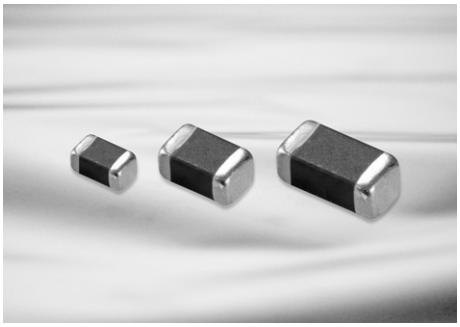
Chip Bead ; CIB/CIM Series
For EMI Suppression



Feature

- Smallest beads suitable for surface mounting
- Perfect shape for automatic mounting, with no directionality.
- Excellent solderability and high heat resistance for either flow or reflow soldering.
- Monolithic inorganic material construction for high reliability.
- Closed magnetic circuit configuration avoids crosstalk and is suitable for high density PCBs.

Application

- High frequency EMI prevention application to computers, printers, VCRs, TVs and mobile phones.

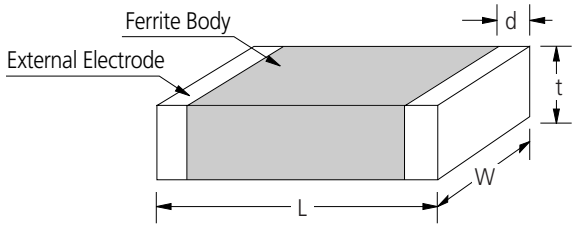
The CIB/CIM Series are used for EMI suppression filter. These beads suppress electro-magnetic wave noise by increased impedance, especially by increased resistance at noise frequency.

CIB Series
The CIB Series is composed of mono-layer internal conductor that allows low impedance and low DC resistance.

CIM Series
The CIM Series display high impedance because it is composed of a multilayered internal conductor and has excellent attenuation characteristics for wide band frequencies.

Operating Temp	-55~+125℃
Storage Temp	-10~+40℃

Dimensions



Unit: mm

SIZE CODE	L	W	t	d
03	0.6±0.03	0.3±0.03	0.3±0.03	0.15±0.05
05	1.0±0.05	0.5±0.05	0.5±0.05	0.25±0.1
10	1.6±0.15	0.8±0.15	0.8±0.15	0.3±0.2
21	2.0±0.2	1.25±0.2	0.9±0.2	0.5+0.2,-0.3
31	3.2±0.2	1.6±0.2	1.1±0.2	0.5+0.2,-0.3
32	3.2±0.2	2.5±0.2	1.3±0.2	0.5±0.3
41	4.5±0.2	1.6±0.2	1.6±0.2/1.2±0.2	0.5±0.3
43	4.5±0.2	3.2±0.2	1.5±0.2	0.5±0.3

Part Numbering

CI	M	03	J	121	N	C
(1)	(2)	(3)	(4)	(5)	(6)	(7)

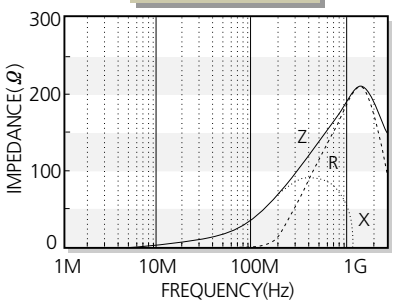
(1) Chip Beads
(2) B : Mono-layer type, M : Multi-layer type
(3) Dimension
(4) Material Code
P,U : Broad impedance, especially suppresses noise in the 10~200MHz range
J : Suppresses noise in the 100~300MHz range
K : Suppresses noise in the 200MHz above
N : Suppresses noise in the 200~500MHz range
(5) Nominal impedance (110 : 11Ω ; 121 : 120Ω)
(6) Thickness option (N : Standard , A : Thinner than standard , B : Thicker than standard)
(7) Packaging (C : paper tape, E : embossed tape)

CIM 0603(0201) Type

Part No.	Thickness (mm)	Impedance (Ω)±25% @100 MHz	DC Resistance (Ω) Max.	Rated Current (mA) Max.
CIM 03N 300	0.3±0.03	30	0.8	150
CIM 03N 800	0.3±0.03	80	1.2	100
CIM 03U 800	0.3±0.03	80	0.5	200
CIM 03U 121	0.3±0.03	120	0.8	200
CIM 03U 241	0.3±0.03	240	1.0	100
CIM 03J 121	0.3±0.03	120	0.8	200
CIM 03J 241	0.3±0.03	240	1.0	100

Electrical Characteristics

CIM03N300



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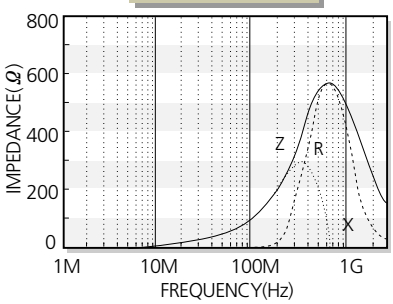

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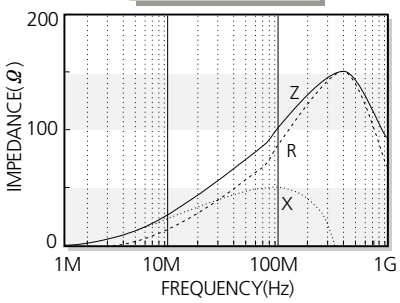

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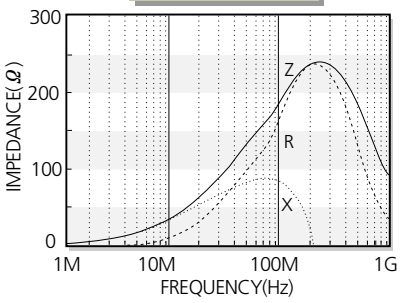

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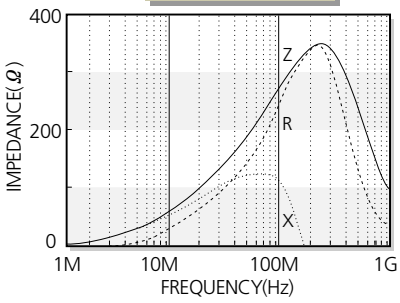

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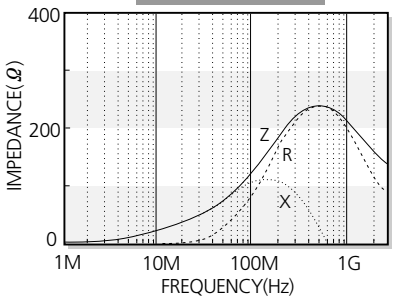

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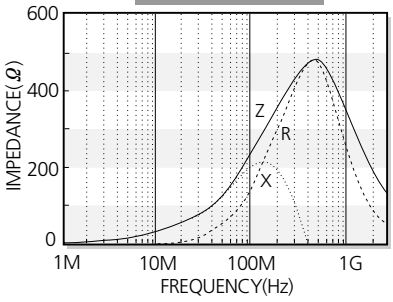
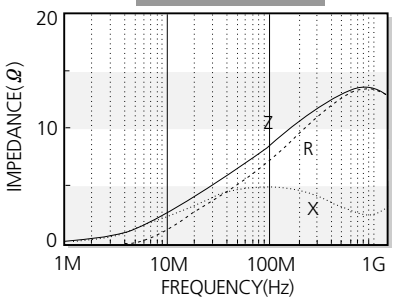


CIM 1005(0402) Type

Part No.	Thickness (mm)	Impedance (Ω)±25% @100 MHz	DC Resistance (Ω) Max.	Rated Current (mA) Max.
CIM 05U 100	0.5±0.05	10	0.05	1200
CIM 05U 300	0.5±0.05	30	0.10	700
CIM 05U 600	0.5±0.05	60	0.15	600
CIM 05U 800	0.5±0.05	80	0.20	600
CIM 05U 121	0.5±0.05	120	0.25	500
CIM 05U 221	0.5±0.05	220	0.35	400
CIM 05U 241	0.5±0.05	240	0.35	400
CIM 05U 301	0.5±0.05	300	0.45	400
CIM 05U 471	0.5±0.05	470	0.55	300
CIM 05U 601	0.5±0.05	600	0.60	300
CIM 05U 102	0.5±0.05	1000	1.00	200
CIM 05 J 300	0.5±0.05	30	0.20	700
CIM 05 J 600	0.5±0.05	60	0.20	600
CIM 05 J 800	0.5±0.05	80	0.25	600
CIM 05 J 121	0.5±0.05	120	0.30	500
CIM 05 J 221	0.5±0.05	220	0.35	400
CIM 05 J 241	0.5±0.05	240	0.35	400
CIM 05 J 301	0.5±0.05	300	0.45	400
CIM 05 J 471	0.5±0.05	470	0.55	300
CIM 05 J 601	0.5±0.05	600	0.60	300
CIM 05 J 102	0.5±0.05	1000	0.80	250
CIM 05 J 152	0.5±0.05	1500	1.00	250
CIM 05 J 182	0.5±0.05	1800	1.40	100
CIM 05 N 750	0.5±0.05	75	0.35	300
CIM 05 N 121	0.5±0.05	120	0.55	300
CIM 05 N 221	0.5±0.05	220	0.80	200
CIM 05 F 050	0.5±0.05	5	0.08	500
CIM 05 F 100	0.5±0.05	10	0.10	300
CIM 05 F 220	0.5±0.05	22	0.20	300
CIM 05 F 470	0.5±0.05	47	0.35	300
CIM 05 F 750	0.5±0.05	75	0.40	300
CIM 05 F 121	0.5±0.05	120	0.55	300
CIM 05 F 221	0.5±0.05	220	0.80	200

Electrical Characteristics

CIM05U100



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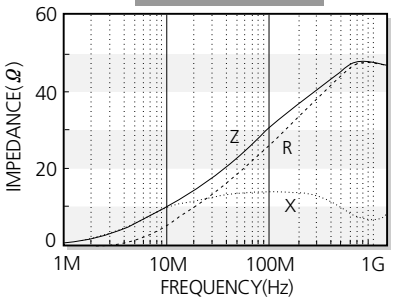

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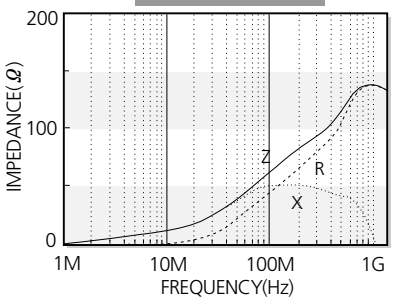

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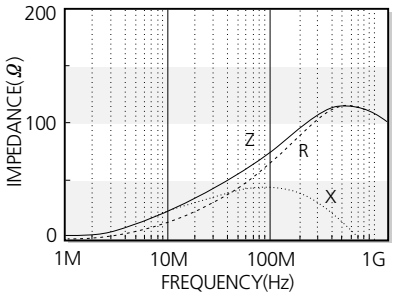

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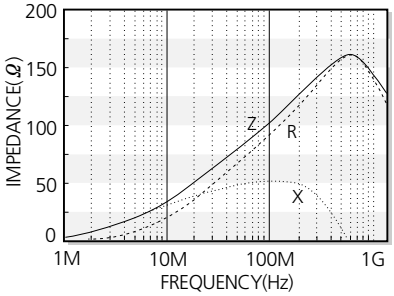

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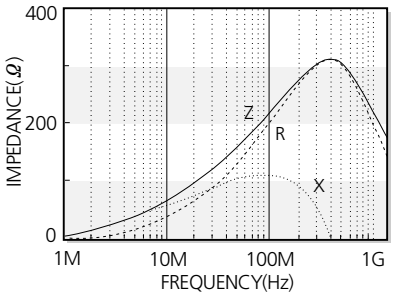

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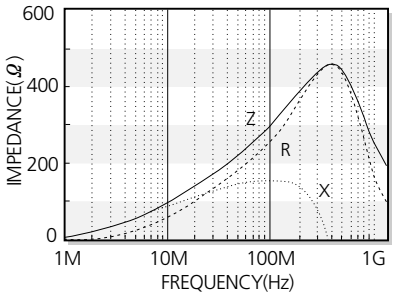

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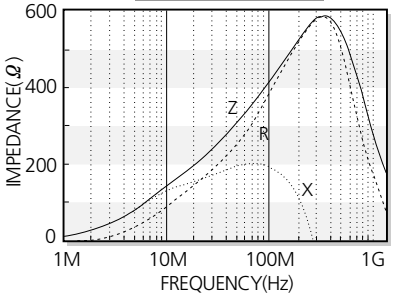

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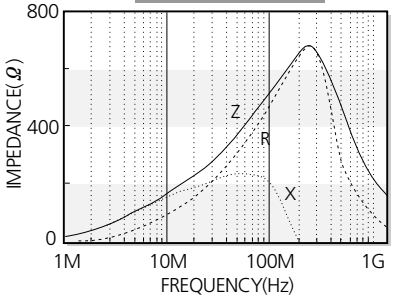

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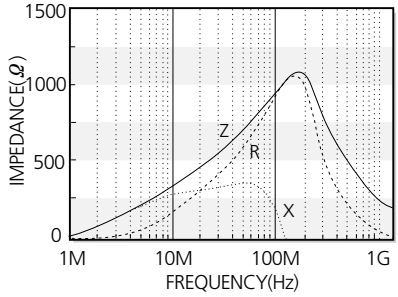

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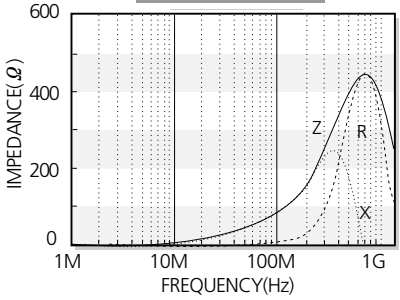

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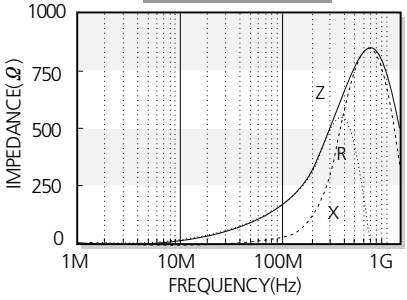

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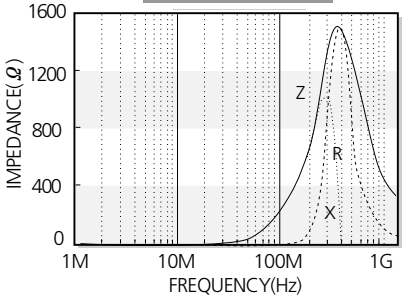
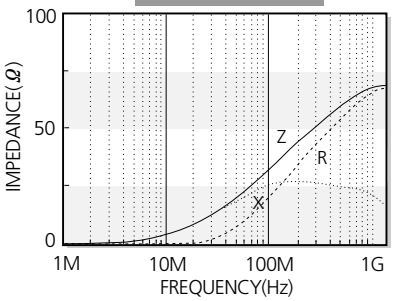


Electrical Characteristics

CIM05J300



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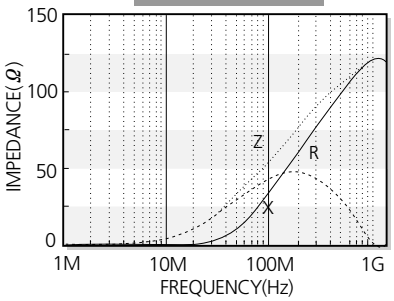

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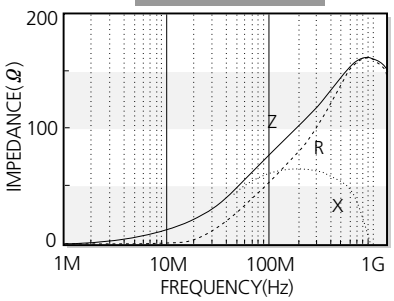

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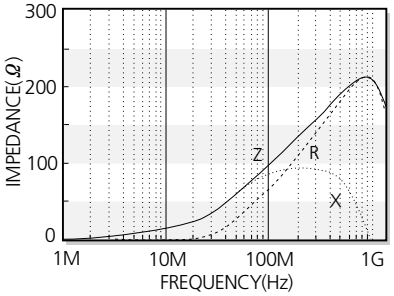

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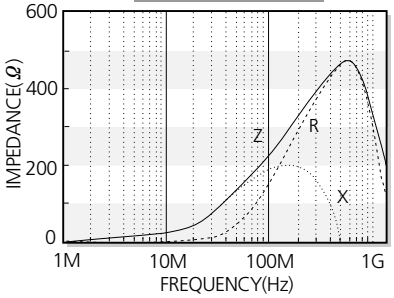

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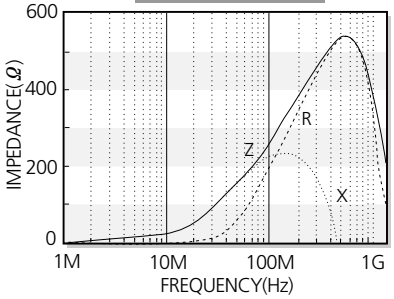

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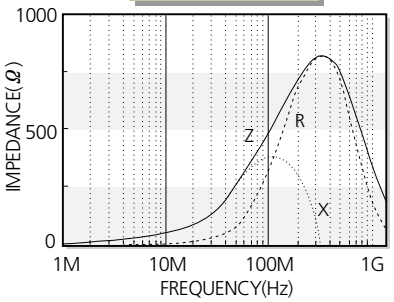

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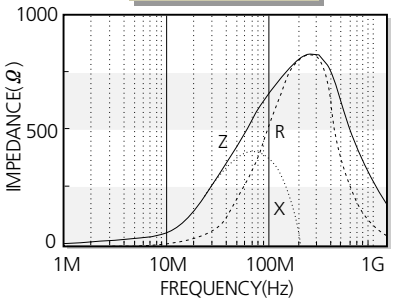

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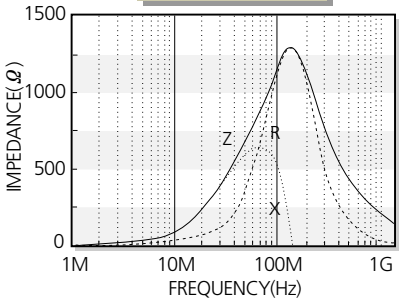

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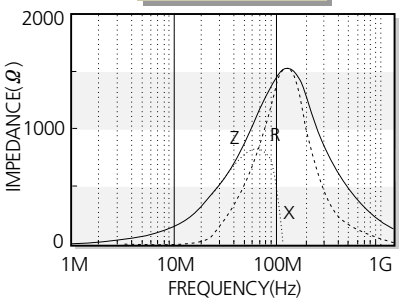

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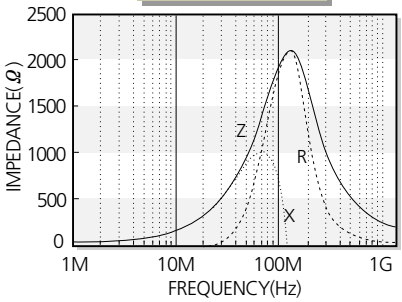

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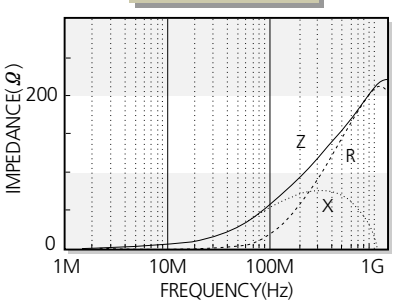

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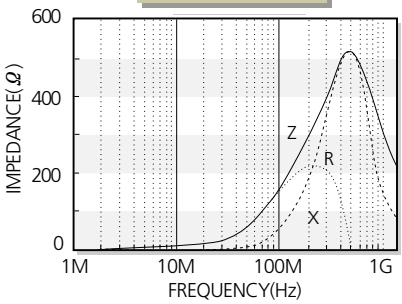
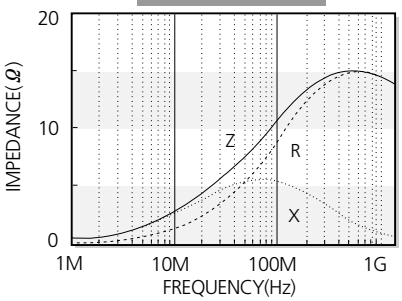


CIB/CIM 1608(0603) Type

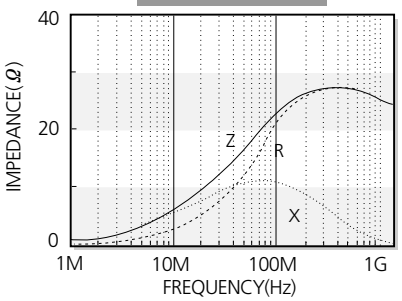
Part No.	Thickness (mm)	Impedance (Ω)±25% @100 MHz	DC Resistance (Ω) Max.	Rated Current (mA) Max.
CIB 10P 100	0.8±0.15	10	0.05	1000
CIB 10P 220	0.8±0.15	22	0.05	1500
CIB 10P 260	0.8±0.15	26	0.08	1000
CIB 10P 300	0.8±0.15	30	0.08	1000
CIB 10J 300	0.8±0.15	30	0.08	1000
CIB 10P 330	0.8±0.15	33	0.08	1000
CIM 10U 800	0.8±0.15	80	0.15	600
CIM 10U 121	0.8±0.15	120	0.15	500
CIM 10U 221	0.8±0.15	220	0.30	400
CIM 10U 241	0.8±0.15	240	0.30	400
CIM 10U 471	0.8±0.15	470	0.35	300
CIM 10U 601	0.8±0.15	600	0.45	300
CIM 10U 102	0.8±0.15	1000	0.60	250
CIM 10U 202	0.8±0.15	2000(at 70MHz)	1.20	200
CIM 10J 400	0.8±0.15	40	0.12	600
CIM 10J 470	0.8±0.15	47	0.12	600
CIM 10J 600	0.8±0.15	60	0.12	600
CIM 10J 750	0.8±0.15	75	0.12	550
CIM 10J 800	0.8±0.15	80	0.20	550
CIM 10J 121	0.8±0.15	120	0.20	500
CIM 10J 151	0.8±0.15	150	0.20	400
CIM 10J 221	0.8±0.15	220	0.30	400
CIM 10J241	0.8±0.15	240	0.30	400
CIM 10J301	0.8±0.15	300	0.35	400
CIM 10J331	0.8±0.15	330	0.35	400
CIM 10J 471	0.8±0.15	470	0.35	300
CIM 10J 601	0.8±0.15	600	0.45	300
CIM 10J 751	0.8±0.15	750	0.55	300
CIM 10J 102	0.8±0.15	1000	0.70	250
CIM 10J 152	0.8±0.15	1500	1.00	250
CIM 10J 252	0.8±0.15	2500	1.50	200
CIM 10K 152	0.8±0.15	1500	0.80	250
CIM 10K 202	0.8±0.15	2000	1.00	200
CIM 10K 252	0.8±0.15	2500	1.20	200
CIM 10N 700	0.8±0.15	70	0.30	500
CIM 10N 121	0.8±0.15	120	0.45	400
CIM 10N 241	0.8±0.15	240	0.60	300
CIM 10F 470	0.8±0.15	47	0.25	550
CIM 10F 600	0.8±0.15	60	0.25	550
CIM 10F 121	0.8±0.15	120	0.30	500
CIM 10F 331	0.8±0.15	330	0.58	400
CIM 10F471	0.8±0.15	470	0.85	300

Electrical Characteristics

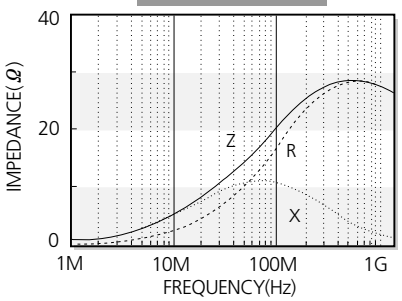
CIB10P100



CIB10P220



CIB10P260



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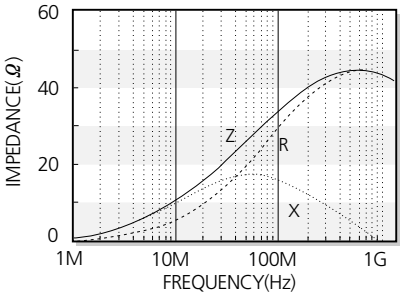

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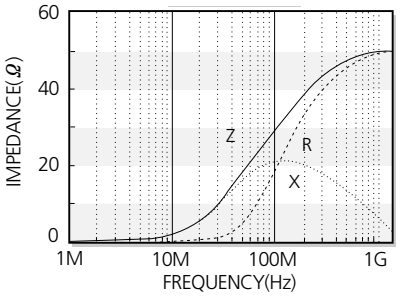

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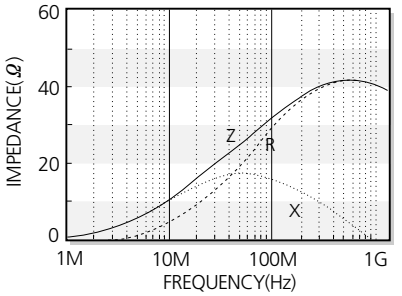

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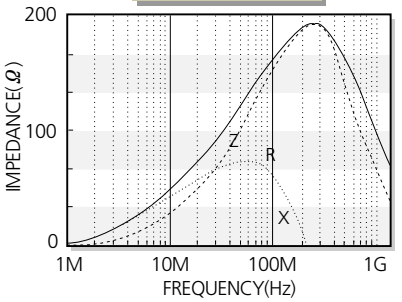

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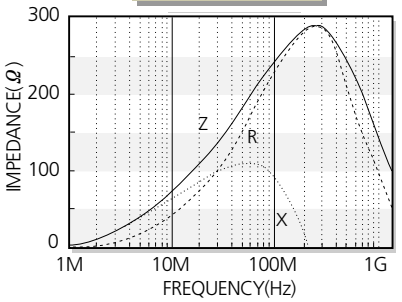

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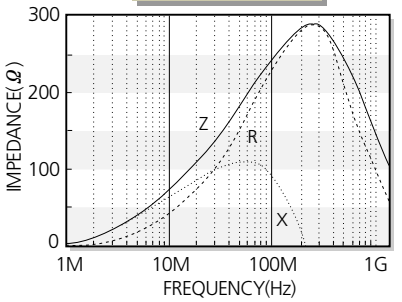

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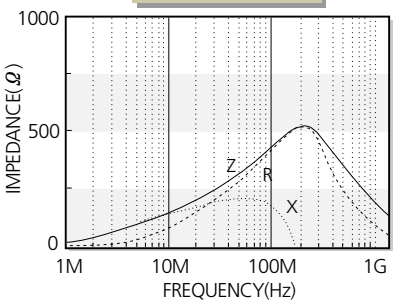

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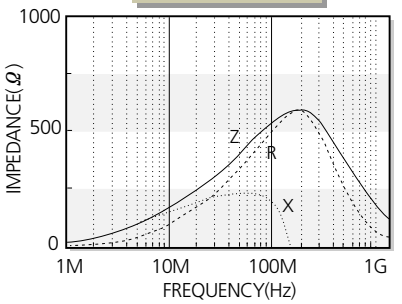

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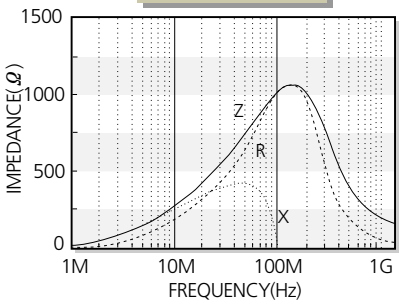

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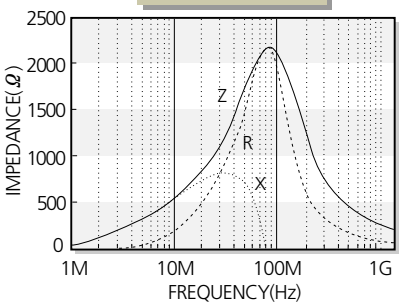
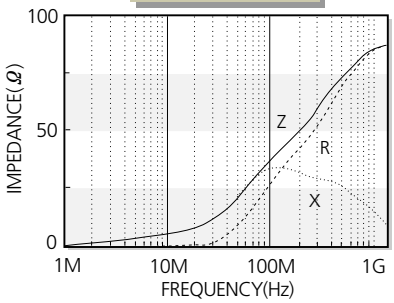


Electrical Characteristics

CIM10J400



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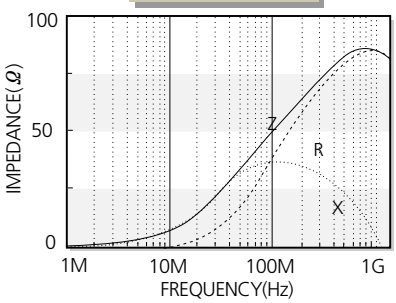

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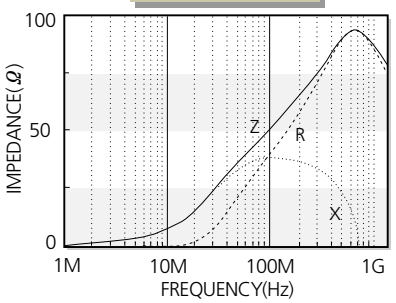

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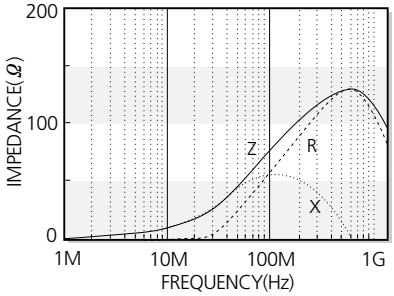

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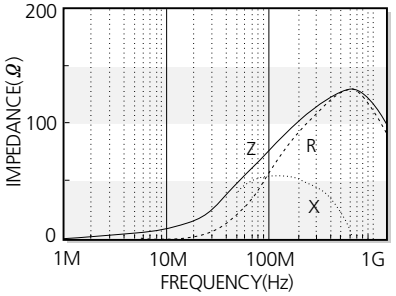

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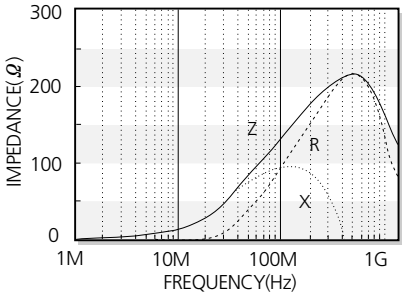

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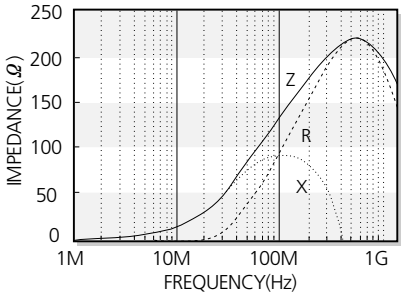

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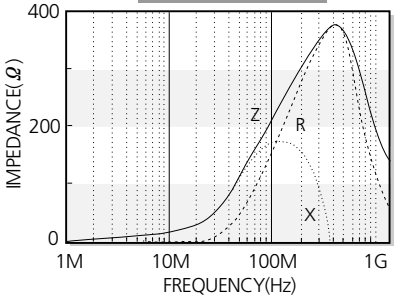

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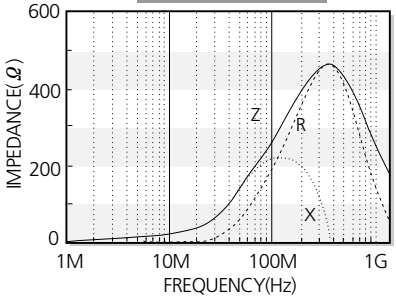

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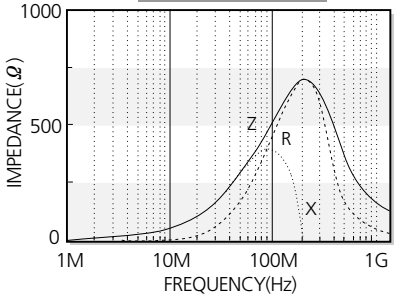

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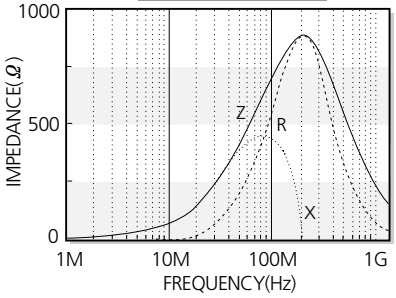

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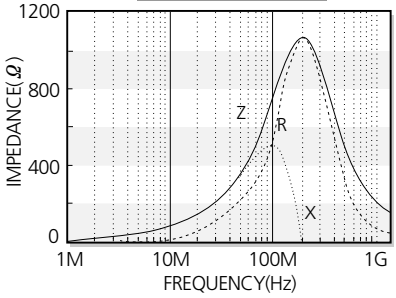

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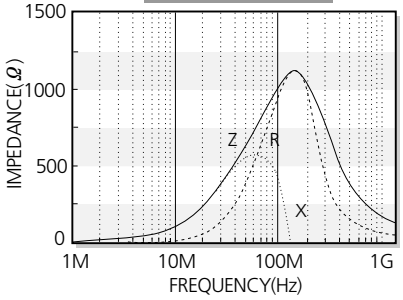

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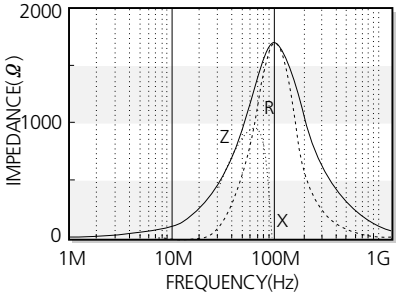

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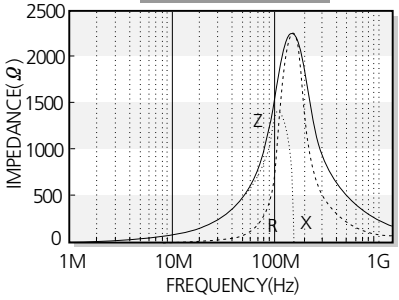

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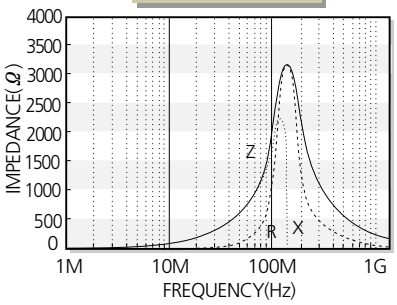

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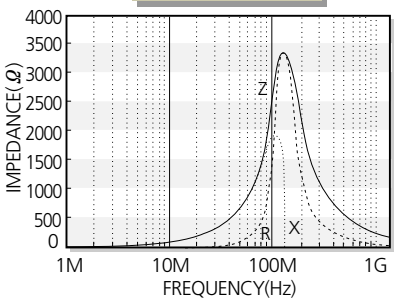

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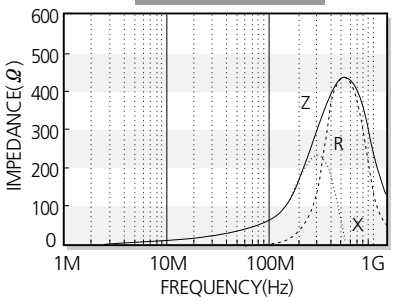

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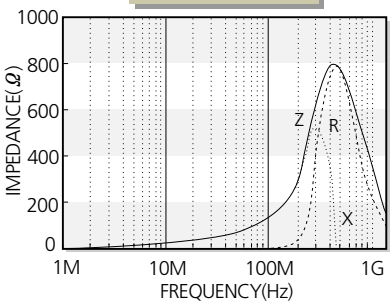

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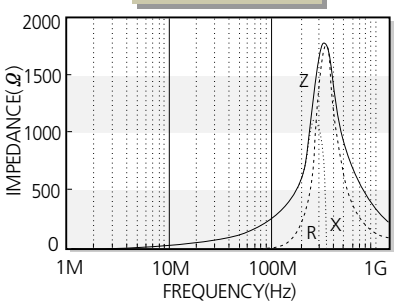

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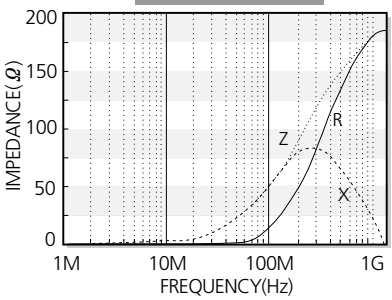

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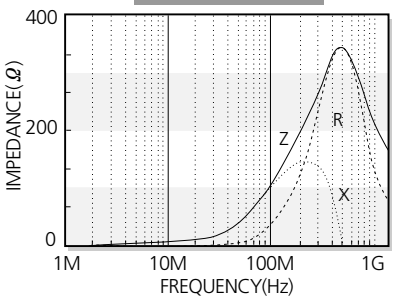
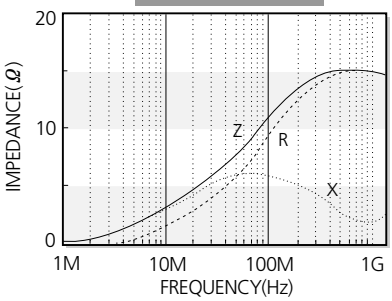


CIB/CIM 2012(0805) Type

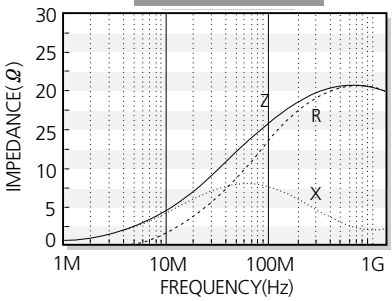
Part No.	Thickness (mm)	Impedance (Ω)±25% @100 MHz	DC Resistance (Ω) Max.	Rated Current (mA) Max.
CIB 21P 110	0.9±0.2	11	0.05	2000
CIB 21P 150	0.9±0.2	15	0.05	2000
CIB 21P 260	0.9±0.2	26	0.05	2000
CIB 21P 330	0.9±0.2	33	0.05	1500
CIB 21P 470	0.9±0.2	47	0.05	1500
CIM 21U 800	0.9±0.2	80	0.10	900
CIM 21U 101	0.9±0.2	100	0.10	500
CIM 21U 121	0.9±0.2	120	0.10	500
CIM 21U 151	0.9±0.2	150	0.15	400
CIM 21U 241	0.9±0.2	240	0.15	400
CIM 21U 301	0.9±0.2	300	0.15	400
CIM 21U 471	0.9±0.2	470	0.25	400
CIM 21U 601	0.9±0.2	600	0.30	400
CIM 21U 102	0.9±0.2	1000(at 70MHz)	0.45	400
CIM 21U 202	0.9±0.2	2000(at 70MHz)	0.70	300
CIB 21J 260	0.9±0.2	26	0.05	2000
CIB 21J 400	0.9±0.2	40	0.05	2000
CIM 21J 600	0.9±0.2	60	0.08	900
CIM 21J 800	0.9±0.2	80	0.08	900
CIM 21J 121	0.9±0.2	120	0.15	600
CIM 21J 151	0.9±0.2	150	0.15	500
CIM 21J 221	0.9±0.2	220	0.02	400
CIM 21J 241	0.9±0.2	240	0.20	400
CIM 21J 301	0.9±0.2	300	0.25	400
CIM 21J 471	0.9±0.2	470	0.25	400
CIM 21J 601	0.9±0.2	600	0.25	400
CIM 21J 102	0.9±0.2	1000	0.40	400
CIM 21J 152	0.9±0.2	1500(at 70MHz)	0.55	300
CIM 21J 182	0.9±0.2	1800(at 70MHz)	0.45	300
CIM 21J 202	0.9±0.2	2000(at 70MHz)	0.50	300
CIM 21K 152	0.9±0.2	1500	0.45	300
CIM 21K 252	0.9±0.2	2500	0.80	250
CIM 21N 700	0.9±0.2	70	0.20	600
CIM 21N 121	0.9±0.2	120	0.25	500
CIM 21N 241	0.9±0.2	240	0.3	400

Electrical Characteristics

CIB21P110



CIB21P150



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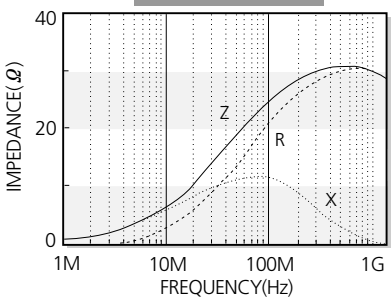
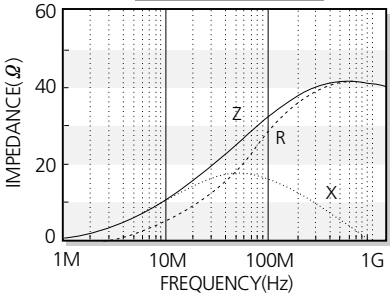
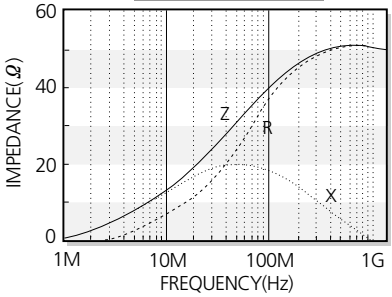


CIB21P330



CIB21P470



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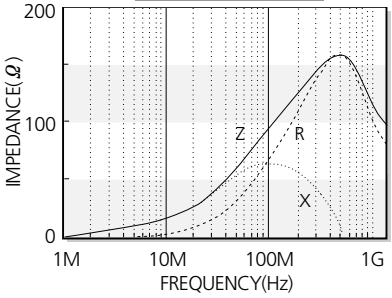
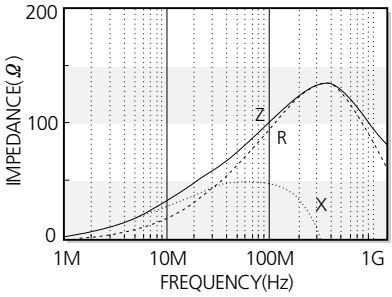


CIM21U101



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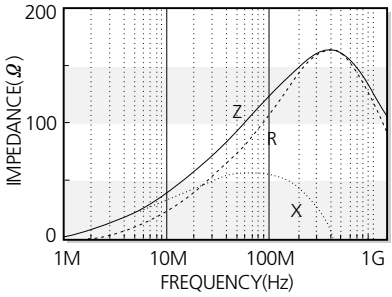

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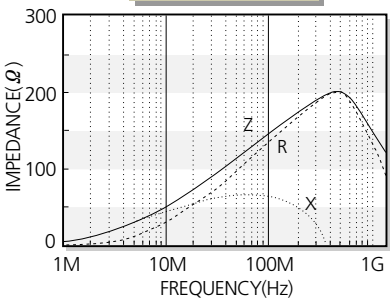
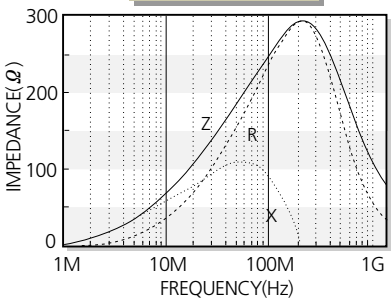


CIM21U241



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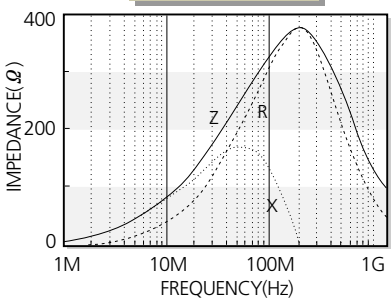

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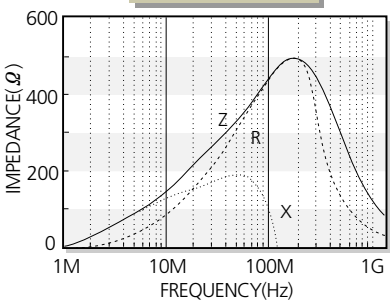

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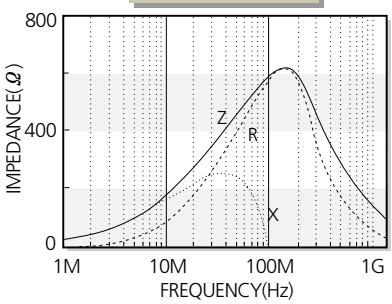

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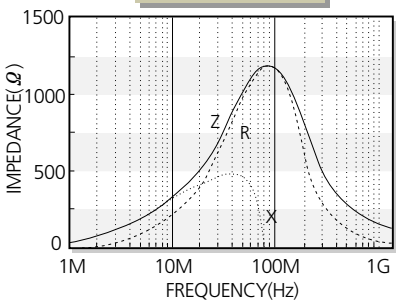
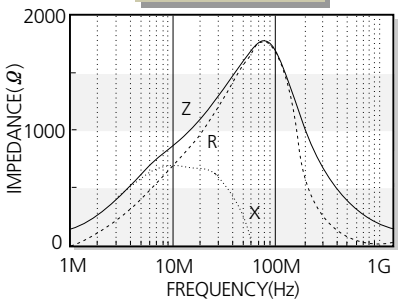
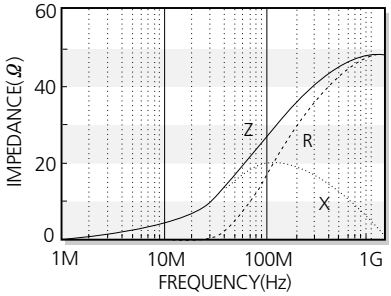


Electrical Characteristics

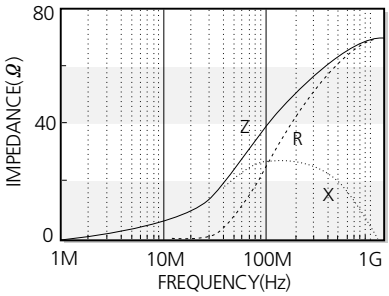
CIM21U202



CIB21J260



CIB21J400



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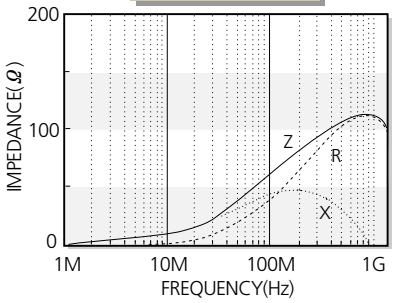

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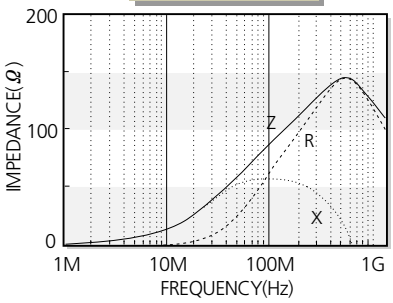
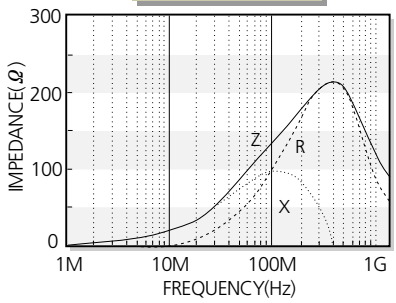
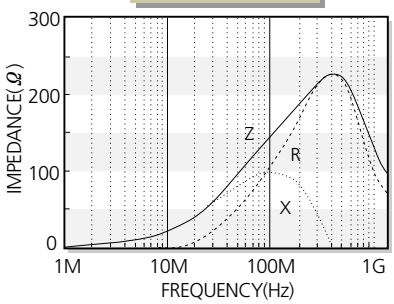


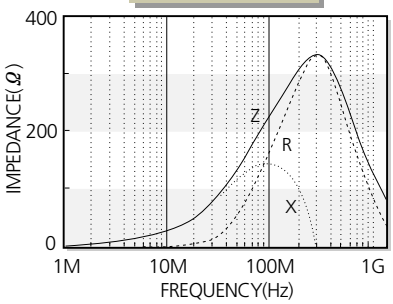
CIM21J121



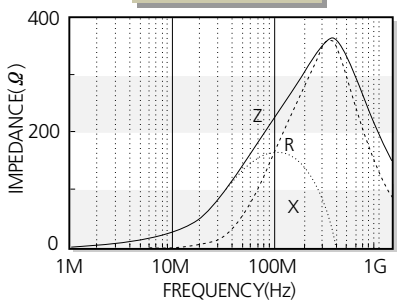
CIM21J151



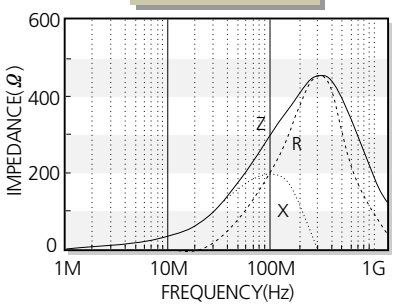
CIM21J221



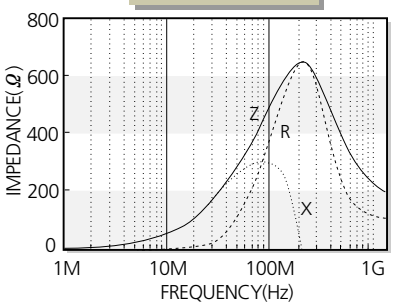
CIM21J241



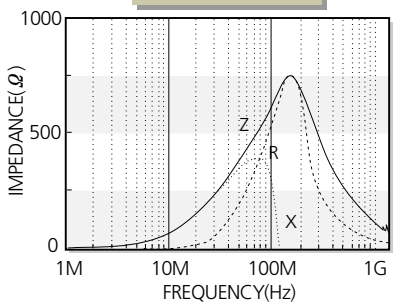
CIM21J301



CIM21J471

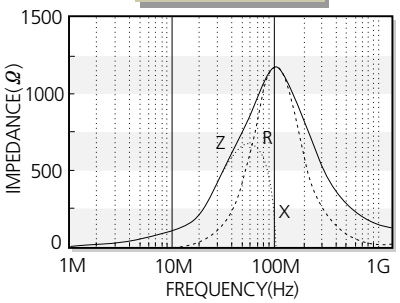


CIM21J601

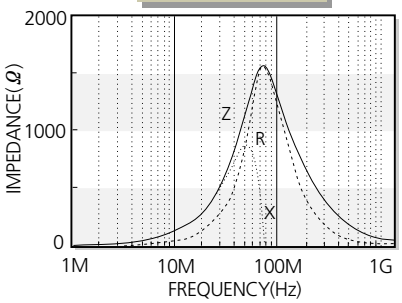


Electrical Characteristics

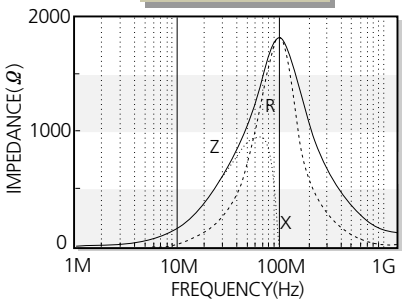
CIM21J102



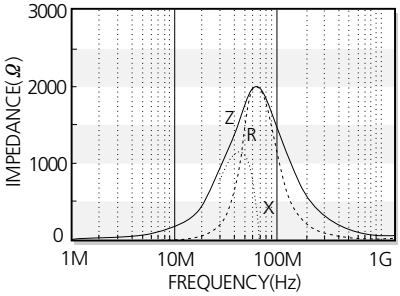
CIM21J152



CIM21J182



CIM21J202



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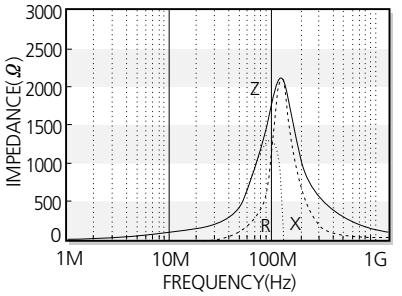
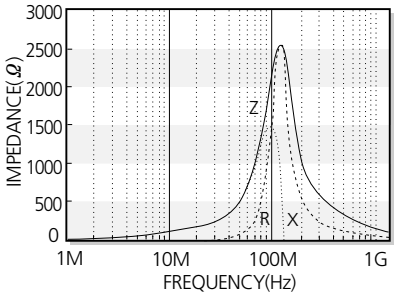
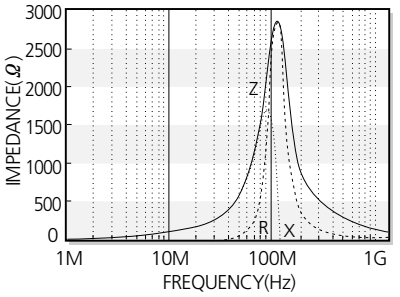


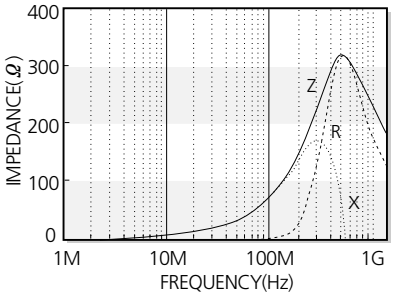
CIM21K222



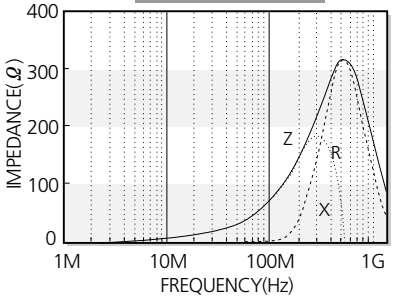
CIM21K252



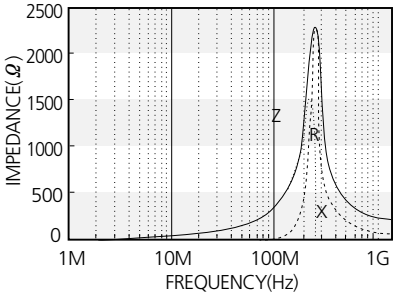
CIM21N700



CIM21N121



CIM21N241



CIB/CIM 3216(1206) Type

Part No.	Thickness (mm)	Impedance (Ω)±25% @100 MHz	DC Resistance (Ω) Max.	Rated Current (mA) Max.
CIB 31P 260	1.1±0.2	26	0.05	2000
CIB 31P 310	1.1±0.2	31	0.05	2000
CIB 31P 500	1.1±0.2	50	0.05	2000
CIB 31P 700	1.1±0.2	70	0.1	1500
CIM 31U 101	1.1±0.2	100	0.15	500
CIM 31U 601	1.1±0.2	600	0.3	400
CIM 31J 151	1.1±0.2	150	0.2	500
CIM 31J 221	1.1±0.2	220	0.2	400
CIM 31J 301	1.1±0.2	300	0.25	400
CIM 31J 601	1.1±0.2	600	0.3	400
CIM 31J 801	1.1±0.2	800	0.4	400
CIM 31J 102	1.1±0.2	1000	0.45	400
CIM 31J 152	1.1±0.2	1500(at 70MHz)	0.55	300

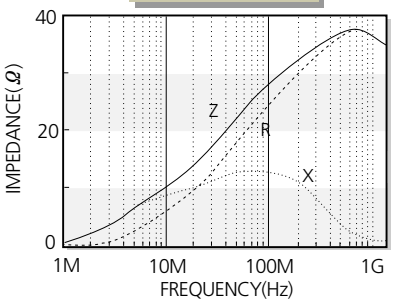
Other Types

Part No.	Thickness (mm)	Impedance (Ω)±25% @100 MHz	DC Resistance (Ω) Max.	Rated Current (mA) Max.
CIB 32P 310	1.3±0.2	31	0.02	3000
CIB 32P 600	1.3±0.2	60	0.02	1500
CIB 41P 800	1.6±0.2	80	0.03	1000
CIB 41P 151	1.6±0.2	150	0.05	1000
CIB 43P 131	1.5±0.2	130	0.04	600
CIB 43P 151	1.5±0.2	150	0.04	600

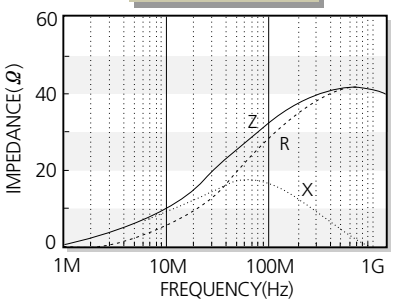
Customized products are available.
Test equipment : Agilent E4991A+16197A (0603)
Agilent 4291B+16192A (1005)
Agilent 4291B+16193A (1608 and others)

Electrical Characteristics

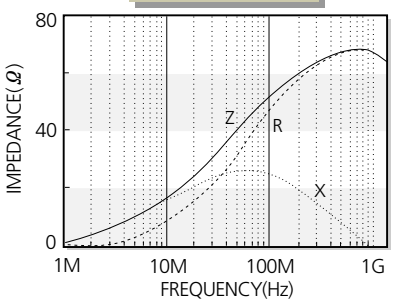
CIB31P260



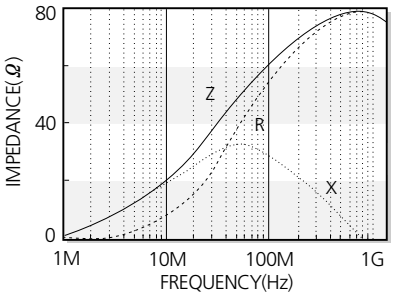
CIB31P310



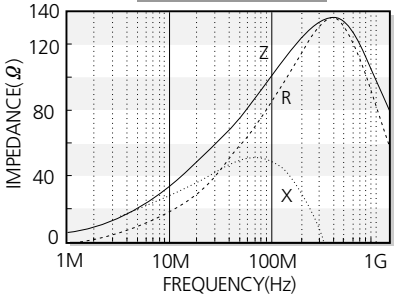
CIB31P500



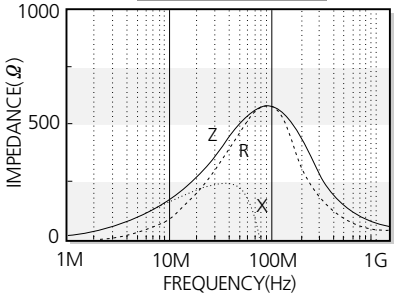
CIB31P700



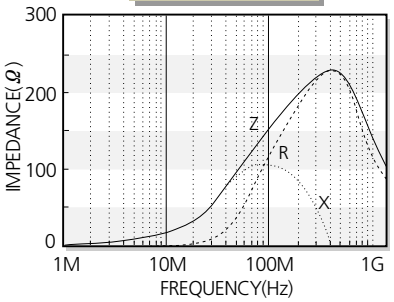
CIM31U101



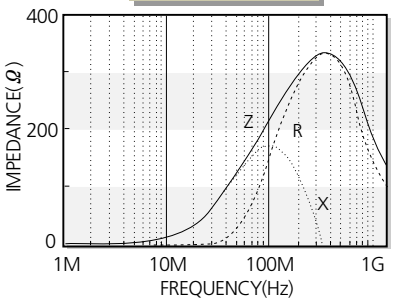
CIM31U601



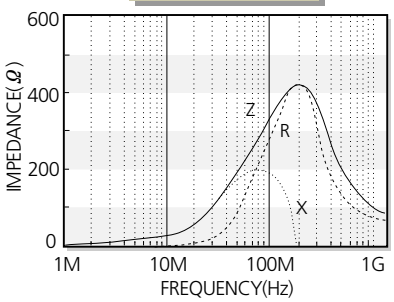
CIM31J151



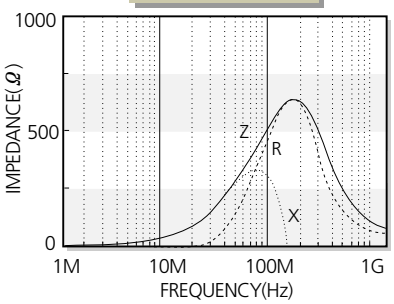
CIM31J221



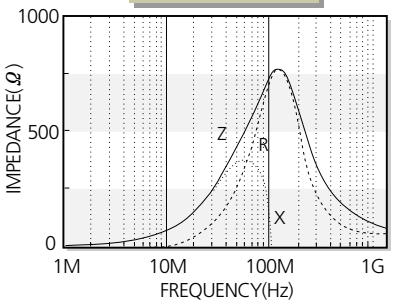
CIM31J301



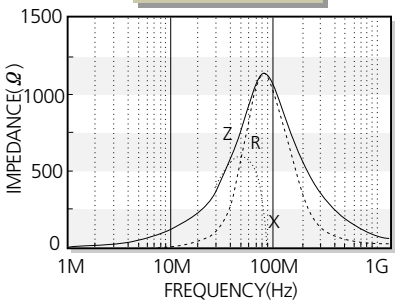
CIM31J601



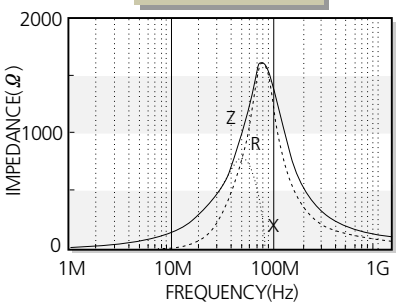
CIM31J801



CIM31J102

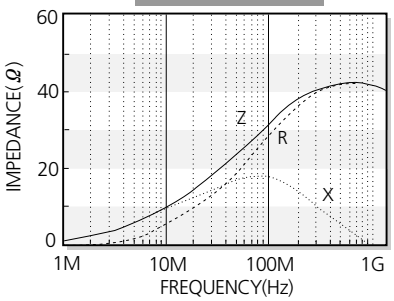


CIM31J152

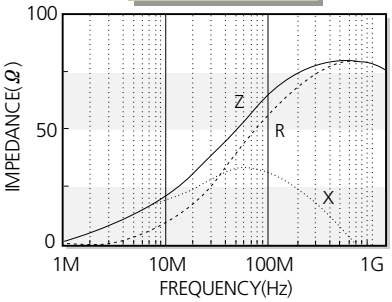


Electrical Characteristics

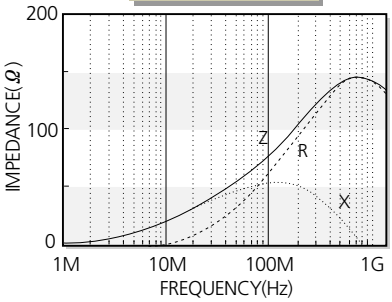
CIB32P310



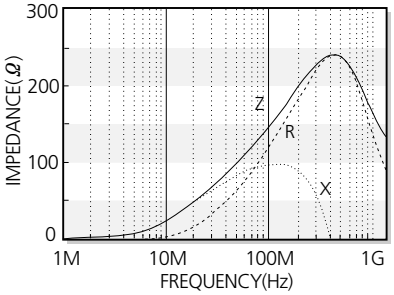
CIB32P600



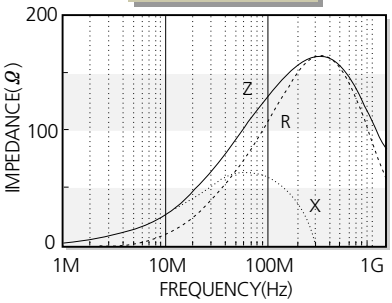
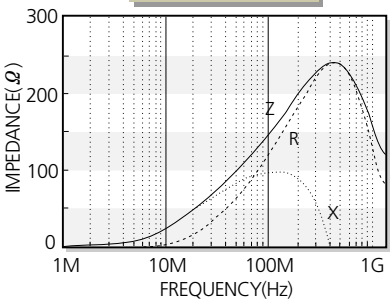
CIB41P800



CIB41P151



CIB43P131



CIB43P151