

### FEATURES

- STANDARD EIA 0603 ~ 1812 CASE SIZES
- EFFECTIVE EM/RFI SUPPRESSION UP TO 1 Ghz
- CURRENT RATINGS UP TO 6 AMPS
- HIGH IMPEDANCE OVER A WIDE FREQUENCY RANGE
- COMPATIBLE WITH AUTOMATIC PICK AND PLACE EQUIPMENT
- BOTH FLOW AND REFLOW SOLDERING APPLICABLE

**RoHS  
Compliant**  
includes all homogeneous materials

\*See Part Number System for Details



### OPERATING TEMPERATURE RANGE: -40°C TO +125°C\*

| EIA Size            | NIC P/N             | Impedance at 100MHz $\Omega(\pm 25\% \text{ Tol.})$ | DC Resistance Max. ( $\Omega$ ) | DC Current Max. (mA) | Style Code | A (mm)   | B (mm)    | C (mm)    | D (mm)    |
|---------------------|---------------------|---|---------------------------------|----------------------|------------|----------|-----------|-----------|-----------|
| 0402                | NCB-H0402P100TR200F | 10  | 0.10                            | 2000                 | 1          | 1.0 ±0.1 | 0.5 ±0.1  | 0.5 ±0.1  | 0.25 ±0.1 |
|                     | NCB-H0402P300TR200F | 30  | 0.10                            | 2000                 |            |          |           |           |           |
|                     | NCB-H0402P600TR200F | 60  | 0.10                            | 2000                 |            |          |           |           |           |
|                     | NCB-H0402P800TR200F | 80  | 0.10                            | 2000                 |            |          |           |           |           |
|                     | NCB-H0402P900TR200F | 90  | 0.10                            | 2000                 |            |          |           |           |           |
|                     | NCB-H0402P101TR200F | 100   | 0.10                            | 2000                 |            |          |           |           |           |
|                     | NCB-H0402P121TR200F | 120   | 0.10                            | 2000                 |            |          |           |           |           |
|                     | NCB-H0402P221TR150F | 220   | 0.15                            | 1500                 |            |          |           |           |           |
| NCB-H0402P301TR150F | 300                 | 0.15  | 1500                            |                      |            |          |           |           |           |
| 0603                | NCB-H0603R100TR400F | 10  | 0.020                           | 4000                 | 1          | 1.6 ±0.2 | 0.8 ±0.15 | 0.8 ±0.15 | 0.4 ± 0.2 |
|                     | NCB-H0603R270TR400F | 27  | 0.030                           | 4000                 |            |          |           |           |           |
|                     | NCB-H0603R300TR300F | 30  | 0.035                           | 3000                 |            |          |           |           |           |
|                     | NCB-H0603R500TR250F | 50  | 0.040                           | 2500                 |            |          |           |           |           |
|                     | NCB-H0603R680TR100F | 68  | 0.100                           | 1000                 |            |          |           |           |           |
|                     | NCB-H0603R800TR300F | 80  | 0.04                            | 3000                 |            |          |           |           |           |
|                     | NCB-H0603R101TR200F | 100   | 0.100                           | 2000                 |            |          |           |           |           |
|                     | NCB-H0603R121TR200F | 120   | 0.100                           | 2000                 |            |          |           |           |           |
|                     | NCB-H0603R151TR200F | 150   | 0.100                           | 2000                 |            |          |           |           |           |
|                     | NCB-H0603R221TR200F | 220   | 0.100                           | 2000                 |            |          |           |           |           |
|                     | NCB-H0603R301TR100F | 300   | 0.200                           | 1000                 |            |          |           |           |           |
|                     | NCB-H0603R471TR100F | 470   | 0.200                           | 1000                 |            |          |           |           |           |
| NCB-H0603R601TR100F | 600                 | 0.200   | 1000                            |                      |            |          |           |           |           |
| 0805                | NCB-H0805A300TR500F | 30  | 0.010                           | 5000                 | 1          | 2.0 ±0.2 | 1.25 ±0.2 | 0.9 ±0.2  | 0.5 ±0.3  |
|                     | NCB-H0805A390TR400F | 39  | 0.030                           | 4000                 |            |          |           |           |           |
|                     | NCB-H0805A420TR400F | 42  | 0.030                           | 4000                 |            |          |           |           |           |
|                     | NCB-H0805A600TR300F | 60  | 0.025                           | 3000                 |            |          |           |           |           |
|                     | NCB-H0805A800TR300F | 80  | 0.040                           | 3000                 |            |          |           |           |           |
|                     | NCB-H0805A101TR400F | 100   | 0.020                           | 4000                 |            |          |           |           |           |
|                     | NCB-H0805A121TR200F | 120   | 0.100                           | 2000                 |            |          |           |           |           |
|                     | NCB-H0805A151TR200F | 150   | 0.100                           | 2000                 |            |          |           |           |           |
|                     | NCB-H0805A221TR300F | 220   | 0.040                           | 3000                 |            |          |           |           |           |
|                     | NCB-H0805A301TR100F | 300   | 0.200                           | 1000                 |            |          |           |           |           |
|                     | NCB-H0805A331TR250F | 330   | 0.050                           | 2500                 |            |          |           |           |           |
|                     | NCB-H0805A471TR200F | 470   | 0.080                           | 2000                 |            |          |           |           |           |
|                     | NCB-H0805A601TR150F | 600   | 0.100                           | 1500                 |            |          |           |           |           |
| 1206                | NCB-H1206B300TR300F | 30  | 0.040                           | 3000                 | 1          | 3.2 ±0.2 | 1.6 ±0.2  | 1.1 ±0.2  | 0.5 ±0.3  |
|                     | NCB-H1206B320TR600F | 32  | 0.020                           | 6000                 |            |          |           |           |           |
|                     | NCB-H1206B500TR400F | 50  | 0.020                           | 4000                 |            |          |           |           |           |
|                     | NCB-H1206B680TR300F | 68  | 0.012                           | 3000                 |            |          |           |           |           |
|                     | NCB-H1206B800TR300F | 80  | 0.040                           | 3000                 |            |          |           |           |           |
|                     | NCB-H1206B101TR300F | 100   | 0.040                           | 3000                 |            |          |           |           |           |
|                     | NCB-H1206B121TR200F | 120   | 0.100                           | 2000                 |            |          |           |           |           |

Note: Other values and case sizes available.

\*STYLE 2 TYPES, TEMPERATURE RANGE -25°C ~ +85°C



For Impedance (Z) over Frequency curves  
see [www.RFpassives.com](http://www.RFpassives.com)

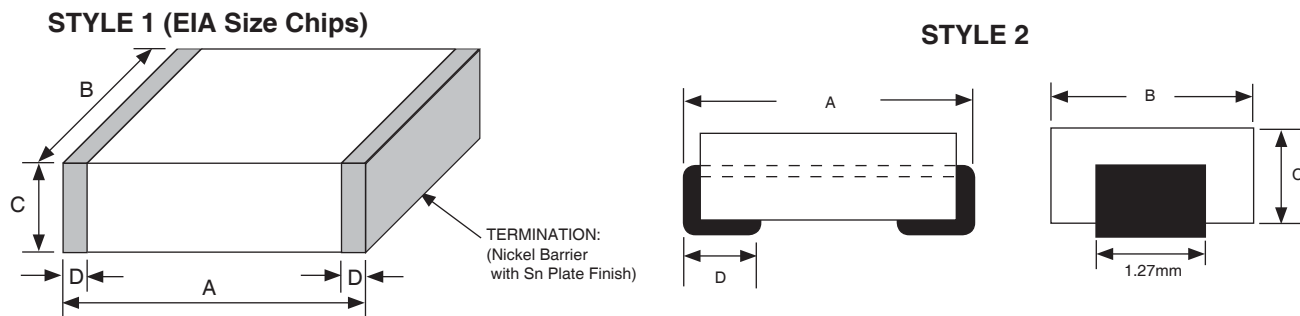
### OPERATING TEMPERATURE RANGE: -40°C TO +125°C\*

| EIA Size | NIC P/N             | Impedance at 100MHz $\Omega$ ( $\pm 25\%$ Tol.) | DC Resistance Max. ( $\Omega$ ) | DC Current Max. (mA) | Style Code | A (mm)         | B (mm)        | C (mm)        | D (mm)        |
|----------|---------------------|---|---------------------------------|----------------------|------------|----------------|---------------|---------------|---------------|
| 1206     | NCB-H1206B151TR200F | 150   | 0.100                           | 2000                 | 1          | 3.2 $\pm$ 0.2  | 1.6 $\pm$ 0.2 | 1.1 $\pm$ 0.2 | 0.5 $\pm$ 0.3 |
|          | NCB-H1206B301TR250F | 300   | 0.050                           | 2500                 |            |                |               |               |               |
|          | NCB-H1206B471TR100F | 470   | 0.200                           | 1000                 |            |                |               |               |               |
|          | NCB-H1206B501TR300F | 500   | 0.040                           | 3000                 |            |                |               |               |               |
|          | NCB-H1206B601TR200F | 600   | 0.100                           | 2000                 |            |                |               |               |               |
| 1806     | NCB-H1806E600TR600F | 60  | 0.010                           | 6000                 | 1          | 4.5 $\pm$ 0.25 | 1.6 $\pm$ 0.2 | 1.6 $\pm$ 0.2 | 0.5 $\pm$ 0.3 |
|          | NCB-H1806E800TR300F | 80  | 0.040                           | 3000                 |            |                |               |               |               |
|          | NCB-H1806E181TR300F | 180   | 0.040                           | 3000                 |            |                |               |               |               |
|          | NCB-H1806E102TR150F | 1000  | 0.15                            | 1500                 |            |                |               |               |               |
| 1812     | NCB-H1812D800TR600F | 80  | 0.010                           | 6000                 | 1          | 4.5 $\pm$ 0.25 | 3.2 $\pm$ 0.2 | 1.5 $\pm$ 0.2 | 0.5 $\pm$ 0.3 |
|          | NCB-H1812D125TR150F | 125   | 0.050                           | 1500                 |            |                |               |               |               |
|          | NCB-H1812D131TR300F | 130   | 0.040                           | 3000                 |            |                |               |               |               |
|          | NCB-H1812D151TR500F | 150   | 0.020                           | 5000                 |            |                |               |               |               |
|          | NCB-H1812D681TR400F | 680   | 0.030                           | 4000                 |            |                |               |               |               |
|          | NCB-H1812D132TR300F | 1300  | 0.060                           | 3000                 |            |                |               |               |               |
| 1612     | NCB1612K480TR500F   | 48  | 0.001                           | 5000                 | 2*         | 4.2 $\pm$ 0.4  | 3.1 $\pm$ 0.2 | 2.6 $\pm$ 0.2 | 1.3 $\pm$ 0.3 |
| 3312     | NCB3312K900TR500F   | 90  | 0.001                           | 5000                 |            | 8.6 $\pm$ 0.4  | 3.2 $\pm$ 0.3 | 2.6 $\pm$ 0.2 | 1.3 $\pm$ 0.3 |
| 3119     | NCB3119L950TR500F   | 95  | 0.001                           | 5000                 |            | 7.8 $\pm$ 0.4  | 4.7 $\pm$ 0.3 | 2.9 $\pm$ 0.2 | 1.3 $\pm$ 0.3 |

Note: Other values and case sizes available.

\*STYLE 2 TYPES, TEMPERATURE RANGE -25°C ~ +85°C

For Impedance (Z) over Frequency curves see [www.RFpassives.com](http://www.RFpassives.com)



### PART NUMBER SYSTEM

NCB-H 0805 A 121 TR 200 F

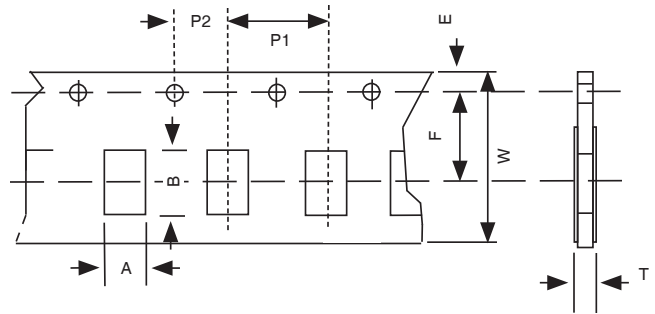
- NCB-H: Series
- 0805: Size
- A: Part Thickness Max; A=1.1mm, B=1.3mm, C=1.5mm, D=1.7mm, E=1.8mm, K=2.8mm, L=3.1mm, N=0.33, P=0.65mm, R=0.95mm
- 121: Impedance at 100Mhz 3 digit code; first two digits are significant third digit is no. of zeros
- TR: Packaging: TR = Tape and Reel
- 200: DC Current Rating (see standard values and case size table)
- F: RoHS Compliant



## TAPE DIMENSIONS (mm)

| Dimensions | NCB0201N    | NCB0402P    | NCB0603R    | NCB0805A    |
|------------|-------------|-------------|-------------|-------------|
| A          | 0.38 ± 0.03 | 0.62 ± 0.03 | 1.05 ± 0.03 | 1.50 ± 0.05 |
| B          | 0.68 ± 0.03 | 1.12 ± 0.03 | 1.85 ± 0.03 | 2.30 ± 0.05 |
| T          | 0.44 ± 0.03 | 0.60 ± 0.03 | 0.95 ± 0.05 | 0.95 ± 0.05 |
| W          | 8.0 ± 0.1   |             |             |             |
| E          | 1.75 ± 0.1  |             |             |             |
| F          | 3.5 ± 0.1   |             |             |             |
| P1         | 2.0 ± 0.1   |             | 4.0 ± 0.1   |             |
| P2         | 2.0 ± 0.1   |             |             |             |
| Chips/Reel | 10,000      | 10,000      | 4,000       | 4,000       |
| Fig.       | 1           | 1           | 1           | 1           |

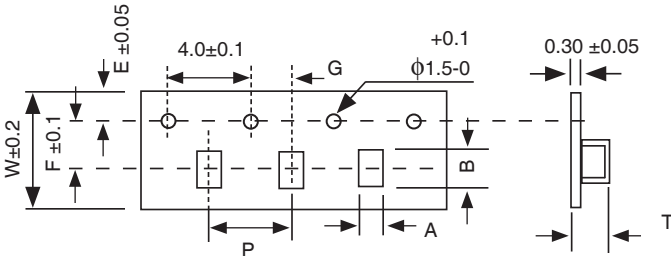
FIGURE 1 (PRESSED PAPER CARRIER)



## TAPE DIMENSIONS (mm)

| Dimensions | NCB1206B    | NCB1206E    | NCB1806E    | NCB1812D    | NCB1612K    | NCB3312K    | NCB3119L    |
|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| A          | 1.94 ± 0.1  | 1.94 ± 0.1  | 1.94 ± 0.1  | 3.64 ± 0.1  | 3.65 ± 0.1  | 3.45 ± 0.1  | 5.25 ± 0.1  |
| B          | 3.54 ± 0.1  | 3.64 ± 0.1  | 4.94 ± 0.1  | 4.94 ± 0.1  | 5.40 ± 0.1  | 9.30 ± 0.1  | 8.75 ± 0.1  |
| T          | 1.29 ± 0.05 | 1.90 ± 0.05 | 1.90 ± 0.05 | 1.80 ± 0.05 | 3.05 ± 0.05 | 3.05 ± 0.05 | 3.70 ± 0.05 |
| W          | 8.0         |             | 12.0        |             |             | 16.0        |             |
| E          | 1.75        |             |             | 2.0         |             |             |             |
| F          | 3.5         |             | 5.5         |             |             | 7.5         |             |
| G          | 2.0 ± 0.05  |             |             |             |             | 4.0 ± 0.05  |             |
| P          | 4.0 ± 0.1   |             |             | 8.0 ± 0.1   |             |             |             |
| Chips/Reel | 3,000       | 2,000       | 2,000       | 1,000       | 500         | 500         | 500         |
| Fig.       | 2           | 2           | 2           | 2           | 2           | 2           | 2           |

FIGURE 2 (EMBOSSED PLASTIC CARRIER)



## DIMENSIONS (mm)

| Size | A    | B    | C    |
|------|------|------|------|
| 0201 | 0.30 | 0.32 | 0.25 |
| 0402 | 0.80 | 0.55 | 0.50 |
| 0603 | 1.00 | 0.60 | 0.80 |
| 0805 | 1.00 | 1.20 | 1.20 |
| 1206 | 1.00 | 1.80 | 2.00 |
| 1806 | 1.05 | 1.80 | 3.30 |
| 1812 | 1.05 | 3.50 | 3.30 |
| 1612 | 1.70 | 2.00 | 2.20 |
| 3312 | 1.70 | 2.00 | 6.60 |
| 3119 | 1.70 | 2.00 | 5.80 |

## REEL DIMENSIONS

| Dim | Size: 0201, 0402, 0603, 0805, 1206 | Size: 1806, 1812, 1612 | Size: 3312, 3119 |
|-----|------------------------------------|------------------------|------------------|
| A   | 178 ± 2.0                          |                        |                  |
| B   | 60 ± 1.0                           |                        |                  |
| C   | 13.0 ± 0.5                         |                        |                  |
| D   | 21.0 ± 0.8                         |                        |                  |
| E   | 2.0 ± 0.5                          |                        |                  |
| W   | 10.0 ± 1.0                         | 14.0 ± 1.0             | 18.0 ± 1.0       |
| t   | 2.0 ± 0.5                          |                        |                  |
| R   | 1.0                                |                        |                  |

## RECOMMENDED LAND PATTERN (mm)

