

NCB-H Series

Surface Mount High Current Ferrite Chip Bead



FEATURES

- STANDARD EIA 0201 ~ 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



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)
0201	NCB-H0201N100TR130F	10	0.03	1300	1	0.6 ±0.05	0.3 ±0.05	0.3 ±0.05	0.15 ±0.05
	NCB-H0201N220TR100F	22	0.065	1000					
	NCB-H0201N330TR100F	33	0.07	1000					
	NCB-H0201N800TR100F	80	0.12	1000					
	NCB-H0201N121TR085F	120	0.15	850					
0402	NCB-H0402P100TR200F	10	0.1	2000	1	1.0 ±0.1	0.5 ±0.1	0.5 ±0.1	0.25 ±0.1
	NCB-H0402P300TR200F	30	0.1	2000					
	NCB-H0402P600TR200F	60	0.1	2000					
	NCB-H0402P800TR200F	80	0.1	2000					
	NCB-H0402P900TR200F	90	0.1	2000					
	NCB-H0402P101TR200F	100	0.1	2000					
	NCB-H0402P121TR200F	120	0.1	2000					
	NCB-H0402P221TR150F	220	0.15	1500					
NCB-H0402P301TR150F	300	0.15	1500						
0603	NCB-H0603R100TR400F	10	0.02	4000	1	1.6 ±0.2	0.8 ±0.15	0.8 ±0.15	0.4 ±0.2
	NCB-H0603R260TR600F	26	0.01	6000					
	NCB-H0603R270TR400F	27	0.03	4000					
	NCB-H0603R300TR300F	30	0.035	3000					
	NCB-H0603R300TR500F	30	0.02	5000					
	NCB-H0603R500TR250F	50	0.04	2500					
	NCB-H0603R680TR100F	68	0.2	1000					
	NCB-H0603R800TR300F	80	0.04	3000					
	NCB-H0603R101TR200F	100	0.2	2000					
	NCB-H0603R101TR300F	100	0.04	3000					
	NCB-H0603R121TR200F	120	0.1	2000					
	NCB-H0603R121TR250F	120	0.05	2500					
	NCB-H0603R121TR300F	120	0.04	3000					
	NCB-H0603R151TR200F	150	0.1	2000					
	NCB-H0603R181TR100F	180	0.2	1000					
	NCB-H0603R181TR150F	180	0.15	1500					
	NCB-H0603R181TR200F	180	0.1	2000					
	NCB-H0603R221TR200F	220	0.1	2000					
	NCB-H0603R301TR100F	300	0.2	1000					
	NCB-H0603R331TR200F	330	0.1	2000					
	NCB-H0603R391TR200F	390	0.1	2000					
	NCB-H0603R471TR100F	470	0.2	1000					
NCB-H0603R471TR200F	470	0.1	2000						
NCB-H0603R601TR100F	600	0.2	1000						
NCB-H0603R601TR200F	600	0.1	2000						

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Note: Other values and case sizes available.

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Ferrite Chip Bead



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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)
0805	NCB-H0805A100TR500F	10	0.02	5000	1	2.0 ±0.2	1.25 ±0.2	0.9 ±0.2	0.5 ±0.3
	NCB-H0805A220TR600F	22	0.01	6000					
	NCB-H0805A300TR500F	30	0.01	5000					
	NCB-H0805A330TR500F	33	0.02	5000					
	NCB-H0805A390TR400F	39	0.03	4000					
	NCB-H0805A400TR150F	40	0.15	1500					
	NCB-H0805A420TR400F	42	0.03	4000					
	NCB-H0805A600TR300F	60	0.025	3000					
	NCB-H0805A800TR300F	80	0.04	3000					
	NCB-H0805A800TR400F	80	0.03	4000					
	NCB-H0805A800TR600F	80	0.01	6000					
	NCB-H0805A101TR400F	100	0.02	4000					
	NCB-H0805A121TR200F	120	0.1	2000					
	NCB-H0805A121TR400F	120	0.1	4000					
	NCB-H0805A121TR500F	120	0.02	5000					
	NCB-H0805A151TR200F	150	0.1	2000					
	NCB-H0805A221TR300F	220	0.04	3000					
	NCB-H0805A251TR100F	250	0.2	1000					
	NCB-H0805A301TR100F	300	0.2	1000					
	NCB-H0805A331TR250F	330	0.05	2500					
	NCB-H0805A471TR200F	470	0.08	2000					
NCB-H0805A601TR150F	600	0.1	1500						
NCB-H0805A601TR200F	600	0.1	2000						
NCB-H0805A102TR150F	1000	0.15	1500						
NCB-H0805A152TR100F	1500	0.30	1000						
1206	NCB-H1206B300TR300F	30	0.04	3000	1	3.2 ±0.2	1.6 ±0.2	1.1 ±0.2	0.5 ±0.3
	NCB-H1206B310TR150F	31	0.15	1500					
	NCB-H1206B320TR600F	32	0.02	6000					
	NCB-H1206B480TR600F	48	0.01	6000					
	NCB-H1206B500TR400F	50	0.02	4000					
	NCB-H1206B600TR200F	60	0.1	2000					
	NCB-H1206B680TR300F	68	0.012	3000					
	NCB-H1206B800TR300F	80	0.04	3000					
	NCB-H1206B101TR300F	100	0.04	3000					
	NCB-H1206B121TR200F	120	0.1	2000					
	NCB-H1206B121TR300F	120	0.04	3000					
	NCB-H1206B121TR400F	120	0.03	4000					
	NCB-H1206B121TR500F	120	0.02	5000					
	NCB-H1206B151TR200F	150	0.1	2000					
	NCB-H1206B161TR600F	160	0.018	6000					
	NCB-H1206B301TR250F	300	0.05	2500					
	NCB-H1206B391TR200F	390	0.1	2000					
	NCB-H1206B471TR100F	470	0.2	1000					
	NCB-H1206B501TR300F	500	0.04	3000					
	NCB-H1206B601TR150F	600	0.09	1500					
	NCB-H1206B601TR200F	600	0.1	2000					

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

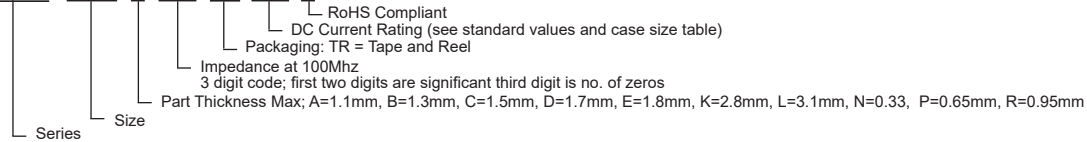
EIA Size	NIC P/N	Impedance at 100MHz $\Omega(\pm 25\% \text{ Tol.})$	DC Resistance Max. (Ω)	DC Current Max. (mA)	Style Code	A (mm)	B (mm)	C (mm)	D (mm)
1806	NCB-H1806E600TR600F	60	0.01	6000	1	4.5 ±0.25	1.6 ±0.2	1.6 ±0.2	0.5 ±0.3
	NCB-H1806E750TR300F	75	0.04	3000					
	NCB-H1806E800TR300F	80	0.04	3000					
	NCB-H1806E181TR300F	180	0.04	3000					
	NCB-H1806E471TR250F	470	0.05	2500					
	NCB-H1806E102TR150F	1000	0.15	1500					
1812	NCB-H1812D800TR600F	80	0.01	6000	1	4.5 ±0.25	3.2 ±0.2	1.5 ±0.2	0.5 ±0.3
	NCB-H1812D125TR150F	125	0.05	1500					
	NCB-H1812D131TR300F	130	0.04	3000					
	NCB-H1812D151TR500F	150	0.02	5000					
	NCB-H1812D601TR300F	600	0.04	3000					
	NCB-H1812D681TR400F	680	0.03	4000					
	NCB-H1812D132TR300F	1300	0.06	3000					
1612	NCB1612K480TR500F	48	0.001	5000	2*	4.2 ±0.4	3.1 ±0.2	2.6 ±0.2	1.3 ±0.3
3312	NCB3312K900TR500F	90	0.001	5000		8.6 ±0.4	3.2 ±0.3	2.6 ±0.2	1.3 ±0.3
3119	NCB3119L950TR500F	95	0.001	5000		7.8 ±0.4	4.7 ±0.3	2.9 ±0.2	1.3 ±0.3

Note: Other values and case sizes available.

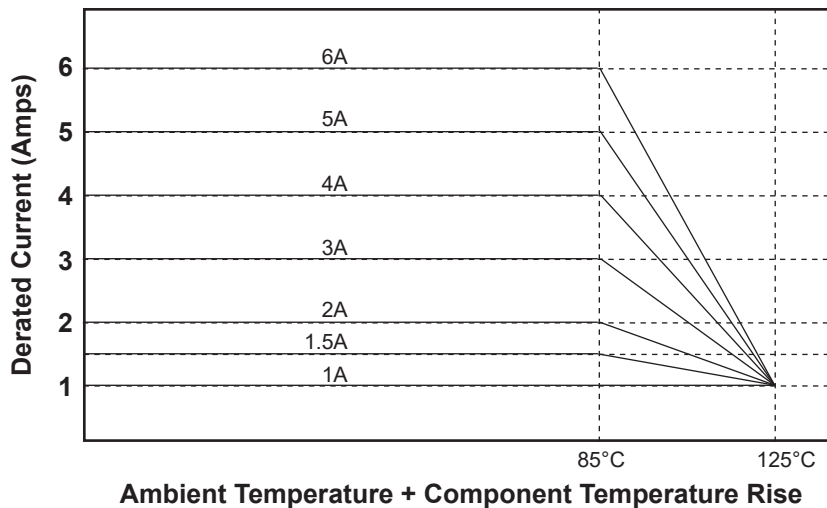
*STYLE 2 TYPES, TEMPERATURE RANGE -25°C ~ +85°C

PART NUMBER SYSTEM

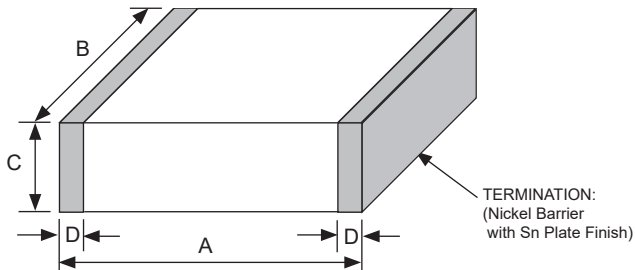
NCB-H 0805 A 121 TR 200 E



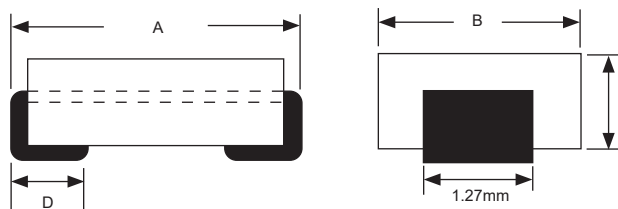
Current Derating vs. Temperature



STYLE 1 (EIA Size Chips)



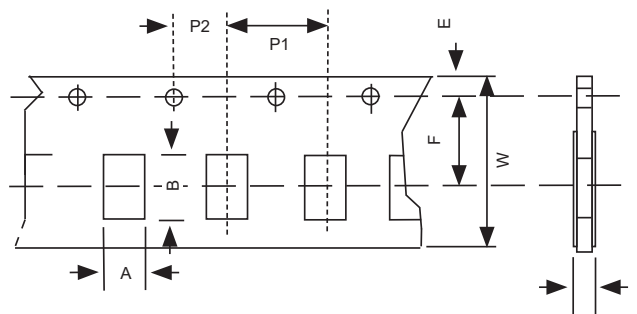
STYLE 2



NCB-H TAPE DIMENSIONS (mm)

Dimensions	NCB-H0201N	NCB-H0402P	NCB-H0603R	NCB-H0805A
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)



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

NCB-H Series

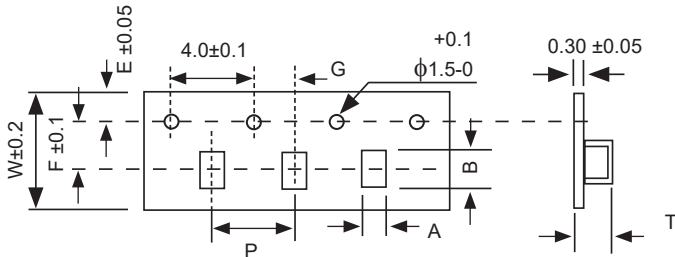
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NCB-H TAPE DIMENSIONS (mm)

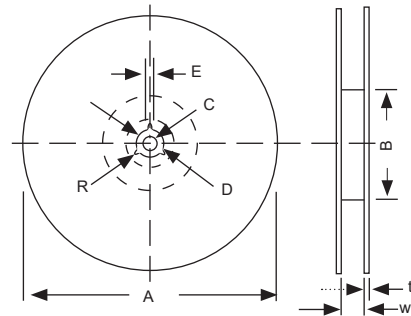
Dimensions	NCB-H1206B	NCB-H1206E	NCB-H1806E	NCB-H1812D	NCB1612K	NCB3312K	NCB3119L
A	1.94 ± 0.1	1.94 ± 0.1	1.94 ± 0.1	3.64 ± 0.1	3.65 ± 0.1	3.45 ± 0.1	5.25 ± 0.1
B	3.54 ± 0.1	3.64 ± 0.1	4.94 ± 0.1	4.94 ± 0.1	5.40 ± 0.1	9.30 ± 0.1	8.75 ± 0.1
T	1.29 ± 0.05	1.90 ± 0.05	1.90 ± 0.05	1.80 ± 0.05	3.05 ± 0.05	3.05 ± 0.05	3.70 ± 0.05
W	8.0		12.0			16.0	
E	1.75						
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)



NCB-H REEL DIMENSIONS

Dim	Size: 0201, 0402, 0603, 0805 & 1206	Size: 1806, 1812 & 1612	Size: 3312 & 3319
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		



NCB-H LAND PATTERN 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

