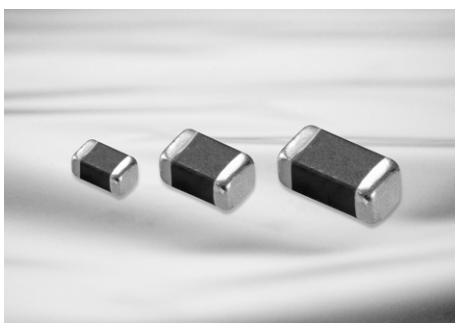


Chip Bead; CIB/CIM Series For EMI Suppression



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

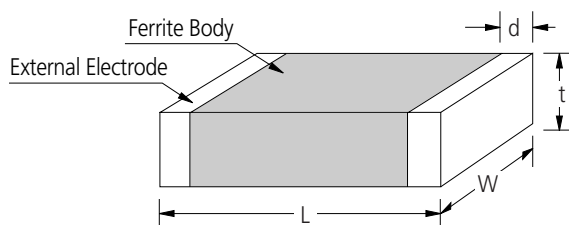
The CIB Series is composed of mono-layer internal conductor that allows low impedance and low DC resistance.

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°C
Storage Temp	-10~+40°C

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)

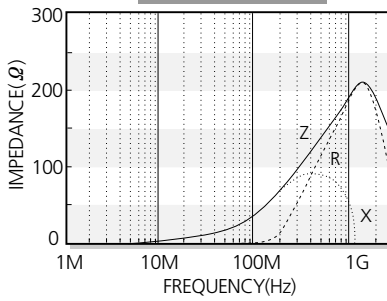
(7) Packaging (C: paper tape, E: embossed tape)

CIM 0603(0201) Type

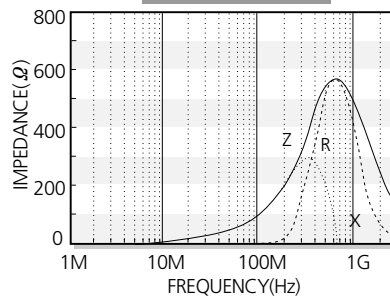
Part No.	Thickness (mm)	Impedance (Ω) $\pm 25\%$ @ 100 MHz	DC Resistance (Ω) Max.	Rated Current (mA) Max.
CIM 03N 300	0.3 \pm 0.03	30	0.8	150
CIM 03N 800	0.3 \pm 0.03	80	1.2	100
CIM 03U 800	0.3 \pm 0.03	80	0.5	200
CIM 03U 121	0.3 \pm 0.03	120	0.8	200
CIM 03U 241	0.3 \pm 0.03	240	1.0	100
CIM 03J 121	0.3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

Electrical Characteristics

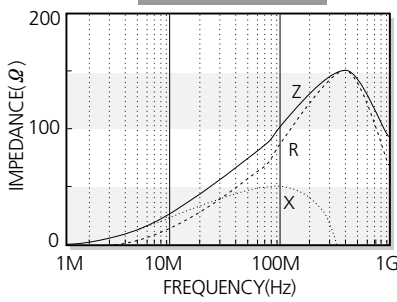
CIM03N300



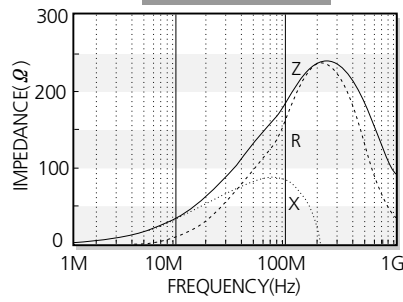
CIM03N800



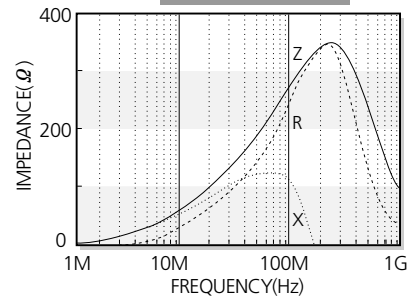
CIM03U800



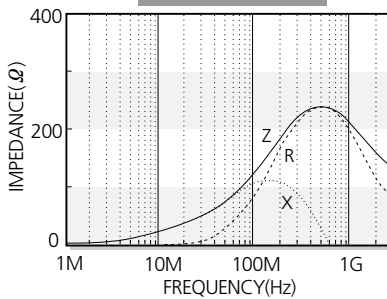
CIM03U121



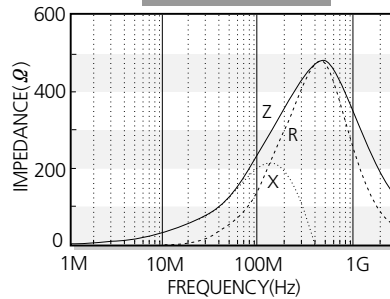
CIM03U241



CIM03J121



CIM03J241

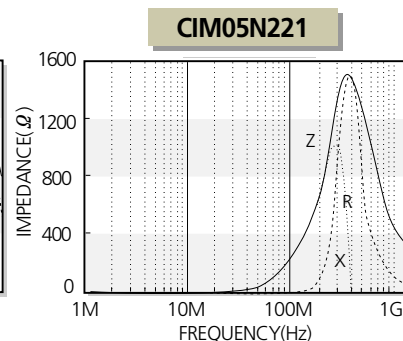
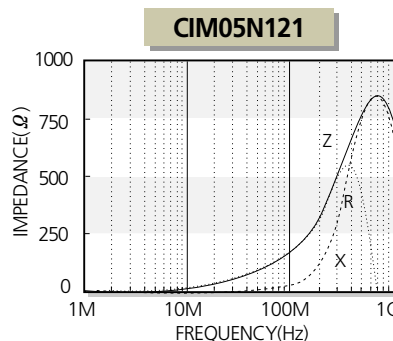
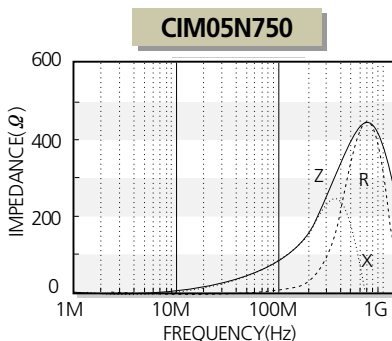
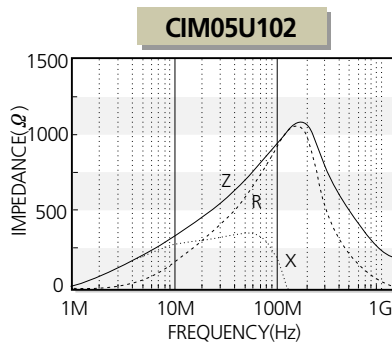
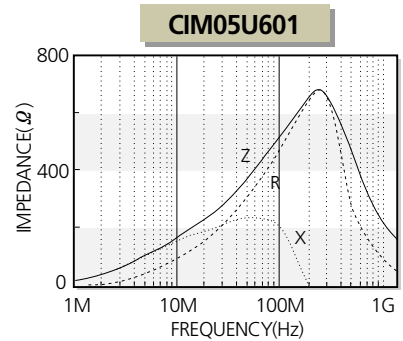
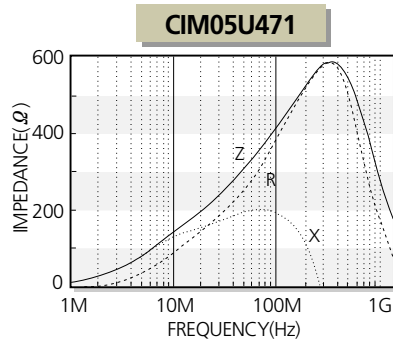
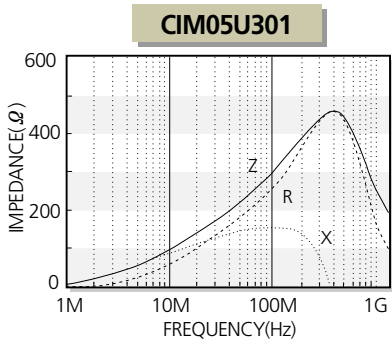
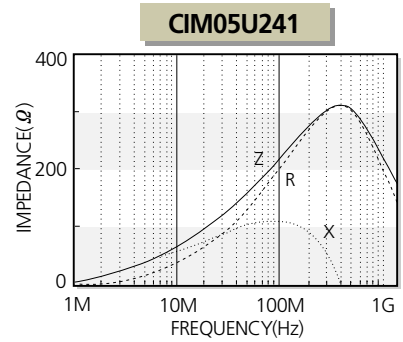
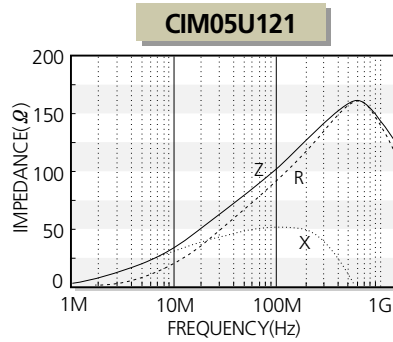
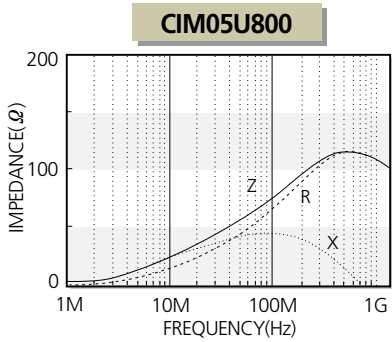
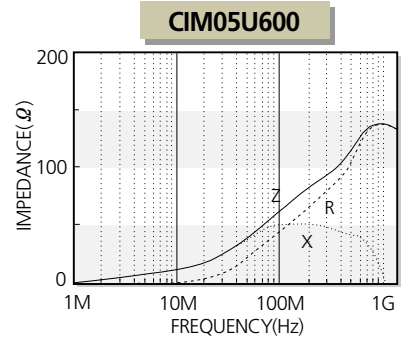
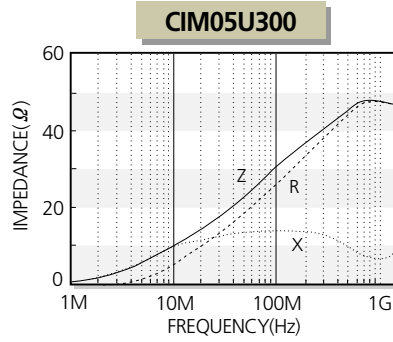
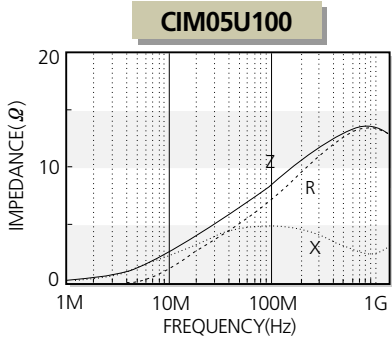




CIM 1005(0402) Type

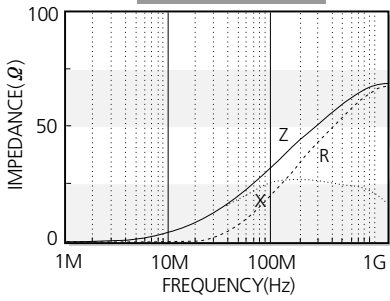
Part No.	Thickness (mm)	Impedance (Ω) \pm 25% @ 100 MHz	DC Resistance (Ω) Max.	Rated Current (mA) Max.
CIM 05U 100	0.5 \pm 0.05	10	0.05	1200
CIM 05U 300	0.5 \pm 0.05	30	0.10	700
CIM 05U 600	0.5 \pm 0.05	60	0.15	600
CIM 05U 800	0.5 \pm 0.05	80	0.20	600
CIM 05U 121	0.5 \pm 0.05	120	0.25	500
CIM 05U 221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

Electrical Characteristics

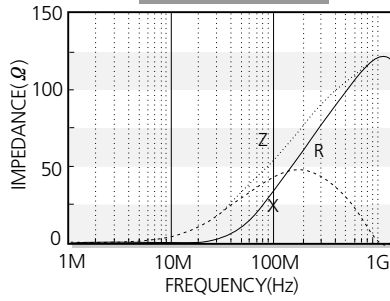


Electrical Characteristics

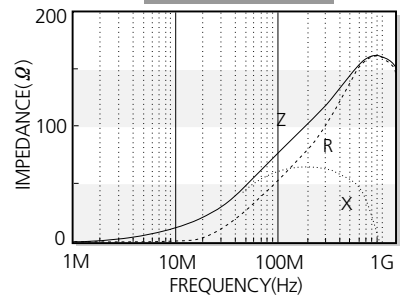
CIM05J300



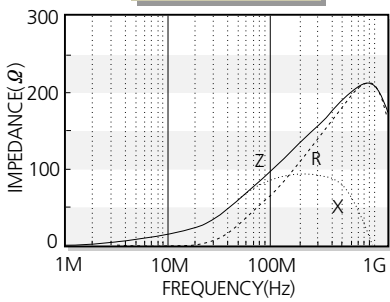
CIM05J600



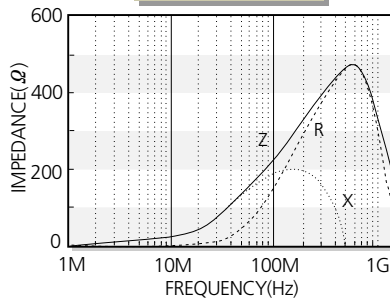
CIM05J800



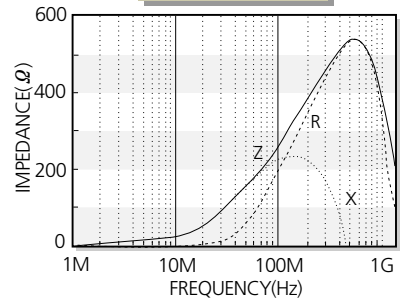
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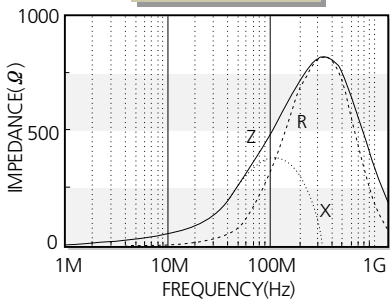
CIM05J241



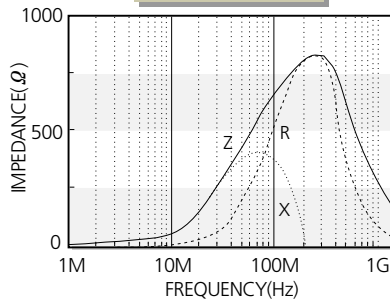
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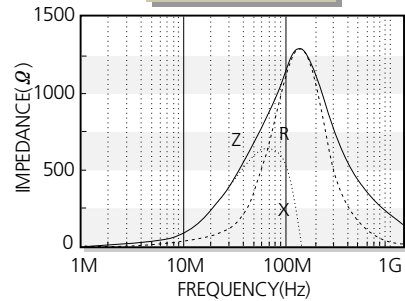
CIM05J471



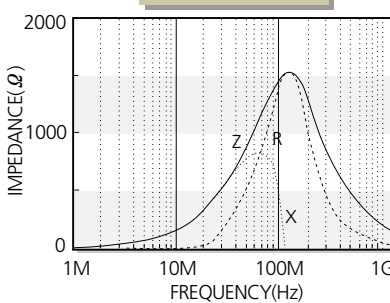
CIM05J601



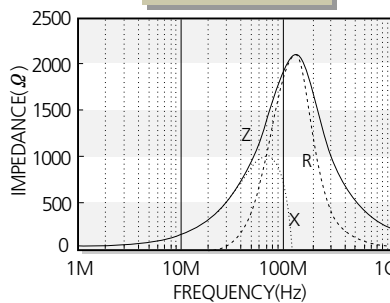
CIM05J102



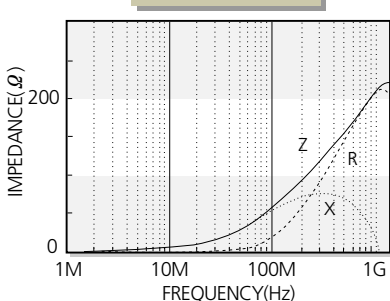
CIM05J152



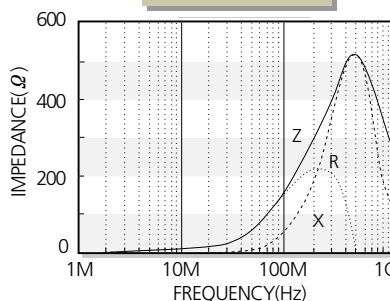
CIM05J182



CIM05F470



CIM05F121

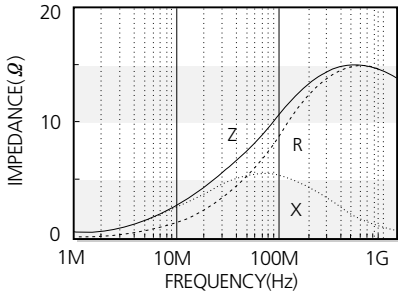


CIB/CIM 1608(0603) Type

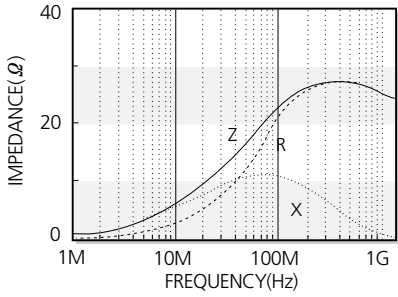
Part No.	Thickness (mm)	Impedance (Ω) \pm 25% @ 100 MHz	DC Resistance (Ω) Max.	Rated Current (mA) Max.
CIB 10P 100	0.8 \pm 0.15	10	0.05	1000
CIB 10P 220	0.8 \pm 0.15	22	0.05	1500
CIB 10P 260	0.8 \pm 0.15	26	0.08	1000
CIB 10P 300	0.8 \pm 0.15	30	0.08	1000
CIB 10J 300	0.8 \pm 0.15	30	0.08	1000
CIB 10P 330	0.8 \pm 0.15	33	0.08	1000
CIM 10U 800	0.8 \pm 0.15	80	0.15	600
CIM 10U 121	0.8 \pm 0.15	120	0.15	500
CIM 10U 221	0.8 \pm 0.15	220	0.30	400
CIM 10U 241	0.8 \pm 0.15	240	0.30	400
CIM 10U 471	0.8 \pm 0.15	470	0.35	300
CIM 10U 601	0.8 \pm 0.15	600	0.45	300
CIM 10U 102	0.8 \pm 0.15	1000	0.60	250
CIM 10U 202	0.8 \pm 0.15	2000(at 70MHz)	1.20	200
CIM 10J 400	0.8 \pm 0.15	40	0.12	600
CIM 10J 470	0.8 \pm 0.15	47	0.12	600
CIM 10J 600	0.8 \pm 0.15	60	0.12	600
CIM 10J 750	0.8 \pm 0.15	75	0.12	550
CIM 10J 800	0.8 \pm 0.15	80	0.20	550
CIM 10J 121	0.8 \pm 0.15	120	0.20	500
CIM 10J 151	0.8 \pm 0.15	150	0.20	400
CIM 10J 221	0.8 \pm 0.15	220	0.30	400
CIM 10J 241	0.8 \pm 0.15	240	0.30	400
CIM 10J 301	0.8 \pm 0.15	300	0.35	400
CIM 10J 331	0.8 \pm 0.15	330	0.35	400
CIM 10J 471	0.8 \pm 0.15	470	0.35	300
CIM 10J 601	0.8 \pm 0.15	600	0.45	300
CIM 10J 751	0.8 \pm 0.15	750	0.55	300
CIM 10J 102	0.8 \pm 0.15	1000	0.70	250
CIM 10J 152	0.8 \pm 0.15	1500	1.00	250
CIM 10J 252	0.8 \pm 0.15	2500	1.50	200
CIM 10K 152	0.8 \pm 0.15	1500	0.80	250
CIM 10K 202	0.8 \pm 0.15	2000	1.00	200
CIM 10K 252	0.8 \pm 0.15	2500	1.20	200
CIM 10N 700	0.8 \pm 0.15	70	0.30	500
CIM 10N 121	0.8 \pm 0.15	120	0.45	400
CIM 10N 241	0.8 \pm 0.15	240	0.60	300
CIM 10 F 470	0.8 \pm 0.15	47	0.25	550
CIM 10 F 600	0.8 \pm 0.15	60	0.25	550
CIM 10 F 121	0.8 \pm 0.15	120	0.30	500
CIM 10 F 331	0.8 \pm 0.15	330	0.58	400
CIM 10 F471	0.8 \pm 0.15	470	0.85	300

Electrical Characteristics

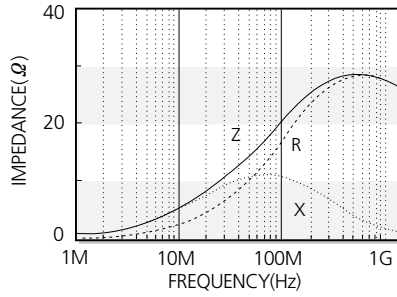
CIB10P100



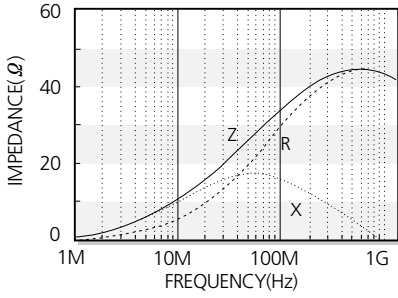
CIB10P220



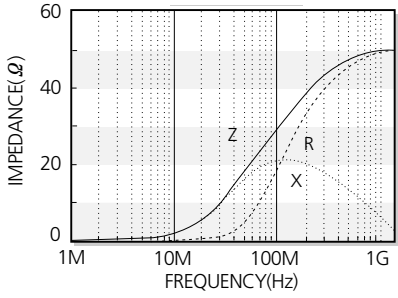
CIB10P260



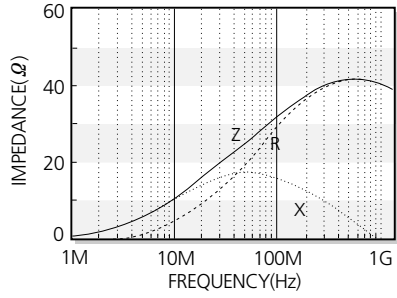
CIB10P300



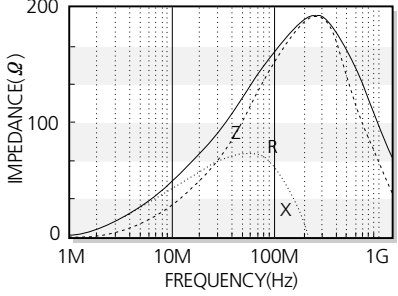
CIB10J300



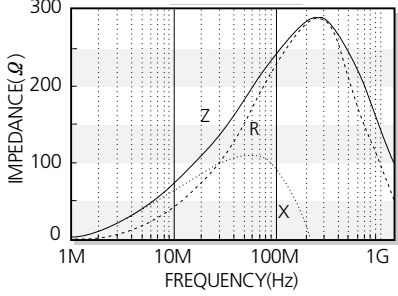
CIB10P330



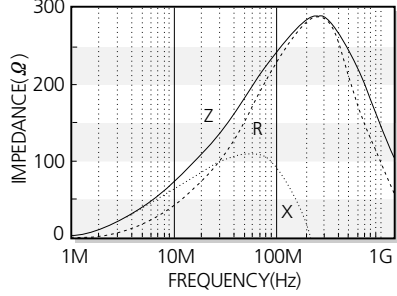
CIM10U121



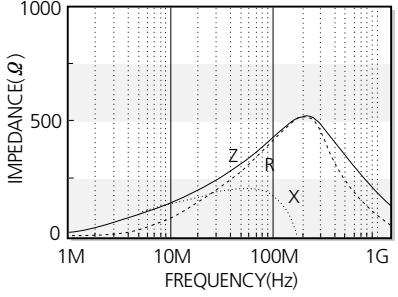
CIM10U221



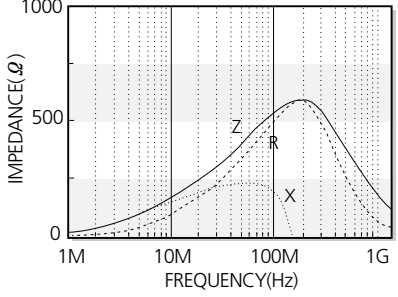
CIM10U241



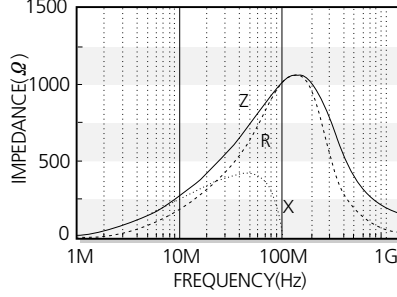
CIM10U471



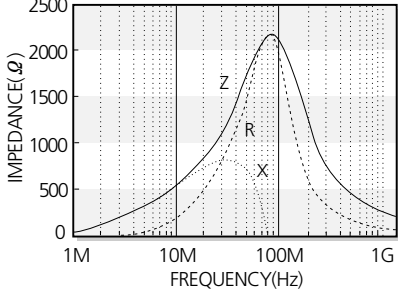
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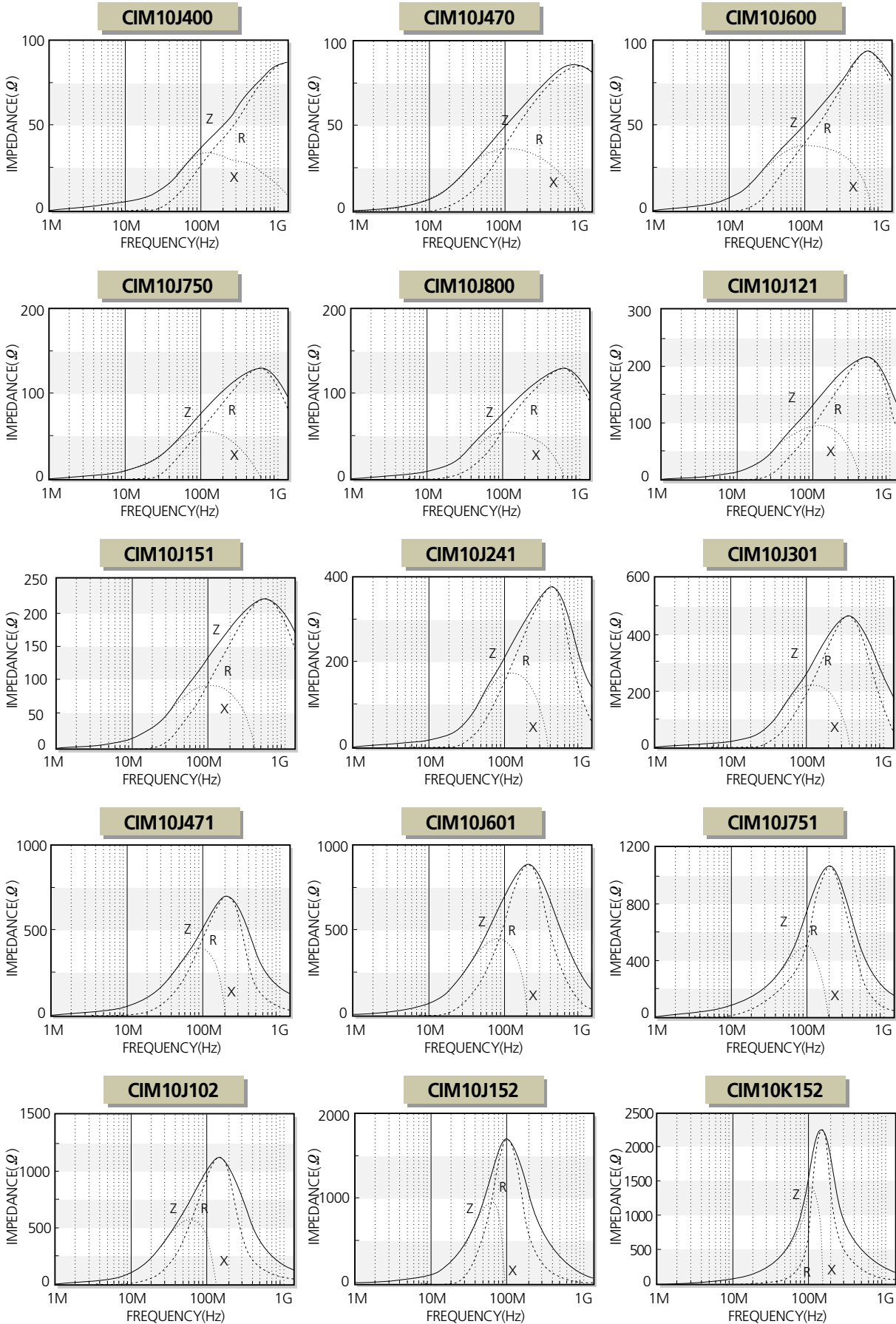
CIM10U102



CIM10U202

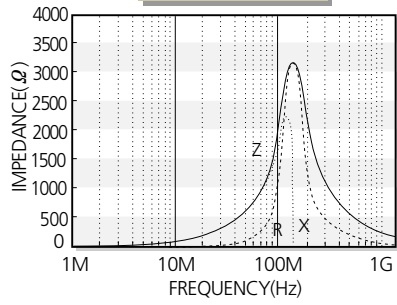


Electrical Characteristics

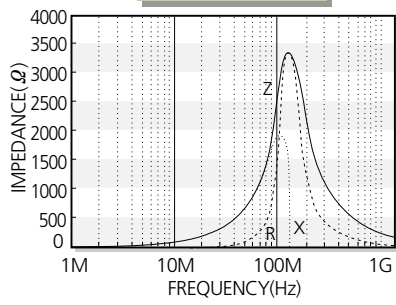




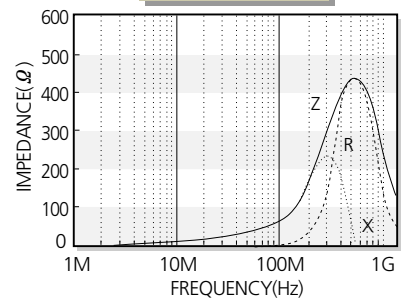
CIM10K202



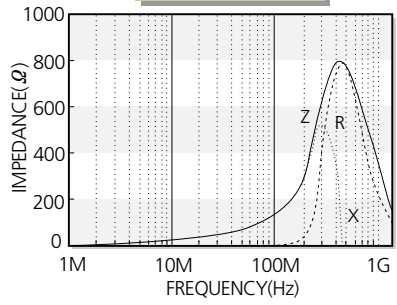
CIM10K252



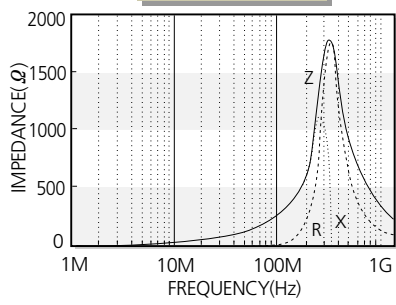
CIM10N700



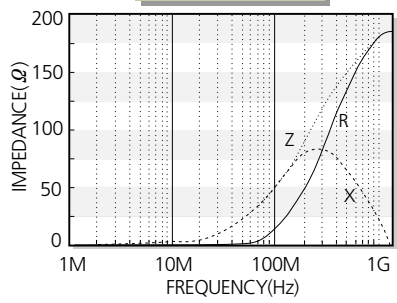
CIM10N121



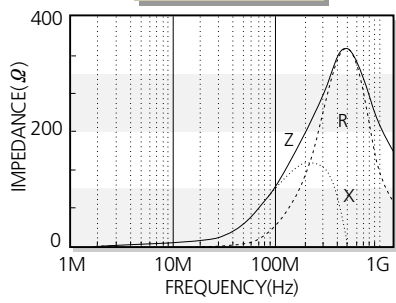
CIM10N241



CIM10F600



CIM10F121

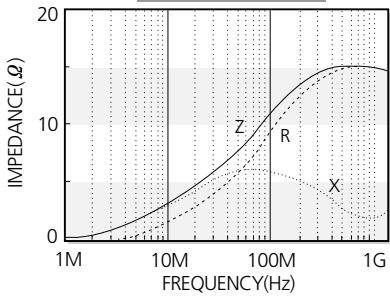


CIB/CIM 2012(0805) Type

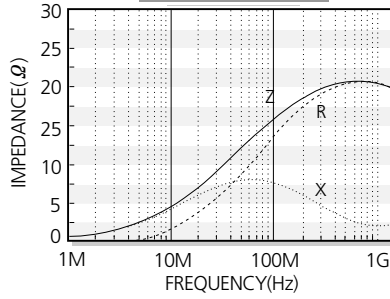
Part No.	Thickness (mm)	Impedance (Ω) \pm 25% @ 100 MHz	DC Resistance (Ω) Max.	Rated Current (mA) Max.
CIB 21P 110	0.9 \pm 0.2	11	0.05	2000
CIB 21P 150	0.9 \pm 0.2	15	0.05	2000
CIB 21P 260	0.9 \pm 0.2	26	0.05	2000
CIB 21P 330	0.9 \pm 0.2	33	0.05	1500
CIB 21P 470	0.9 \pm 0.2	47	0.05	1500
CIM 21U 800	0.9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

Electrical Characteristics

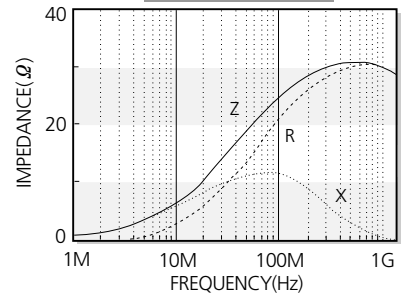
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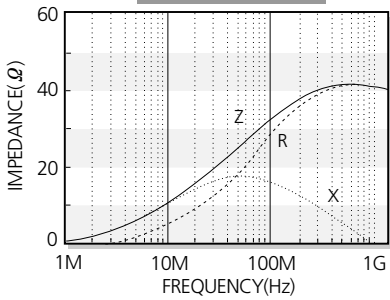
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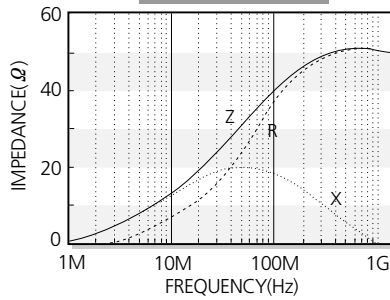
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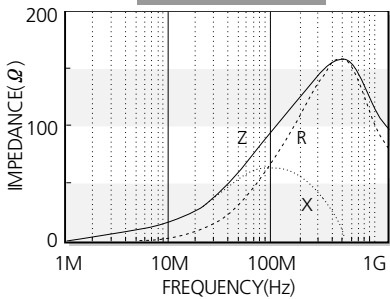
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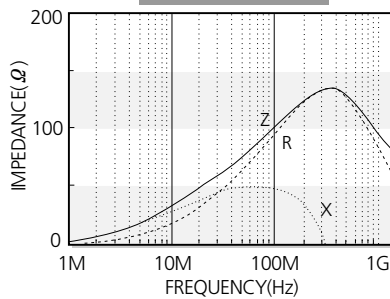
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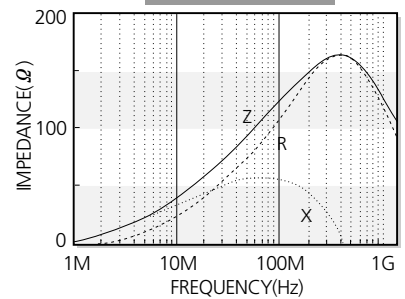
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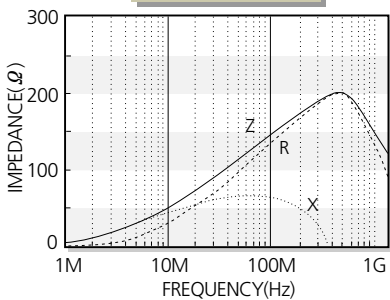
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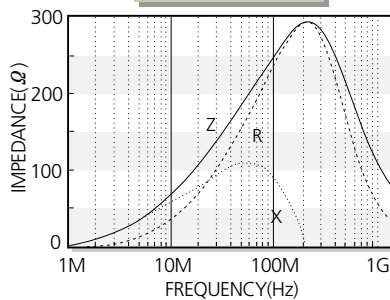
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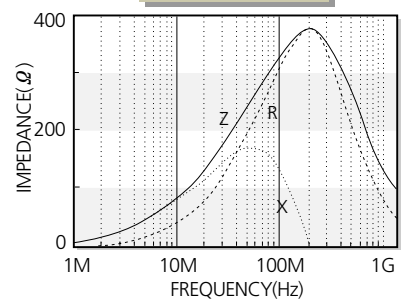
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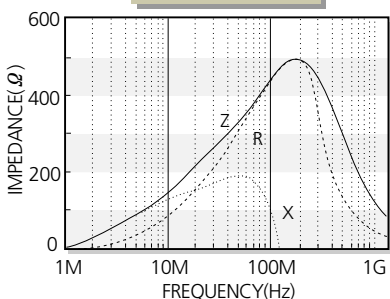
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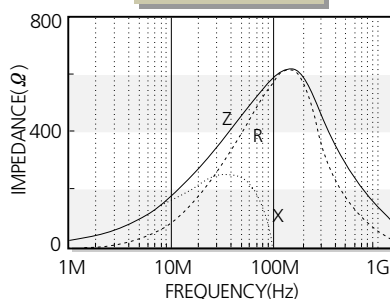
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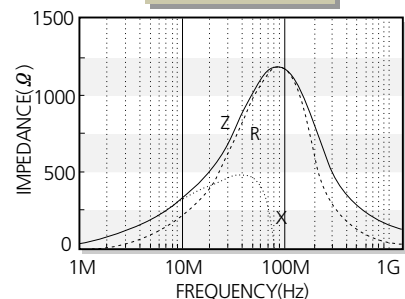
CIM21U471



CIM21U601

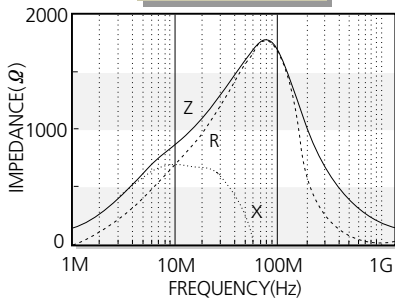


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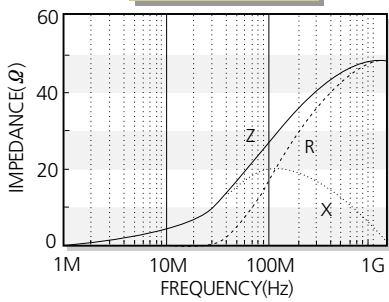


Electrical Characteristics

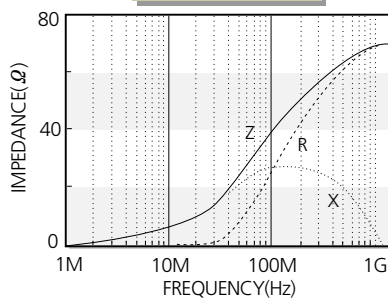
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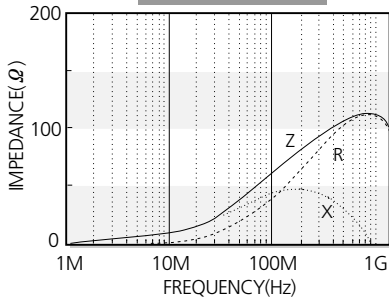
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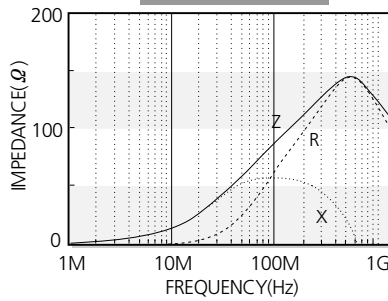
CIB21J400



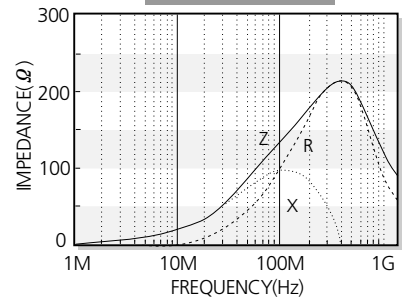
CIM21J600



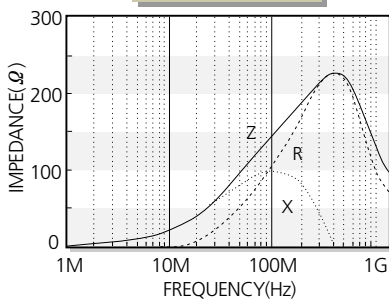
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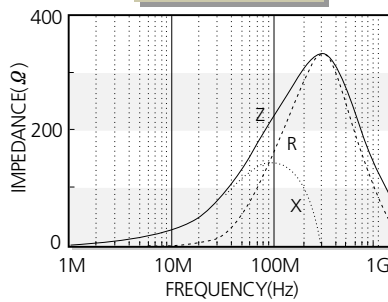
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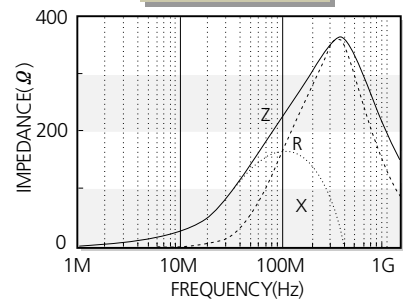
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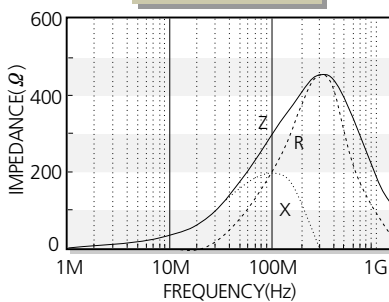
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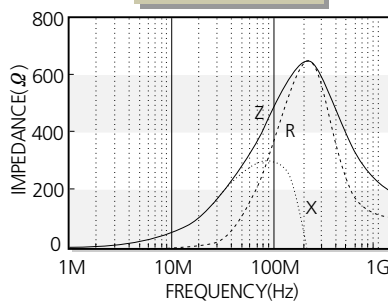
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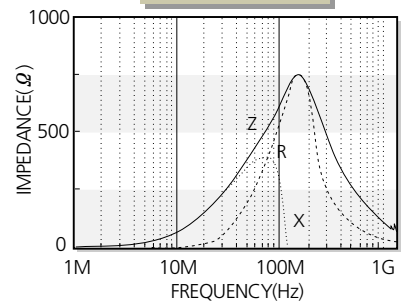
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CIM21J471

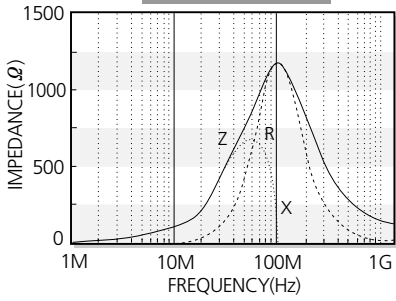


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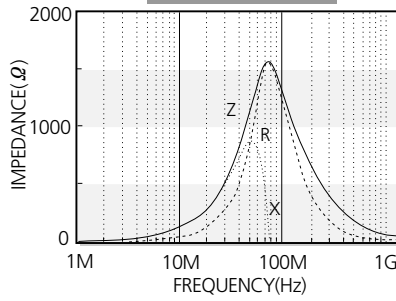


Electrical Characteristics

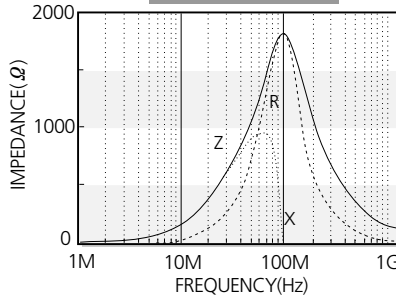
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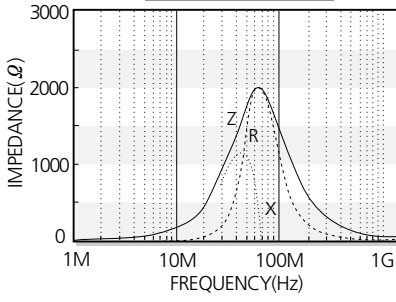
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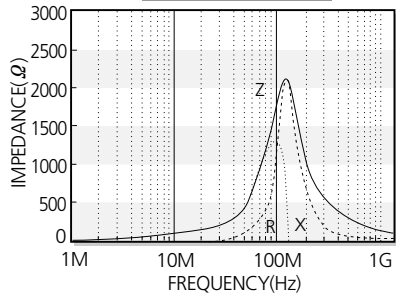
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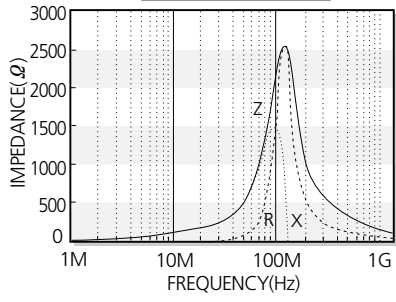
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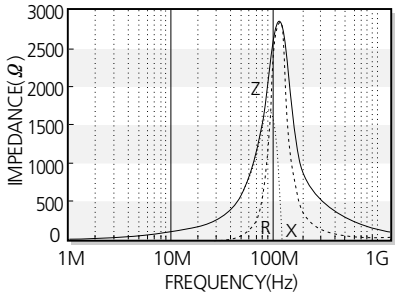
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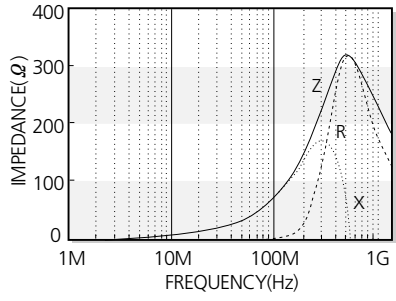
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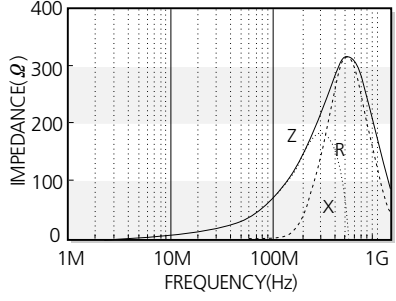
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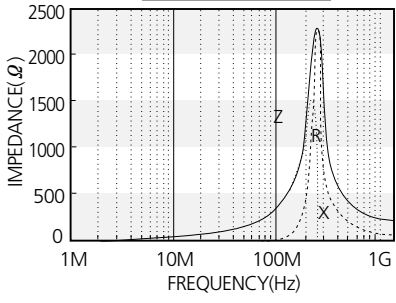
CIM21N700



CIM21N121



CIM21N241



CIB/CIM 3216(1206) Type

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

Other Types

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

Customized products are available.

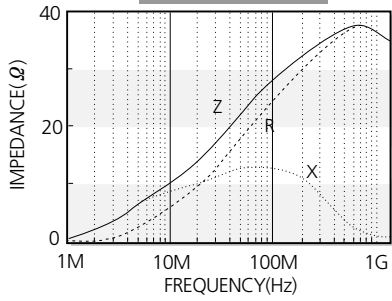
Test equipment : Agilent E4991A+16197A (0603)

Agilent 4291B+16192A (1005)

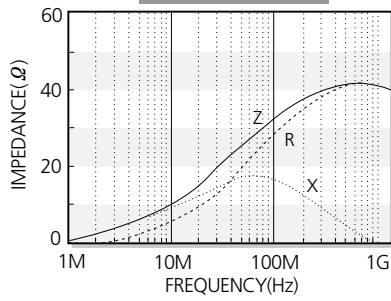
Agilent 4291B+16193A (1608 and others)

Electrical Characteristics

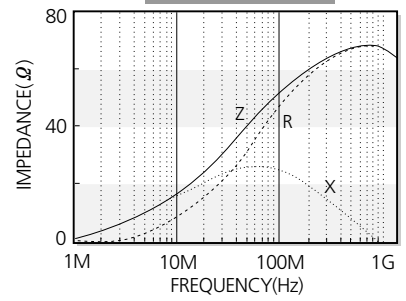
CIB31P260



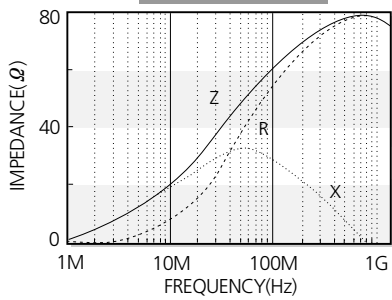
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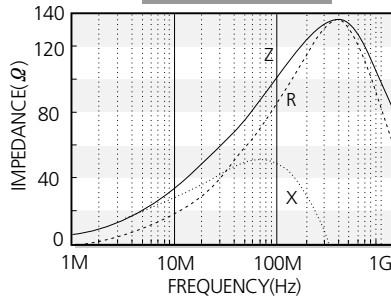
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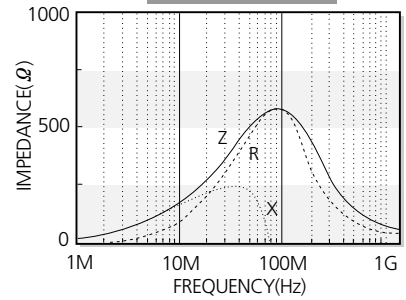
CIB31P700



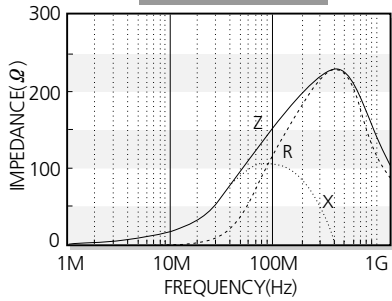
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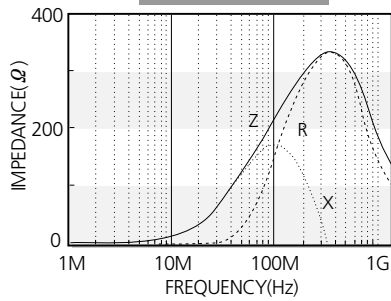
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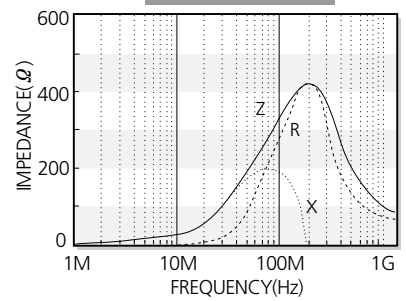
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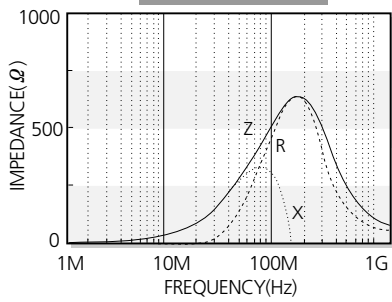
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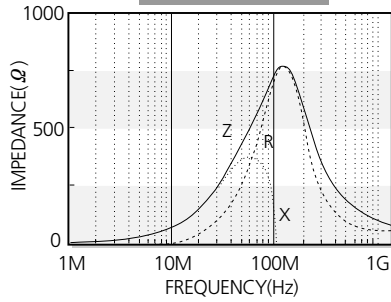
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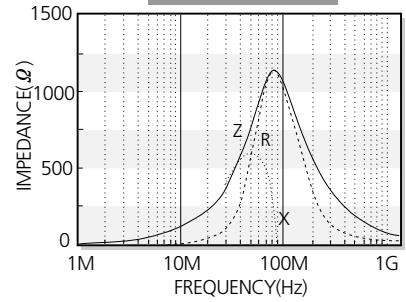
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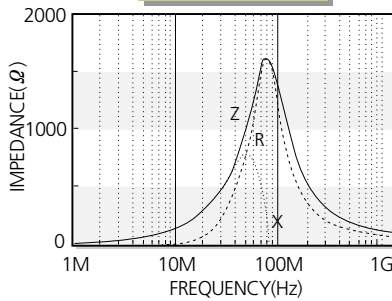
CIM31J801



CIM31J102

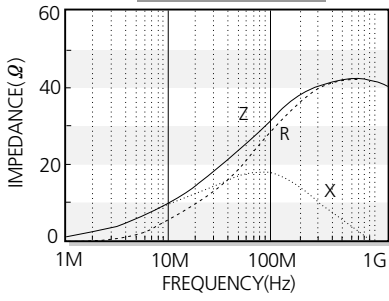


CIM31J152

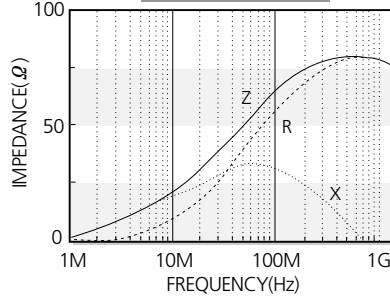


Electrical Characteristics

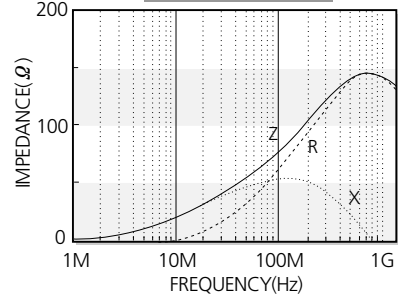
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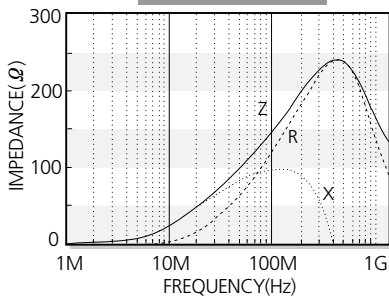
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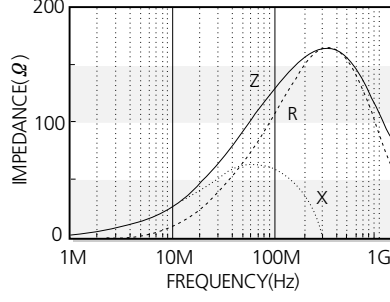
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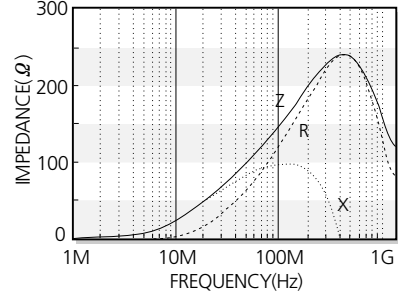
CIB41P151



CIB43P131



CIB43P151



CIB/CIM
Series