

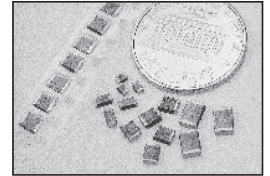
FEATURES

- RUGGED CONSTRUCTION IN STANDARD EIA SIZES
- EFFECTIVE EM/RFI SUPPRESSION UP TO 100MHz
- 100% CLOSED MAGNETIC CIRCUIT, AVOIDS CROSSTALK
- 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)	A (mm)	B (mm)	C (mm)	D (mm)
01005	NCB01005N100TR054F	10 ± 5 ohm	0.10	540	0.40 ± 0.02	0.20 ± 0.02	0.20 ± 0.02	0.10 +0.04/-0.03
	NCB01005N700TR028F	70	0.37	280				
	NCB01005N750TR026F	75	0.45	260				
	NCB01005N121TR022F	120	0.60	220				
	NCB01005N121TR024F	120	0.53	240				
0201	NCB0201N100TR020F	10	0.25	200	0.6 ± 0.05	0.3 ± 0.05	0.3 ± 0.05	0.15 ± 0.05
	NCB0201N220TR020F	22	0.45	200				
	NCB0201N220TR050F	22	0.065	500				
	NCB0201N330TR015F	33	0.55	150				
	NCB0201N330TR050F	33	0.07	500				
	NCB0201N470TR015F	47	0.70	150				
	NCB0201N560TR010F	56	1.00	100				
	NCB0201N600TR020F	60	0.40	200				
	NCB0201N800TR020F	80	0.60	200				
	NCB0201N121TR020F	120	0.80	200				
	NCB0201N241TR020F	240	1.00	200				
	NCB0201N471TR010F	470	1.05	100				
	NCB0201N601TR015F	600	1.70	150				
	NCB0201N102TR010F	1000	1.15	220				
0402	NCB0402P190TR050F	19	0.20	500	1.0 ± 0.15	0.50 ± 0.15	0.5 ± 0.15	0.25 ± 0.15
	NCB0402P220TR030F	22	0.20	300				
	NCB0402P300TR030F	30	0.20	300				
	NCB0402P400TR060F	40	0.12	600				
	NCB0402P600TR030F	60	0.25	300				
	NCB0402P700TR050F	70	0.15	500				
	NCB0402P121TR010F	120	0.30	100				
	NCB0402P121TR030F	120	0.30	300				
	NCB0402P121TR050F	120	0.25	500				
	NCB0402P151TR010F	151	0.30	100				
	NCB0402P221TR010F	220	0.40	100				
	NCB0402P221TR030F	220	0.40	300				
	NCB0402P221TR070F	220	0.40	700				
	NCB0402P301TR005F	300	0.75	50				
	NCB0402P331TR010F	330	0.50	100				
	NCB0402P331TR070F	330	0.28	700				
	NCB0402P471TR010F	470	0.65	100				
	NCB0402P601TR010F	600	0.80	100				
	NCB0402P601TR030F	600	0.80	300				
	NCB0402P102TR020F	1000	1.20	200				
	NCB0402P102TR025F	1000	1.10	250				
	NCB0402P182TR020F	1800	2.20	200				
0603	NCB0603R100TR070F	10	0.20	700	1.6 ± 0.2	0.8 ± 0.15	0.8 ± 0.15	0.4 ± 0.2
	NCB0603R300TR070F	30	0.20	700				
	NCB0603R470TR070F	47	0.20	700				
	NCB0603R600TR070F	60	0.20	700				
	NCB0603R750TR050F	75	0.30	500				
	NCB0603R800TR020F	80	0.30	200				
	NCB0603R900TR050F	90	0.15	500				
	NCB0603R121TR060F	120	0.25	600				
	NCB0603R141TR020F	140	0.30	200				
	NCB0603R151TR060F	150	0.25	600				
	NCB0603R221TR055F	220	0.30	550				

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STANDARD VALUES AND CASE SIZES (mm)

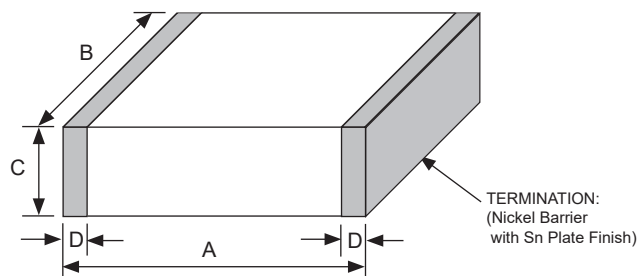
EIA Size	NIC Part Number	Impedance at 100MHz Ω ($\pm 25\%$ Tol.)	DC Resistance Max. (Ω)	DC Current Max. (mA)	A (mm)	B (mm)	C (mm)	D (mm)
0603	NCB0603R141TR020F	140	0.30	200	1.6 $\pm$ 0.2	0.8 $\pm$ 0.15	0.8 $\pm$ 0.15	0.4 $\pm$ 0.2
	NCB0603R151TR060F	150	0.25	600				
	NCB0603R221TR055F	220	0.30	550				
	NCB0603R301TR050F	300	0.35	500				
	NCB0603R331TR050F	330	0.35	500				
	NCB0603R431TR040F	430	0.30	400				
	NCB0603R451TR010F	450	0.70	100				
	NCB0603R471TR035F	470	0.45	350				
	NCB0603R601TR035F	600	0.50	350				
	NCB0603R751TR020F	750	0.70	200				
	NCB0603R801TR010F	800	0.90	100				
	NCB0603R102TR020F	1000	0.70	200				
	NCB0603R152TR030F	1500	1.00	300				
0805	NCB0805A070TR060F	7	0.10	600	2.0 $\pm$ 0.2	1.25 $\pm$ 0.2	0.9 $\pm$ 0.2	0.5 $\pm$ 0.3
	NCB0805A110TR090F	11	0.10	900				
	NCB0805A170TR060F	17	0.10	600				
	NCB0805A260TR060F	26	0.10	600				
	NCB0805A300TR060F	30	0.10	600				
	NCB0805A320TR050F	32	0.30	500				
	NCB0805A400TR060F	40	0.10	600				
	NCB0805A600TR090F	60	0.10	900				
	NCB0805A750TR020F	75	0.15	200				
	NCB0805A750TR040F	75	0.15	400				
	NCB0805A800TR040F	80	0.40	400				
	NCB0805A900TR060F	90	0.10	600				
	NCB0805A121TR030F	120	0.10	300				
	NCB0805A121TR050F	120	0.20	500				
	NCB0805A121TR080F	120	0.20	800				
	NCB0805A151TR080F	150	0.20	800				
	NCB0805A221TR075F	220	0.30	750				
	NCB0805A241TR040F	240	0.30	400				
	NCB0805A301TR070F	300	0.30	700				
	NCB0805A401TR020F	400	0.90	200				
	NCB0805A471TR070F	470	0.35	700				
	NCB0805A601TR050F	600	0.40	500				
	NCB0805A801TR045F	800	0.40	450				
	NCB0805A102TR040F	1000	0.45	400				
	NCB0805A152TR001F	1500	0.90	10				
	NCB0805A152TR035F	1500	0.50	350				
	NCB0805A202TR025F	2000	0.60	250				
	NCB0805C222TR010F	2200	0.75	100	2.0 $\pm$ 0.2	1.25 $\pm$ 0.2	1.25 $\pm$ 0.2	0.5 $\pm$ 0.3
	NCB0805C222TR020F	2200	0.70	200				
	NCB0805C252TR020F	2500	0.75	200				
1206	NCB1206B190TR050F	19	0.15	500	3.2 $\pm$ 0.2	1.6 $\pm$ 0.2	1.1 $\pm$ 0.2	0.5 $\pm$ 0.3
	NCB1206B260TR050F	26	0.15	500				
	NCB1206B310TR050F	31	0.20	500				
	NCB1206B320TR050F	32	0.15	500				
	NCB1206B420TR050F	42	0.20	500				
	NCB1206B500TR050F	50	0.20	500				
	NCB1206B600TR040F	60	0.20	400				
	NCB1206B680TR050F	68	0.20	500				
	NCB1206B700TR050F	70	0.20	500				
	NCB1206B900TR050F	90	0.20	500				
	NCB1206B101TR090F	100	0.15	900				
	NCB1206B121TR090F	120	0.15	900				
	NCB1206B151TR090F	150	0.15	900				
	NCB1206B201TR020F	200	0.50	200				
	NCB1206B221TR070F	220	0.35	700				

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EIA Size	NIC P/N	Impedance at 100MHz Ω ($\pm 25\%$ Tol.)	DC Resistance Max. (Ω)	DC Current Max. (mA)	A (mm)	B (mm)	C (mm)	D (mm)
1206	NCB1206B301TR070F	300	0.35	700	3.2 ± 0.2	1.6 ± 0.2	1.1 ± 0.2	0.5 ± 0.3
	NCB1206B401TR020F	400	0.50	200				
	NCB1206B471TR040F	470	0.35	400				
	NCB1206B501TR020F	500	0.50	200				
	NCB1206B601TR020F	600	0.50	200				
	NCB1206B601TR040F	600	0.40	400				
	NCB1206B601TR050F	600	0.30	500				
	NCB1206B801TR030F	800	0.60	300				
	NCB1206B102TR040F	1000	0.40	400				
	NCB1206B102TR030F	1000	0.60	300				
	NCB1206B122TR010F	1200	1.00	100				
	NCB1206B152TR030F	1500	0.70	300				
	NCB1206B202TR030F	2000	1.50	300				
1806	NCB1806E800TR040F	80	0.30	400	4.5 ± 0.25	1.6 ± 0.2	1.6 ± 0.2	0.5 ± 0.3
	NCB1806E101TR050F	100	0.10	500				
	NCB1806E151TR020F	150	0.50	200				
1812	NCB1812D700TR030F	70	0.40	300	4.5 ± 0.25	3.2 ± 0.2	1.5 ± 0.2	0.5 ± 0.3
	NCB1812D800TR030F	80	0.40	300				
	NCB1812D121TR050F	120	0.30	500				
	NCB1812D131TR030F	130	0.40	300				

COMPONENT DRAWING



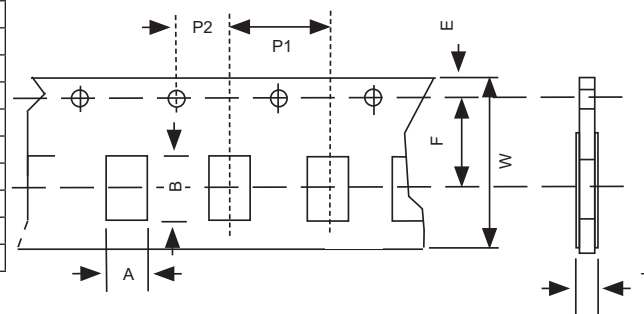
PART NUMBER SYSTEM

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, N=0.35, 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: RoHS Compliant

NCB PRESSED PAPER TAPE DIMENSIONS (mm)

Dimensions	NCB01005N	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

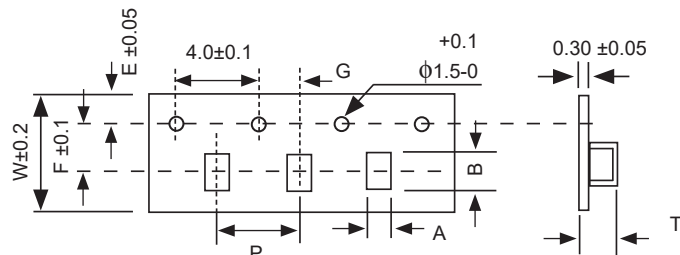
FIGURE 1 (PRESSED PAPER TAPE)



NCB EMBOSSED PLASTIC TAPE DIMENSIONS (mm)

Dimensions	NCB0805C	NCB1206B	NCB1806E	NCB1812D
A	1.50 ± 0.1	1.94 ± 0.1	1.94 ± 0.1	3.64 ± 0.1
B	2.35 ± 0.1	3.54 ± 0.1	4.94 ± 0.1	4.94 ± 0.1
T	1.45 ± 0.1	1.29 ± 0.05	1.90 ± 0.05	1.80 ± 0.05
W	8.0		12.0	
E	1.75			
F	3.5		5.5	
G	2.0 ± 0.05			
P	4.0 ± 0.1			8.0 ± 0.1
Chips/Reel	2,000	3,000	2,000	1,000
Fig.	2	2	2	2

FIGURE 2 (EMBOSSED PLASTIC TAPE)



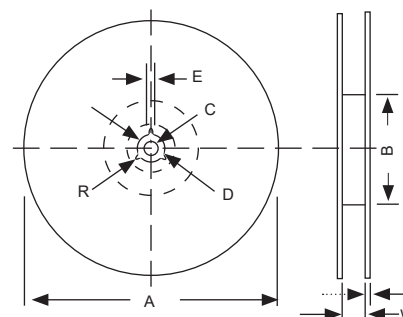
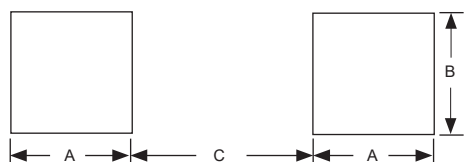
NCB LAND PATTERN DIMENSIONS (mm)

Size	A	B	C
01005			
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

NCB REEL DIMENSIONS

Dim	Size: 01005, 0201, 0402, 0603, 0805 & 1206	Size: 1806 & 1812
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
t	2.0 ± 0.5	
R	1.0	

RECOMMENDED LAND PATTERN (mm)





Reflow Soldering Heat Profile and Limits

→ www.niccomp.com/resource/files/resistive/NIC-ChipR-Reflow-Sept2020-Rev2.pdf

Wave soldering? – Please review your wave soldering process profile with NIC: tpmg@niccomp.com