

DATA SHEET

INDUCTOR

Chip Beads

BBFY Series

RoHS compliant & Halogen Free

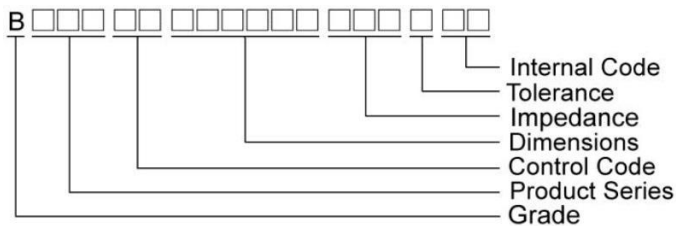


Multilayer Ferrite Chip Beads

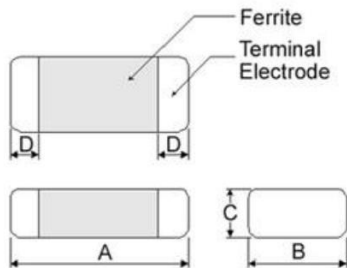


Yageo offers a wide range of multi-layered ferrite chip beads with various sizes, frequency characteristics, and impedance values for EMI solutions. These ferrite formulas are used to compose seven types of EMI suppression chip beads: BBSY, BBBK, BBSJ, BBGK, BBPY, BBUP, BBNQ, BBFY, BBFJ and BBHV series.

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

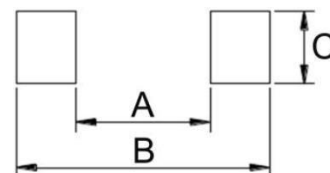
② : BBSY / BBSJ / BBNQ / BBPY / BBUP / BBFY / BBFJ

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	3.2x1.6x1.1	1206
453215	4.5x3.2x1.5	1812

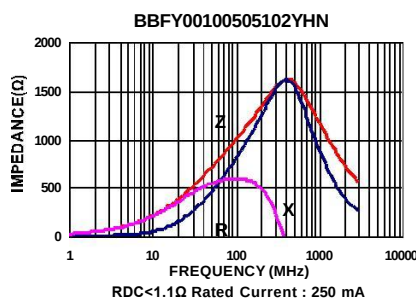
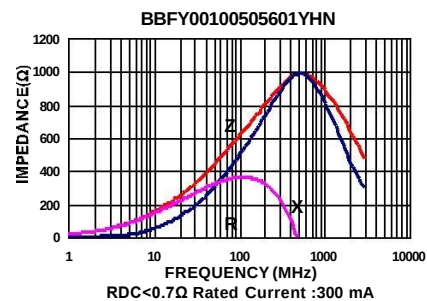
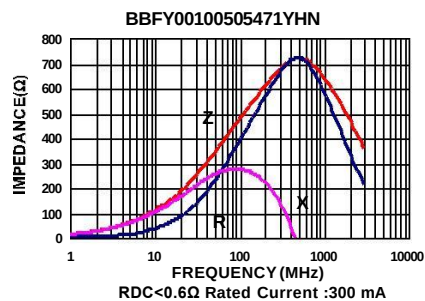
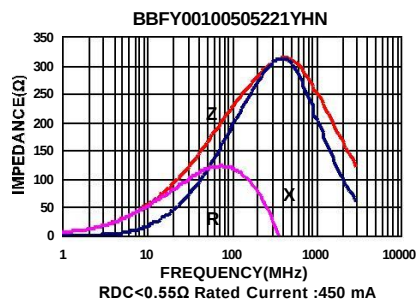
Electrical Characteristics

Part Number	Impedance ($\Omega \pm 25\%$)	Test Frequency (MHz)	Impedance ($\Omega \pm 40\%$)	Test Frequency (MHz)	RDC (Ω) Max	Rated current (mA) Max
BBFY00100505221YHN	220	100	270	1000	0.55	450
BBFY00100505301YHN	300	100	450	1000	0.55	350
BBFY00100505471YHN	470	100	650	1000	0.60	300
BBFY00100505601YHN	600	100	1000	1000	0.7	300
BBFY00100505102YHN	1000	100	1400	1000	1.1	250

Note: When ordering, please specify tolerance code. Tolerance : Y= $\pm 25\%$

- Operating temperature range $-55^{\circ}\text{C} \sim 125^{\circ}\text{C}$ (Including self - temperature rise)
- Rate Current : Applied the current to coils, the temperature rise shall not be more than 30°C
- Measure Equipment :
Z : HP4291A
RDC : HP4338B or CHEN HWA 502

Test Instruments : Agilent E4991A Impedance / Material Analyzer



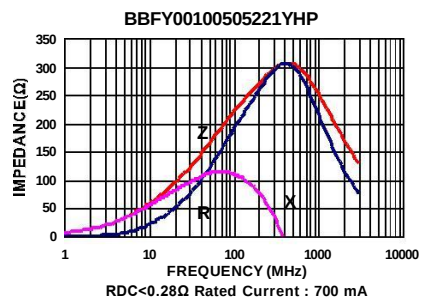
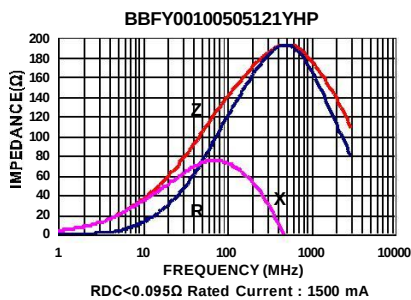
Electrical Characteristics

Part Number	Impedance ($\Omega \pm 25\%$)	Test Frequency (MHz)	Impedance ($\Omega \pm 40\%$)	Test Frequency (MHz)	RDC (Ω) Max	Rated current (mA) Max
BBFY00100505121YHP	120	100	150	1000	0.095	1500
BBFY00100505221YHP	220	100	270	1000	0.280	700

Note: When ordering, please specify tolerance code. Tolerance : Y= $\pm 25\%$

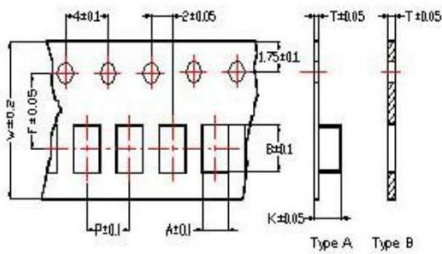
- Operating temperature range $-55^{\circ}\text{C} \sim 125^{\circ}\text{C}$ (Including self - temperature rise)
- Rate Current : Applied the current to coils, the temperature rise shall not be more than 30°C
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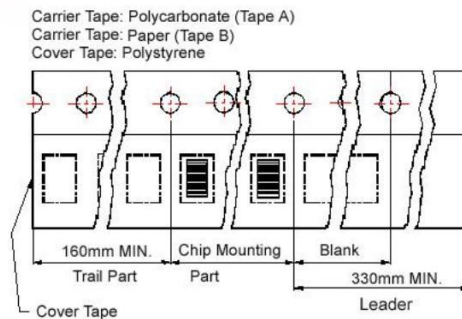


Packaging Specifications

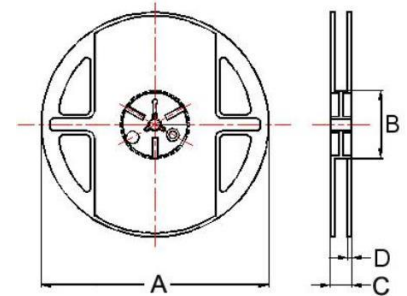
Tape Dimensions



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 PCS / REEL
	A	B	T	W	P	F	K	Tape	A	B	C	D	
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

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Pulse:

[BBFY00100505471YHN](#) [BBFY00100505601YHN](#) [BBFY00100505221YHP](#) [BBFY00100505221YHN](#)
[BBFY00100505301YHN](#) [BBFY00100505121YHP](#)