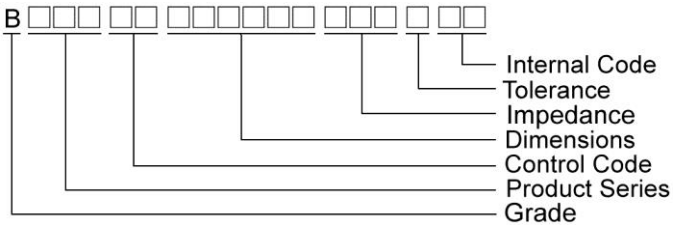
Multilayer Ferrite Chip Beads

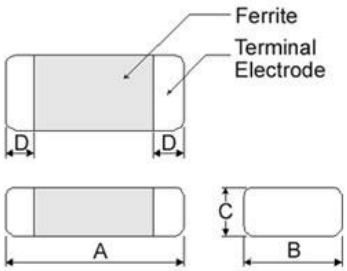


Chilisin offers a wide range of multi-layered ferrite chip beads with various sizes, frequency characteristics, and impedance values for EMI solutions. These ferrite formulas are used to compose seven types of EMI suppression chip beads: BBSY, BBBK, BBSJ, BBGK, BBPY, BBUP, BBNQ, BBFY, BBFJ and BBHV series.

Product Identification



Shape and Dimensions

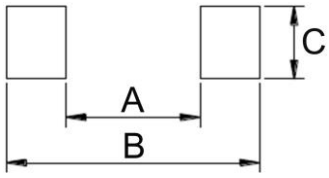


Dimensions in mm

TYPE	A	B	C	D
①060303	0.6±0.03	0.30±0.03	0.3±0.03	0.15±0.05
②100505	1.0±0.10	0.50±0.10	0.5±0.10	0.25±0.10
③160805	1.6±0.15	0.80±0.15	0.5±0.15	0.3±0.2
④160808	1.6±0.15	0.80±0.15	0.8±0.15	0.3±0.2
⑤201209	2.0±0.20	1.25±0.20	0.9±0.20	0.5±0.3
⑥321611	3.2±0.20	1.60±0.20	1.1±0.20	0.5±0.3
⑦453215	4.5±0.25	3.20±0.20	1.5±0.20	0.5±0.3

① : BBSY / BBSJ / BBNQ / BBPY
② : BBSY / BBSJ / BBNQ / BBPY / BBUP / BBFY / BBFJ
③ : BBUP ④ : BBBK / BBSJ / BBGK / BBPY / BBNQ / BBUP / BBHV
⑤ : BBBK / BBGK / BBPY / BBUP ⑥ : BBSY / BBBK / BBPY / BBUP
⑦ : BBPY / BBUP

Recommended Pattern



Dimensions in mm

TYPE	A	B	C
①060303	0.2 ~ 0.3	0.75 ~ 1.05	0.3
②100505	0.4	1.2 ~ 1.4	0.5
③160805	0.7 ~ 0.8	1.8 ~ 2.0	0.6 ~ 0.8
④160808	0.7 ~ 0.8	1.8 ~ 2.0	0.6 ~ 0.8
⑤201209	1.0 ~ 1.2	2.6 ~ 4.0	1.0 ~ 1.4
⑥321611	2.0 ~ 2.4	4.2 ~ 5.2	1.3 ~ 1.9
⑦453215	3.0	5.5 ~ 6.5	2.4

∗ Don't apply narrower pattern than listed above to BBPY and BBUP
Narrow pattern might cause excessive heat or open circuit.

Dimension Conversion

Code	Dimension in mm (AxBxC)	EIA
060303	0.6X0.3X0.3	0201
100505	1.0X0.5X0.5	0402
160805	1.6x0.8x0.5	0603
160808	1.6x0.8x0.8	0603
201209	2.0x1.2x0.9	0805
321611	3.2x1.6x.1.1	1206
453215	4.5x3.2x1.5	1812

Electrical Characteristics

Part Number	Impedance (Ω±25%)	Test Frequency (MHz)	RDC (Ω) Max	Rated current (mA) Max
BBNQ00060303100Y00	10	100	0.4	300
BBNQ00060303220Y00	22	100	0.5	200
BBNQ00060303470Y00	47	100	0.7	200
BBNQ00060303750Y00	75	100	1.0	200
BBNQ00060303121Y00	120	100	1.5	100

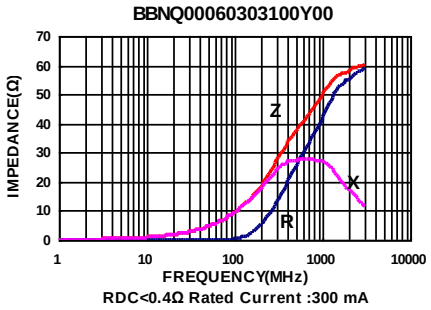
Note: When ordering, please specify tolerance code. Tolerance : Y=±25%

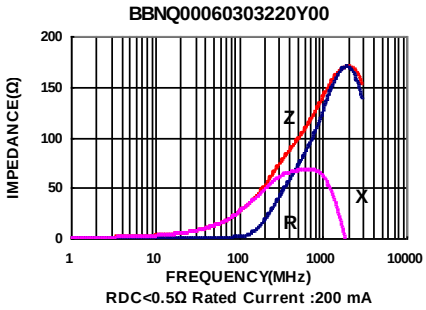
- Operating temperature range - 55℃ ~ 125℃(Including self - temperature rise)
- Rate Current：Applied the current to coils, the temperature rise shall not be more than 30℃
- Measure Equipment：

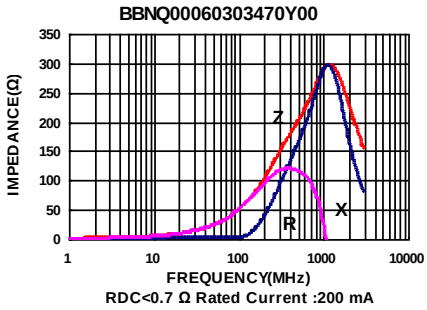
  Z：HP4291A

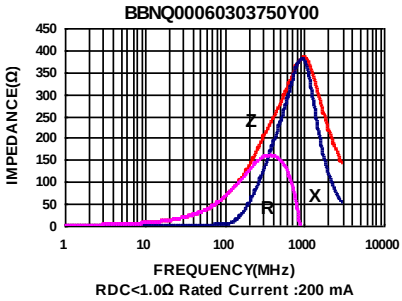
  RDC：HP4338B or CHEN HWA 502

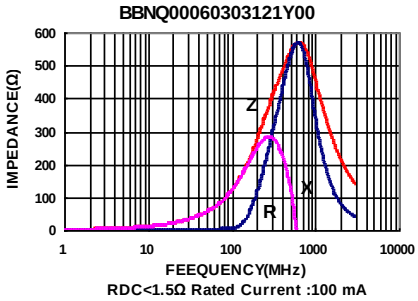
Test Instruments：Agilent E4991A Impedance / Material Analyzer











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CHILISIN ELECTRONICS CORP.

Electrical Characteristics

Part Number	Impedance (Ω±25%)	Test Frequency (MHz)	RDC (Ω) Max	Rated current (mA) Max
BBNQ00100505100Y00	10	100	0.10	500
BBNQ00100505220Y00	22	100	0.25	400
BBNQ00100505300Y00	30	100	0.25	400
BBNQ00100505470Y00	47	100	0.30	400
BBNQ00100505750Y00	75	100	0.30	400
BBNQ00100505121Y00	120	100	0.40	350
BBNQ00100505221Y00	220	100	0.60	200
BBNQ00100505301Y00	300	100	0.80	200
BBNQ00100505471Y00	470	100	1.10	200
BBNQ00100505601Y00	600	100	1.20	200

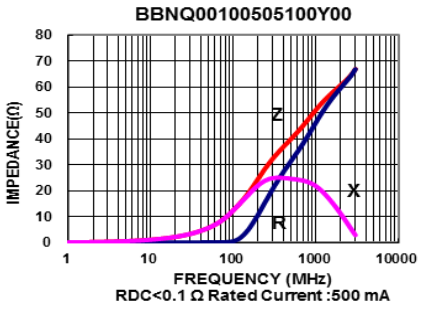
Note: When ordering, please specify tolerance code. Tolerance : Y=±25%

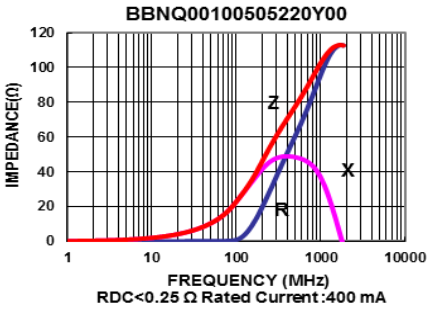
- Operating temperature range - 55℃ ~ 125℃(Including self - temperature rise)
- Rate Current：Applied the current to coils, the temperature rise shall not be more than 30℃
- Measure Equipment：

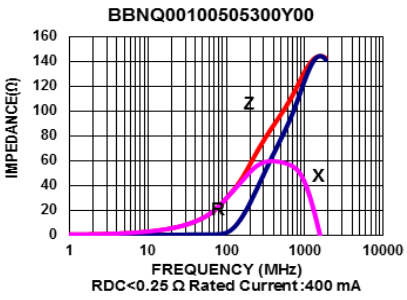
  Z：HP4291A

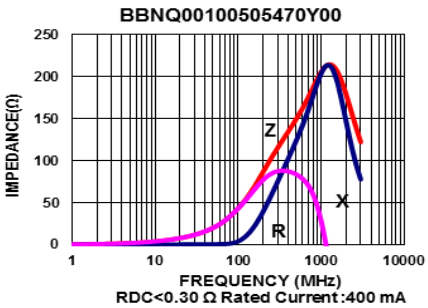
  RDC：HP4338B or CHEN HWA 502

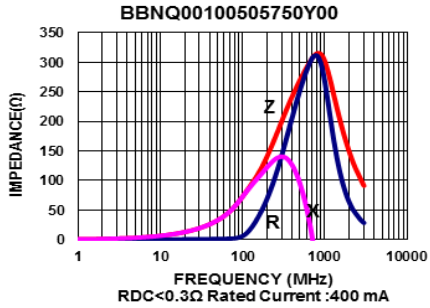
Test Instruments：Agilent E4991A Impedance / Material Analyzer

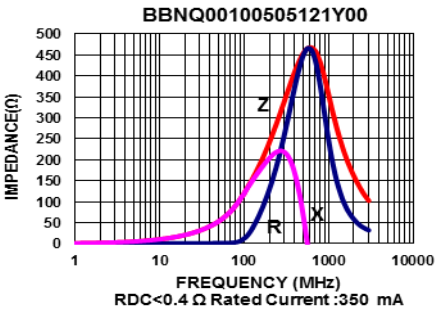












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Test Instruments：Agilent E4991A Impedance / Material Analyzer

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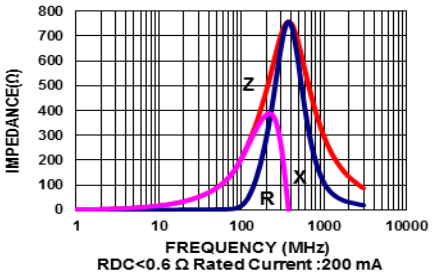

RDC<0.6 Ω Rated Current :200 mA

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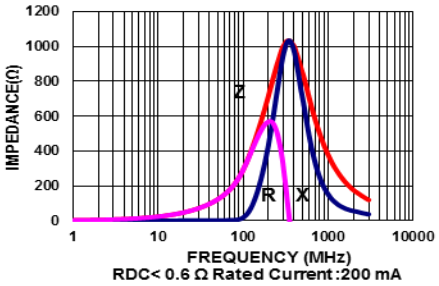
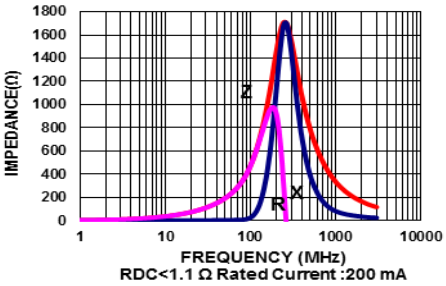


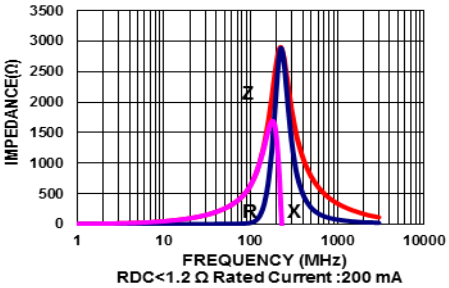
RDC< 0.6 Ω Rated Current :200 mA

BBNQ00100505471Y00



RDC<1.1 Ω Rated Current :200 mA

BBNQ00100505601Y00



RDC<1.2 Ω Rated Current :200 mA

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CHILISIN ELECTRONICS CORP.

Electrical Characteristics

Part Number	Impedance (Ω±25%)	Test Frequency (MHz)	RDC (Ω) Max	Rated current (mA) Max
BBNQ00160808600Y00	60	100	0.25	500
BBNQ00160808750Y00	75	100	0.25	500
BBNQ00160808121Y00	120	100	0.30	400
BBNQ00160808241Y00	240	100	0.35	400
BBNQ00160808301Y00	300	100	0.40	400
BBNQ00160808601Y00	600	100	0.50	200
BBNQ00160808102Y00	1000	100	0.60	200
BBNQ00160808182Y00	1800	100	0.80	100
BBNQ00160808222Y00	2200	100	1.0	100
BBNQ00160808252Y00	2500	100	1.0	100

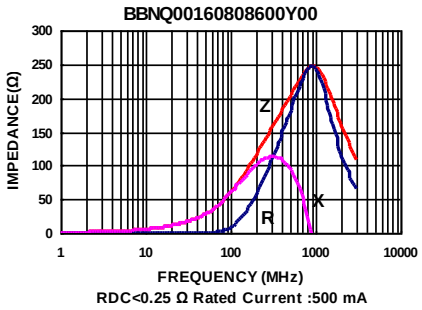
Note: When ordering, please specify tolerance code. Tolerance : Y=±25%

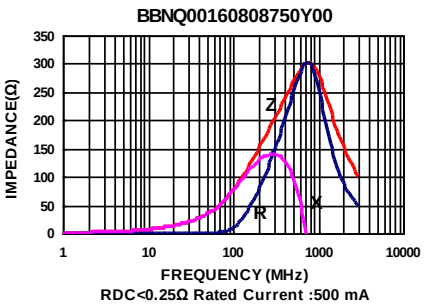
- Operating temperature range - 55℃ ~ 125℃(Including self - temperature rise)
- Rate Current：Applied the current to coils, the temperature rise shall not be more than 30℃
- Measure Equipment：

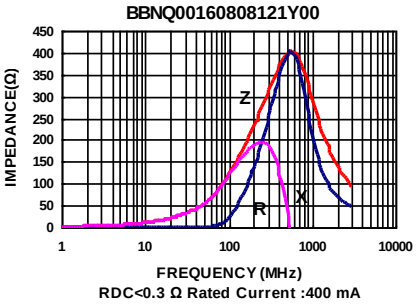
  Z：HP4291A

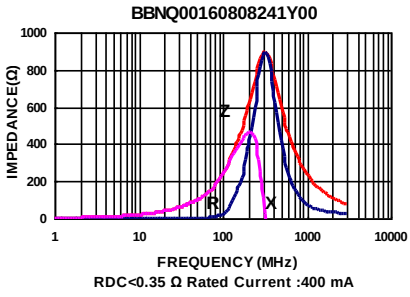
  RDC：HP4338B or CHEN HWA 502

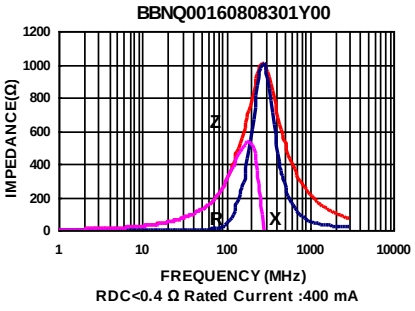
Test Instruments：Agilent E4991A Impedance / Material Analyzer

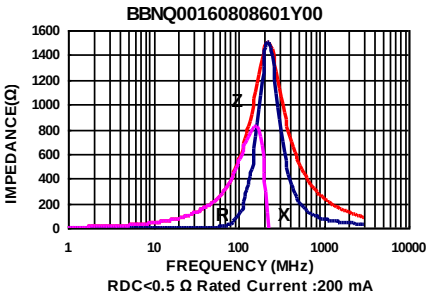


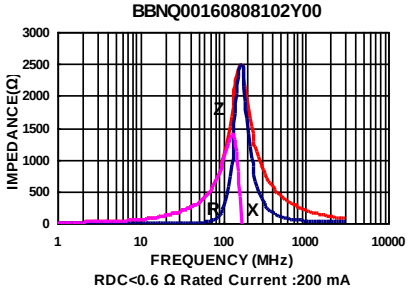


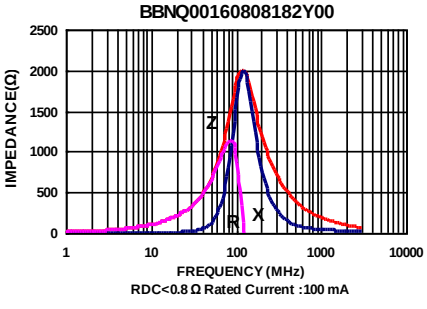


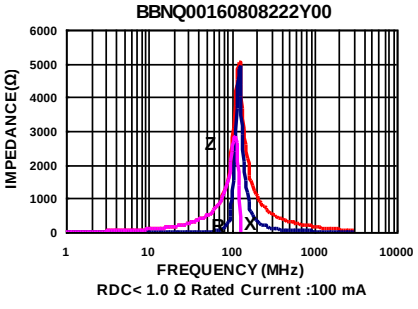












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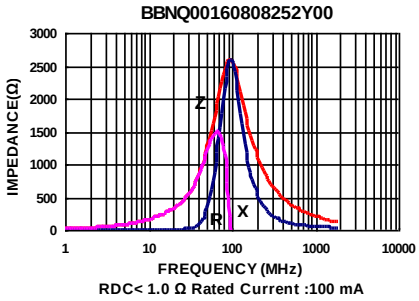
Test Instruments：Agilent E4991A Impedance / Material Analyzer



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Electrical Characteristics

Part Number	Impedance (Ω±25%)	Test Frequency (MHz)	RDC (Ω) Max	Rated current (mA) Max
BBNQ00201209301Y00	300	100	0.3	500
BBNQ00201209601Y00	600	100	0.35	500
BBNQ00201209102Y00	1000	100	0.4	400

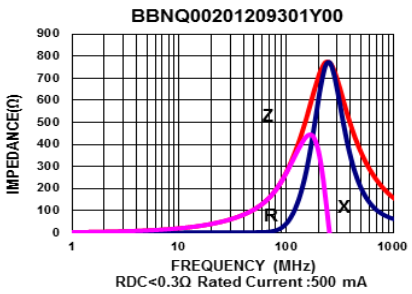
Note: When ordering, please specify tolerance code. Tolerance : Y=±25%

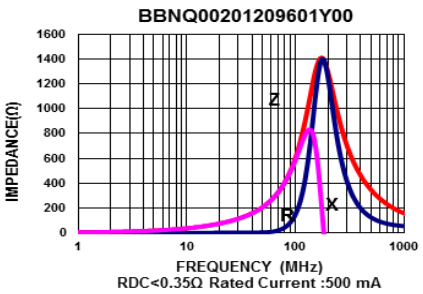
- Operating temperature range - 55℃ ~ 125℃(Including self - temperature rise)
- Rate Current：Applied the current to coils, the temperature rise shall not be more than 30℃
- Measure Equipment：

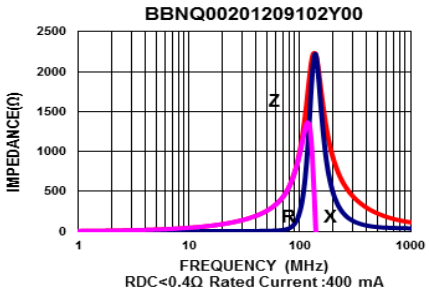
  Z：HP4291A

  RDC：HP4338B or CHEN HWA 502

Test Instruments：Agilent E4991A Impedance / Material Analyzer







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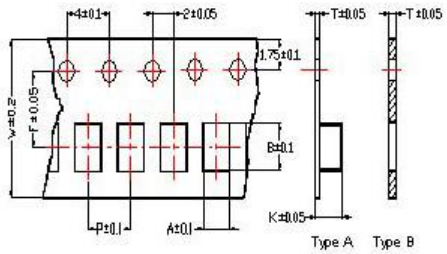
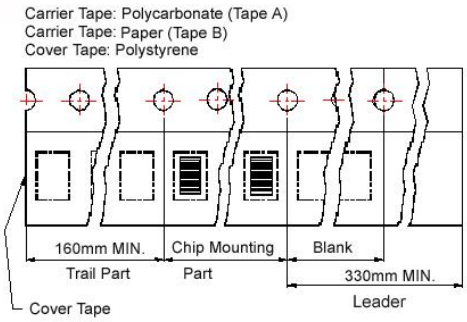
CHILISIN ELECTRONICS CORP.

Packaging Specifications

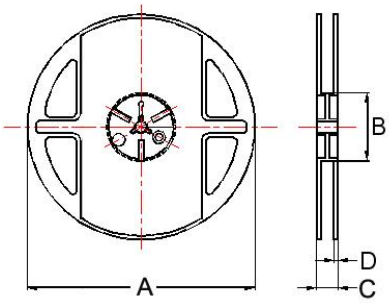
Tape Dimensions



Tape Material



Reel Dimensions



① : BBSY/BBSJ/BBNQ/BBPY ③ : BBUP
② : BBSY/BBSJ/BBNQ/BBPY/BBUP/BBFY/BBFJ
④ : BBBK/BBSJ/BBGK/BBPY/BBNQ/BBUP/BBHV
⑤ : BBBK/BBGK/BBPY/BBUP
⑥ : BBSY/BBBK/BBPY/BBUP
⑦ : BBPY/BBUP

Dimensions in mm

TYPE	Tape Dimensions								Reel Dimensions				Quantity
	A	B	T	W	P	F	K	Tape	A	B	C	D	PCS / REEL
①060303	0.37	0.67	0.42	8.0	2.0	3.5	-	B	178	60	10	2	15000
②100505	0.62	1.12	0.60	8.0	2.0	3.5	-	B	178	60	12	2	10000
③160805	1.05	1.85	0.60	8.0	2.0	3.5	-	B	178	60	12	2	10000
④160808	1.05	1.85	0.95	8.0	4.0	3.5	-	B	178	60	12	2	4000
⑤201209	1.50	2.30	0.97	8.0	4.0	3.5	-	B	178	60	12	2	4000
⑥321611	1.88	3.50	0.22	8.0	4.0	3.5	1.27	A	178	60	12	2	3000
⑦453215	3.66	4.95	0.24	12	8.0	5.5	1.85	A	178	60	14	2	1000