

FEATURES

- RUGGED CONSTRUCTION IN STANDARD EIA SIZES
- EFFECTIVE EM/RFI SUPPRESSION UP TO 1 Ghz
- CURRENT RATINGS UP TO 5 AMPS (STYLE 2)
- HIGH IMPEDANCE OVER A WIDE FREQUENCY RANGE
- BOTH FLOW AND REFLOW SOLDERING APPLICABLE
- OPERATING TEMPERATURE RANGE: -40°C TO +125°C

**RoHS
Compliant**

includes all homogeneous materials

*See Part Number System for Details



STANDARD VALUES AND CASE SIZES (mm)

EIA Size	NIC Part Number	Impedance at 100MHz Ω ($\pm 25\%$ Tol.)	DC Resistance Max. (Ω)	DC Current Max. (mA)	Style Code	A (mm)	B (mm)	C (mm)	D (mm)
0402	NCB0402P300TR030F	30	0.2	300	1	1.0 ± 0.5	0.50 ± 0.15	0.5 ± 0.15	0.25 ± 0.15
	NCB0402P600TR030F	60	0.25	300					
	NCB0402P121TR010F	120	0.3	100					
	NCB0402P151TR010F	151	0.3	100					
	NCB0402P221TR010F	220	0.4	100					
	NCB0402P301TR005F	300	0.75	50					
	NCB0402P331TR010F	330	0.5	100					
	NCB0402P471TR010F	470	0.65	100					
0603	NCB0402P601TR008F	600	0.8	80	1	1.6 ± 0.2	0.8 ± 0.15	0.8 ± 0.15	0.4 ± 0.2
	NCB0603R100TR070F	10	0.2	700					
	NCB0603R300TR070F	30	0.2	700					
	NCB0603R600TR070F	60	0.2	700					
	NCB0603R800TR020F	80	0.3	200					
	NCB0603R121TR060F	120	0.25	600					
	NCB0603R141TR020F	140	0.3	200					
	NCB0603R151TR060F	150	0.25	600					
	NCB0603R221TR055F	220	0.3	550					
	NCB0603R301TR050F	300	0.35	500					
	NCB0603R451TR010F	450	0.7	100					
	NCB0603R471TR035F	470	0.45	350					
	NCB0603R601TR035F	600	0.5	350					
	NCB0603R751TR020F	750	0.7	200					
	NCB0603R801TR010F	800	0.9	100					
	NCB0603R102TR020F	1000	0.7	200					
0805	NCB0603R152TR030F	1500	1.0	300	1	2.0 ± 0.2	1.25 ± 0.2	0.9 ± 0.2	0.5 ± 0.3
	NCB0603R202TR015F	2000	1.2	150					
	NCB0805A070TR060F	7	0.1	600					
	NCB0805A110TR090F	11	0.1	900					
	NCB0805A170TR060F	17	0.1	600					
	NCB0805A260TR060F	26	0.1	600					
	NCB0805A300TR060F	30	0.1	600					
	NCB0805A320TR050F	32	0.3	500					
	NCB0805A400TR060F	40	0.1	600					
	NCB0805A600TR090F	60	0.1	900					
	NCB0805A800TR040F	80	0.4	400					
	NCB0805A900TR060F	90	0.1	600					
	NCB0805A121TR080F	120	0.2	800					
	NCB0805A151TR080F	150	0.2	800					
	NCB0805A221TR075F	220	0.3	750					
	NCB0805A301TR070F	300	0.3	700					
	NCB0805A401TR020F	400	0.9	200					
	NCB0805A471TR070F	470	0.35	700					
	NCB0805A601TR050F	600	0.4	500					
	NCB0805A801TR045F	800	0.4	450					
	NCB0805A102TR040F	1000	0.45	400					
	NCB0805A152TR035F	1500	0.5	350					
	NCB0805A202TR025F	2000	0.6	250					
	NCB0805A222TR010F	2200	0.75	100					
	NCB0805A232TR020F	2300	0.8	200					
	NCB0805A252TR020F	2500	1.0	200					
	NCB0805A272TR015F	2700	1.1	150					

STANDARD VALUES AND CASE SIZES (mm)

EIA Size	NIC P/N	Impedance at 100MHz Ω (±25% Tol.)	DC Resistance Max. (Ω)	DC Current Max. (mA)	Style Code	A (mm)	B (mm)	C (mm)	D (mm)	
1206	NCB1206B190TR050F	19	0.15	500	1	3.2 ± 0.2	1.6 ± 0.2	1.1 ± 0.2	0.5 ± 0.3	
	NCB1206B260TR050F	26	0.15	500						
	NCB1206B310TR050F	31	0.2	500						
	NCB1206B320TR050F	32	0.15	500						
	NCB1206B420TR050F	42	0.2	500						
	NCB1206B500TR050F	50	0.2	500						
	NCB1206B600TR040F	60	0.2	400						
	NCB1206B700TR050F	70	0.2	500						
	NCB1206B900TR050F	90	0.2	500						
	NCB1206B121TR090F	120	0.15	900						
	NCB1206B151TR090F	150	0.15	900						
	NCB1206B201TR020F	200	0.5	200						
	NCB1206B221TR070F	220	0.35	700						
	NCB1206B301TR070F	300	0.35	700						
	NCB1206B401TR020F	400	0.5	200						
	NCB1206B471TR040F	470	0.35	400						
	NCB1206B501TR020F	500	0.5	200						
	NCB1206B601TR040F	600	0.4	400						
	NCB1206B801TR030F	800	0.6	300						
	NCB1206B102TR030F	1000	0.6	300						
	NCB1206B122TR010F	1200	1	100						
	NCB1206B152TR030F	1500	0.7	300						
	NCB1206B202TR030F	2000	1.5	300						
	NCB1206E600TR020F	60	0.5	200				1.6 ± 0.2		
	NCB1206E700TR020F	70	0.5	200						
1210	NCB1210C310TR040F	31	0.3	400	1	3.2 ± 0.2	2.5 ± 0.2	1.3 ± 0.2	0.5 ± 0.3	
	NCB1210C320TR040F	32	0.3	400						
	NCB1210C520TR040F	52	0.3	400						
	NCB1210C600TR040F	60	0.3	400						
	NCB1210C800TR040F	80	0.3	400						
	NCB1210C900TR040F	90	0.3	400						
	NCB1210C202TR010F	2000	1.5	100						
1806	NCB1806E600TR040F	60	0.3	400	1	4.5 ± 0.25	1.6 ± 0.2	1.6 ± 0.2	0.5 ± 0.3	
	NCB1806E800TR040F	80	0.3	400						
	NCB1806E101TR050F	100	0.1	500						
	NCB1806E151TR020F	150	0.5	200						
1812	NCB1812D250TR030F	25	0.4	300	1	4.5 ± 0.25	3.2 ± 0.2	1.5 ± 0.2	0.5 ± 0.3	
	NCB1812D700TR030F	70	0.4	300						
	NCB1812D800TR030F	80	0.4	300						
	NCB1812D121TR050F	120	0.3	500						
	NCB1812D131TR030F	130	0.4	300						

For Impedance (**Z**) over Frequency curves
see www.RFpassives.com

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. (Ω)	DC Current Max. (mA)	Style Code	A (mm)	B (mm)	C (mm)	D (mm)
0603	NCB-H0603R100TR400F	10	0.020	4000	1	1.6 $\pm$ 0.2	0.8 $\pm$ 0.15	0.8 $\pm$ 0.15	0.4 $\pm$ 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					
0805	NCB-H0805A300TR500F	30	0.010	5000	1	2.0 $\pm$ 0.2	1/25 $\pm$ 0.2	0.9 $\pm$ 0.2	0.5 $\pm$ 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					
1206	NCB-H1206B300TR300F	30	0.040	3000	1	3.2 $\pm$ 0.2	1.6 $\pm$ 0.2	1.1 $\pm$ 0.2	0.5 $\pm$ 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-H1206B121TR200F	120	0.100	2000					
	NCB-H1206B151TR200F	150	0.100	2000					
	NCB-H1206B301TR250F	300	0.050	2500					
	NCB-H1206B471TR100F	470	0.200	1000					
	NCB-H1206B501TR300F	500	0.040	3000					
	NCB-H1206B601TR200F	600	0.100	2000					
1210	NCB-H1210C600TR400F	60	0.03	4000	1	3.2 $\pm$ 0.2	2.5 $\pm$ 0.2	1.3 $\pm$ 0.2	0.5 $\pm$ 0.3
	NCB-H1210C900TR200F	90	0.10	2000					
	NCB-H1210C151TR500F	150	0.02	5000					
	NCB-H1210C201TR400F	200	0.03	4000					

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



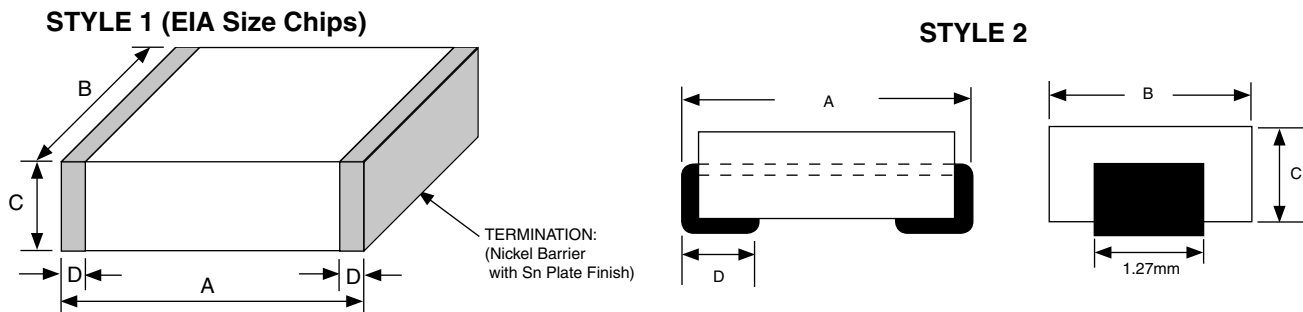
OPERATING TEMPERATURE RANGE: -40°C TO +125°C*

EIA Size	NIC P/N	Impedance at 100MHz Ω ($\pm 25\%$ Tol.)	DC Resistance Max. (Ω)	DC Current Max. (mA)	Style Code	A (mm)	B (mm)	C (mm)	D (mm)
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-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



PART NUMBER SYSTEM

NCB 0805 A 121 TR 020 F

- NCB: 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, 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
- 020: DC Current Rating (see standard values and case size table)
- F: Pb-free/RoHS Compliant

TAPE DIMENSIONS (mm)

Dimensions	NCB0603R	NCB0805A	NCB1206B	NCB1206E	NCB1210C	NCB1806E	NCB1812D	NCB1612K	NCB3312K	NCB3119L
A	1.14	1.54	1.94	1.94	2.80	1.94	3.64	3.65	3.45	5.25
B	1.75	2.32	3.54	3.64	3.42	4.94	4.94	5.40	9.30	8.75
T	1.15	1.15	1.29	1.90	1.64	1.90	1.80	3.05	3.05	3.70
W	8.0	8.0	8.0	8.0	8.0	12.0	12.0	12.0	16.0	16.0
E	3.5	3.5	3.5	3.5	3.5	5.5	5.5	5.5	7.5	8.0
F	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	2.0	2.0
G	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	4.0	4.0
Chips/Reel	4000	4000	3000	2000	2500	2000	1000	500	500	500
Fig.	1	1	1	1	1	1	2	2	2	2

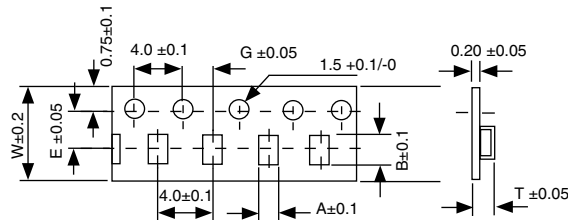


Fig. 1

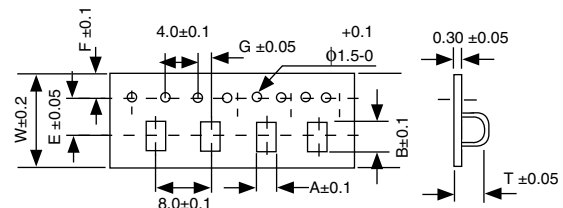


Fig. 2

DIMENSIONS (mm)

Size	A	B	C
0603	1.0	0.6	0.8
0805	1.0	1.2	1.2
1206	1.00	1.80	2.00
1210	1.00	2.70	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: 0603, 0805, 1206, 1210	Size: 1806, 1812, 1612	Size: 3312, 3319
A	178 ± 2	178 ± 2	178 ± 2
B	60 ± 1	60 ± 1	60 ± 1
C	13.0 ± 0.5	13.0 ± 0.5	13.0 ± 0.5
D	21.0 ± 0.8	21.0 ± 0.8	21.0 ± 0.8
E	2.0 ± 0.5	2.0 ± 0.5	2.0 ± 0.5
W	10.0 ± 1.0	14.0 ± 1.0	18.0 ± 1.0
t	2.0 ± 0.5	2.0 ± 0.5	2.0 ± 0.5
R	1.0	1.0	1.0

RECOMMENDED LAND PATTERN (mm)

