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: SB, GB, PB, UPB, NB, HF, and HP series.

Product Identification

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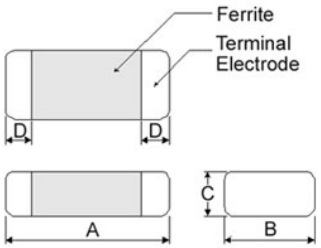
- CEC Internal No.
- Tolerance
- Impedance
- Packaging Style
- Dimensions(A、B、C)
- Design code
- Product Symbol

- Product symbol: SB, GB, PB, UPB, NB, HF, HP
- Packaging: T：Tape and Reel；B：Bulk
- Tolerance: Y = ± 25%; M = ± 20%; T:±30%
- Note: RoHS Compliant

Shape and Dimensions

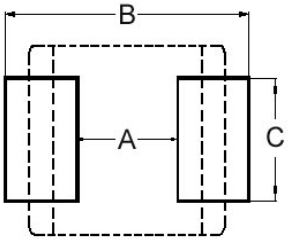


Dimensions in mm

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
③160808	1.6±0.15	0.80±0.15	0.8±0.15	0.3±0.2
④201209	2.0±0.20	1.25±0.20	0.9±0.20	0.5±0.3
⑤201212	2.0±0.20	1.25±0.20	1.25±0.20	0.5±0.3
④321611	3.2±0.20	1.60±0.20	1.1±0.20	0.5±0.3
⑥321616	3.2±0.20	1.60±0.20	1.6±0.20	0.5±0.3
⑦322513	3.2±0.20	2.50±0.20	1.3±0.20	0.5±0.3
⑧451616	4.5±0.25	1.60±0.20	1.6±0.20	0.5±0.3
⑧453215	4.5±0.25	3.20±0.20	1.5±0.20	0.5±0.3

①：SB / PB / NB ②：SB / PB / NB / HF ⑦：SB / PB
③：SB / PB / NB / GB / UPB / HF / HP ⑤：UPB ⑥：SB
④：SB / PB / NB / GB / UPB ⑧：PB / UPB

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
③160808	0.7 ~ 0.8	1.8 ~ 2.0	0.6 ~ 0.8
④201209	1.0 ~ 1.2	2.6 ~ 4.0	1.0 ~ 1.2
⑤201212	1.0 ~ 1.2	2.6 ~ 4.0	1.0 ~ 1.2
④321611	2.0	4.2 ~ 5.2	1.2
⑥321616	2.0	4.2 ~ 5.2	1.2
⑦322513	2.0	5.5 ~ 6.5	1.8
⑧451616	3.0	5.5 ~ 6.5	1.2
⑧453215	3.0	5.5 ~ 6.5	2.4

＊ Don't apply narrower pattern than listed above to PBY and UPB. Narrow pattern might cause excessive heat or open circuit.

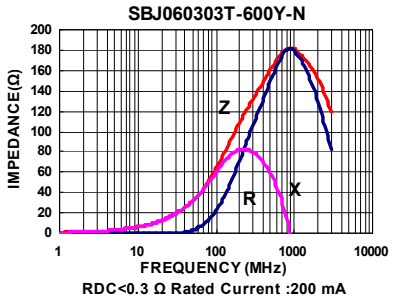
Dimension Conversion

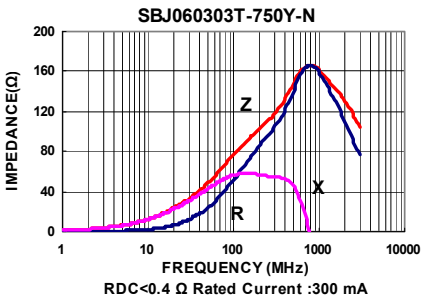
Code	Dimension in mm (AxBxC)	EIA
060303	0.6X0.3X0.3	0201
100505	1.0X0.5X0.5	0402
160808	1.6x0.8x0.8	0603
201209	2.0x1.2x0.9	0805
201212	2.0x1.2x1.25	0805
321611	3.2x1.6x.1.1	1206
321616	3.2x1.6x1.6	1206
322513	3.2x2.5x1.3	1210
451616	4.5x1.6x1.6	1806
453215	4.5x3.2x1.5	1812

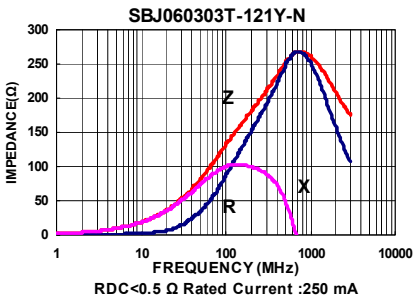
Electrical Characteristics

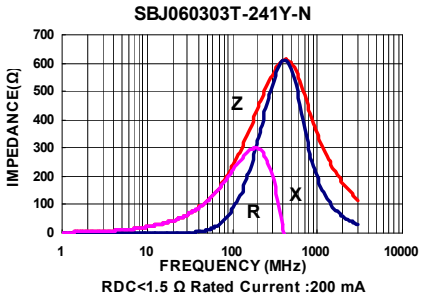
Part Number	Test Frequency (MHz)	Impedance (Ω±25%)	DC Resistance (Ω) Max	Rated current (mA) Max
SBJ060303T-600Y-N	100	60	0.3	200
SBJ060303T-750Y-N	100	75	0.4	300
SBJ060303T-121Y-N	100	120	0.5	250
SBJ060303T-241Y-N	100	240	1.0	220
SBJ060303T-471Y-N	100	470	1.5	200

Test Instruments：Agilent E4991A Impedance / Material Analyzer





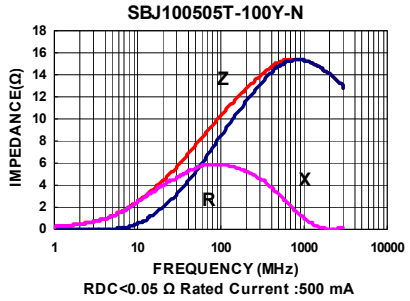




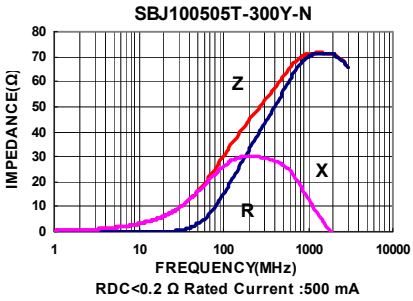
Electrical Characteristics

Part Number	Test Frequency (MHz)	Impedance (Ω±25%)	DC Resistance (Ω) Max	Rated current (mA) Max
SBJ100505T-100Y-N	100	10±30%	0.05	500
SBJ100505T-300Y-N	100	30	0.20	500
SBJ100505T-600Y-N	100	60	0.20	500
SBJ100505T-121Y-N	100	120	0.25	500
SBJ100505T-221Y-N	100	220	0.40	400
SBJ100505T-301Y-N	100	300	0.50	300
SBJ100505T-481Y-N	100	480	0.50	300
SBJ100505T-601Y-N	100	600	0.60	300
SBJ100505T-102Y-N	100	1000	0.95	200
SBJ100505T-152Y-N	100	1500	1.15	100
SBJ100505T-182Y-N	100	1800	1.40	100
SBJ100505T-252Y-N	100	2500	1.80	100

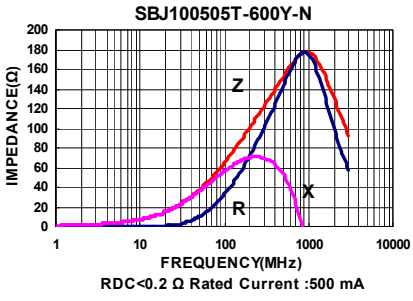
Test Instruments：Agilent E4991A Impedance / Material Analyzer



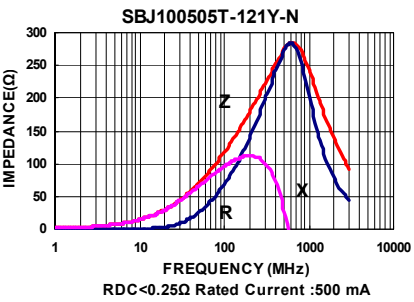
RDC<0.05 Ω Rated Current :500 mA



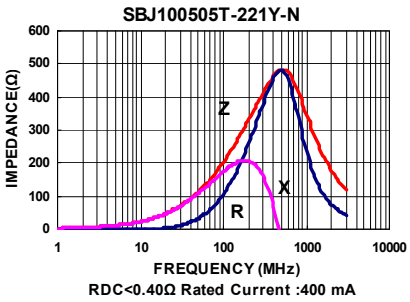
RDC<0.2 Ω Rated Current :500 mA



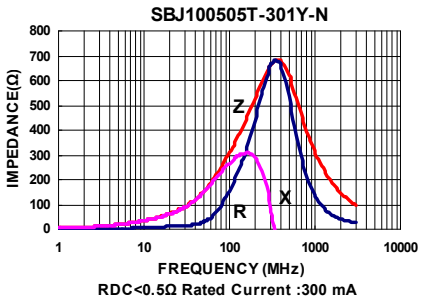
RDC<0.2 Ω Rated Current :500 mA



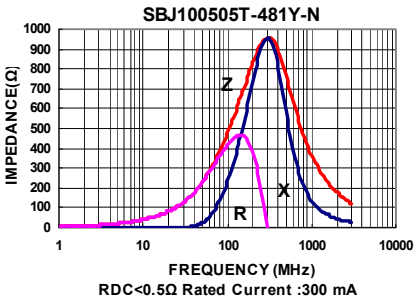
RDC<0.25Ω Rated Current :500 mA



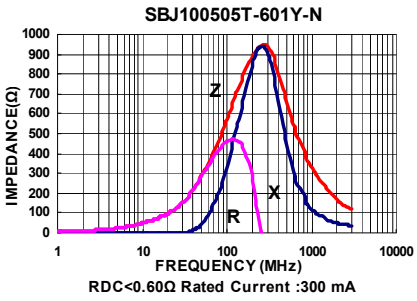
RDC<0.40Ω Rated Current :400 mA



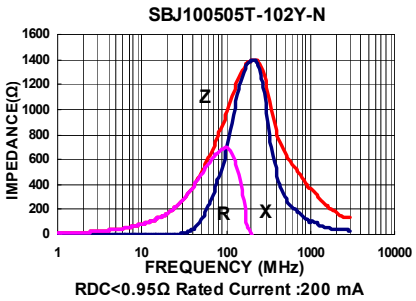
RDC<0.5Ω Rated Current :300 mA



RDC<0.5Ω Rated Current :300 mA

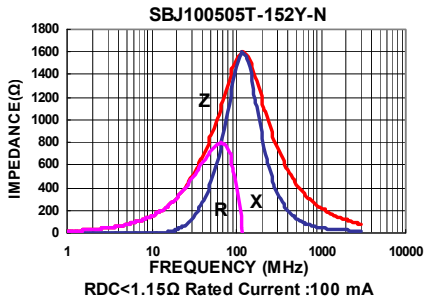


RDC<0.60Ω Rated Current :300 mA

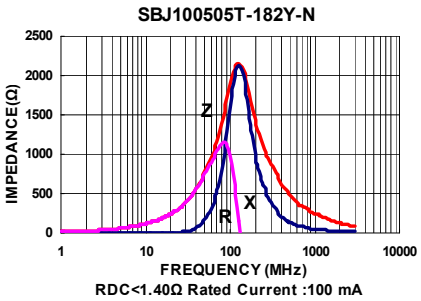


RDC<0.95Ω Rated Current :200 mA

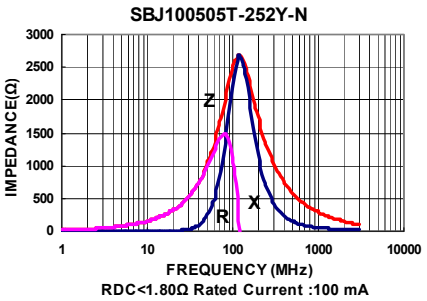
Test Instruments：Agilent E4991A Impedance / Material Analyzer



RDC<1.15Ω Rated Current :100 mA



RDC<1.40Ω Rated Current :100 mA



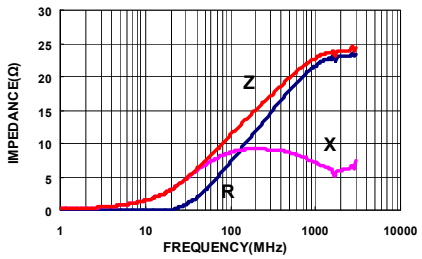
RDC<1.80Ω Rated Current :100 mA

Electrical Characteristics

Part Number	Test Frequency (MHz)	Impedance (Ω±25%)	DC Resistance (Ω) Max	Rated current (mA) Max
SBJ160808T-110Y-N	100	11±30%	0.05	500
SBJ160808T-320Y-N	100	32	0.10	400
SBJ160808T-600Y-N	100	60	0.10	400
SBJ160808T-121Y-N	100	120	0.25	400
SBJ160808T-221Y-N	100	220	0.30	400
SBJ160808T-301Y-N	100	300	0.40	400
SBJ160808T-471Y-N	100	470	0.40	400
SBJ160808T-601Y-N	100	600	0.40	400
SBJ160808T-102Y-N	100	1000	0.60	300
SBJ160808T-152Y-N	100	1500	0.80	200
SBJ160808T-182Y-N	100	1800	1.0	200
SBJ160808T-202Y-N	100	2000	1.0	200
SBJ160808T-222Y-N	100	2200	1.0	200
SBJ160808T-252Y-N	100	2500	1.0	200
SBJ160808T-272Y-N	100	2700	1.0	200

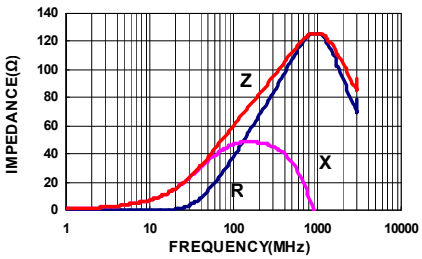
Test Instruments：Agilent E4991A Impedance / Material Analyzer

SBJ160808T-110Y-N



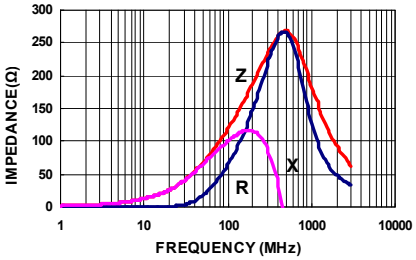
RDC<0.050Ω Rated current:500mA

SBJ160808T-600Y-N



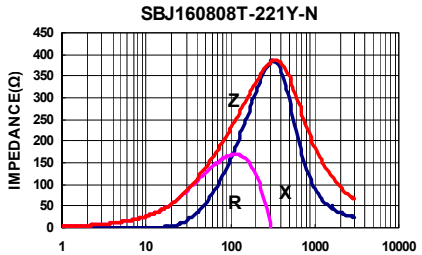
RDC<0.10Ω Rated current:400mA

SBJ160808T-121Y-N



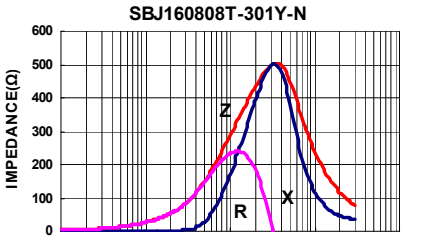
RDC<0.25Ω Rated Current :400 mA

SBJ160808T-221Y-N



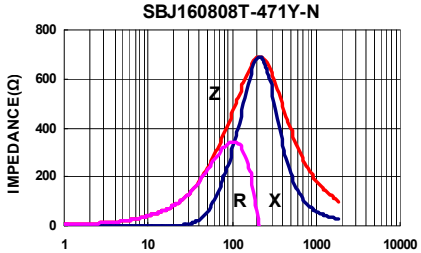
RDC<0.30Ω Rated current:200mA

SBJ160808T-301Y-N



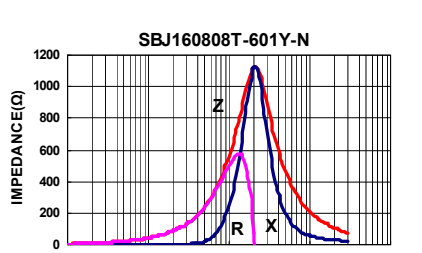
RDC<0.40Ω Rated current:400mA

SBJ160808T-471Y-N



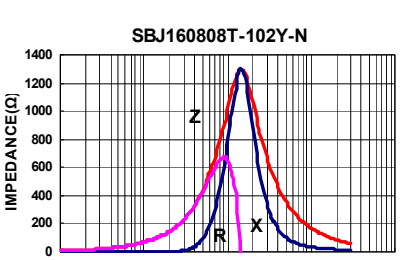
RDC<0.40Ω Rated Current :400mA

SBJ160808T-601Y-N



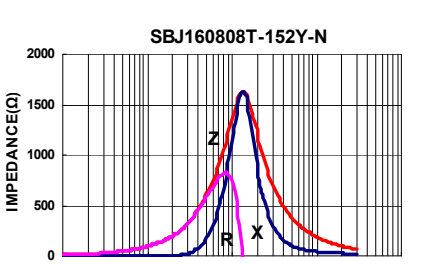
RDC<0.40Ω Rated Current :400mA

SBJ160808T-102Y-N



RDC<0.60Ω Rated Current :300mA

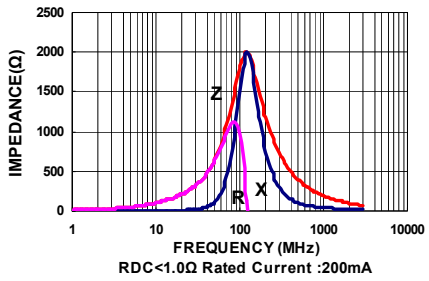
SBJ160808T-152Y-N



RDC<0.80Ω Rated Current :200mA

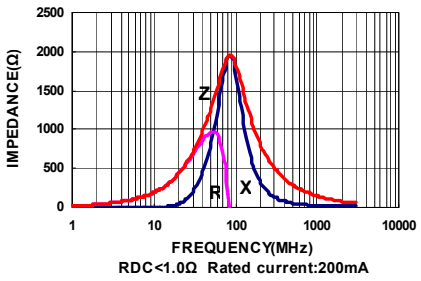
Test Instruments：Agilent E4991A Impedance / Material Analyzer

SBJ160808T-182Y-N



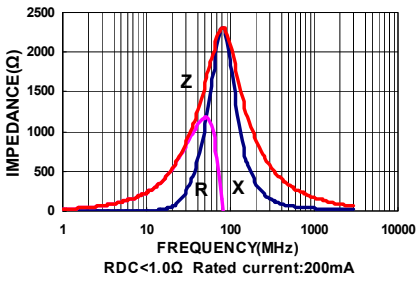
RDC<1.0Ω Rated Current :200mA

SBJ160808T-202Y-N



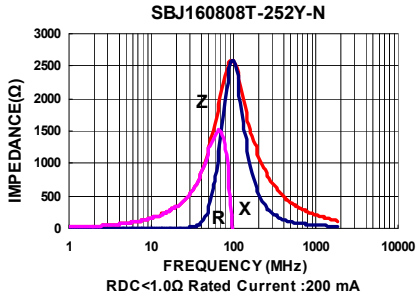
RDC<1.0Ω Rated current:200mA

SBJ160808T-222Y-N



RDC<1.0Ω Rated current:200mA

SBJ160808T-252Y-N

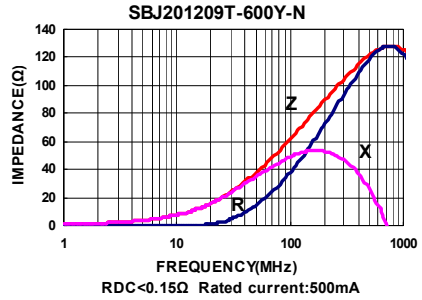


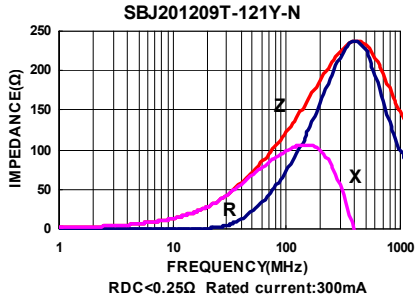
RDC<1.0Ω Rated Current :200 mA

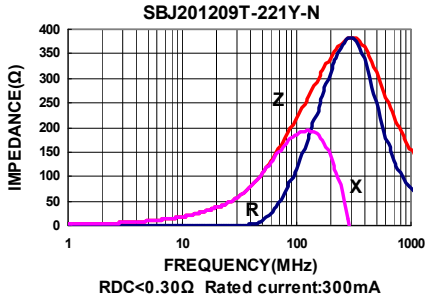
Electrical Characteristics

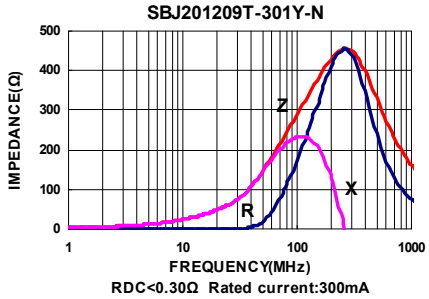
Part Number	Test Frequency (MHz)	Impedance (Ω±25%)	DC Resistance (Ω) Max	Rated current (mA) Max
SBJ201209T-110Y-N	100	11±30%	0.10	600
SBJ201209T-320Y-N	100	32	0.10	600
SBJ201209T-600Y-N	100	60	0.15	500
SBJ201209T-121Y-N	100	120	0.25	300
SBJ201209T-221Y-N	100	220	0.30	300
SBJ201209T-301Y-N	100	300	0.30	300
SBJ201209T-471Y-N	100	470	0.40	300
SBJ201209T-601Y-N	100	600	0.40	300
SBJ201209T-751Y-N	100	750	0.50	200
SBJ201209T-102Y-N	100	1000	0.50	200
SBJ201209T-152Y-N	100	1500	0.60	200
SBJ201209T-202Y-N	100	2000	0.70	200
SBJ201209T-222Y-N	100	2200	0.80	200
SBJ201209T-252Y-N	100	2500	0.80	200
SBJ201209T-272Y-N	100	2700	1.50	100

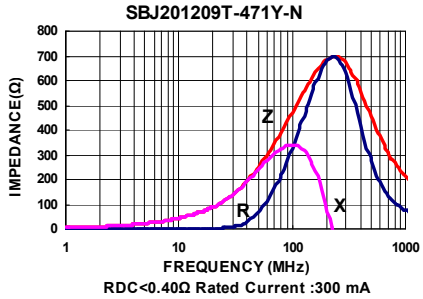
Test Instruments：Agilent E4991A Impedance / Material Analyzer

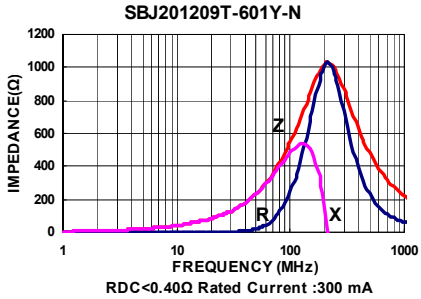


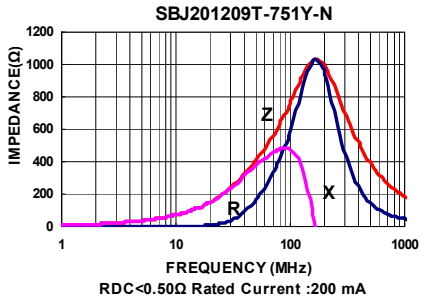


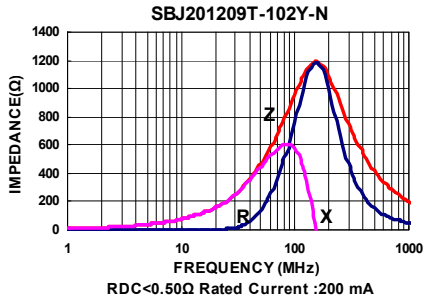


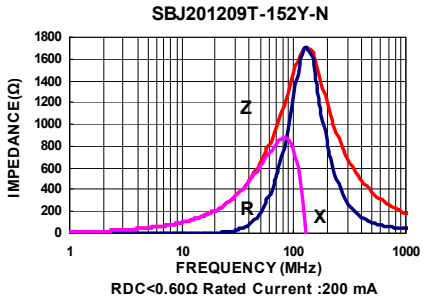








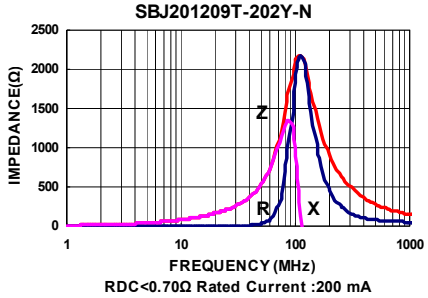




CHILISIN ELECTRONICS CORP.

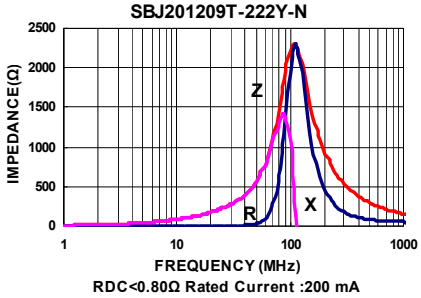
Test Instruments：Agilent E4991A Impedance / Material Analyzer

SBJ201209T-202Y-N



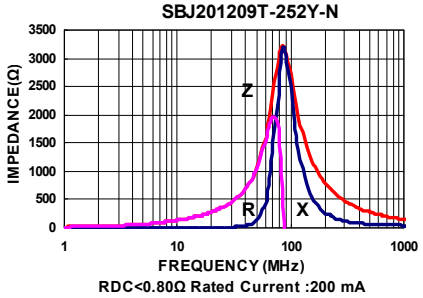
RDC<0.70Ω Rated Current :200 mA

SBJ201209T-222Y-N



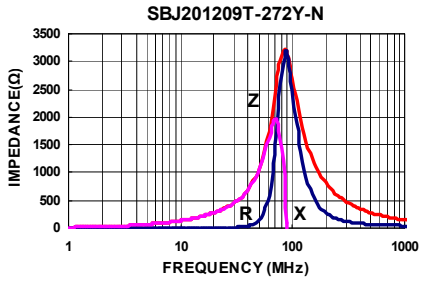
RDC<0.80Ω Rated Current :200 mA

SBJ201209T-252Y-N



RDC<0.80Ω Rated Current :200 mA

SBJ201209T-272Y-N

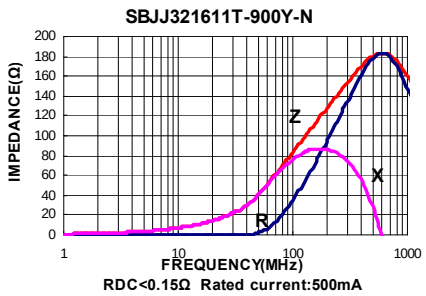


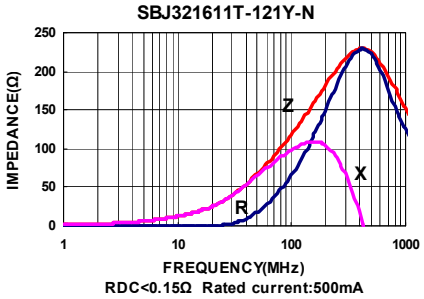
RDC<1.50Ω Rated Current :100 mA

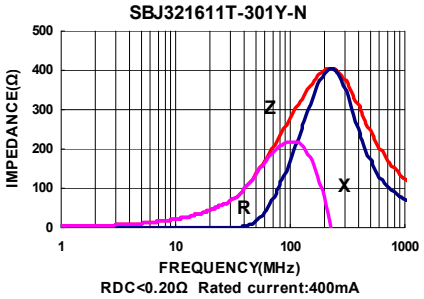
Electrical Characteristics

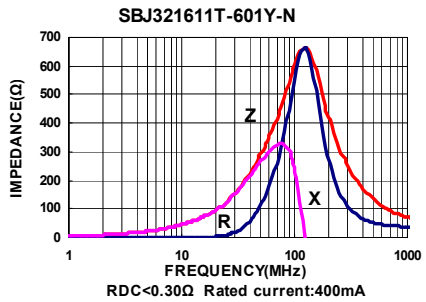
Part Number	Test Frequency (MHz)	Impedance (Ω±25%)	DC Resistance (Ω) Max	Rated current (mA) Max
SBJ321611T-110Y-N	100	11±30%	0.05	600
SBJ321611T-310Y-N	100	31	0.05	600
SBJ321611T-600Y-N	100	60	0.10	500
SBJ321611T-900Y-N	100	90	0.15	500
SBJ321611T-121Y-N	100	120	0.15	500
SBJ321611T-221Y-N	100	220	0.20	400
SBJ321611T-301Y-N	100	300	0.20	400
SBJ321611T-601Y-N	100	600	0.30	400
SBJ321611T-102Y-N	100	1000	0.40	200
SBJ321611T-122Y-N	100	1200	0.40	200
SBJ321611T-152Y-N	100	1500	0.45	200

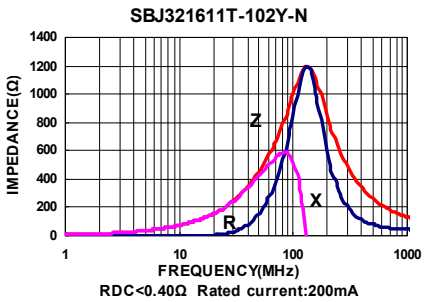
Test Instruments：Agilent E4991A Impedance / Material Analyzer





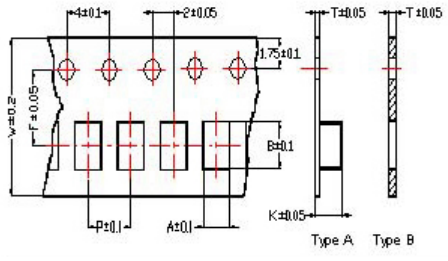




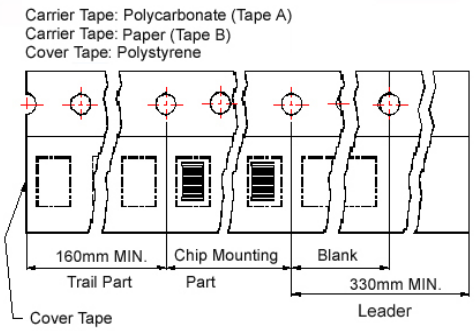


Packaging Specifications

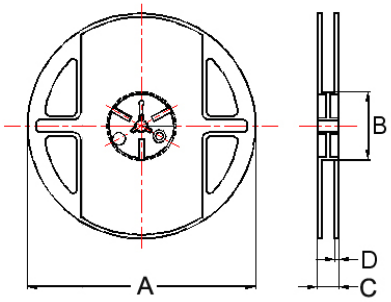
Tape Dimensions



Tape Material



Reel Dimensions



① : SB / PB / NB ② : SB / PB / NB / HF ⑦ : SB / PB
③ : SB / PB / NB / GB / UPB / HF / HP ⑤ : UPB ④ :
SB / PB / NB / GB / UPB ⑥ : SB ⑧ : PB / UPB

Dimensions in mm

TYPE	Tape Dimensions								Reel Dimensions				Quantity
	A	B	T	W	P	F	K	Tape	A	B	C	D	PCS / REEL
①060303	0.38	0.67	0.45	8.0	2.0	3.5	-	B	178	60	10	2	15000
②100505	0.65	1.15	0.60	8.0	2.0	3.5	-	B	178	60	12	2	10000
③160808	1.05	1.85	0.95	8.0	4.0	3.5	-	B	178	60	12	2	4000
④201209	1.50	2.30	0.97	8.0	4.0	3.5	-	B	178	60	12	2	4000
⑤201212	1.35	2.25	0.22	8.0	4.0	3.5	1.35	A	178	60	12	2	3000
④321611	1.88	3.50	0.22	8.0	4.0	3.5	1.27	A	178	60	12	2	3000
⑥321616	1.88	3.53	0.22	8.0	4.0	3.5	1.80	A	178	60	12	2	2000
⑦322513	2.77	3.42	0.22	8.0	4.0	3.5	1.55	A	178	60	12	2	2500
⑧451616	1.93	4.95	0.24	12	4.0	5.5	1.93	A	178	60	14	2	2000
⑧453215	3.66	4.95	0.24	12	8.0	5.5	1.85	A	178	60	14	2	1000