

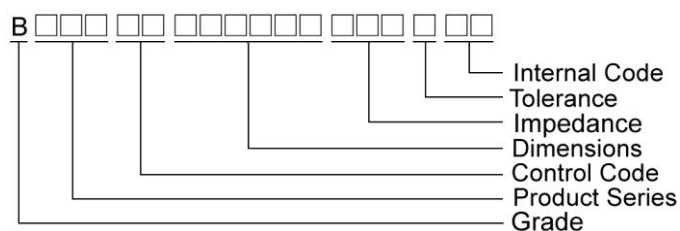
Multilayer Ferrite Chip Beads



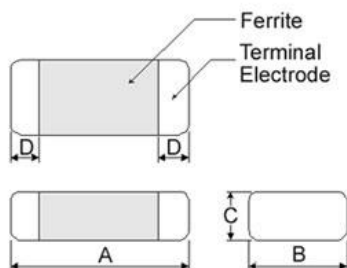
Maglayers offers a wide range of multi-layered ferrite chip beads with various sizes, frequency characteristics, and impedance values for EMI solutions.

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

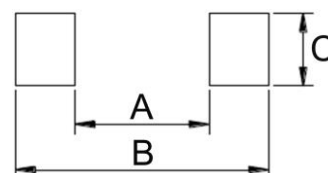
⑤ : BBBK / BBGK / BBPY / BBUP ⑥ : BBSY / BBBK / BBPY / BBUP

⑦ : BBPY / BBUP

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

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.

SMD Multilayer Ferrite Chip Beads – BBSJ Series

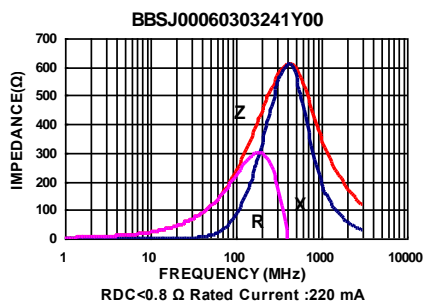
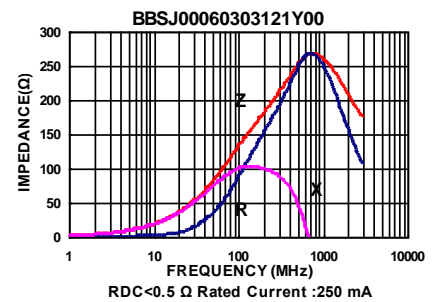
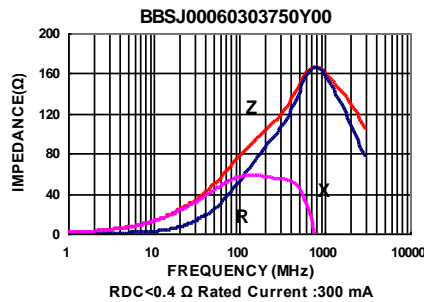
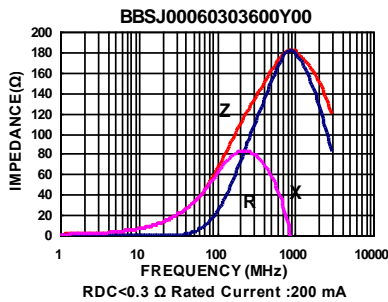
Electrical Characteristics

Part Number	Impedance ($\Omega \pm 25\%$)	Test Frequency (MHz)	RDC (Ω) Max	Rated current (mA) Max
BBSJ00060303600Y00	60	100	0.3	200
BBSJ00060303750Y00	75	100	0.4	300
BBSJ00060303121Y00	120	100	0.5	250
BBSJ00060303241Y00	240	100	0.8	220

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



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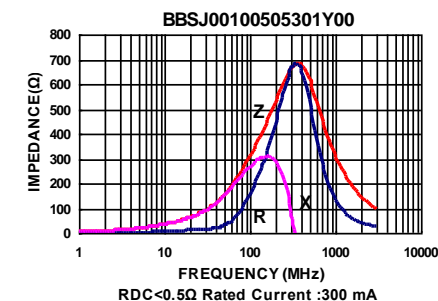
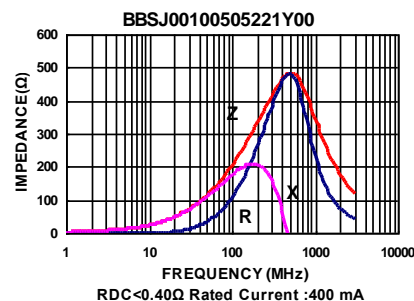
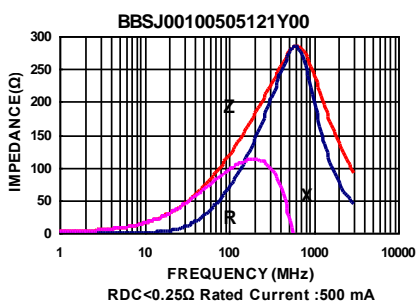
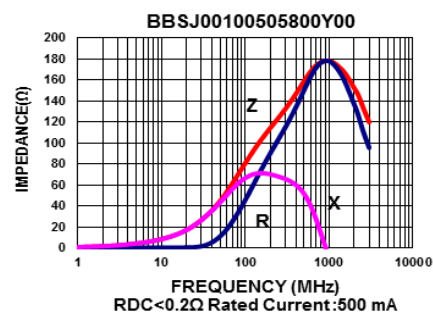
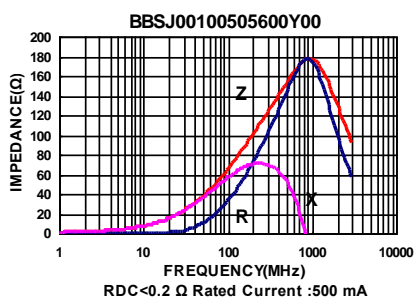
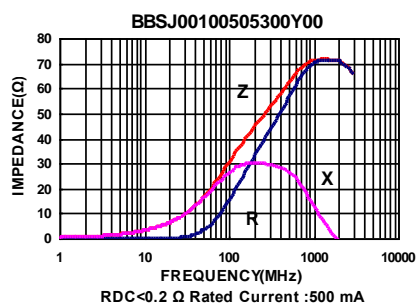
Electrical Characteristics

Part Number	Impedance ($\Omega \pm 25\%$)	Test Frequency (MHz)	RDC (Ω) Max	Rated current (mA) Max
BBSJ00100505300Y00	30	100	0.20	500
BBSJ00100505600Y00	60	100	0.20	500
BBSJ00100505800Y00	80	100	0.20	500
BBSJ00100505121Y00	120	100	0.25	500
BBSJ00100505221Y00	220	100	0.40	400
BBSJ00100505301Y00	300	100	0.50	300
BBSJ00100505471Y00	470	100	0.50	300
BBSJ00100505481Y00	480	100	0.50	300
BBSJ00100505601Y00	600	100	0.60	300
BBSJ00100505102Y00	1000	100	0.95	200
BBSJ00100505152Y00	1500	100	1.15	100
BBSJ00100505182Y00	1800	100	1.40	100
BBSJ00100505252Y00	2500	100	1.80	100

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

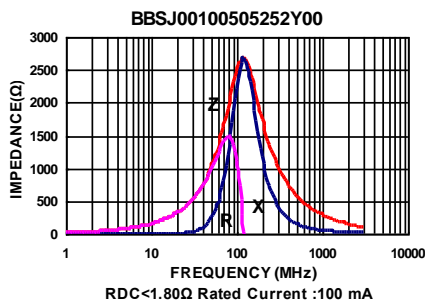
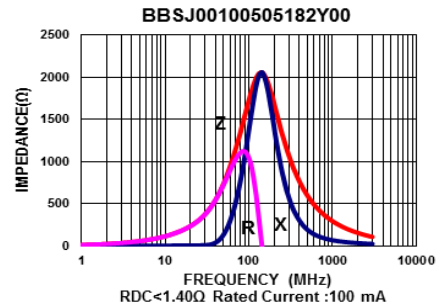
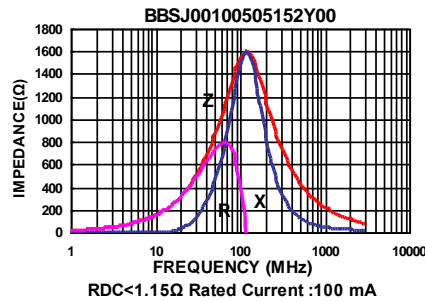
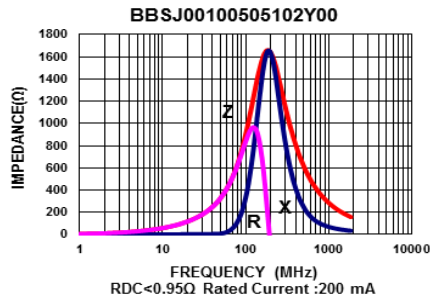
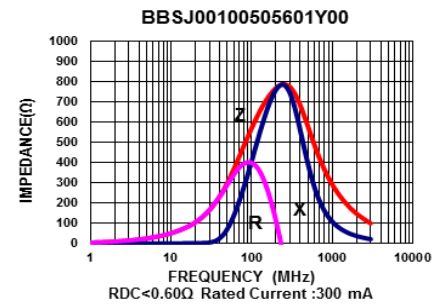
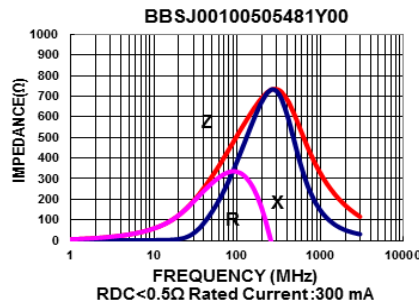
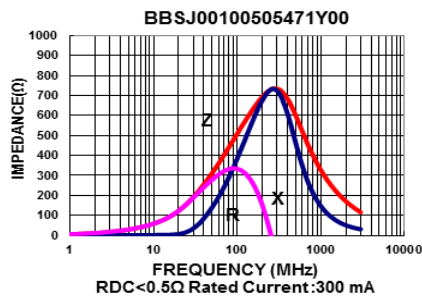
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- Measure Equipment :
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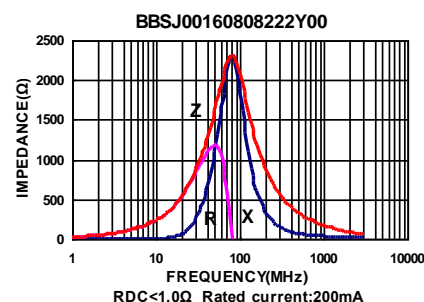
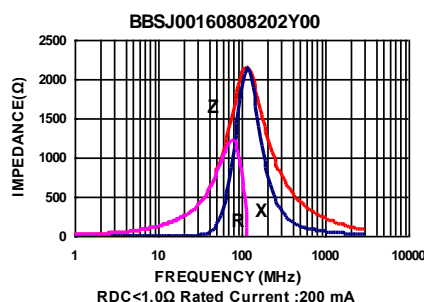
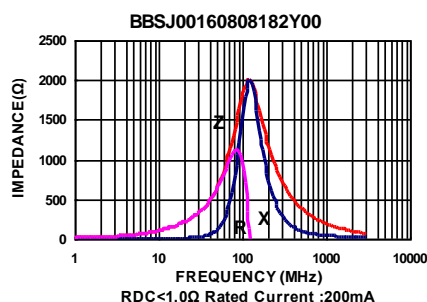
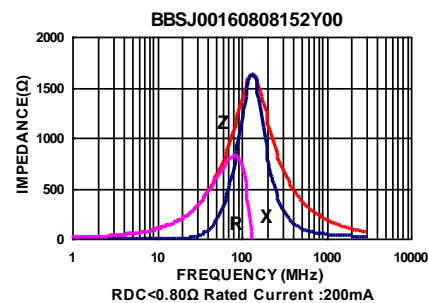
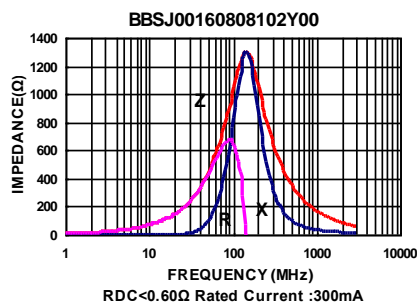
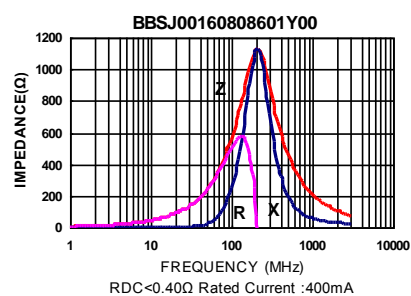
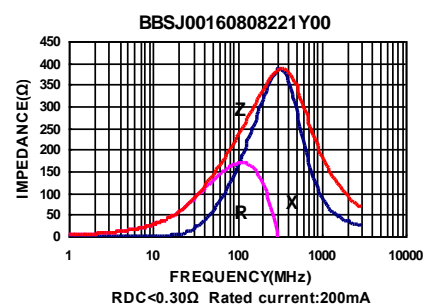
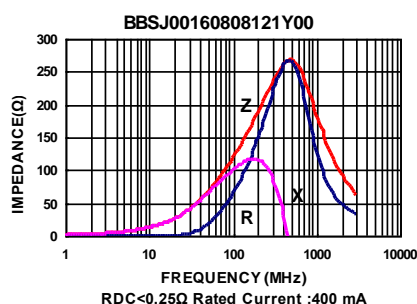
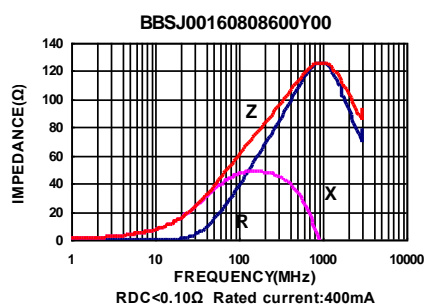
Electrical Characteristics

Part Number	Impedance ($\Omega \pm 25\%$)	Test Frequency (MHz)	RDC (Ω) Max	Rated current (mA) Max
BBSJ00160808600Y00	60	100	0.10	400
BBSJ00160808121Y00	120	100	0.25	400
BBSJ00160808221Y00	220	100	0.30	400
BBSJ00160808601Y00	600	100	0.40	400
BBSJ00160808102Y00	1000	100	0.60	300
BBSJ00160808152Y00	1500	100	0.80	200
BBSJ00160808182Y00	1800	100	1.0	200
BBSJ00160808202Y00	2000	100	1.0	200
BBSJ00160808222Y00	2200	100	1.0	200
BBSJ00160808252Y00	2500	100	1.0	200
BBSJ00160808272Y00	2700	100	1.0	200

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

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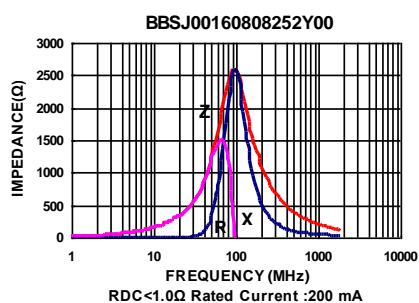
Test Instruments : Agilent E4991A Impedance / Material Analyzer



Please be sure to request approval specifications that provide further details of the products. Kindly note that the content of these specifications are subject to change or may be discontinued without prior notice. This product may not be designed/used in medical or high risk applications without Maglayers approval. Please contact our sales department before ordering.

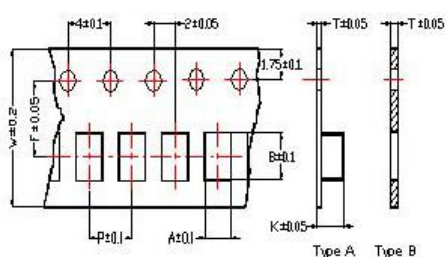
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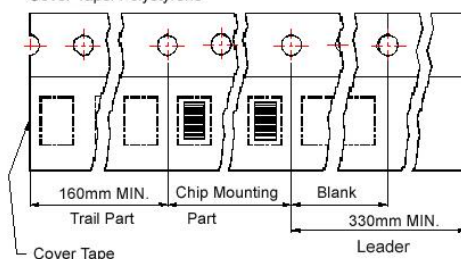
Packaging Specifications

Tape Dimensions

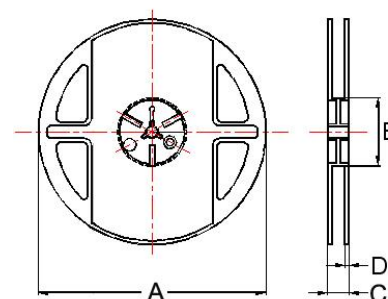


Tape Material

Carrier Tape: Polycarbonate (Tape A)
Carrier Tape: Paper (Tape B)
Cover Tape: Polystyrene



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