Ferrite Chip Beads For Automotive Use

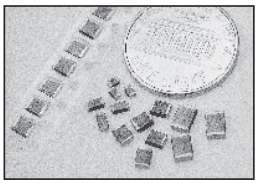
NCB_QY Series

FEATURES

- RUGGER CONSTRUCTION IN STANDARD EIA CASE SIZES
- EFFECTIVE EM/RFI SUPPRESSION UNDER 1GHz
- CURRENT RATINGS UP TO 1.0 AMPS
- MEETS THE REQUIREMENTS OF AEC Q-200
- OPERATING TEMPERATURE RANGE: -40°C TO +125°C

RoHS Compliant
includes all homogeneous materials

*See Part Number System for Details

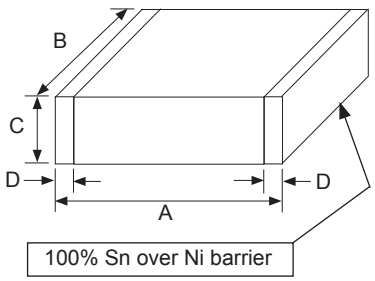


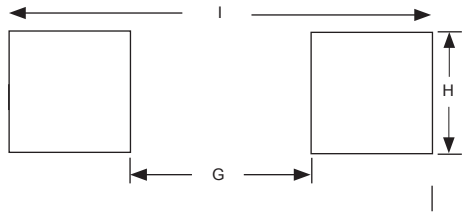
CHARACTERISTICS

Type	General Purpose
Sizes Available	0201, 0402, 0603. 0805, 1206
Impedance Range	10Ω ~ 2,700Ω
Impedance Tolerance	±25% Tol.
Operating Temperature Range	-40°C ~ +125°C

CASE SIZE & LAND PATTERN DIMENSIONS (mm)

EIA Size	A (mm)	B (mm)	C (mm)	D (mm)	G (mm)	H (mm)	I (mm)
0201	0.60 ± 0.03	0.30 ± 0.03	0.30 ± 0.03	0.15 ± 0.05	0.20 ~ 0.30	0.30	0.75 ~ 1.05
0402	1.00 ± 0.10	0.50 ± 0.10	0.50 ± 0.10	0.25 ± 0.10	0.40	0.50	1.20 ~ 1.40
0603	1.60 ± 0.15	0.80 ± 0.15	0.80 ± 0.15	0.30 ± 0.20	0.70 ~ 0.80	0.60 ~ 0.80	1.80 ~ 2.00
0805	2.00 ± 0.20	1.25 ± 0.20	0.90 ± 0.20	0.50 ± 0.30	1.00 ~ 1.20	1.00 ~ 1.20	2.60 ~ 4.00
1206	3.20 ± 0.20	1.60 ± 0.20	1.10 ± 0.20	0.50 ± 0.30	2.00	1.20	4.20 ~ 5.20





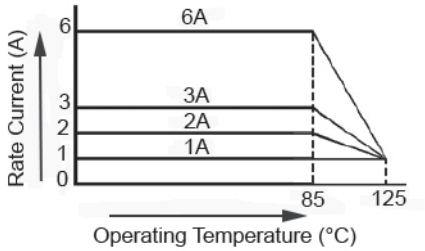
PART NUMBER SYSTEM

NCB 0805 G K 301 TR 030 Q Y F

- F — RoHS Compliant
- Y — "Y" denotes suitable for Automotive equipment, sourced to special production and inspecition at TS-16949 certified production site.
- Q — "Q" denotes AEC Q-200 qualified
- 030 — DC Current Rating (see standard values and case size table)
- TR — Packaging: TR = Tape and Reel
- 301 — Impedance at 100MHz; 3 digit code; first two digits are significant third digit is no. of zeros
- K — Material Code: J or K
- G — Performance Code: G = General Purpose
- 0805 — Case Size
- NCB — Series

TEMPERATURE DERATING

Parts with current rating ≥1A

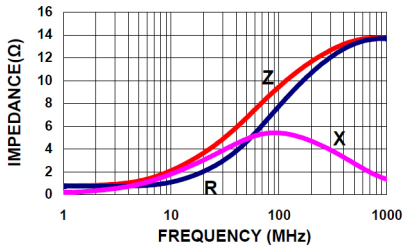


*Suitable for automotive equipment, sourced to special production and inspection at TS-16949 certified production site.

0201 CASE SIZE STANDARD VALUES

EIA Size	NIC Part Number	Impedance at 100MHz Ω	DC Resistance Max. (Ω)	DC Current Max. (mA)	A (mm)	B (mm)	C (mm)	D (mm)
0201	NCB0201GJ100TR050QYF	10	0.10	500	0.60 ± 0.03	0.30 ± 0.03	0.30 ± 0.03	0.15 ± 0.05
	NCB0201GJ600TR020QYF	60	0.40	200				
	NCB0201GJ121TR020QYF	120	0.50	200				
	NCB0201GJ241TR020QYF	240	0.80	200				
	NCB0201GJ601TR010QYF	600	1.50	100				

NCB0201GJ100TR050QYF



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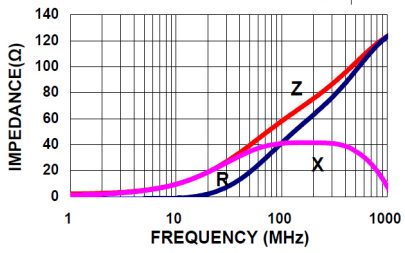

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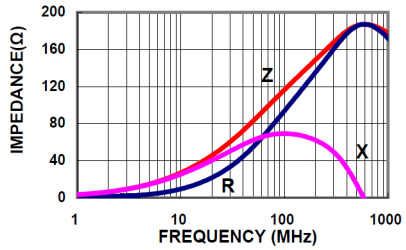

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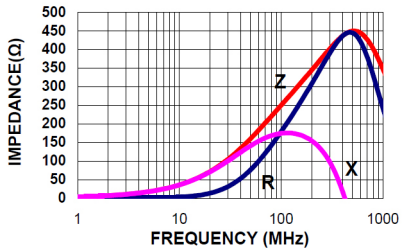

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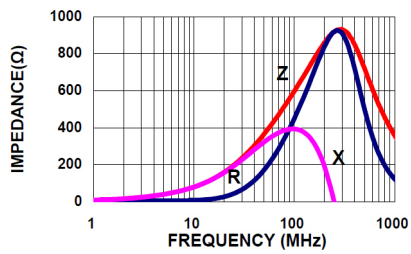

STANDARD VALUES CONTINUE ON NEXT PAGE

0402 CASE SIZE STANDARD VALUES

EIA Size	NIC Part Number	Impedance at 100MHz Ω	DC Resistance Max. (Ω)	DC Current Max. (mA)	A (mm)	B (mm)	C (mm)	D (mm)
0402	NCB0402GJ100TR100QYF	10	0.025	1000	1.00 ± 0.10	0.50 ± 0.10	0.50 ± 0.10	0.25 ± 0.10
	NCB0402GJ110TR050QYF	11	0.05	500				
	NCB0402GJ150TR050QYF	15	0.10	500				
	NCB0402GJ190TR050QYF	19	0.10	500				
	NCB0402GJ220TR050QYF	22	0.15	500				
	NCB0402GJ300TR050QYF	30	0.20	500				
	NCB0402GJ320TR050QYF	32	0.20	500				
	NCB0402GJ330TR050QYF	33	0.20	500				
	NCB0402GJ400TR050QYF	40	0.20	500				
	NCB0402GJ470TR050QYF	47	0.20	500				
	NCB0402GJ500TR050QYF	50	0.20	500				
	NCB0402GJ600TR050QYF	60	0.20	500				
	NCB0402GJ700TR060QYF	70	0.15	600				
	NCB0402GJ750TR050QYF	75	0.20	500				
	NCB0402GJ800TR050QYF	80	0.20	500				
	NCB0402GJ900TR050QYF	90	0.25	500				
	NCB0402GJ101TR050QYF	100	0.25	500				
	NCB0402GJ121TR055QYF	120	0.19	550				
	NCB0402GJ151TR040QYF	150	0.40	400				
	NCB0402GJ181TR040QYF	180	0.40	400				
	NCB0402GJ221TR045QYF	220	0.29	450				
	NCB0402GJ241TR040QYF	240	0.40	400				
	NCB0402GJ301TR030QYF	300	0.50	300				
	NCB0402GJ331TR030QYF	330	0.50	300				
	NCB0402GJ471TR030QYF	470	0.50	300				
	NCB0402GJ481TR030QYF	480	0.50	300				
	NCB0402GJ601TR030QYF	600	0.52	300				
	NCB0402GJ102TR030QYF	1000	0.65	300				
	NCB0402GJ182TR010QYF	1800	1.40	100				
	NCB0402GJ222TR010QYF	2200	1.40	100				

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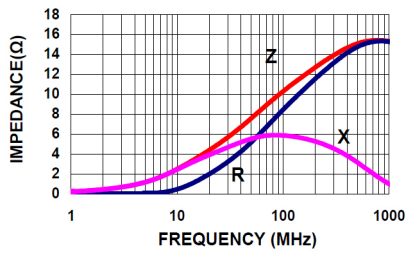

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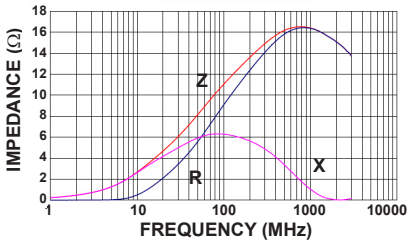

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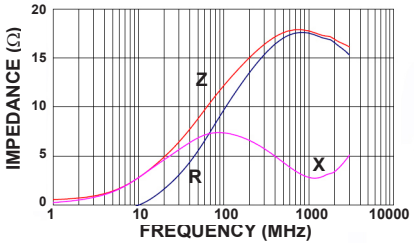

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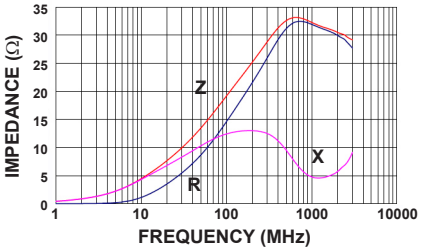

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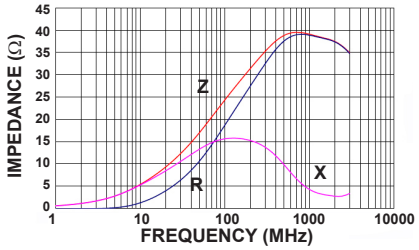

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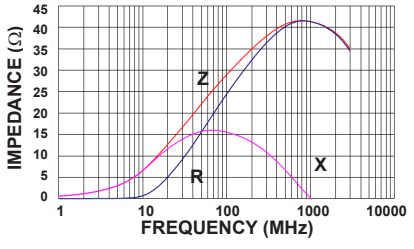

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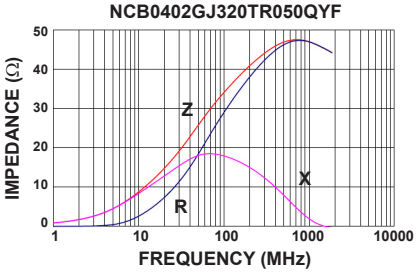

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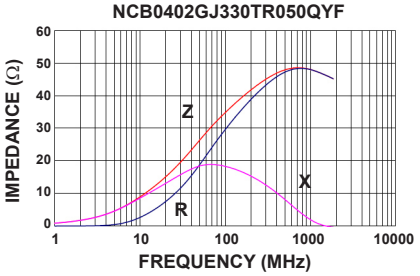

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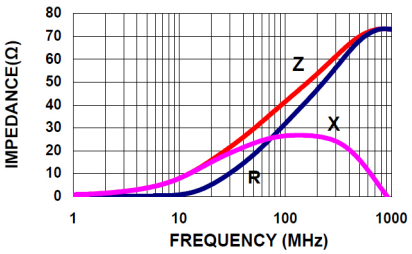

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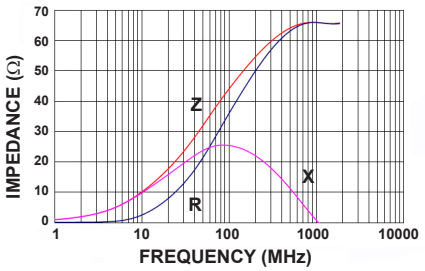

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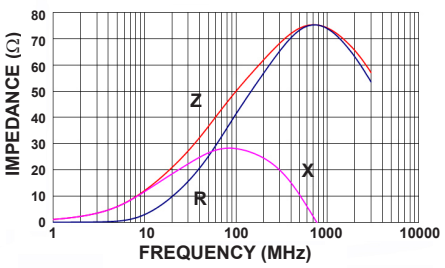

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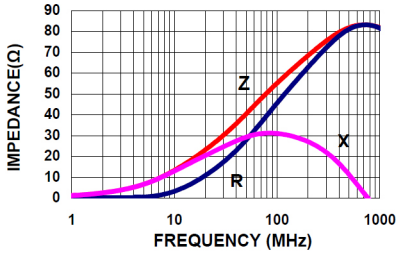

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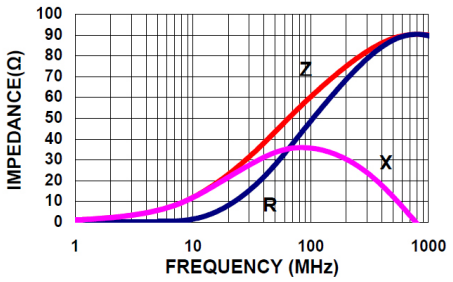

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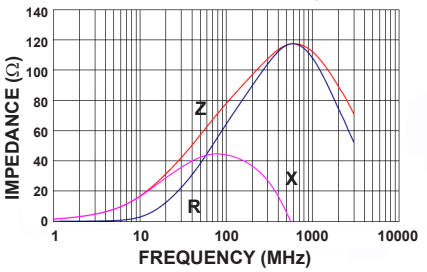

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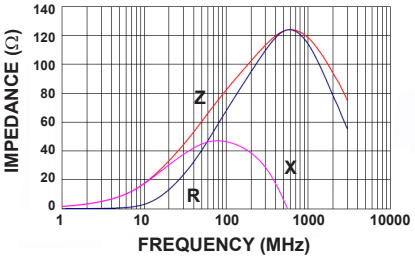

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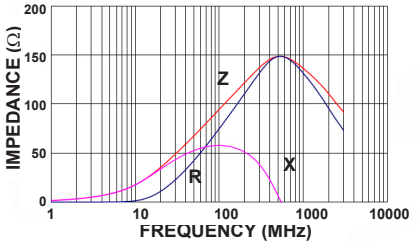

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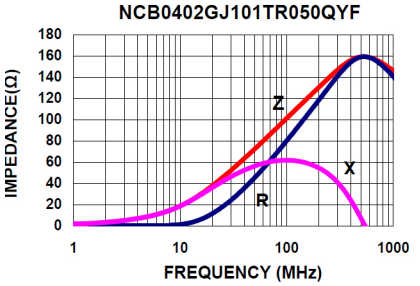

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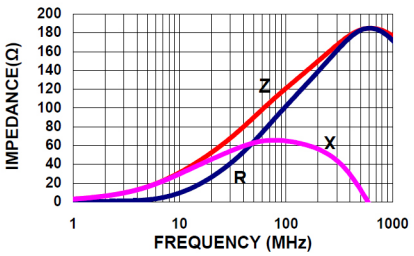

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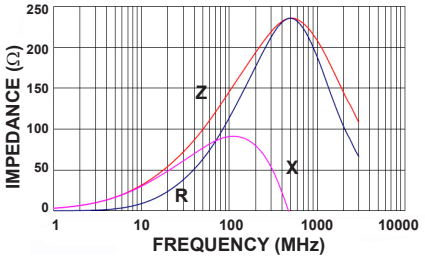

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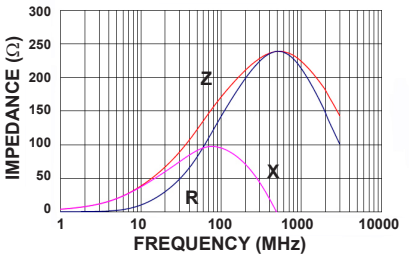

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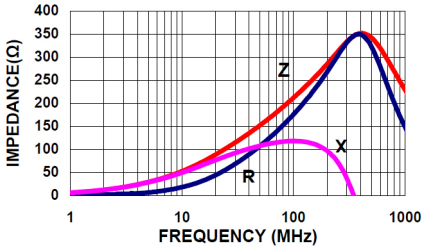

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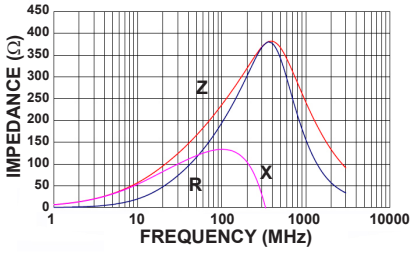

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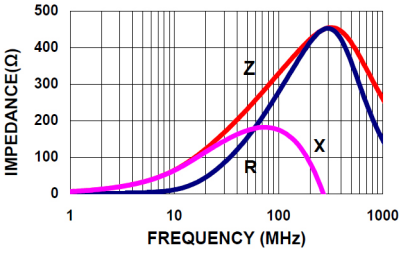

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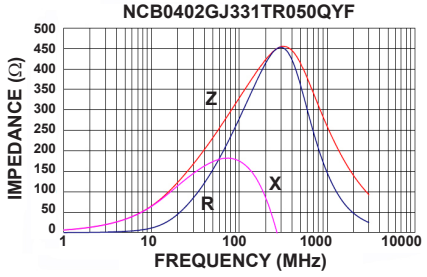

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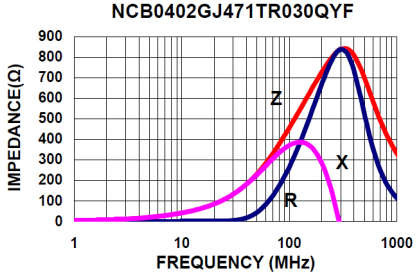

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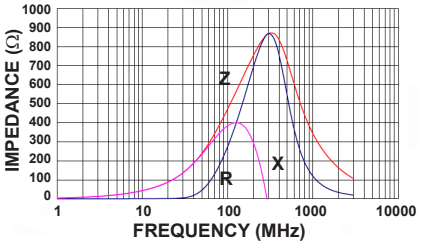

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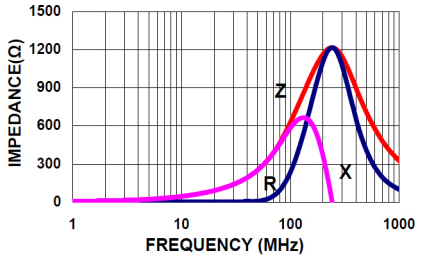

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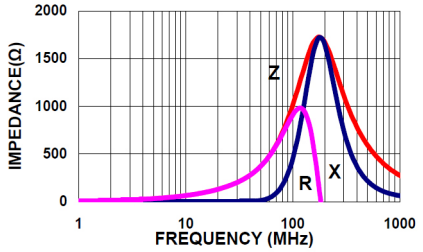

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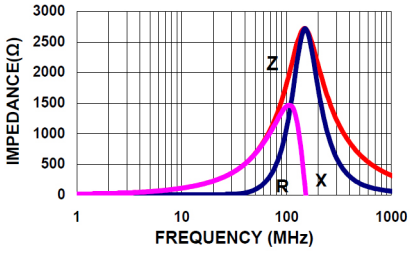

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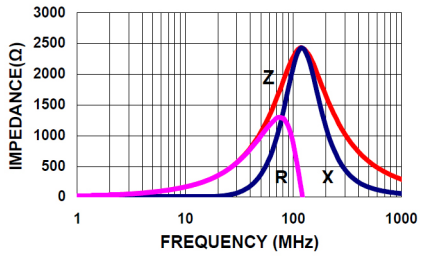
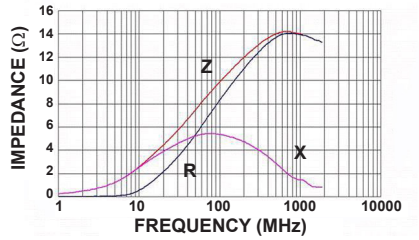


STANDARD VALUES CONTINUE ON NEXT PAGE

0603 CASE SIZE STANDARD VALUES

EIA Size	NIC Part Number	Impedance at 100MHz Ω	DC Resistance Max. (Ω)	DC Current Max. (mA)	A (mm)	B (mm)	C (mm)	D (mm)
0603	NCB0603GK100TR050QYF	10	0.05	500	1.60 ± 0.15	0.80 ± 0.15	0.80 ± 0.15	0.30 ± 0.20
	NCB0603GK110TR050QYF	11	0.05	500				
	NCB0603GK300TR040QYF	30	0.10	400				
	NCB0603GK310TR040QYF	31	0.10	400				
	NCB0603GK600TR040QYF	60	0.10	400				
	NCB0603GK800TR040QYF	80	0.15	400				
	NCB0603GK121TR040QYF	120	0.25	400				
	NCB0603GK221TR030QYF	220	0.30	300				
	NCB0603GK301TR030QYF	300	0.40	300				
	NCB0603GK471TR030QYF	470	0.50	300				
	NCB0603GK601TR030QYF	600	0.50	300				
	NCB0603GK102TR030QYF	1000	0.60	300				
	NCB0603GK152TR030QYF	1500	0.60	300				
	NCB0603GK182TR020QYF	1800	0.80	200				
	NCB0603GK202TR020QYF	2000	0.80	200				
	NCB0603GK222TR020QYF	2200	0.80	200				
	NCB0603GK252TR020QYF	2500	0.80	200				
	NCB0603GK272TR020QYF	2700	0.80	200				

NCB0603GK100TR050QYF



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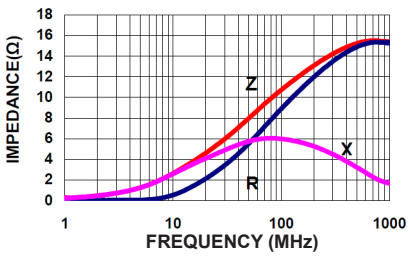

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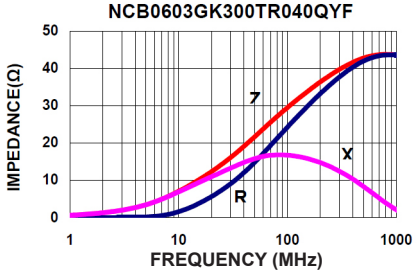

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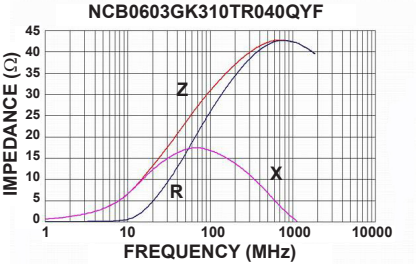

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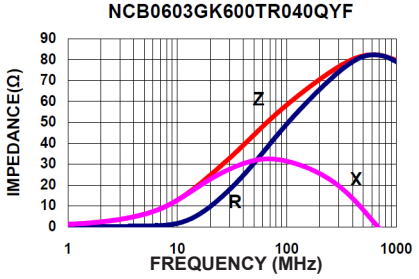

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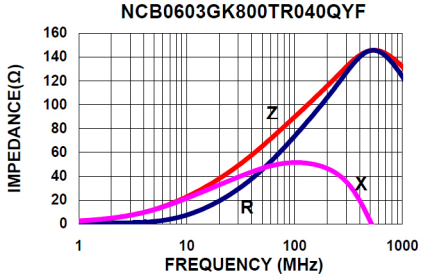

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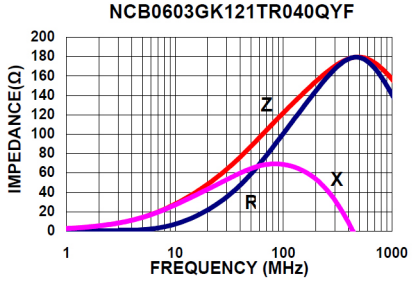

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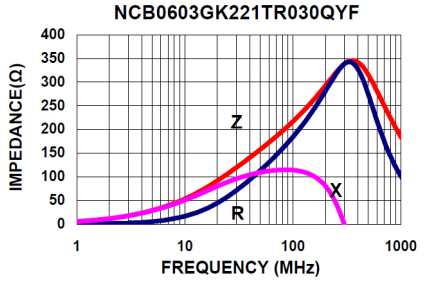

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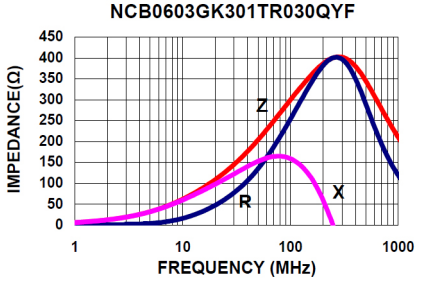

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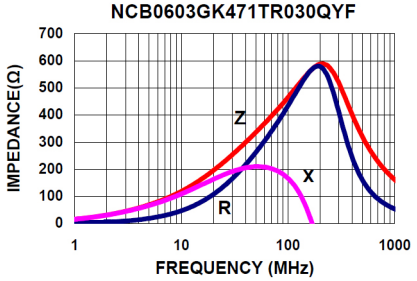

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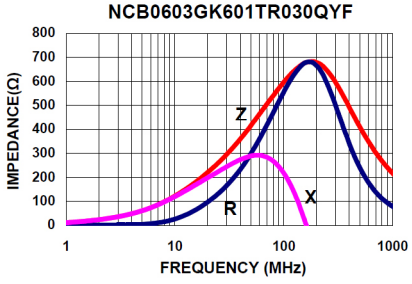

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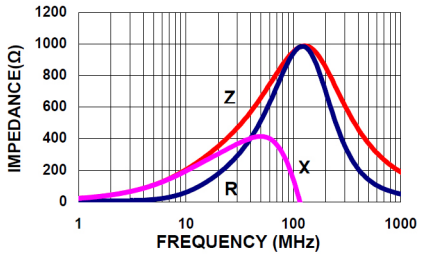

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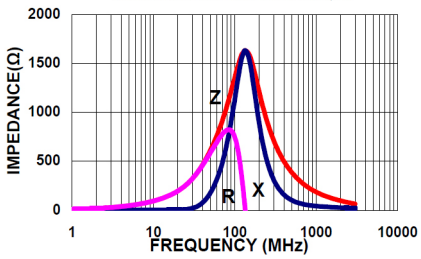

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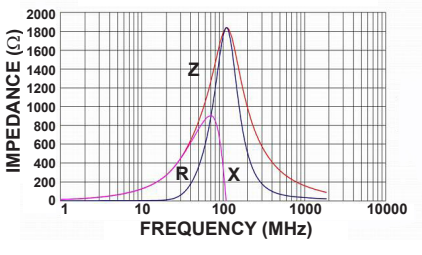

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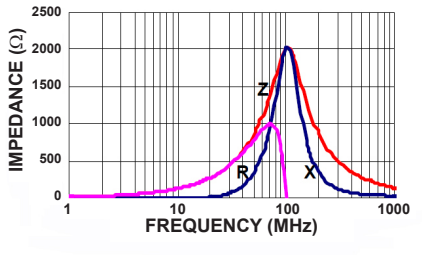

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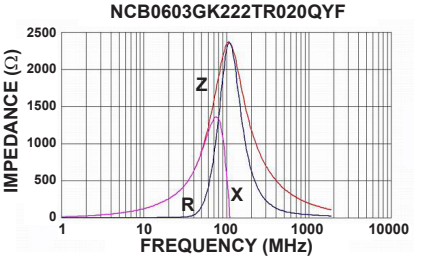

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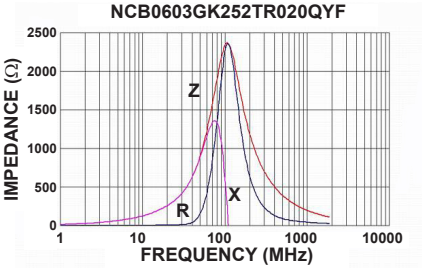

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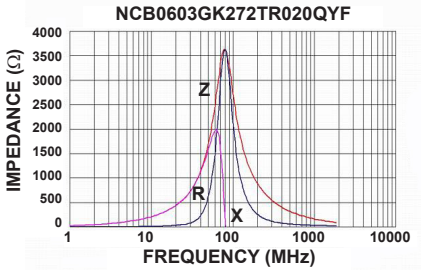
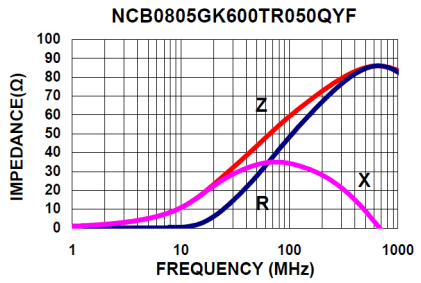
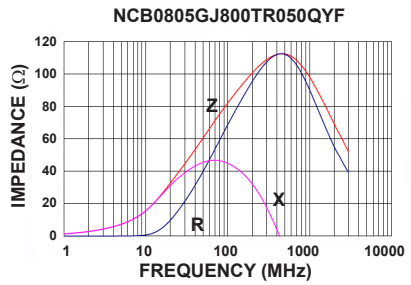


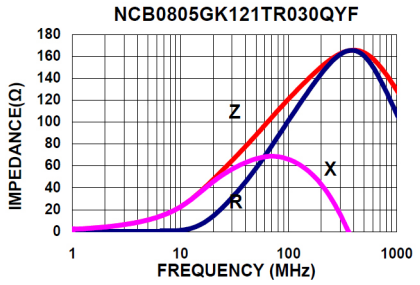
STANDARD VALUES CONTINUE ON NEXT PAGE

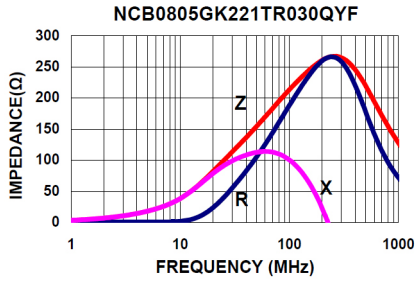
0805 CASE SIZE STANDARD VALUES

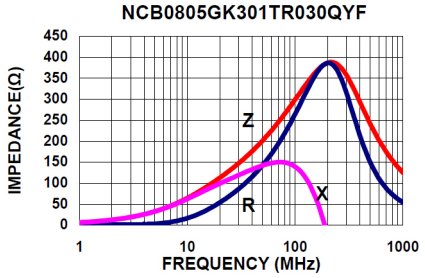
EIA Size	NIC Part Number	Impedance at 100MHz Ω	DC Resistance Max. (Ω)	DC Current Max. (mA)	A (mm)	B (mm)	C (mm)	D (mm)
0805	NCB0805GK600TR050QYF	60	0.15	500	2.0 ± 0.20	1.25 ± 0.20	0.90 ± 0.20	0.50 ± 0.30
	NCB0805GK800TR050QYF	80	0.15	500				
	NCB0805GK121TR030QYF	120	0.25	300				
	NCB0805GK221TR030QYF	220	0.30	300				
	NCB0805GK301TR030QYF	300	0.30	300				
	NCB0805GK431TR030QYF	430	0.40	300				
	NCB0805GK471TR030QYF	470	0.40	300				
	NCB0805GK601TR030QYF	600	0.40	300				
	NCB0805GK102TR020QYF	1000	0.50	200				
	NCB0805GK122TR020QYF	1200	0.60	200				
	NCB0805GK152TR020QYF	1500	0.60	200				
	NCB0805GK202TR020QYF	2000	0.70	200				
	NCB0805GK222TR020QYF	2200	0.70	200				
	NCB0805GK252TR020QYF	2500	0.70	200				
	NCB0805GK272TR020QYF	2700	0.70	200				

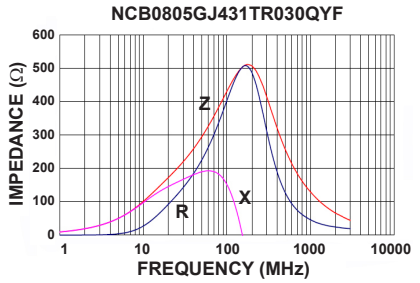


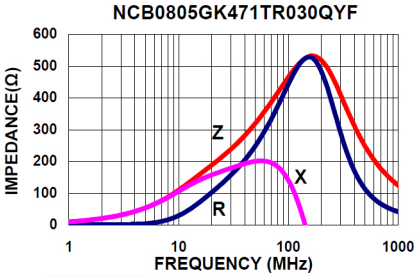


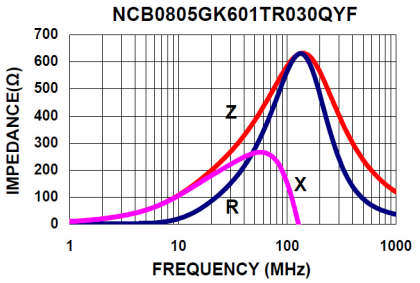


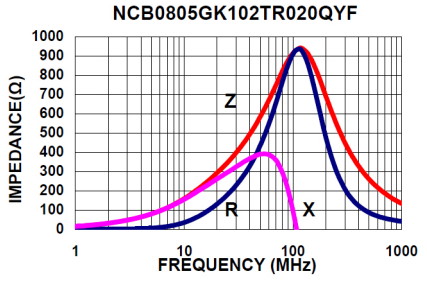


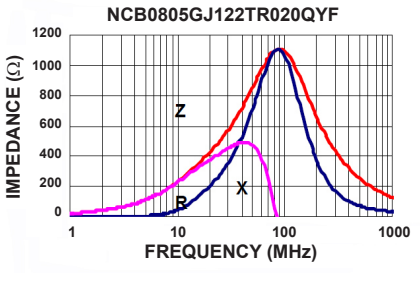


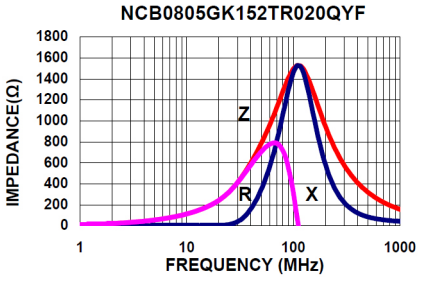


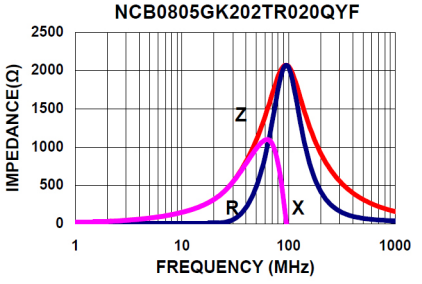


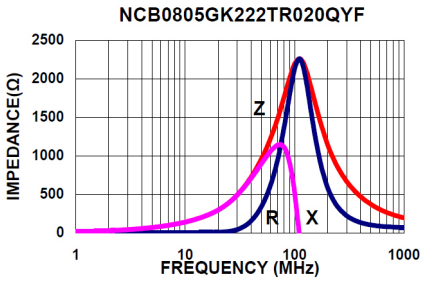


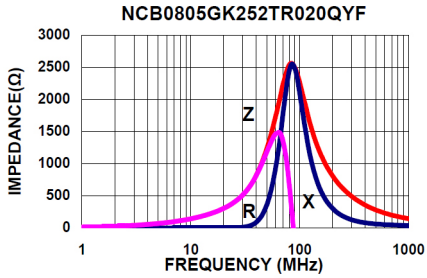


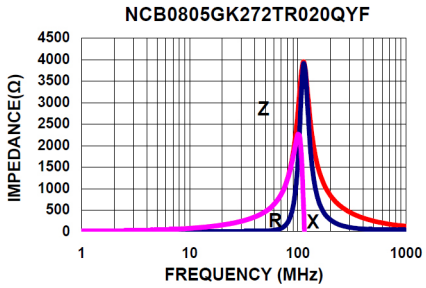








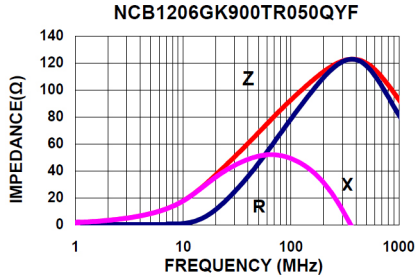


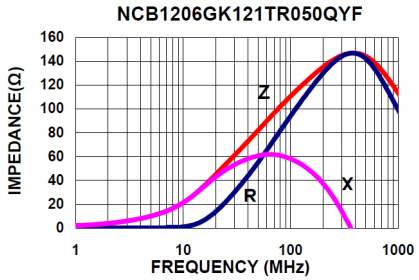


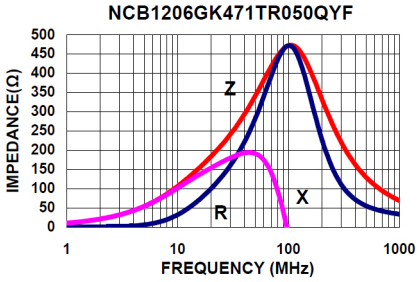
STANDARD VALUES CONTINUE ON NEXT PAGE

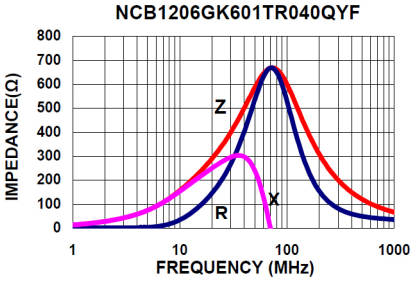
1206 CASE SIZE STANDARD VALUES

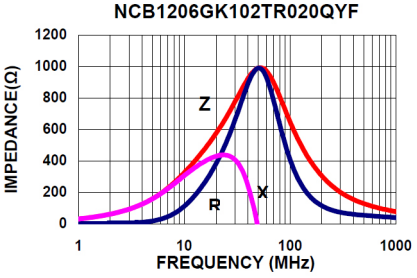
EIA Size	NIC Part Number	Impedance at 100MHz Ω	DC Resistance Max. (Ω)	DC Current Max. (mA)	A (mm)	B (mm)	C (mm)	D (mm)
1206	NCB1206GK900TR050QYF	90	0.15	500	3.20 ± 0.20	1.60 ± 0.20	1.10 ± 0.20	0.50 ± 0.30
	NCB1206GK121TR050QYF	120	0.15	500				
	NCB1206GK471TR040QYF	470	0.20	400				
	NCB1206GK601TR040QYF	600	0.30	400				
	NCB1206GK102TR020QYF	1000 (50MHz)	0.40	200				
	NCB1206GK122TR020QYF	1200 (50MHz)	0.40	200				
	NCB1206GK152TR020QYF	1500 (50MHz)	0.45	200				

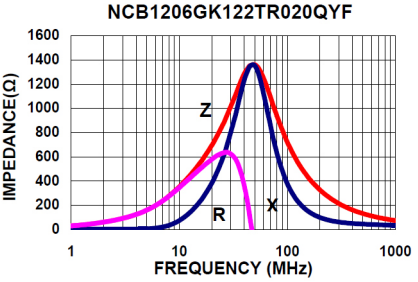


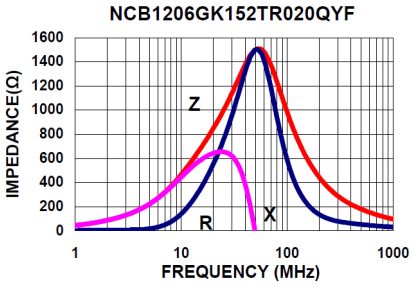




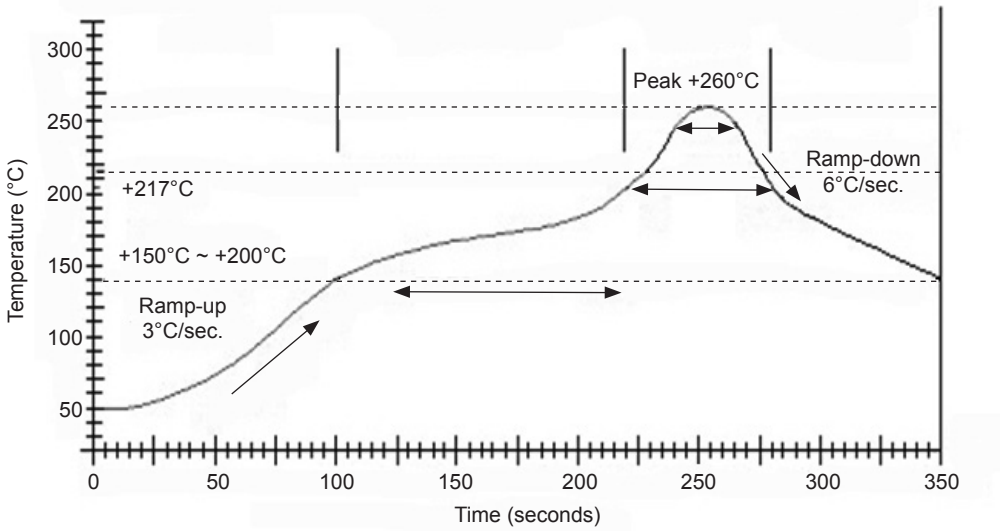








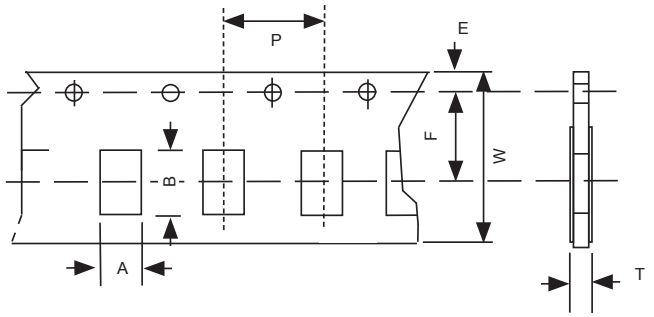
REFLOW SOLDERING PROFILE



PAPER CARRIER DIMENSIONS (mm)

Dimensions	0201	0402	0603	0805
A	0.37 ± 0.10	0.62 ± 0.10	1.05 ± 0.10	1.50 ± 0.10
B	0.67 ± 0.10	1.12 ± 0.10	1.85 ± 0.10	2.30 ± 0.10
T	0.42 ± 0.05	0.60 ± 0.05	0.95 ± 0.05	0.97 ± 0.05
W	8.0 ± 0.20			
E	1.75 ± 0.10			
F	3.5 ± 0.05			
P	2.0 ± 0.10		4.0 ± 0.10	
Chips/Reel	15,000	10,000	4,000	4,000
Fig.	1			

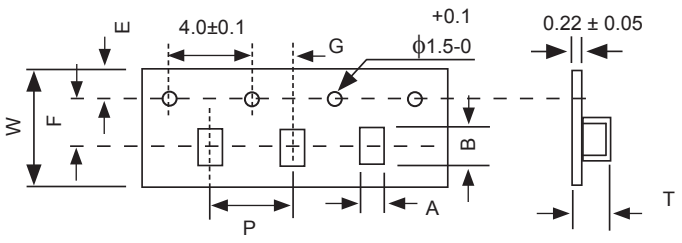
FIGURE 1 (PRESSED PAPER CARRIER)



EMBOSSED CARRIER DIMENSIONS (mm)

Dimensions	1206
A	1.88 ± 0.10
B	3.5 ± 0.10
T	1.27 ±0.10
W	8.0 ± 0.20
E	1.75 ± 0.10
F	3.5 ± 0.05
P	4.0 ± 0.10
Chips/Reel	3,000
Fig.	2

FIGURE 2 (EMBOSSED PLASTIC CARRIER)



REEL DIMENSIONS

Case Size	REEL DIMENSIONS (mm)			
	A	B	C	D
0201	178	60	12	1.5
0402				
0603				
0805				
1206