrode | 包装方式 Packaging Style |
| CMF | E | 0.6×0.3 | 10000 | F | ±1 | 直接读数 3500 | F | ±1 | A | 25/50 | 端电极材料 代号: N为 三层电镀 | T 卷带盘装 Tape&Reel |
| 片式 负温度系数 热敏电阻器 Chip NTC Thermistor | D | 1.0×0.5 | 前二位为有效数字, 第三位表示有效数字后“0”的个数 | G | ±2 | | G | ±2 | B | 25/85 | | |
| | A | 1.6×0.8 | | H | ±3 | | H | ±3 | C | 0/25 | | |
| | B | 2.0×1.2 | | J | ±5 | | J | ±5 | D | 0/50 | | |
| | C | 3.2×1.6 | | K | ±10 | | | | E | 0/100 | | B 散装 Bulk |

• 外形尺寸 SHAPE AND DIMENSIONS



• 尺寸规格 Dimension

单位(Unit): mm/inch

| 尺寸规格 Dimension | | L (长) | W (宽) | T (厚) max. | M (端头宽) |
|-------------------|-----------|-------------|-------------|------------|-------------|
| 0201 | 公制 (mm) | 0.60±0.05 | 0.30±0.05 | 0.30 | 0.25±0.10 |
| | 英制 (inch) | 0.040±0.006 | 0.020±0.004 | 0.024 | 0.010±0.004 |
| 0402 | 公制 (mm) | 1.00±0.15 | 0.50±0.10 | 0.60 | 0.25±0.10 |
| | 英制 (inch) | 0.040±0.006 | 0.020±0.004 | 0.024 | 0.010±0.004 |
| 0603 | 公制 (mm) | 1.60±0.15 | 0.80±0.15 | 0.95 | 0.30±0.15 |
| | 英制 (inch) | 0.063±0.006 | 0.031±0.006 | 0.037 | 0.012±0.006 |
| 0805 | 公制 (mm) | 2.00±0.20 | 1.25±0.20 | 0.95 | 0.50±0.20 |
| | 英制 (inch) | 0.080±0.008 | 0.050±0.008 | 0.037 | 0.020±0.008 |
| 1206 | 公制 (mm) | 3.20±0.20 | 1.60±0.20 | 1.25 | 0.50±0.20 |
| | 英制 (inch) | 0.126±0.008 | 0.063±0.008 | 0.050 | 0.020±0.008 |

• 电性能参数 ELECTRICAL CHARACTERISTICS

0201 Series

| 规格型号 TYPE | R ₂₅ (KΩ) | B _(25/50°C) (K) |
|-------------------|----------------------|----------------------------|
| CMFE102□3500 HANT | 1.0 | 3500 |
| CMFE152□3500 HANT | 1.5 | 3200 |
| CMFE222□3500 HANT | 2.2 | 3500 |
| CMFE332□3500 HANT | 3.3 | 3500 |
| CMFE472□3500 HANT | 4.7 | 3500 |
| CMFE682□3380 HANT | 6.8 | 3500 |
| CMFE103□3380 HANT | 10 | 3380 |
| CMFE103□3900 HANT | 10 | 3900 |
| CMFE153□3380 HANT | 15 | 3380 |
| CMFE223□3380 HANT | 22 | 3380 |
| CMFE333□4250 HANT | 33 | 4250 |
| CMFE473□4250 HANT | 47 | 4250 |
| CMFE683□4250 HANT | 68 | 4250 |
| CMFE104□4250 HANT | 100 | 4250 |
| CMFE154□4250 HANT | 150 | 4250 |
| CMFE224□4250 HANT | 220 | 4250 |

片式负温度系数热敏电阻器
CHIP NTC THERMISTOR

0402 Series

| 规格型号 TYPE | R_{25} (K Ω) | $B_{(25/50^{\circ}\text{C})}$ (K) |
|-------------------|------------------------|-----------------------------------|
| CMFD152□3200 HANT | 1.5 | 3200 |
| CMFD332□3300 HANT | 3.3 | 3300 |
| CMFD472□3400 HANT | 4.7 | 3400 |
| CMFD103□3380 HANT | 10 | 3380 |
| CMFD103□3900 HANT | 10 | 3900 |
| CMFD223□3600 HANT | 22 | 3900 |
| CMFD333□3950 HANT | 33 | 3950 |
| CMFD473□3950 HANT | 47 | 3950 |
| CMFD683□4100 HANT | 68 | 4100 |
| CMFD104□3800 HANT | 100 | 3800 |
| CMFD104□4050 HANT | 100 | 4050 |
| CMFD154□4100 HANT | 150 | 4100 |
| CMFD204□3950 HANT | 200 | 3950 |
| CMFD224□3950 HANT | 220 | 3950 |
| CMFD334□4050 HANT | 330 | 4050 |
| CMFD474□4050 HANT | 470 | 4050 |
| CMFD684□4150 HANT | 680 | 4150 |

0603 Series

| 规格型号 TYPE | R_{25} (K Ω) | $B_{(25/50^{\circ}\text{C})}$ (K) |
|-------------------|------------------------|-----------------------------------|
| CMFA102□3200 HANT | 1.0 | 3200 |
| CMFA202□3400 HANT | 2.0 | 3400 |
| CMFA222□3450 HANT | 2.2 | 3450 |
| CMFA332□3380 HANT | 3.3 | 3300 |
| CMFA472□3380 HANT | 4.7 | 3380 |
| CMFA472□3450 HANT | 4.7 | 3450 |
| CMFA472□3500 HANT | 4.7 | 3500 |
| CMFA472□3900 HANT | 4.7 | 3900 |
| CMFA502□3380 HANT | 5.0 | 3950 |
| CMFA502□3450 HANT | 5.0 | 3950 |
| CMFA502□3500 HANT | 5.0 | 3950 |
| CMFA502□3900 HANT | 5.0 | 3950 |
| CMFA103□3380 HANT | 10 | 3380 |
| CMFA103□3500 HANT | 10 | 3500 |
| CMFA103□3600 HANT | 10 | 3600 |
| CMFA153□3600 HANT | 15 | 3600 |
| CMFA223□3300 HANT | 22 | 3300 |
| CMFA303□3950 HANT | 30 | 3950 |
| CMFA333□3950 HANT | 33 | 3950 |
| CMFA473□3950 HANT | 47 | 3950 |
| CMFA503□3950 HANT | 50 | 3950 |
| CMFA683□4050 HANT | 68 | 4050 |
| CMFA104□3950 HANT | 100 | 3950 |

0603 Series

| 规格型号 TYPE | R_{25} (K Ω) | $B_{(25/50^{\circ}\text{C})}$ (K) |
|-------------------|------------------------|-----------------------------------|
| CMFA154□4050 HANT | 150 | 4050 |
| CMFA204□4050 HANT | 200 | 4050 |
| CMFA224□4050 HANT | 220 | 4050 |
| CMFA334□4050 HANT | 330 | 4050 |
| CMFA474□4150 HANT | 470 | 4150 |
| CMFA564□4200 HANT | 560 | 4200 |
| CMFA684□4150 HANT | 680 | 4150 |

0805 Series

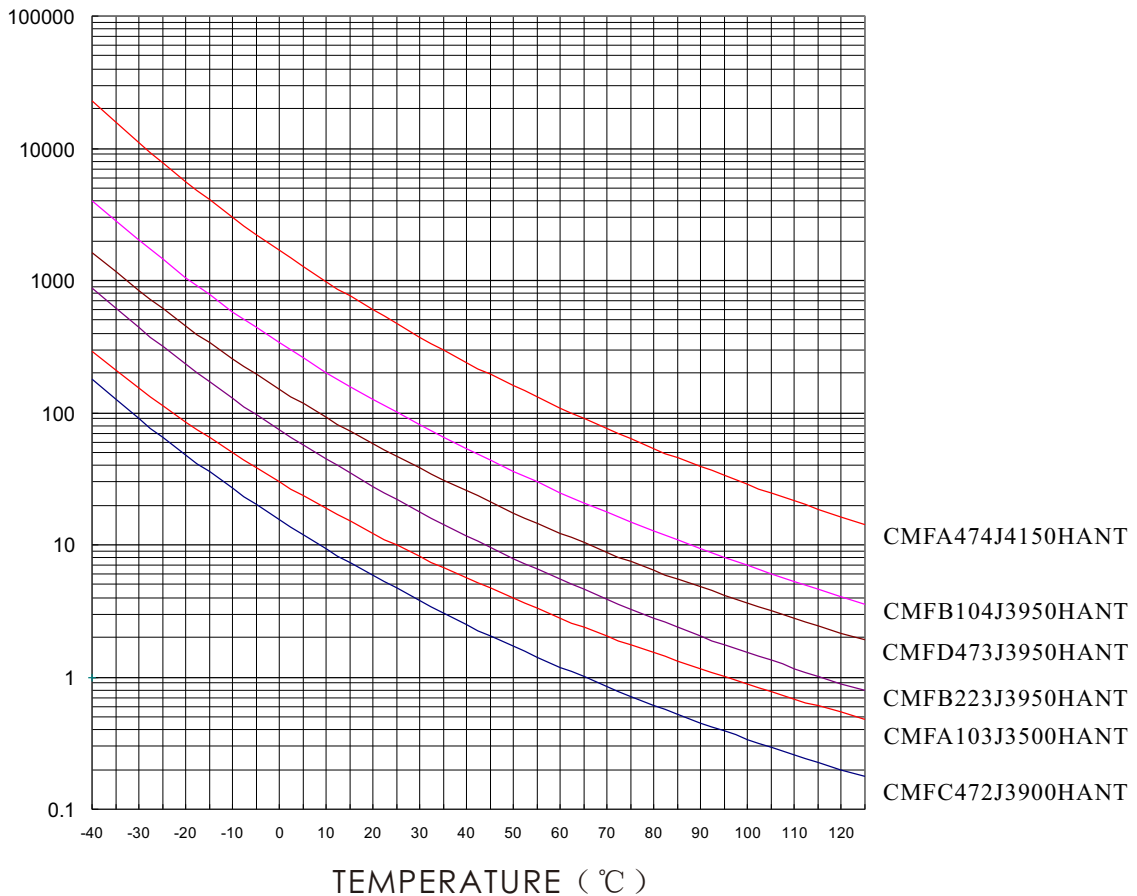
| 规格型号 TYPE | R_{25} (K Ω) | $B_{(25/50^{\circ}\text{C})}$ (K) |
|-------------------|------------------------|-----------------------------------|
| CMFB102□3200 HANT | 1.0 | 3200 |
| CMFB202□3400 HANT | 2.0 | 3400 |
| CMFB222□3450 HANT | 2.2 | 3450 |
| CMFB332□3400 HANT | 3.3 | 3400 |
| CMFB472□3380 HANT | 4.7 | 3380 |
| CMFB472□3500 HANT | 4.7 | 3500 |
| CMFB472□3900 HANT | 4.7 | 3900 |
| CMFB502□3380 HANT | 5.0 | 3380 |
| CMFB502□3500 HANT | 5.0 | 3500 |
| CMFB502□3900 HANT | 5.0 | 3900 |
| CMFB682□3950 HANT | 6.8 | 3950 |
| CMFB103□3380 HANT | 10 | 3380 |
| CMFB103□3500 HANT | 10 | 3500 |
| CMFB103□3600 HANT | 10 | 3600 |
| CMFB103□3950 HANT | 10 | 3950 |
| CMFB203□3950 HANT | 20 | 3950 |
| CMFB223□3950 HANT | 22 | 3950 |
| CMFB303□3950 HANT | 30 | 3950 |
| CMFB333□3950 HANT | 33 | 3950 |
| CMFB473□4050 HANT | 47 | 4050 |
| CMFB503□4050 HANT | 50 | 4050 |
| CMFB683□3800 HANT | 68 | 3800 |
| CMFB104□3950 HANT | 100 | 3950 |
| CMFB154□4050 HANT | 150 | 4050 |
| CMFB204□4050 HANT | 200 | 4050 |
| CMFB224□4050 HANT | 220 | 4050 |
| CMFB334□4200 HANT | 330 | 4200 |
| CMFB474□4150 HANT | 470 | 4150 |
| CMFB564□4200 HANT | 560 | 4200 |
| CMFB684□4200 HANT | 680 | 4200 |

片式负温度系数热敏电阻器
CHIP NTC THERMISTOR

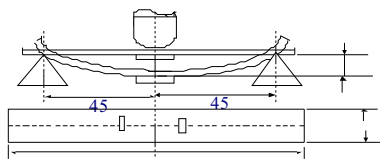
1206 Series

| 规格型号 TYPE | R_{25} (K Ω) | $B_{(25/50^{\circ}\text{C})}$ (K) |
|-------------------|------------------------|-----------------------------------|
| CMFC472□3900 HANT | 4.7 | 3900 |
| CMFC502□3900 HANT | 5.0 | 3900 |
| CMFC682□3900 HANT | 6.8 | 3900 |
| CMFC103□3380 HANT | 10 | 3380 |
| CMFC103□3600 HANT | 10 | 3600 |
| CMFC103□3950 HANT | 10 | 3950 |
| CMFC333□3950 HANT | 33 | 3950 |
| CMFC473□4050 HANT | 47 | 4050 |
| CMFC503□3950 HANT | 50 | 3950 |
| CMFC683□3800 HANT | 68 | 3800 |
| CMFC104□3950 HANT | 100 | 3950 |
| CMFC224□4050 HANT | 220 | 4050 |
| CMFC334□4050 HANT | 330 | 4050 |
| CMFC474□4150 HANT | 470 | 4150 |
| CMFC474□4200 HANT | 470 | 4200 |

• 阻值温度特性曲线 Resistance temperature Characteristic Curve



• 可靠性测试 Reliability Testing

| 项目 Item | 标准 Specified value | 测试方法 Test methods | | | | | | | | | | | | | | | | | | |
|---------------------------------|--|---|------------|------------------------|-----------------------|----------------|---------|---------|-----------|---------|------|------|---|------|------|---|------|------|----|------|
| 可焊性 Solderability | 至少95%端电极表面被焊锡覆盖。 At least 95% of terminal electrode should be covered with solder. | 浸入松香助焊剂约 Immersion into the colophony flux for:2sec. 焊锡温度 Solder temperature:245±5℃ 焊锡时间 Duration:5±1s | | | | | | | | | | | | | | | | | | |
| 耐焊接热 Resistance to Soldering | R ₂₅ 变化率小于 ±5% Resistance value change within ±5% | 预热温度 Preheating temperature:120~150℃ 预热时间 Preheating time:60s 浸锡温度 Solder temperature:260±5℃ 浸锡时间 Duration:10±1s | | | | | | | | | | | | | | | | | | |
| 耐低温 Low temperature | 无机械损伤 No mechanical damage. R ₂₅ 变化率小于 ±5% Resistance value change:within ±5% B值 (B _{25/50}) 变化率小于 ±2% B value change within ±2% | 测试温度 Temperature:-40±2℃ 测试时间 Testing time:1000 ⁺²⁴ ₀ h | | | | | | | | | | | | | | | | | | |
| 耐高温 High temperature | | 测试温度 Temperature:125±2℃ 测试时间 Testing time:1000 ⁺²⁴ ₀ h | | | | | | | | | | | | | | | | | | |
| 恒定湿热 Static Humidity | | 湿度 Humidity:90 to 95%RH 温度 Temperature:60±2℃ 测试时间 Testing time:1000 ⁺²⁴ ₀ h | | | | | | | | | | | | | | | | | | |
| 温度循环 Temperature cycling | | 第1步-40℃ step1:30±3min 第2步室温 step 2 Ordinary temperature:5±2min 第3步step 3:+125℃,30min±30min 第4步室温 step4 Ordinary temperature:5±2min 1步到4步共循环32次 Total of 5 cycles | | | | | | | | | | | | | | | | | | |
| 振动 Vibration | | 振动频率 Vibration Frequency:(10-55-10) Hz 振幅 Amplitude modulation:1.52mm 各方向各振2小时: XYZ direction for 2hrs each | | | | | | | | | | | | | | | | | | |
| 端电极强度 Terminal strength | 无机械损伤 No mechanical damage. | <table border="1"> <thead> <tr> <th>尺寸 Size</th> <th>推力 (N) Thrust force</th> <th>时间(s) Thrust force</th> </tr> </thead> <tbody> <tr> <td>0201</td> <td>2</td> <td>10±1</td> </tr> <tr> <td>0402</td> <td>4</td> <td>10±1</td> </tr> <tr> <td>0603</td> <td>5</td> <td>10±1</td> </tr> <tr> <td>0805</td> <td>6</td> <td>10±1</td> </tr> <tr> <td>1206</td> <td>10</td> <td>10±1</td> </tr> </tbody> </table> | 尺寸 Size | 推力 (N) Thrust force | 时间(s) Thrust force | 0201 | 2 | 10±1 | 0402 | 4 | 10±1 | 0603 | 5 | 10±1 | 0805 | 6 | 10±1 | 1206 | 10 | 10±1 |
| 尺寸 Size | 推力 (N) Thrust force | 时间(s) Thrust force | | | | | | | | | | | | | | | | | | |
| 0201 | 2 | 10±1 | | | | | | | | | | | | | | | | | | |
| 0402 | 4 | 10±1 | | | | | | | | | | | | | | | | | | |
| 0603 | 5 | 10±1 | | | | | | | | | | | | | | | | | | |
| 0805 | 6 | 10±1 | | | | | | | | | | | | | | | | | | |
| 1206 | 10 | 10±1 | | | | | | | | | | | | | | | | | | |
| 抗弯强度 Flexure strength | 无机械损伤 No mechanical damage R ₂₅ 变化率小于 ±5%。 Resistance value change:within ±5% |  <table border="1"> <thead> <tr> <th>尺寸 Size</th> <th>弯曲 (h) Curve</th> <th>施加速度 Speed</th> </tr> </thead> <tbody> <tr> <td>0201/0402/0603</td> <td>0.7(mm)</td> <td rowspan="2">0.5mm/s</td> </tr> <tr> <td>0805/1206</td> <td>1.0(mm)</td> </tr> </tbody> </table> | 尺寸 Size | 弯曲 (h) Curve | 施加速度 Speed | 0201/0402/0603 | 0.7(mm) | 0.5mm/s | 0805/1206 | 1.0(mm) | | | | | | | | | | |
| 尺寸 Size | 弯曲 (h) Curve | 施加速度 Speed | | | | | | | | | | | | | | | | | | |
| 0201/0402/0603 | 0.7(mm) | 0.5mm/s | | | | | | | | | | | | | | | | | | |
| 0805/1206 | 1.0(mm) | | | | | | | | | | | | | | | | | | | |

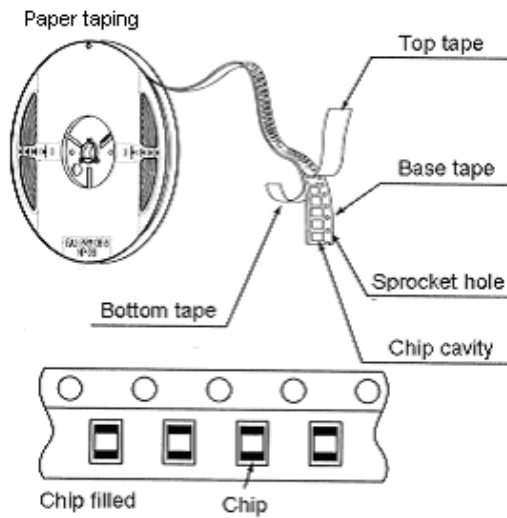
片式负温度系数热敏电阻器
CHIP NTC THERMISTOR

• 包装 Packaging

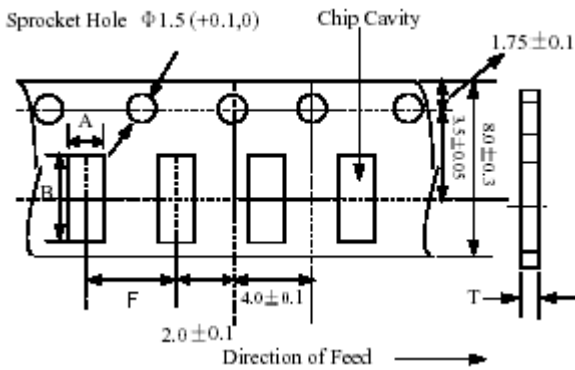
• 标准包装数量 Standard Quantity

| | | | | | |
|---------------|-------|-------|------|------|-----------|
| Type | 0201 | 0402 | 0603 | 0805 | 1206 |
| Quantity(pcs) | 15000 | 10000 | 4000 | 4000 | 4000/3000 |

• 包装图 Packaging Drawings



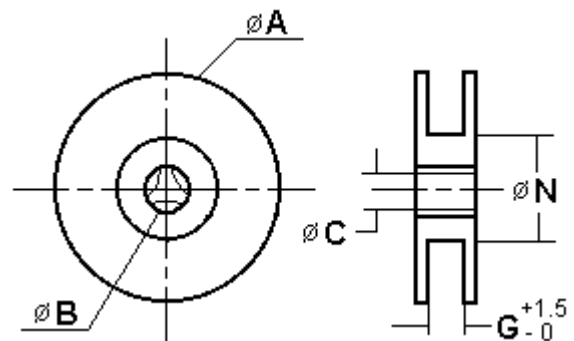
• 包装尺寸 Packaging Dimmensions(unit:mm)



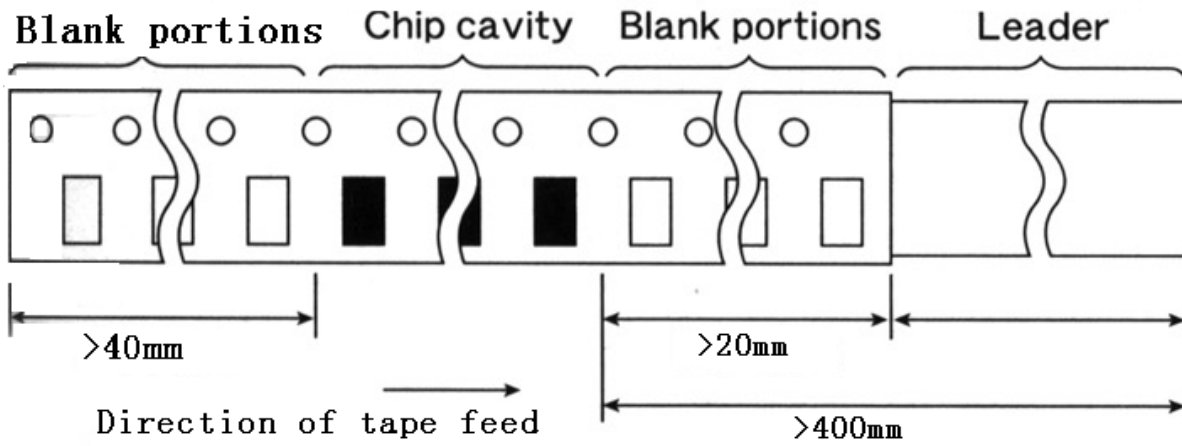
| Part NO. | A | B | F | T |
|----------|----------|----------|----------|--------|
| 0201 | 0.38±0.1 | 0.68±0.1 | 2.0±0.05 | 0.5max |
| 0402 | 0.65±0.1 | 1.15±0.1 | 2.0±0.05 | 0.8max |
| 0603 | 1.0±0.2 | 1.8±0.2 | 4.0±0.2 | 1.1max |
| 0805 | 1.5±0.2 | 2.3±0.2 | 4.0±0.2 | 1.1max |
| 1206 | 1.9±0.2 | 3.5±0.2 | 4.0±0.2 | 1.1max |

• 卷盘尺寸 ReelDimmensions(unit:mm)

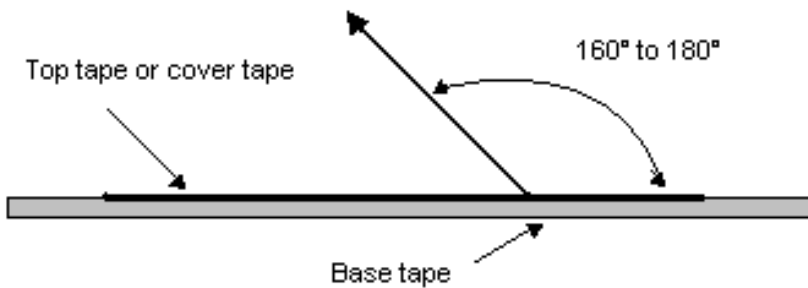
| | A | B | C | N | G |
|-------|---------|--------|----------|--------|----|
| CF-8 | 178±2.0 | 22±2.0 | 12.5±1.5 | 57±2.0 | 8 |
| CF-12 | 330±2.0 | 22±2.0 | 12.5±1.5 | 98±2.0 | 12 |



- 导带和空白部分 Leader and blank portion



- 剥落力量 Peeling off force: 0.05 to 0.7N in the direction show below.



单击下面可查看定价，库存，交付和生命周期等信息

[>>FH\(风华高科\)](#)