

Surface Mount Common Mode Choke

NCC Series

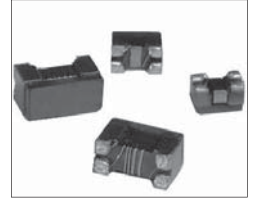
FEATURES

- HIGH COMMON MODE IMPEDANCE AT HIGH FREQUENCY
- LOW PROFILE SURFACE MOUNT PACKAGE
- SHIELDED PROVIDING EXCELLENT NOISE SUPPRESSION
- SUITABLE FOR HIGH SPEED DIGITAL EQUIPMENT (USB/IEEE)
- Pb-FREE CONSTRUCTION
- BOTH FLOW AND REFLOW SOLDERING APPLICABLE

**RoHS
Compliant**

includes all homogeneous materials

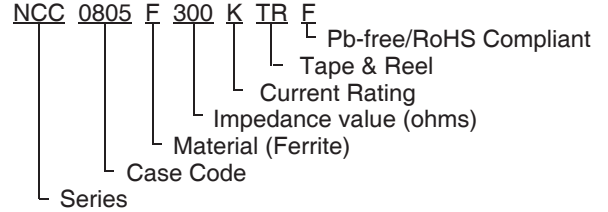
*See Part Number System for Details



CHARACTERISTICS

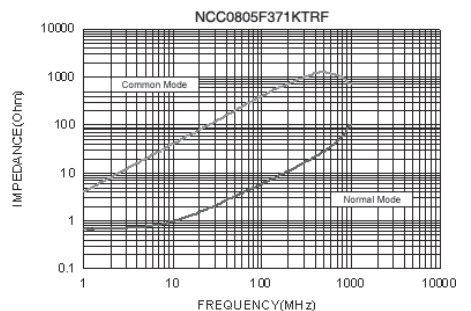
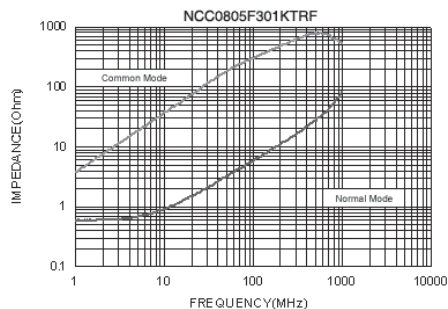
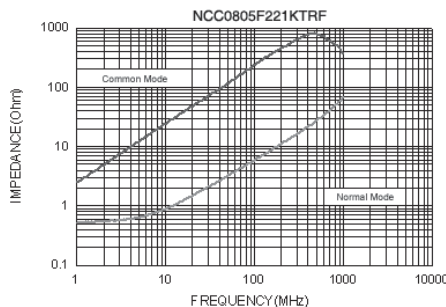
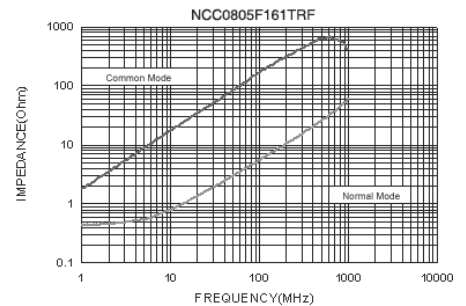
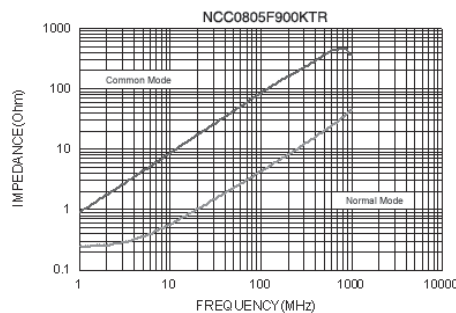
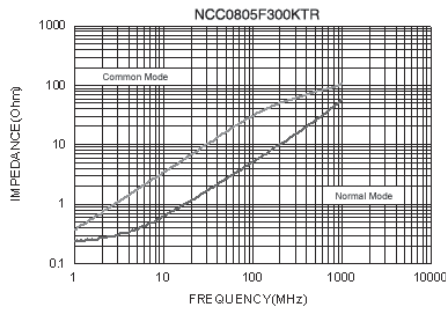
| | | |
|---------------------------|---|-----------------|
| Case Size | 0805 | 1206 |
| Impedance Range | 30~ 370 Ohms | 30 ~ 2,200 Ohms |
| Available Tolerance | ±25% | |
| Temperature Range | -40°C ~ +125°C | |
| Withstanding voltage | 125VDC 30 seconds | |
| Insulation Resistance | 10MΩ after application 50V for 30 seconds | |
| Resistance to Solder Heat | 260°C ±5°C for 10 seconds | |
| Temperature Cycling | ±25% of initial value after 10 cycles (-40°C/+20°C/+125°C/+20°C) | |

PART NUMBER SYSTEM



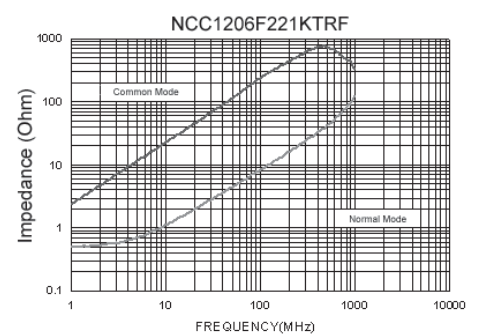
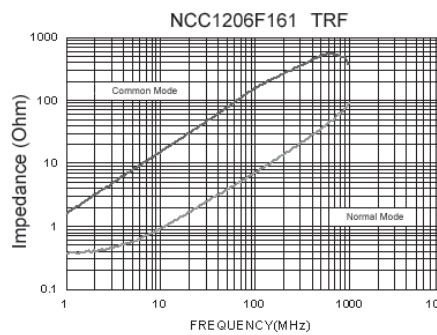
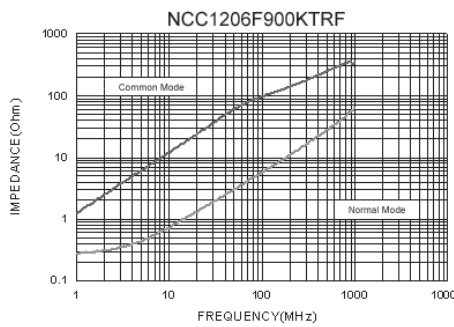
NCC0805 SPECIFICATIONS

| NIC Part Number | Impedance (Ω) | Test Frequency (MHz) | DC Resistance (Ω max.) | DC Current (mA max.) | Voltage Rating (Vdc) | Withstanding Voltage (Vdc) | Insulation Resistance (Ω) |
|-----------------|---------------|----------------------|------------------------|----------------------|----------------------|----------------------------|---------------------------|
| NCC0805F300KTRF | 30 ±25% | 100 | 0.2 | 400 | 50 | 125 | 10Meg |
| NCC0805F670KTRF | 67 ±25% | | 0.25 | 400 | | | |
| NCC0805F900KTRF | 90 ±25% | | 0.3 | 400 | | | |
| NCC0805F121KTRF | 120 ±25% | | 0.3 | 400 | | | |
| NCC0805F161JTRF | 160 ±25% | | 0.35 | 350 | | | |
| NCC0805F181JTRF | 180 ±25% | | 0.35 | 350 | | | |
| NCC0805F221HTRF | 220 ±25% | | 0.4 | 300 | | | |
| NCC0805F221MTRF | 220 ±25% | | 0.4 | 600 | | | |
| NCC0805F261HTRF | 260 ±25% | | 0.4 | 300 | | | |
| NCC0805F301HTRF | 300 ±25% | | 0.45 | 300 | | | |
| NCC0805F361FTRF | 360 ±25% | | 0.5 | 100 | | | |
| NCC0805F371FTRF | 370 ±25% | | 0.5 | 100 | | | |



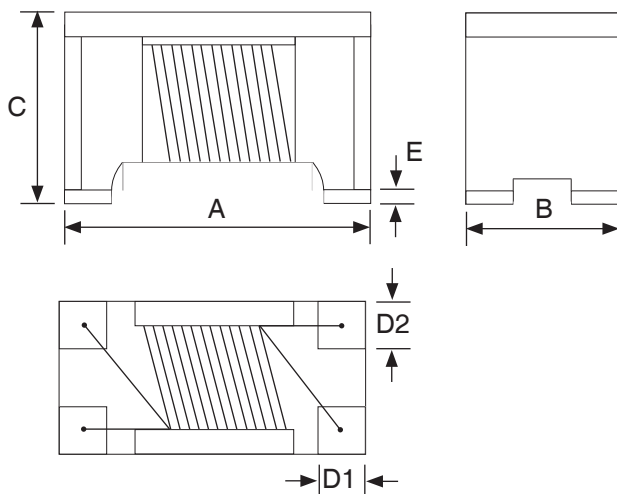
NCC1206 SPECIFICATIONS

| NIC Part Number | Impedance (Ω) | Test Frequency (MHz) | DC Resistance (Ω max.) | DC Current (mA max.) | Voltage Rating (Vdc) | Withstanding Voltage (Vdc) | Insulation Resistance (Ω) |
|-----------------|------------------------|----------------------|--------------------------------|----------------------|----------------------|----------------------------|------------------------------------|
| NCC1206F300KTRF | 30 \pm 25% | 100 | 0.2 | 400 | 50 | 125 | 10Meg |
| NCC1206F670KTRF | 67 \pm 25% | | 0.3 | 400 | | | |
| NCC1206F800KTRF | 80 \pm 25% | | 0.3 | 400 | | | |
| NCC1206F900KTRF | 90 \pm 25% | | 0.3 | 400 | | | |
| NCC1206F121KTRF | 120 \pm 25% | | 0.3 | 400 | | | |
| NCC1206F161JTRF | 160 \pm 25% | | 0.35 | 350 | | | |
| NCC1206F181JTRF | 180 \pm 25% | | 0.35 | 350 | | | |
| NCC1206F221HTRF | 220 \pm 25% | | 0.45 | 300 | | | |
| NCC1206F261HTRF | 260 \pm 25% | | 0.45 | 300 | | | |
| NCC1206F281HTRF | 280 \pm 25% | | 0.45 | 300 | | | |
| NCC1206F301HTRF | 300 \pm 25% | | 0.5 | 300 | | | |
| NCC1206F361HTRF | 360 \pm 25% | | 0.6 | 300 | | | |
| NCC1206F431HTRF | 430 \pm 25% | | 0.6 | 300 | | | |
| NCC1206F471HTRF | 470 \pm 25% | | 0.7 | 300 | | | |
| NCC1206F551HTRF | 550 \pm 25% | | 0.75 | 300 | | | |
| NCC1206F601HTRF | 600 \pm 25% | | 0.8 | 300 | | | |
| NCC1206F222GTRF | 2200 \pm 25% | | 1.2 | 200 | | | |

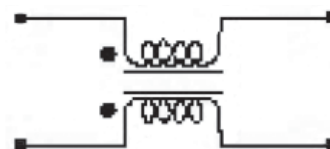


CASE DIMENSIONS (mm)

| Type | A \pm 0.2 | B \pm 0.2 | C \pm 0.2 | D1 \pm 0.1 | D2 \pm 0.1 | E \pm 0.1 |
|---------|-------------|-------------|-------------|--------------|--------------|-------------|
| NCC0805 | 2.0 | 1.2 | 1.2 | 0.55 | 0.46 | 0.15 |
| NCC1206 | 3.2 | 1.6 | 2.0 | 0.50 | 0.50 | 0.15 |

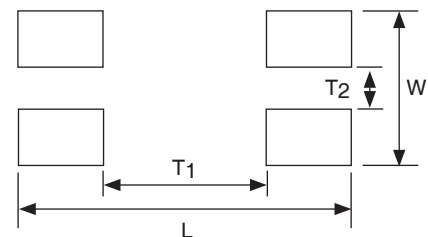


CIRCUIT SCHEMATIC

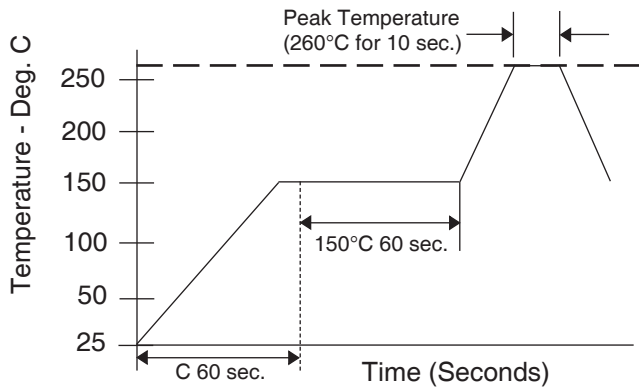


LAND PATTERN DIMENSIONS (mm)

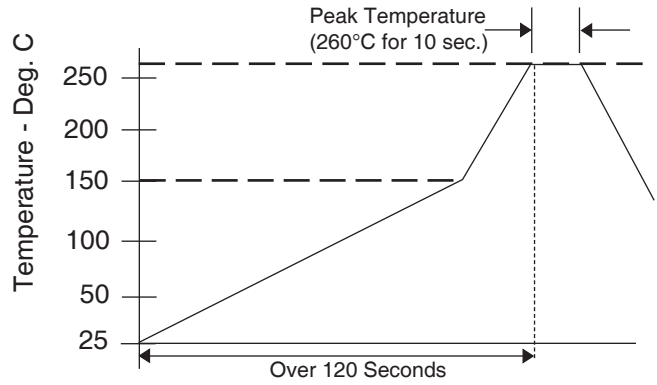
| Case Size | L | W | T1 | T2 |
|-----------|------|------|------|------|
| 0805 | 2.60 | 1.25 | 1.10 | 0.45 |
| 1206 | 3.70 | 1.60 | 1.90 | 0.40 |



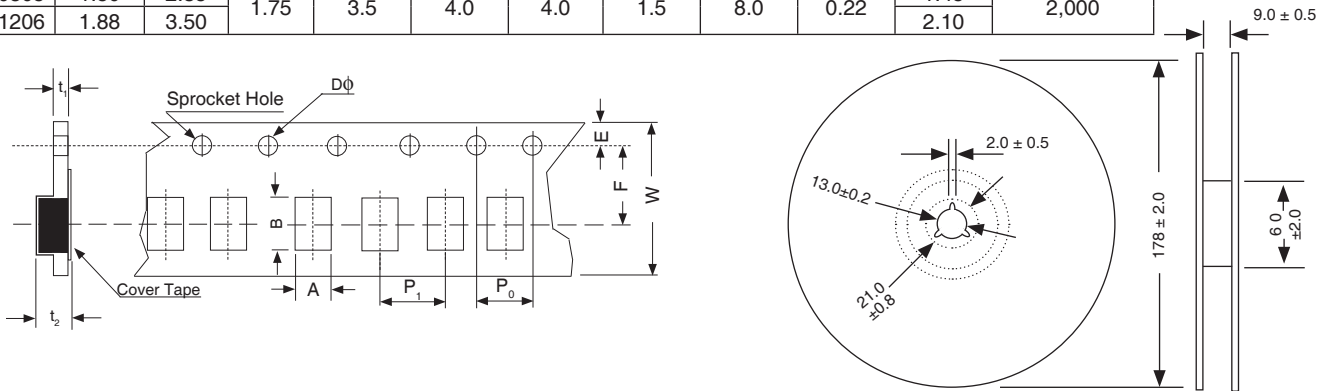
RECOMMENDED REFLOW SOLDERING PROFILE



RECOMMENDED FLOW SOLDERING PROFILE



| Series | A ± 0.1 | B ± 0.1 | E ± 0.1 | F ± 0.05 | P ₀ ± 0.1 | P ₁ ± 0.1 | D ₁ ± 0.1 | W ± 0.1 | t ₁ ± 0.05 | t ₂ ± 0.1 | Reel Quantity |
|---------|---------|---------|---------|----------|----------------------|----------------------|----------------------|---------|-----------------------|----------------------|---------------|
| NCC0805 | 1.50 | 2.35 | 1.75 | 3.5 | 4.0 | 4.0 | 1.5 | 8.0 | 0.22 | 1.45 | 2,000 |
| NCC1206 | 1.88 | 3.50 | | | | | | | | 2.10 | |



REEL QUANTITY: 2,000 per reel
(0805 & 1206 case size)