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 VPB series.

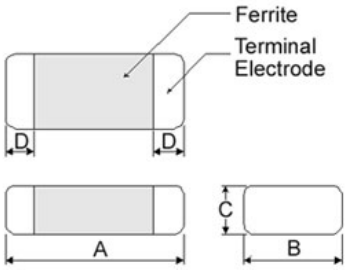
Product Identification

□□□ □□□□□□ □-□□□□-□

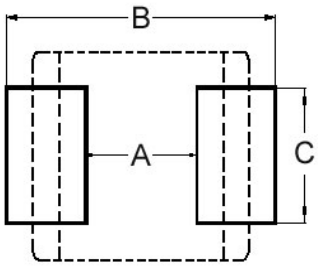
- CEC Internal No.
- Tolerance
- Impedance
- Packaging Style
- Dimensions(A、B、C)
- Design code
- Product Symbol

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

Shape and Dimensions



Recommended Pattern



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

①：SBY / SBJ / NB / PB ②：SBY / SBJ / NB / PB / UPB / HF
③：UPB ④：SBK / SBJ / GB / PB / NB / UPB / VPB
⑤：SBK / GB / PB / UPB ⑥：SBY / SBK / PBY / UPB

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 ~ 1.2
⑥321611	2.0	4.2 ~ 5.2	1.2

＊ 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
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

Electrical Characteristics

Part Number	Impedance (Ω±25%)	Test Frequency (MHz)	RDC (Ω) Max	Rated current (mA) Max
SBY060303T-100Y-N	10	100	0.1	500
SBY060303T-600Y-N	60	100	0.4	200
SBY060303T-121Y-N	120	100	0.5	200
SBY060303T-241Y-N	240	100	0.8	200
SBY060303T-601Y-N	600	100	1.5	100

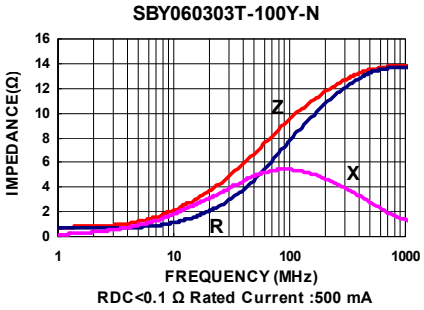
Note: When ordering, please specify tolerance code. Tolerance : Y=±25%

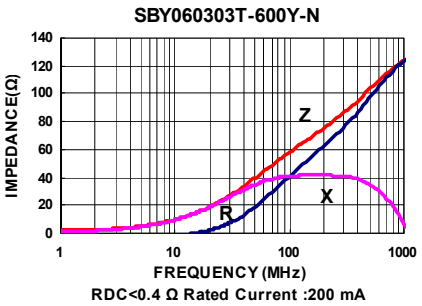
- Operating temperature range - 55℃ ~ 125℃(Including self - temperature rise)
- Rate Current：Applied the current to coils, the temperature rise shall not be more than 30℃
- Measure Equipment：

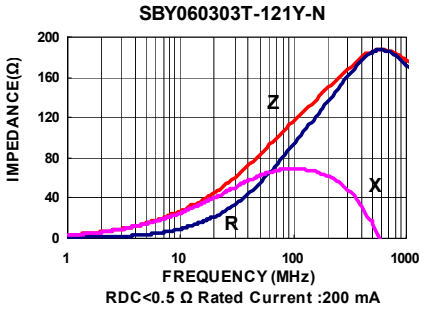
  Z：HP4291A

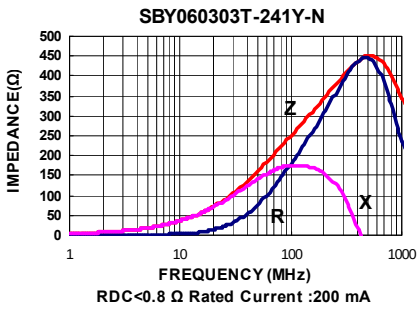
  RDC：HP4338B or CHEN HWA 502

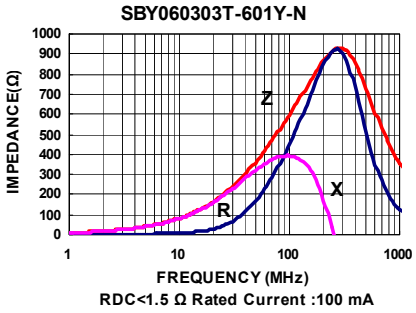
Test Instruments：Agilent E4991A Impedance / Material Analyzer











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 advance notice. Please contact our sales department before ordering.

CHILISIN ELECTRONICS CORP.

Electrical Characteristics

Part Number	Impedance (Ω±25%)	Test Frequency (MHz)	RDC (Ω) Max	Rated current (mA) Max
SBY100505T-100Y-N	10	100	0.025	1000
SBY100505T-110Y-N	11	100	0.05	500
SBY100505T-150Y-N	15	100	0.10	500
SBY100505T-190Y-N	19	100	0.10	500
SBY100505T-220Y-N	22	100	0.15	500
SBY100505T-300Y-N	30	100	0.20	500
SBY100505T-320Y-N	32	100	0.20	500
SBY100505T-330Y-N	33	100	0.20	500
SBY100505T-400Y-N	40	100	0.20	500
SBY100505T-470Y-N	47	100	0.20	500
SBY100505T-500Y-N	50	100	0.20	500
SBY100505T-600Y-N	60	100	0.20	500
SBY100505T-700Y-N	70	100	0.15	600
SBY100505T-750Y-N	75	100	0.20	500
SBY100505T-800Y-N	80	100	0.20	500
SBY100505T-900Y-N	90	100	0.25	500
SBY100505T-101Y-N	100	100	0.25	500
SBY100505T-121Y-N	120	100	0.19	550
SBY100505T-151Y-N	150	100	0.40	400
SBY100505T-181Y-N	180	100	0.40	400
SBY100505T-221Y-N	220	100	0.29	450
SBY100505T-241Y-N	240	100	0.40	400
SBY100505T-301Y-N	300	100	0.50	300
SBY100505T-331Y-N	330	100	0.50	300
SBY100505T-471Y-N	470	100	0.50	300
SBY100505T-481Y-N	480	100	0.50	300
SBY100505T-601Y-N	600	100	0.52	300
SBY100505T-102Y-N	1000	100	0.65	300
SBY100505T-182Y-N	1800	100	1.40	100
SBY100505T-222Y-N	2200	100	1.40	100

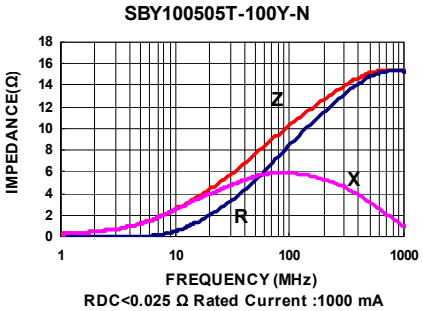
Note: When ordering, please specify tolerance code. Tolerance : Y=±25%

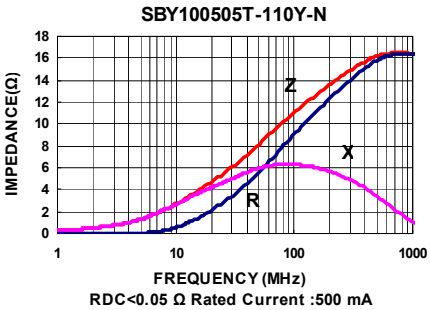
- Operating temperature range - 55℃ ~ 125℃(Including self - temperature rise)
- Rate Current：Applied the current to coils, the temperature rise shall not be more than 30℃
- Measure Equipment：

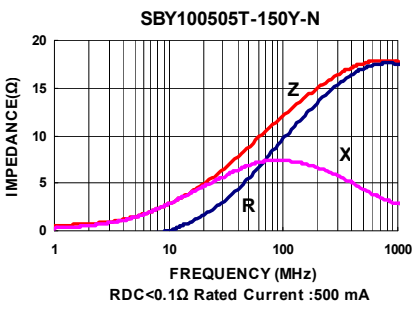
  Z：HP4291A

  RDC：HP4338B or CHEN HWA 502

Test Instruments：Agilent E4991A Impedance / Material Analyzer



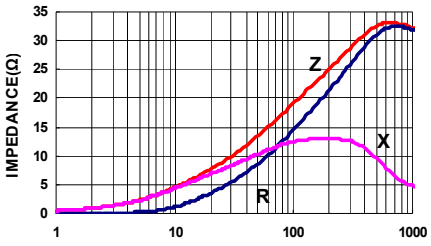




Please be sure to request approval specifications that provide further details of the products. Kindly note that the content of these specifications are subject to change or may be discontinued without advance notice. Please contact our sales department before ordering.

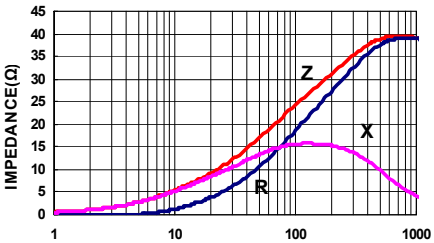
Test Instruments：Agilent E4991A Impedance / Material Analyzer

SBY100505T-190Y-N



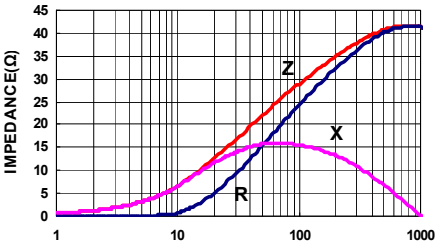
RDC<0.1Ω Rated Current :500 mA

SBY100505T-220Y-N



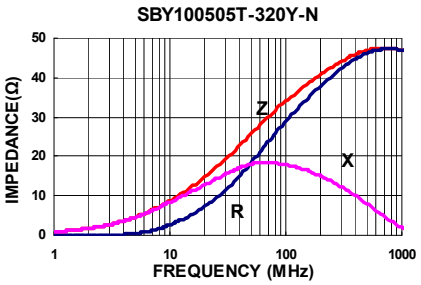
RDC<0.15 Ω Rated Current :500 mA

SBY100505T-300Y-N



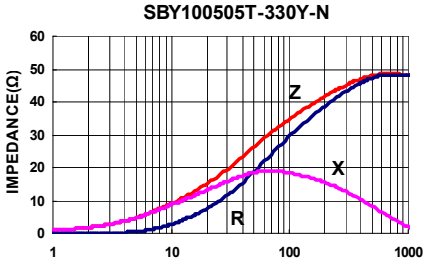
RDC<0.2 Ω Rated Current :500 mA

SBY100505T-320Y-N



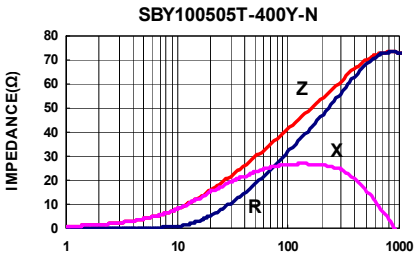
RDC<0.2 Ω Rated Current :500 mA

SBY100505T-330Y-N



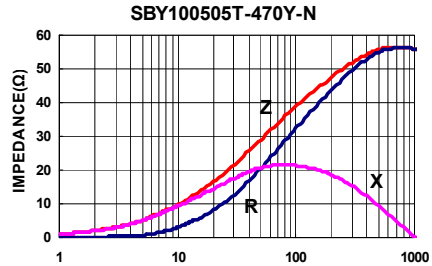
RDC<0.2Ω Rated Current :500 mA

SBY100505T-400Y-N



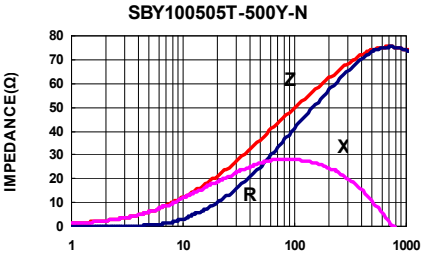
RDC<0.2 Ω Rated Current :500 mA

SBY100505T-470Y-N



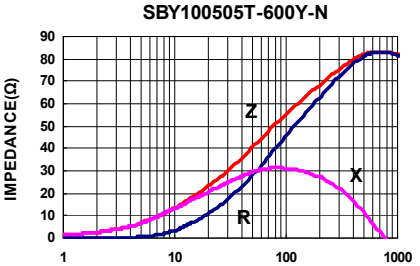
RDC<0.2 Ω Rated Current :500 mA

SBY100505T-500Y-N



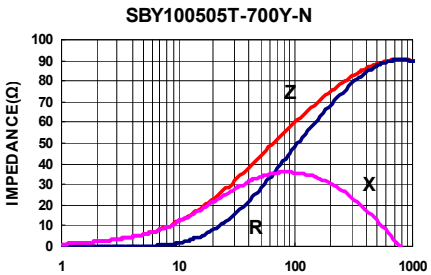
RDC<0.2 Ω Rated Current :500 mA

SBY100505T-600Y-N



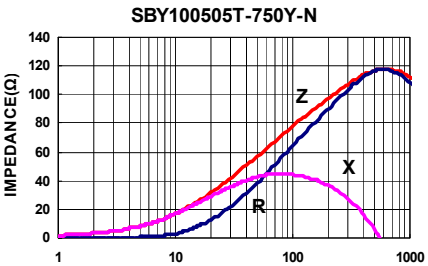
RDC<0.2 Ω Rated Current :500 mA

SBY100505T-700Y-N



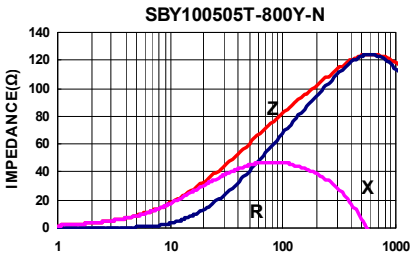
RDC<0.15 Ω Rated Current :600 mA

SBY100505T-750Y-N



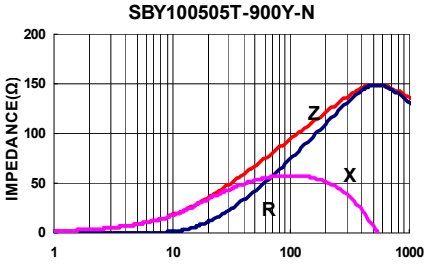
RDC<0.2 Ω Rated Current :500 mA

SBY100505T-800Y-N



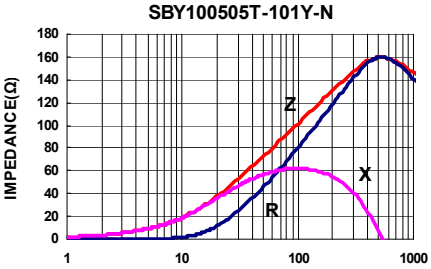
RDC<0.2 Ω Rated Current :500 mA

SBY100505T-900Y-N



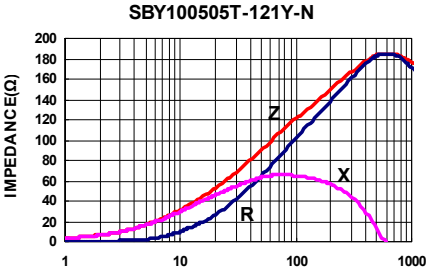
RDC<0.25 Ω Rated Current :500 mA

SBY100505T-101Y-N



RDC<0.25 Ω Rated Current :500 mA

SBY100505T-121Y-N

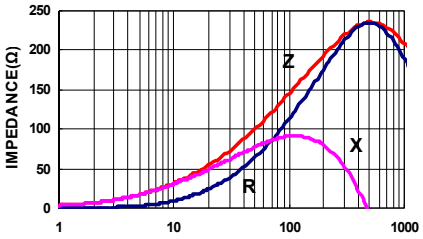


RDC<0.19 Ω Rated Current :550 mA

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 advance notice. Please contact our sales department before ordering.

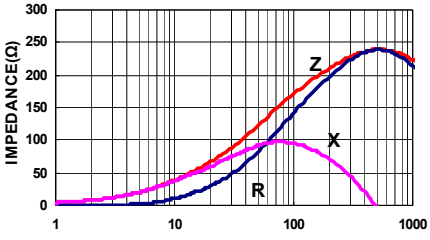
Test Instruments：Agilent E4991A Impedance / Material Analyzer

SBY100505T-151Y-N



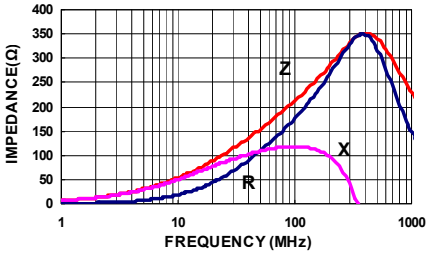
RDC<0.4Ω Rated Current :400 mA

SBY100505T-181Y-N



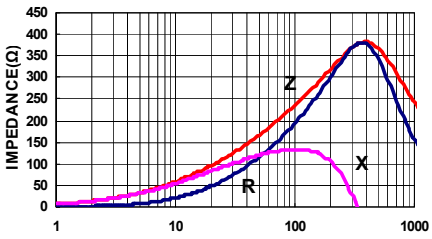
RDC<0.4 Ω Rated Current :400 mA

SBY100505T-221Y-N



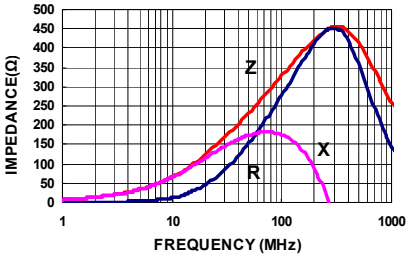
RDC<0.29Ω Rated Current :450 mA

SBY100505T-241Y-N



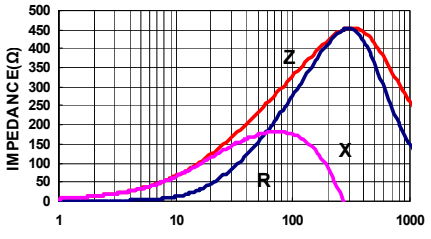
RDC<0.4 Ω Rated Current :400 mA

SBY100505T-301Y-N



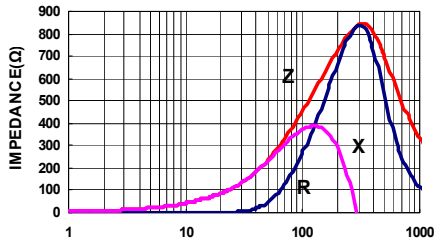
RDC<0.5 Ω Rated Current :300 mA

SBY100505T-331Y-N



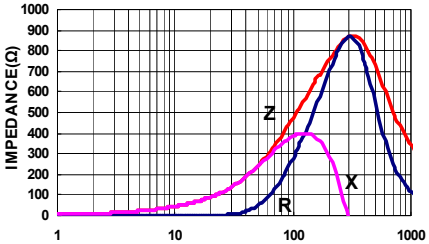
RDC<0.5 Ω Rated Current :300 mA

SBY100505T-471Y-N



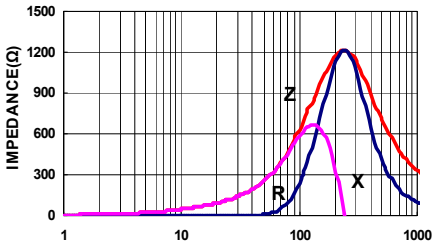
RDC<0.5 Ω Rated Current :300 mA

SBY100505T-481Y-N



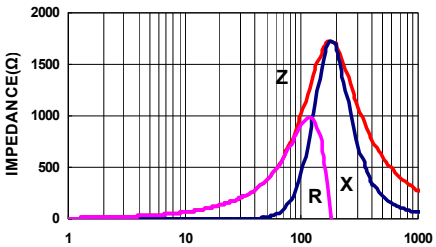
RDC<0.5 Ω Rated Current :300 mA

SBY100505T-601Y-N



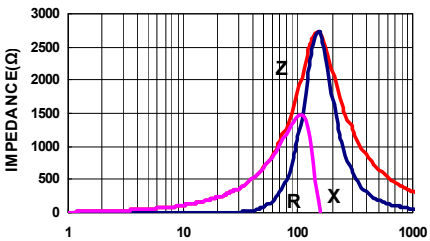
RDC<0.52 Ω Rated Current :300 Ma

SBY100505T-102Y-N



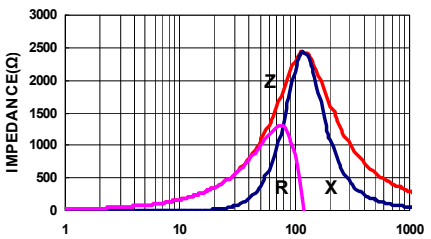
RDC<0.65 Ω Rated Current :300 mA

SBY100505T-182Y-N



RDC< 1.4Ω Rated Current : 100 mA

SBY100505T-222Y-N



RDC< 1.4Ω Rated Current : 100 mA

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 advance notice. Please contact our sales department before ordering.

Electrical Characteristics

Part Number	Impedance (Ω±25%)	Test Frequency (MHz)	RDC (Ω) Max	Rated current (mA) Max
SBK160808T-100Y-N	10	100	0.05	500
SBK160808T-110Y-N	11	100	0.05	500
SBK160808T-300Y-N	30	100	0.10	400
SBK160808T-310Y-N	31	100	0.10	400
SBK160808T-600Y-N	60	100	0.10	400
SBK160808T-800Y-N	80	100	0.15	400
SBK160808T-121Y-N	120	100	0.25	400
SBK160808T-221Y-N	220	100	0.30	300
SBK160808T-301Y-N	300	100	0.40	300
SBK160808T-471Y-N	470	100	0.50	300
SBK160808T-601Y-N	600	100	0.50	300
SBK160808T-102Y-N	1000	100	0.60	300
SBK160808T-152Y-N	1500	100	0.60	300
SBK160808T-182Y-N	1800	100	0.80	200
SBK160808T-202Y-N	2000	100	0.80	200
SBK160808T-222Y-N	2200	100	0.80	200
SBK160808T-252Y-N	2500	100	0.80	200
SBK160808T-272Y-N	2700	100	0.80	200

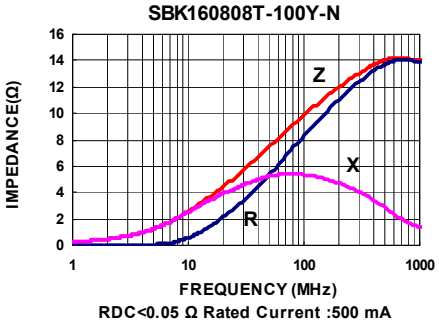
Note: When ordering, please specify tolerance code. Tolerance : Y=±25%

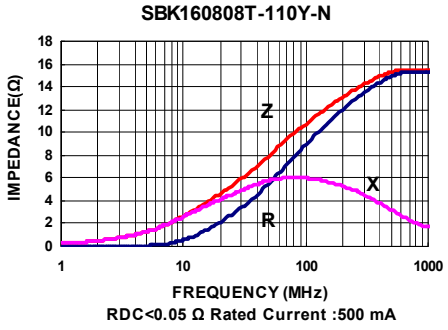
- Operating temperature range - 55℃ ~ 125℃(Including self - temperature rise)
- Rate Current：Applied the current to coils, the temperature rise shall not be more than 30℃
- Measure Equipment：

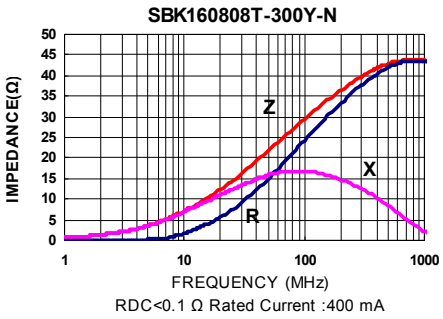
  Z：HP4291A

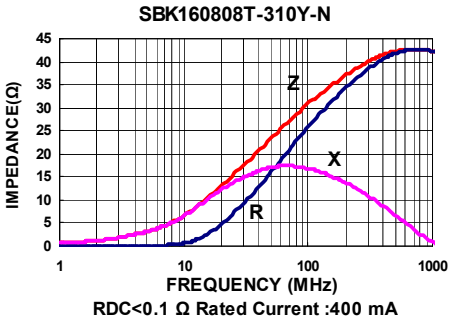
  RDC：HP4338B or CHEN HWA 502

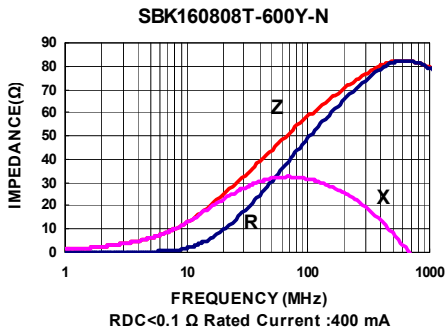
Test Instruments：Agilent E4991A Impedance / Material Analyzer

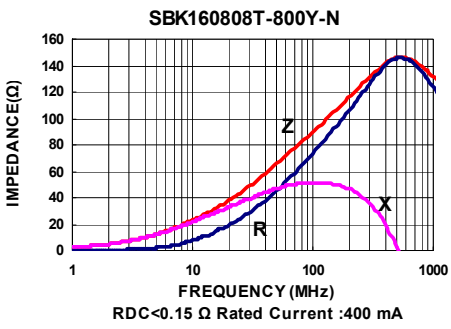








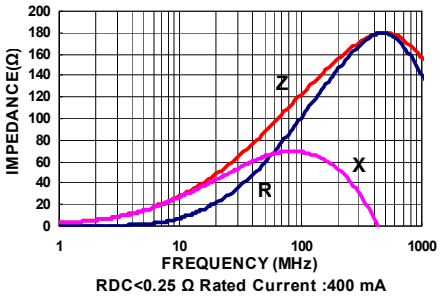




Please be sure to request approval specifications that provide further details of the products. Kindly note that the content of these specifications are subject to change or may be discontinued without advance notice. Please contact our sales department before ordering.

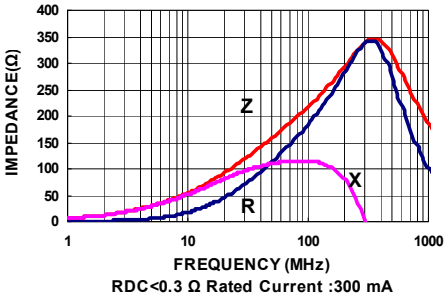
Test Instruments：Agilent E4991A Impedance / Material Analyzer

SBK160808T-121Y-N



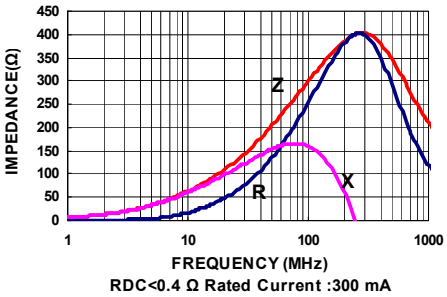
RDC<0.25 Ω Rated Current :400 mA

SBK160808T-221Y-N



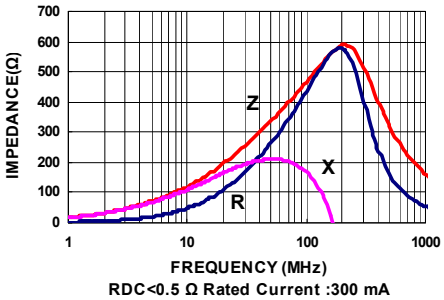
RDC<0.3 Ω Rated Current :300 mA

SBK160808T-301Y-N



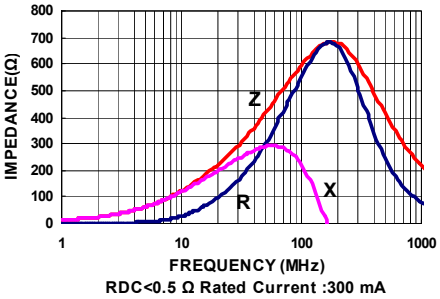
RDC<0.4 Ω Rated Current :300 mA

SBK160808T-471Y-N



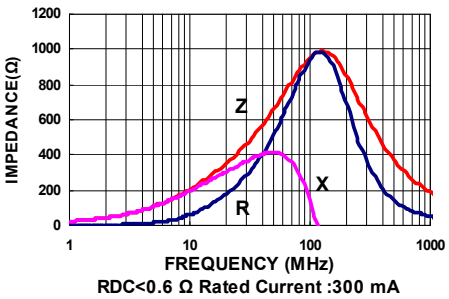
RDC<0.5 Ω Rated Current :300 mA

SBK160808T-601Y-N



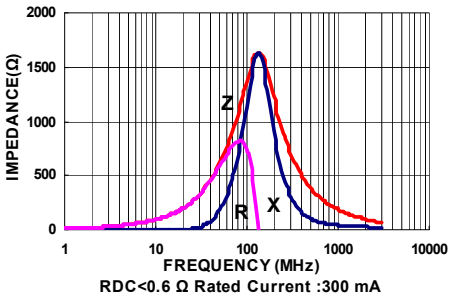
RDC<0.5 Ω Rated Current :300 mA

SBK160808T-102Y-N



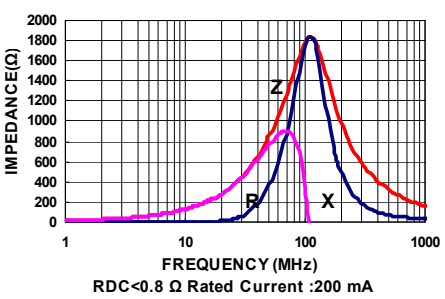
RDC<0.6 Ω Rated Current :300 mA

SBK160808T-152Y-N



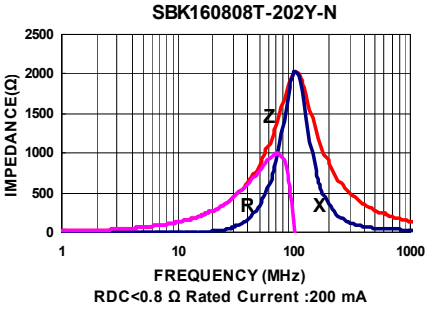
RDC<0.6 Ω Rated Current :300 mA

SBK160808T-182Y-N



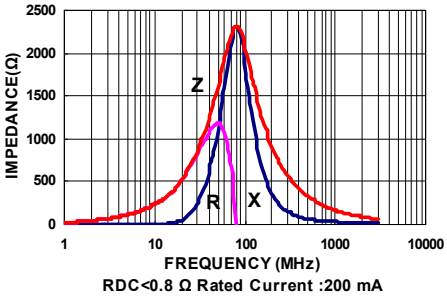
RDC<0.8 Ω Rated Current :200 mA

SBK160808T-202Y-N



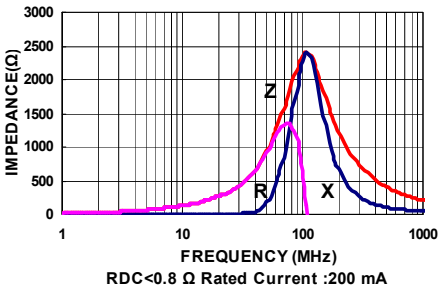
RDC<0.8 Ω Rated Current :200 mA

SBK160808T-222Y-N



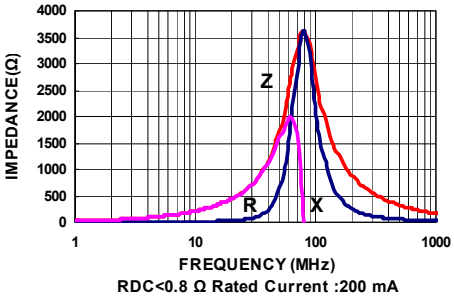
RDC<0.8 Ω Rated Current :200 mA

SBK160808T-252Y-N



RDC<0.8 Ω Rated Current :200 mA

SBK160808T-272Y-N



RDC<0.8 Ω Rated Current :200 mA

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 advance notice. Please contact our sales department before ordering.

Electrical Characteristics

Part Number	Impedance (Ω±25%)	Test Frequency (MHz)	DC Resistance (Ω) Max	Rated current (mA) Max
SBK201209T-600Y-N	60	100	0.15	500
SBK201209T-800Y-N	80	100	0.15	500
SBK201209T-121Y-N	120	100	0.25	300
SBK201209T-221Y-N	220	100	0.30	300
SBK201209T-301Y-N	300	100	0.30	300
SBK201209T-431Y-N	430	100	0.40	300
SBK201209T-471Y-N	470	100	0.40	300
SBK201209T-601Y-N	600	100	0.40	300
SBK201209T-102Y-N	1000	100	0.50	200
SBK201209T-122Y-N	1200	100	0.60	200
SBK201209T-152Y-N	1500	100	0.60	200
SBK201209T-202Y-N	2000	100	0.70	200
SBK201209T-222Y-N	2200	100	0.70	200
SBK201209T-252Y-N	2500	100	0.70	200
SBK201209T-272Y-N	2700	100	0.70	200

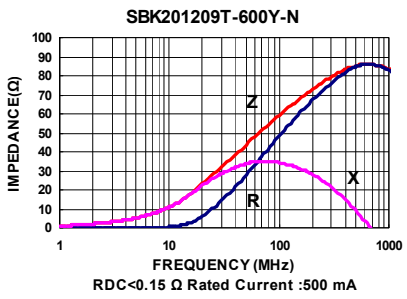
Note: When ordering, please specify tolerance code. Tolerance : Y=±25%

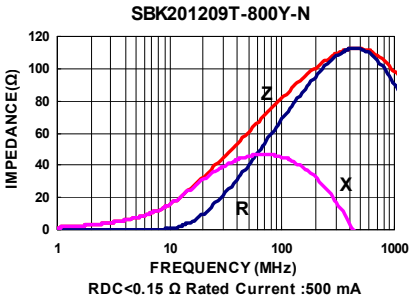
- Operating temperature range - 55℃ ~ 125℃(Including self - temperature rise)
- Rate Current：Applied the current to coils, the temperature rise shall not be more than 30℃
- Measure Equipment：

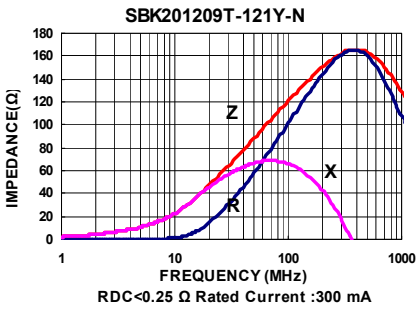
  Z：HP4291A

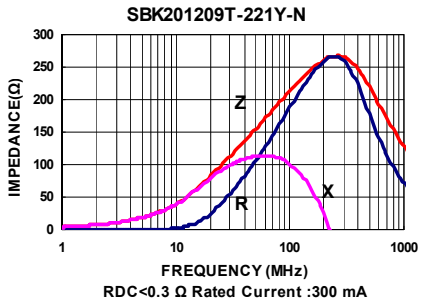
  RDC：HP4338B or CHEN HWA 502

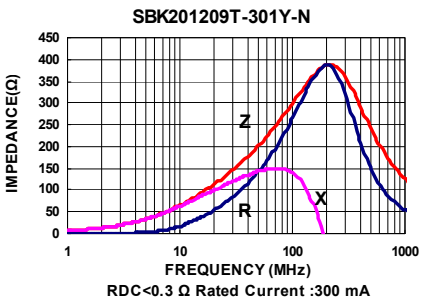
Test Instruments： Agilent E4991A Impedance / Material Analyzer

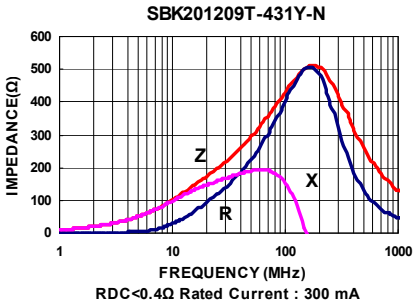










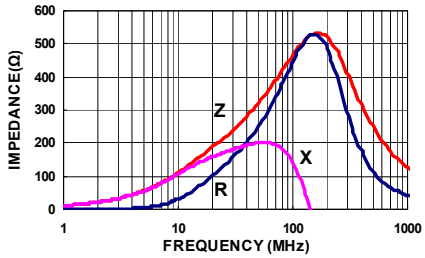


Please be sure to request approval specifications that provide further details of the products. Kindly note that the content of these specifications are subject to change or may be discontinued without advance notice. Please contact our sales department before ordering.

CHILISIN ELECTRONICS CORP.

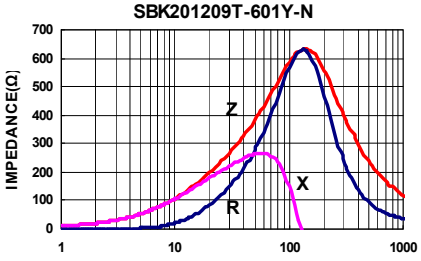
Test Instruments：Agilent E4991A Impedance / Material Analyzer

SBK201209T-471Y-N



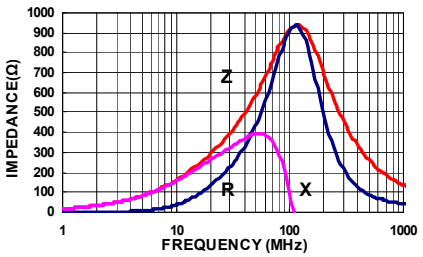
RDC<0.4Ω Rated Current : 300 mA

SBK201209T-601Y-N



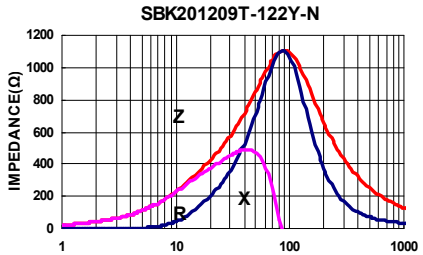
RDC<0.4 Ω Rated Current :300 mA

SBK201209T-102Y-N



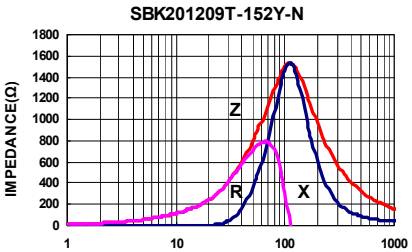
RDC<0.5 Ω Rated Current :200 mA

SBK201209T-122Y-N



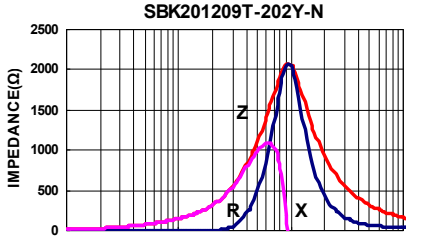
RDC<0.6 Ω Rated Current :200 mA

SBK201209T-152Y-N



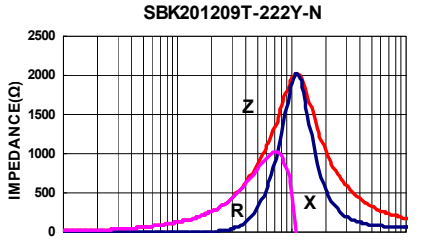
RDC<0.6 Ω Rated Current :200 mA

SBK201209T-202Y-N



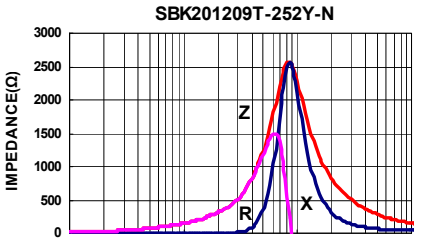
RDC<0.7Ω Rated Current :200 mA

SBK201209T-222Y-N



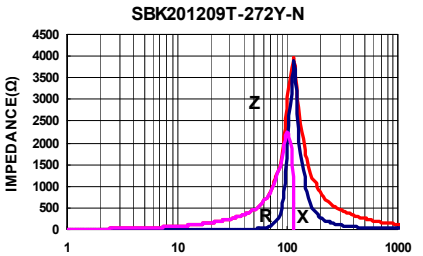
RDC<0.7 Ω Rated Current :200 mA

SBK201209T-252Y-N



RDC<0.7 Ω Rated Current :200 mA

SBK201209T-272Y-N



RDC<0.7 Ω Rated Current :200 mA

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 advance notice. Please contact our sales department before ordering.

Electrical Characteristics

Part Number	Impedance (Ω±25%)	Test Frequency (MHz)	RDC (Ω) Max	Rated current (mA) Max
SBK321611T-900Y-N	90	100	0.15	500
SBK321611T-121Y-N	120	100	0.15	500
SBK321611T-471Y-N	470	100	0.20	400
SBK321611T-601Y-N	600	100	0.30	400
SBK321611T-102Y-N	1000	50	0.40	200
SBK321611T-122Y-N	1200	50	0.40	200
SBK321611T-152Y-N	1500	50	0.45	200

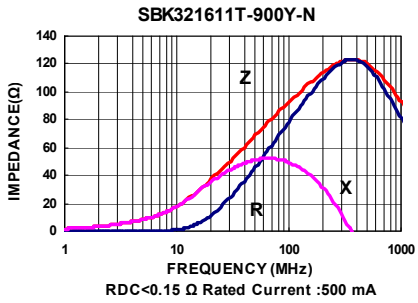
Note: When ordering, please specify tolerance code. Tolerance : Y=±25%

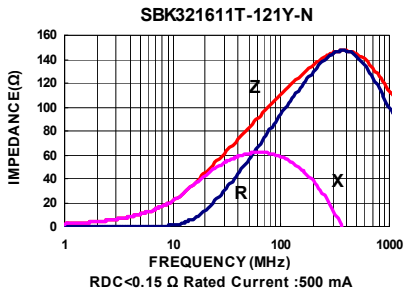
- Operating temperature range - 55℃ ~ 125℃(Including self - temperature rise)
- Rate Current：Applied the current to coils, the temperature rise shall not be more than 30℃
- Measure Equipment：

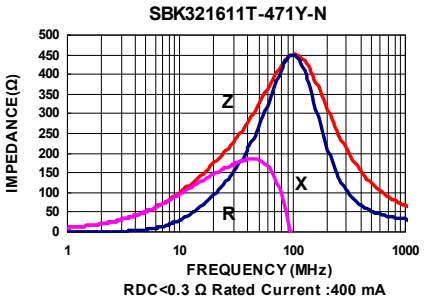
  Z：HP4291A

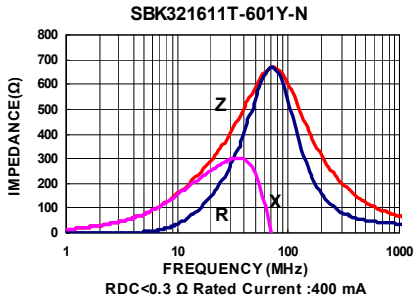
  RDC：HP4338B or CHEN HWA 502

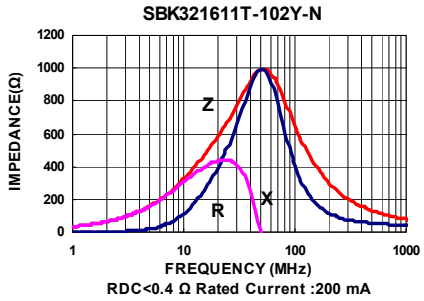
Test Instruments：Agilent E4991A Impedance / Material Analyzer

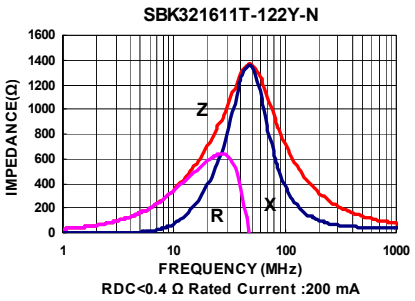


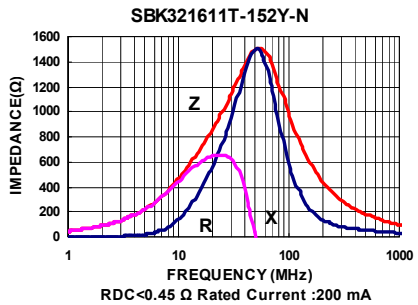










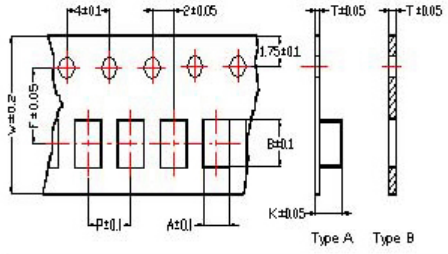


Please be sure to request approval specifications that provide further details of the products. Kindly note that the content of these specifications are subject to change or may be discontinued without advance notice. Please contact our sales department before ordering.

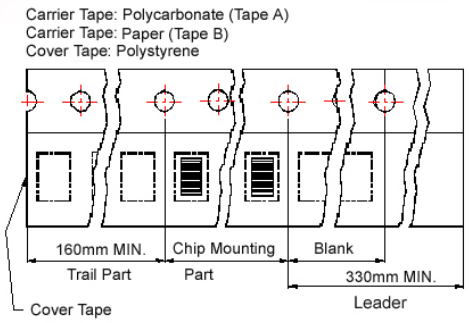
CHILISIN ELECTRONICS CORP.

Packaging Specifications

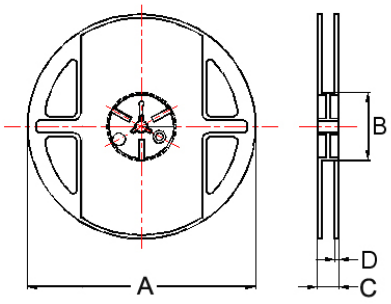
Tape Dimensions



Tape Material



Reel Dimensions



①：SBY / SBJ / NB / PB
②：SBY / SBJ / NB / PB / UPB / HF ③：UPB
④：SBK / SBJ / GB / PB / NB / UPB / VPB
⑤：SBK / GB / PB / UPB ⑥：SBY / SBK / PBY / 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	0.37	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