Features

1. Effective for suppressing noise at high frequency, from several ㎒ to several hundreds ㎒.
2. Chip type is suited for preventing the abnormal oscillation from high frequency amplifying circuits.
3. Terminal electrode has excellent solder heat resistance.
4. Frequency characteristics of the high impedance products for high performance electronic systems.
5. Highly reliability in the circuits of high-current, because internal electrode has low resistivity.

Applications

1. Noise suppression in digital equipment.
2. Computers and it's peripheral devices, VCR and camera.
3. Noise suppression in automotive electronic equipment, car stereo, car engine controller.
4. Noise suppression for OA electronic instruments.

Ordering Information

HB	-	1	M	1005	-	601	J	T
(1)			(2)	(3)		(4)	(5)	(6)

(1) Series
HB : For Signal line
HH : For high current(3.0A)
HU : For ultra high current(6.0A)

(2) Material & Design
L, Y : For ultra high speed
S, B : For high speed
H,C : For general purpose
M : For high impedance type
T : For Low speed

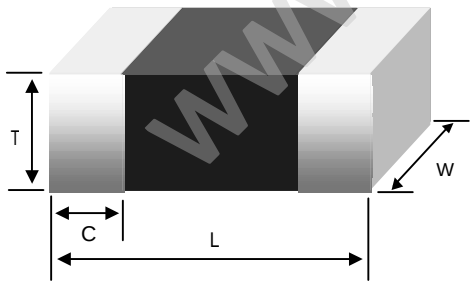
(3) Dimension
The first two digits : length (㎜)
The last two digits : width (㎜)

(4) Impedance (at 100㎒)
The first two digits are significant.
The last digit is the number of zeros following.

(5) Termination
J : Nickel barrier

(6) Packing
B : Bulk pack
T : Tape & Reel (Φ178㎜ [7 inches])
L : Tape & Reel (Φ254㎜ [10 inches])

Shape and Dimensions



Unit : mm [inches]

Type	L	W	T	C
H□-1□0603-	0.6±0.03	0.3±0.03	0.3±0.03	0.15±0.05
	[.024±.001]	[.012±.001]	[.012±.001]	[.006±.002]
H□-1□1005-	1.0±0.05	0.5±0.05	0.5±0.05	0.20±0.10
	[.039±.002]	[.020±.002]	[.020±.002]	[.008±.004]
H□-1□1608-	1.6±0.15	0.8±0.15	0.8±0.15	0.30±0.20
	[.063±.006]	[.031±.006]	[.031±.006]	[.012±.008]
H□-1□2012-	2.0±0.20	1.25±0.20	1.0±0.20	0.50±0.30
	[.079±.008]	[.049±.008]	[.039±.008]	[.020±.012]
	2.0±0.20	1.25±0.20	*1.25±0.20	0.50±0.30
	[.079±.008]	[.049±.008]	(.049±.008)	[.020±.012]
H□-1□3216-	3.2±0.20	1.6±0.20	1.3±0.20	0.50±0.30
	[.126±.008]	[.063±.008]	[.051±.008]	[.020±.012]
H□-1□4516-	4.5±0.25	1.6±0.20	1.3±0.20	0.50±0.30
	[.177±.010]	[.063±.008]	[.051±.008]	[.020±.012]
H□-1□4532-	4.5±0.25	3.2±0.25	1.3±0.25	0.70±0.40
	[.177±.010]	[.126±.010]	[.051±.010]	[.027±.016]
H□-1□5750-	5.7±0.30	5.0±0.30	1.6±0.25	0.80±0.50
	[.225±.012]	[.198±.012]	[.063±.010]	[.031±.020]

* Only HU Series

Specifications

HB series (For signal line)

HB0603

Part No.	|Z| at 100MHz(Ω)		DC Resistance (Ω) max.	Rated current (mA) max.
	typ.	min.		
HB-1T0603-800□□	80	60	0.5	500
HB-1T0603-121□□	120	90	0.8	200
HB-1T0603-241□□	240	180	1.0	200

HB1005

Part No.	|Z| at 100MHz(Ω)		DC Resistance (Ω) max.	Rated current (mA) max.
	typ.	min.		
HB-1H1005-100□□	10	7.5	0.05	1000
HB-1M1005-400□□	40	30	0.15	900
HB-1M1005-600□□	60	45	0.20	650
HB-1M1005-800□□	80	60	0.20	650
HB-1M1005-121□□	120	90	0.30	500
HB-1M1005-221□□	220	165	0.35	500
HB-1M1005-301□□	300	225	0.45	400
HB-1M1005-471□□	470	355	0.55	300
HB-1M1005-601□□	600	450	0.60	300
HB-1M1005-102□□	1000	750	1.30	250
HB-1T1005-100□□	10	7.5	0.05	1000
HB-1T1005-400□□	40	30	0.10	900
HB-1T1005-600□□	60	45	0.20	650
HB-1T1005-700□□	70	53	0.20	650
HB-1T1005-800□□	80	60	0.25	550
HB-1T1005-121□□	120	90	0.25	500
HB-1T1005-221□□	220	165	0.35	500
HB-1T1005-241□□	240	180	0.40	400
HB-1T1005-301□□	300	225	0.45	400
HB-1T1005-601□□	600	450	0.60	400
HB-1S1005-100□□	10	7.5	0.10	500
HB-1S1005-300□□	30	23	0.20	400
HB-1S1005-600□□	60	45	0.30	350
HB-1S1005-101□□	100	75	0.35	300
HB-1S1005-121□□	120	90	0.40	300

HB1608

Part No.	|Z| at 100㎒(Ω)		DC Resistance (Ω) max.	Rated current (mA) max.
	typ.	min.		
HB-1H1608-300□□	30	22	0.08	500
HB-1M1608-600□□	60	45	0.09	200
HB-1M1608-800□□	80	60	0.10	200
HB-1M1608-121□□	120	90	0.12	200
HB-1M1608-221□□	220	165	0.20	200
HB-1M1608-301□□	300	225	0.30	200
HB-1M1608-501□□	500	375	0.40	200
HB-1M1608-601□□	600	450	0.40	200
HB-1M1608-801□□	800	600	0.60	200
HB-1M1608-102□□	1000	750	0.60	150
HB-1S1608-100□□	10	7.5	0.05	300
HB-1S1608-200□□	20	15	0.12	300
HB-1S1608-300□□	30	22	0.12	300
HB-1S1608-400□□	40	30	0.12	300
HB-1S1608-550□□	55	42	0.15	200
HB-1S1608-800□□	80	60	0.25	200
HB-1S1608-121□□	120	90	0.25	200
HB-1S1608-221□□	220	165	0.40	200
HB-1T1608-260□□	26	20	0.05	500
HB-1T1608-300□□	30	22	0.05	500
HB-1T1608-600□□	60	45	0.10	400
HB-1T1608-800□□	80	60	0.10	300
HB-1T1608-121□□	120	90	0.20	250
HB-1T1608-221□□	220	165	0.30	200
HB-1T1608-301□□	300	225	0.35	200
HB-1T1608-331□□	330	250	0.35	200
HB-1T1608-601□□	600	450	0.50	200
HB-1T1608-102□□	1000(at 60㎒)	750	0.70	200
HB-1T1608-202□□	2000(at 70㎒)	1500	1.20	100
HB-1B1608-222□□	2200	1650	0.85	50

HB2012

HB-1H2012-150□□	15	12	0.02	600
HB-1H2012-260□□	26	20	0.02	600
HB-1H2012-300□□	30	23	0.02	600
HB-1H2012-320□□	32	24	0.03	600
HB-1M2012-800□□	80	60	0.08	300
HB-1M2012-121□□	120	90	0.10	300
HB-1M2012-151□□	150	115	0.12	300
HB-1M2012-221□□	220	165	0.12	300
HB-1M2012-301□□	300	225	0.15	300
HB-1M2012-451□□	450	338	0.25	300
HB-1M2012-601□□	600	450	0.25	300
HB-1M2012-102□□	1000	750	0.30	300
HB-1M2012-202□□	2000 (at 70MHz)	1500	0.50	300
HB-1M2012-252□□	2500 (at 50MHz)	1875	0.60	300
HB-1S2012-5R0□□	5	3.5	0.05	300
HB-1S2012-8R0□□	8	6	0.05	300
HB-1S2012-400□□	40	30	0.15	250
HB-1S2012-8R0□□	8	6	0.05	300
HB-1S2012-400□□	40	30	0.15	250
HB-1S2012-800□□	80	60	0.18	200
HB-1S2012-121□□	120	90	0.20	300
HB-1S2012-221□□	220	165	0.30	300
HB-1S2012-251□□	250	190	0.50	300
HB-1T2012-260□□	26	20	0.04	600
HB-1T2012-400□□	40	30	0.05	600

HB2012

Part No.	|Z| at 100MHz(Ω)		DC Resistance (Ω) max.	Rated current (mA) max.
	typ.	min.		
HB-1T2012-800□□	80	60	0.08	300
HB-1T2012-121□□	120	90	0.08	300
HB-1T2012-151□□	150	115	0.08	300
HB-1T2012-221□□	220	170	0.12	200
HB-1T2012-301□□	300	225	0.15	200
HB-1T2012-331□□	330	250	0.15	200
HB-1T2012-401□□	400	300	0.15	200
HB-1T2012-601□□	600	450	0.25	200
HB-1T2012-102□□	1000 (at 60MHz)	750	0.30	200
HB-1T2012-202□□	2000 (at 40MHz)	1500	0.50	200
HB-1T2012-252□□	2500 (at 35MHz)	1875	0.60	200
HB-1B2012-222□□	2200	1650	0.60	300
HB-1B2012-272□□	2700	2025	0.70	300

HB3216

Part No.	|Z| at 100MHz(Ω)		DC Resistance (Ω) max.	Rated current (mA) max.
	typ.	min.		
HB-1C3216-350□□	35	26	0.02	600
HB-1H3216-500□□	50	37	0.03	600
HB-1H3216-700□□	70	52	0.05	600
HB-1M3216-121□□	120	90	0.05	300
HB-1M3216-151□□	150	115	0.05	300
HB-1M3216-201□□	200	150	0.08	300
HB-1M3216-301□□	300	225	0.09	200
HB-1M3216-601□□	600	450	0.20	200
HB-1M3216-601□□A	600	450	1.00	200
HB-1M3216-102□□	1000	750	0.25	200
HB-1S3216-100□□	10	7.5	0.05	300
HB-1S3216-200□□	20	15	0.10	300
HB-1S3216-800□□	80	60	0.25	200
HB-1S3216-251□□	250	190	0.30	200
HB-1S3216-601□□	600	450	0.40	200
HB-1T3216-350□□	35	26	0.03	600
HB-1T3216-500□□	50	37	0.03	600
HB-1T3216-700□□	70	52	0.05	400
HB-1T3216-800□□	80	60	0.05	400
HB-1T3216-121□□	120	90	0.10	300
HB-1T3216-151□□	150	115	0.10	300
HB-1T3216-201□□	200	150	0.15	300
HB-1T3216-601□□	600	450	0.30	200
HB-1T3216-801□□	800	600	0.30	200
HB-1T3216-102□□	1000 (at 60MHz)	750	0.40	200
HB-1T3216-122□□	1200 (at 50MHz)	900	0.40	200
HB-1T3216-202□□	2000 (at 30MHz)	1500	0.40	200

HB4516

Part No.	IZI at 100MHz(Ω)		DC Resistance (Ω) max.	Rated current (mA) max.
	typ.	min.		
HB-1H4516-600□□	60	45	0.02	600
HB-1H4516-700□□	70	52	0.03	600
HB-1M4516-151□□	150	115	0.05	300
HB-1T4516-700□□	70	52	0.05	600

HB4532

Part No.	IZI at 100MHz(Ω)		DC Resistance (Ω) max.	Rated current (mA) max.
	typ.	min.		
HB-1H4532-121□□	120	90	0.04	600
HB-1H4532-151□□	150	115	0.04	600
HB-1T4532-800□□	120	60	0.04	600
HB-1T4532-121□□	120	90	0.04	600

HB5750

Part No.	IZI at 100MHz(Ω)		DC Resistance (Ω) max.	Rated current (mA) max.
	typ.	min.		
HB-1M5750-181□□	180	135	0.08	600

HB series – L Type (For ultra high frequency signal line)

Part No.	IZI at 100MHz(Ω)	IZI at 1 GHz(Ω)	DC Resistance (Ω) max.	Rated current (mA) max.
	typ.	typ.		
HB-1L1608-2R0□□	2.0	20	0.20	300
HB-1L1608-4R0□□	4.0	40	0.25	300
HB-1L1608-5R5□□	5.5	55	0.30	300
HB-1L1608-7R0□□	7.0	80	0.30	300
HB-1L1608-9R0□□	9.0	40 (at 500MHz)	0.40	300
HB-1L1608-110□□	11.0	55 (at 500MHz)	0.40	300
HB-1L1608-130□□	13.0	70 (at 500MHz)	0.50	300
HB-1L1608-150□□	15.0	80 (at 500MHz)	0.50	300
HB-1L2012-3R5□□	3.5	30	0.15	500
HB-1L2012-6R5□□	6.5	30 (at 500MHz)	0.20	500
HB-1L2012-100□□	10.0	50 (at 500MHz)	0.25	500

HB series – Y Type (For ultra high frequency signal line)

Part No.	IZI at 100MHz(Ω)	IZI at 1 GHz(Ω)	DC Resistance (Ω) max.	Rated current (mA) max.
	typ.	typ.		
HB-1Y1608-4R0□□	4.0	40	0.20	300
HB-1Y1608-8R0□□	8.0	80	0.25	300
HB-1Y1608-100□□	10.0	100	0.30	300
HB-1Y1608-150□□	15.0	75(at 500MHz)	0.35	300
HB-1Y1608-200□□	20.0	120(at 500MHz)	0.40	300

HH series (For high current ~ 3A)

HH1005

Part No.	IZI at 100MHz(Ω)		DC Resistance (Ω) max.	Rated current (mA) max.
	Typ.	min.		
HH-1H1005-100□□	10	7.5	0.05	1300
HH-1M1005-221□□	220	165	0.35	800
HH-1M1005-471□□	470	355	0.56	500
HH-1M1005-601□□	600	450	0.60	500
HH-1M1005-102□□	1000	750	0.80	400
HH-1S1005-100□□	10	7.5	0.08	1300
HH-1T1005-100□□	10	7.5	0.05	1300
HH-1T1005-121□□	120	90	0.25	800
HH-1T1005-241□□	240	180	0.31	650
HH-1T1005-601□□	600	450	0.58	500

HH1608

Part No.	IZI at 100MHz(Ω)		DC Resistance (Ω) max.	Rated current (mA) max.
	Typ.	min.		
HH-1H1608-300□□	30	22	0.06	2000
HH-1M1608-600□□A	60	45	0.10	500
HH-1M1608-600□□	60	45	0.09	1600
HH-1M1608-121□□A	120	90	0.15	500
HH-1M1608-121□□	120	90	0.14	1100
HH-1M1608-221□□	221	165	0.20	1000
HH-1M1608-301□□	300	225	0.30	900
HH-1M1608-501□□	500	375	0.35	800
HH-1M1608-601□□	600	450	0.35	750
HH-1M1608-801□□	800	600	0.50	650
HH-1M1608-102□□	1000	750	0.50	550
HH-1S1608-100□□	10	7.5	0.05	1500
HH-1S1608-200□□	20	15	0.06	1400
HH-1S1608-300□□	30	22	0.10	1300
HH-1S1608-400□□	40	30	0.12	1300
HH-1S1608-550□□	55	42	0.15	1100
HH-1S1608-800□□	80	60	0.18	1000
HH-1S1608-121□□	120	90	0.20	1000
HH-1S1608-221□□	220	165	0.35	800
HH-1T1608-260□□	26	20	0.05	2000
HH-1T1608-300□□	30	22	0.05	2000
HH-1T1608-800□□	80	60	0.10	1600
HH-1T1608-121□□	120	90	0.15	1100
HH-1T1608-221□□	220	165	0.20	1000
HH-1T1608-301□□	300	225	0.30	900
HH-1T1608-331□□	330	250	0.30	800
HH-1T1608-601□□	600	450	0.40	650
HH-1T1608-102□□	1000	750	0.50	550

HH2012

Part No.	IZI at 100MHz(Ω)		DC Resistance (Ω) max.	Rated current (mA) max.
	Typ.	min.		
HH-1H2012-150□□	15	12	0.02	2500
HH-1M2012-260□□	26	20	0.02	3000
HH-1H2012-300□□	30	23	0.02	2500
HH-1H2012-320□□	32	24	0.03	2500
HH-1M2012-600□□	60	45	0.03	3800
HH-1M2012-800□□	80	60	0.08	1500
HH-1M2012-121□□	120	90	0.05	2500
HH-1M2012-151□□	150	115	0.10	1500

HH2012

Part No.	|Z| at 100MHz(Ω)		DC Resistance (Ω) max.	Rated current (mA) max.
	Typ.	min.		
HH-1M2012-221□□	220	165	0.05	2200
HH-1M2012-301□□	300	225	0.07	2000
HH-1M2012-451□□	450	338	0.20	1000
HH-1M2012-601□□	600	450	0.10	2000
HH-1M2012-102□□	1000	750	0.30	800
HH-1S2012-5R0□□	5.0	3.5	0.05	3000
HH-1S2012-8R0□□	8.0	6.0	0.03	3000
HH-1S2012-400□□	40	30	0.10	1800
HH-1S2012-800□□	80	60	0.15	1500
HH-1S2012-121□□	120	90	0.20	900
HH-1S2012-221□□	220	165	0.20	900
HH-1S2012-251□□	250	190	0.30	1000
HH-1T2012-260□□	26	20	0.03	3500
HH-1T2012-400□□	40	30	0.05	2000
HH-1T2012-800□□	80	60	0.08	1000
HH-1T2012-121□□	120	90	0.03	3000
HH-1T2012-151□□	150	115	0.08	1000
HH-1T2012-221□□	220	165	0.12	1000
HH-1T2012-251□□	250	190	0.05	2800
HH-1T2012-301□□	300	225	0.15	800
HH-1T2012-331□□	330	250	0.15	800
HH-1T2012-401□□	400	300	0.15	800
HH-1T2012-601□□	600	450	0.13	2500
HH-1T2012-102□□	1000	750	0.30	600

HH3216

Part No.	|Z| at 100MHz(Ω)		DC Resistance (Ω) max.	Rated current (mA) max.
	Typ.	min.		
HH-1H3216-500□□	50	37	0.02	4000
HH-1H3216-700□□	70	52	0.02	4000
HH-1M3216-900□□	90	68	0.02	4000
HH-1M3216-121□□	120	90	0.03	4000
HH-1M3216-151□□	150	115	0.05	2000
HH-1M3216-201□□	200	150	0.08	2000
HH-1M3216-301□□	300	225	0.09	2000
HH-1M3216-501□□	500	375	0.06	3000
HH-1M3216-601□□	600	450	0.06	3000
HH-1M3216-102□□	1000	750	0.25	1000
HH-1S3216-100□□	10	7.5	0.05	3000
HH-1S3216-200□□	20	15	0.10	3000
HH-1S3216-800□□	80	60	0.25	2000
HH-1S3216-251□□	250	190	0.30	2000
HH-1T3216-260□□	26	20	0.03	4000
HH-1T3216-350□□	35	26	0.03	4000
HH-1T3216-500□□	50	37	0.04	3000
HH-1T3216-700□□	70	52	0.05	2500
HH-1T3216-800□□	80	60	0.05	2500
HH-1T3216-121□□	120	90	0.10	2000
HH-1T3216-151□□	150	115	0.10	2000
HH-1T3216-201□□	200	150	0.15	1800
HH-1T3216-601□□	600	450	0.30	1000
HH-1T3216-801□□	800	600	0.30	1000
HH-1T3216-102□□	1000	750	0.30	1000
HH-1T3216-122□□	1200	900	0.40	1000
HH-1T3216-202□□	2000	1500	0.40	1000

HH4516

Part No.	IZI at 100MHz(Ω)		DC Resistance (Ω) max.	Rated current (mA) max.
	Typ.	min.		
HH-1H4516-600□□	60	45	0.02	4000
HH-1H4516-111□□	110	83	0.02	4000

HH4532

Part No.	IZI at 100MHz(Ω)		DC Resistance (Ω) max.	Rated current (mA) max.
	Typ.	min.		
HH-1H4532-121□□	60	45	0.03	3000
HH-1T4532-121□□	120	90	0.03	3000
HH-1M4532-601□□	600	450	0.04	3000
HH-1M4532-132□□	1300	980	0.05	2700
HH-1B4532-132□□	1300	980	0.05	2700

HH5750

Part No.	IZI at 100MHz(Ω)		DC Resistance (Ω) max.	Rated current (mA) max.
	Typ.	min.		
HH-1M5750-401□□	400	300	0.05	2500
HH-1M5750-501□□	500	375	0.08	2500
HH-1T5750-151□□	150	115	0.05	4000

HU series (For ultra high current ~ 6A)

Part No.	IZI at 100MHz(Ω)		DC Resistance (Ω) max.	Rated current (mA) max.
	Typ.	min.		
HU-1M2012-400□□	40	30	0.02	5000
HU-1M2012-600□□	50	37	0.02	4800
HU-1M2012-800□□	80	60	0.02	4500
HU-1M2012-121□□	120	90	0.03	4200
HU-1T2012-500□□	50	37	0.015	5000
HU-1H3216-500□□	50	37	0.01	4800
HU-1H3216-121□□	120	90	0.02	4600
HU-1H4516-600□□	60	45	0.015	5400
HU-1B4532-681□□	680	510	0.03	3800
HU-1H4532-121□□	120	90	0.02	4600
HU-1M5750-401□□	400	300	0.03	5500

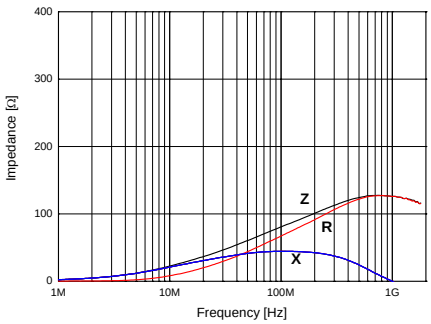
※ Parts with other electrical characteristics can be provided upon customer`s Request.

※ Test equipment : HP4291A + HP16192A

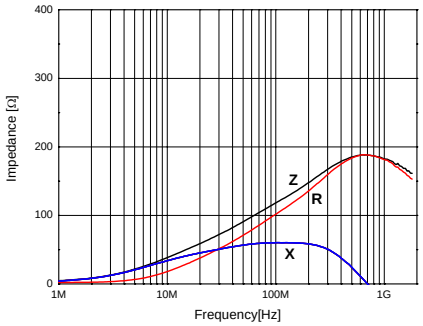
Electrical Characteristics

■ HB0603

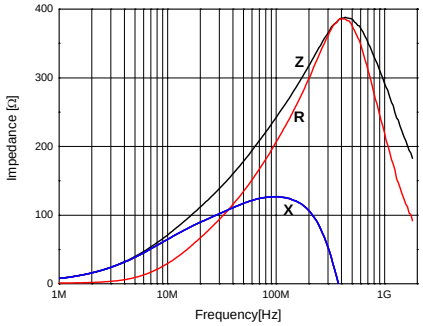
HB-1T0603-800J



HB-1T0603-121J

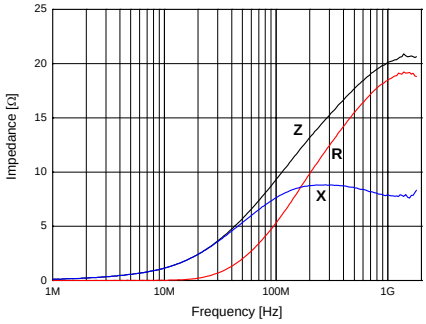


HB-1T0603-241J



■ HB1005

HB-1M1005-100J



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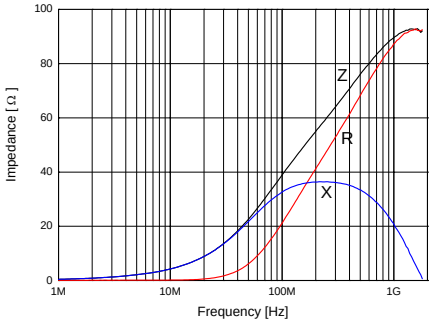

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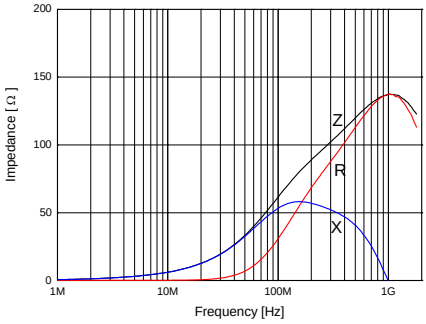

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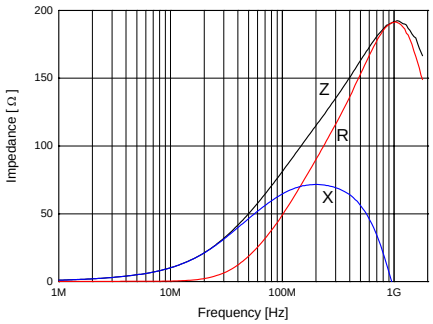

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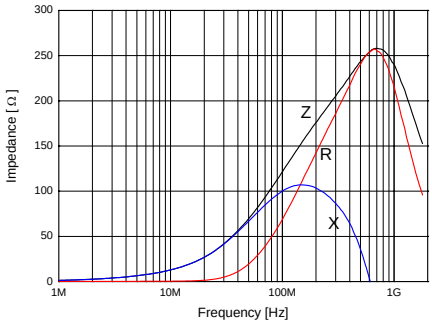
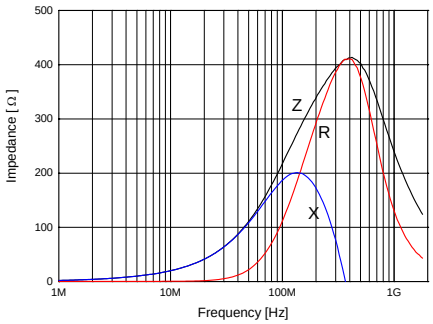
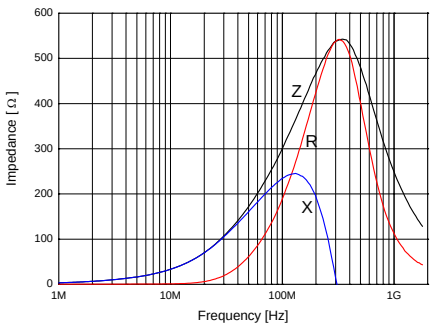


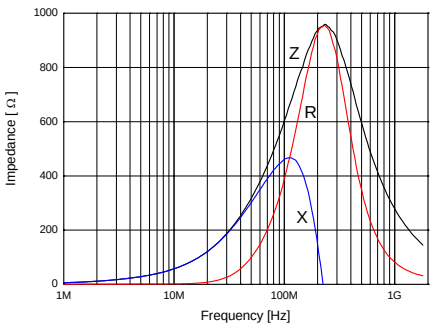
HB-1M1005-221J



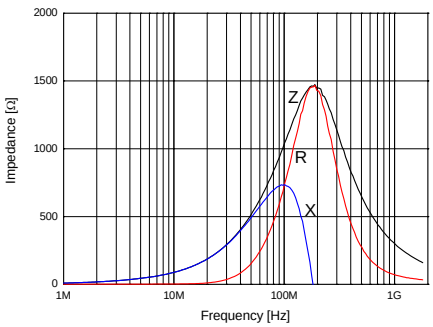
HB-1M1005-301J



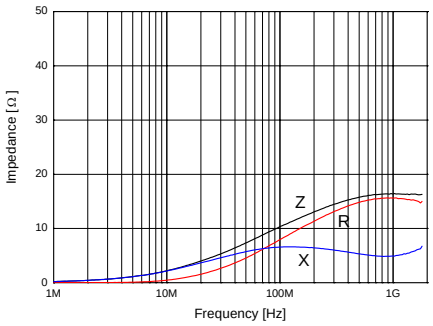
HB-1M1005-601J



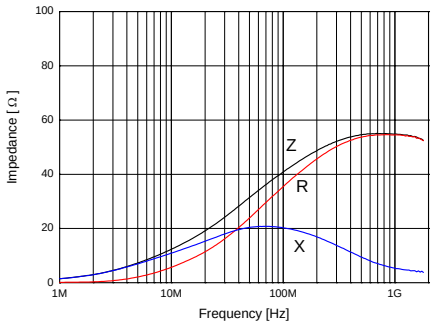
HB-1M1005-102J



HB-1T1005-100J



HB-1T1005-400J



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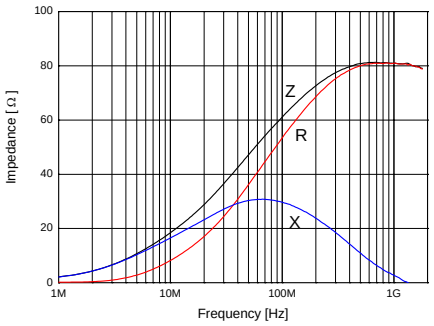

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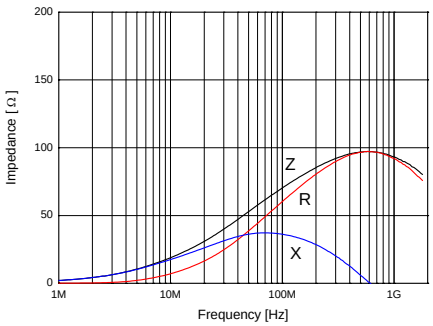
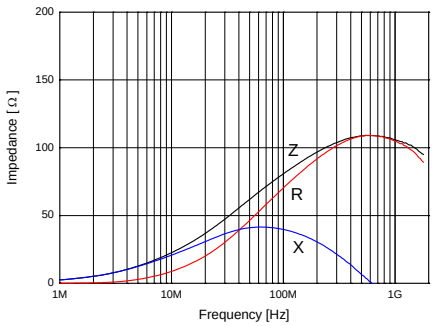
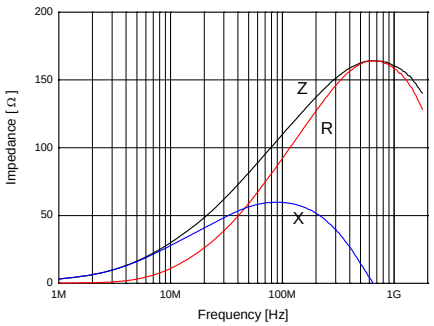


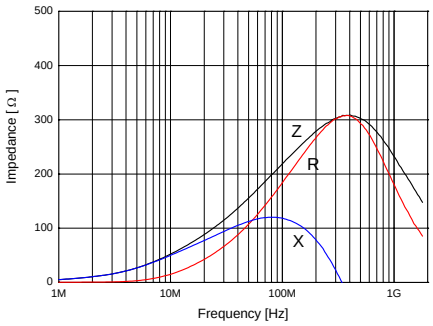
HB-1T1005-800J



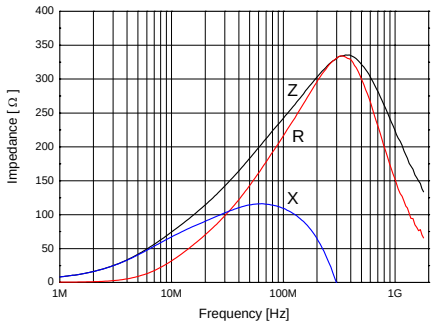
HB-1T1005-121J



HB-1T1005-221J



HB-1T1005-241J



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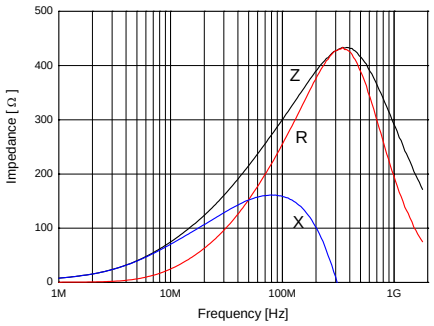

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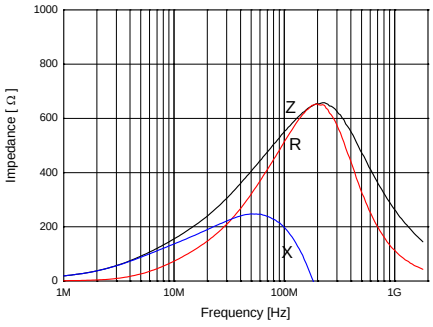

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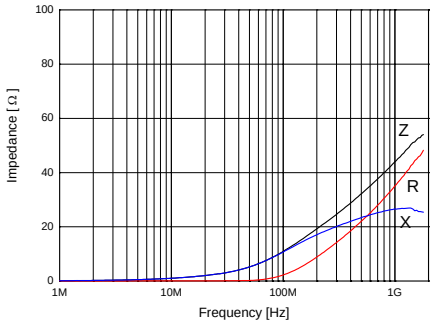
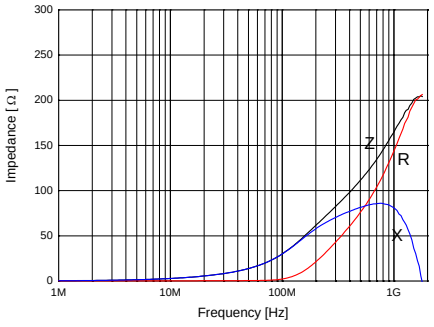


HB-1S1005-300J



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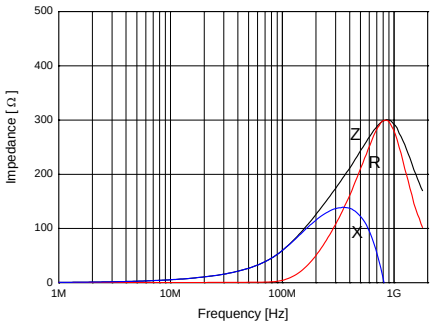
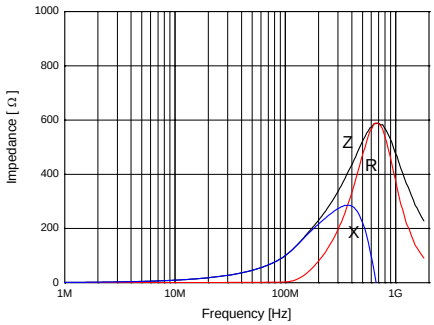
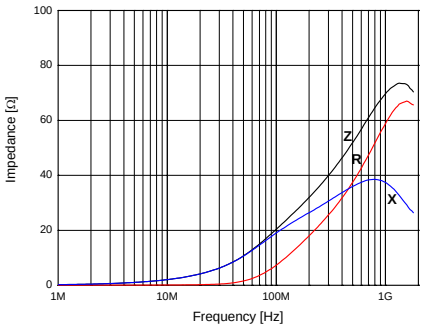


HB-1S1005-101J

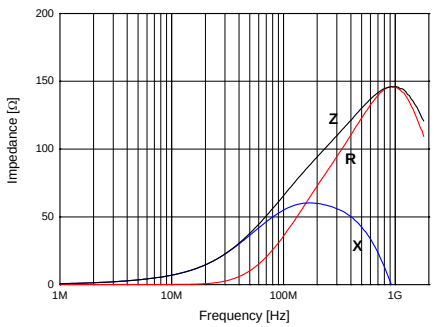


■ HB1608

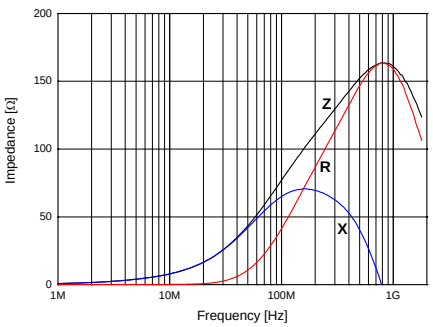
HB-1H1608-300J



HB-1M1608-600J



HB-1M1608-800J



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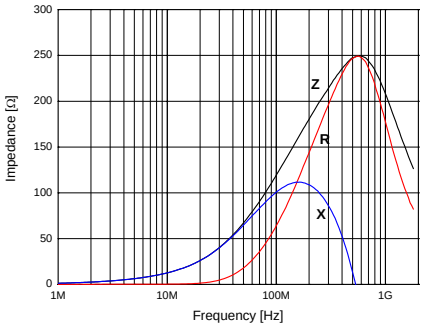
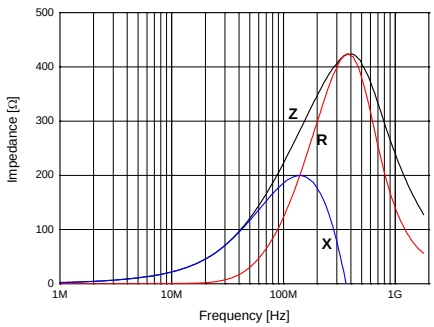
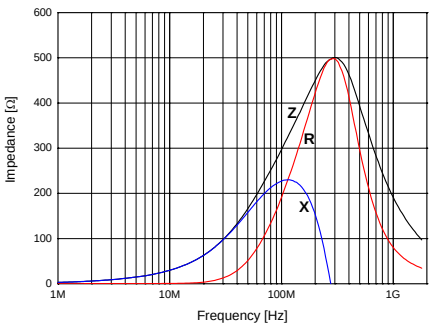


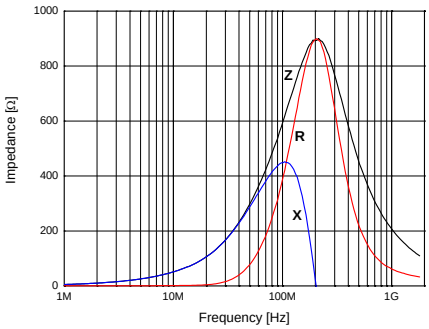
HB-1M1608-221J



HB-1M1608-301J



HB-1M1608-601J



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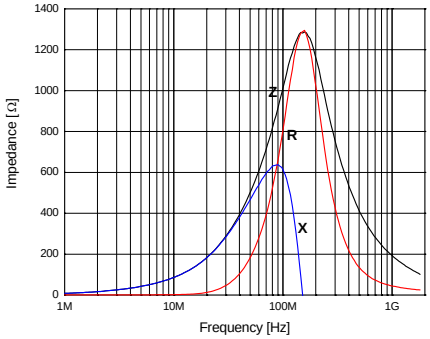

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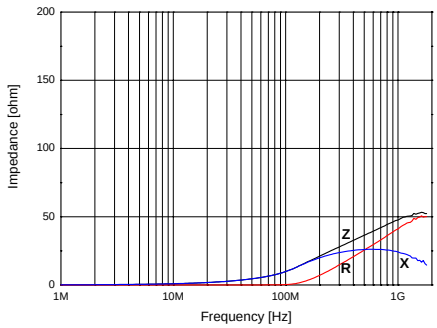

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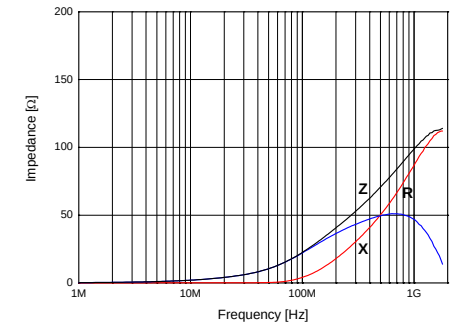

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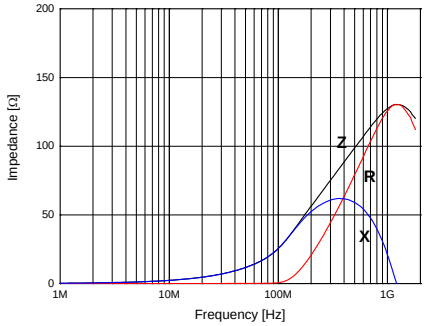

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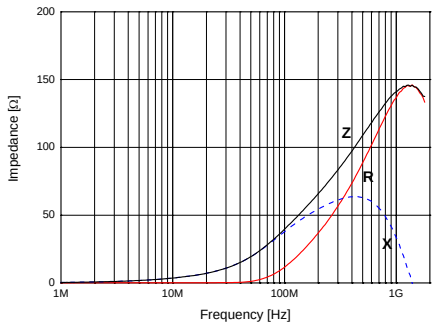

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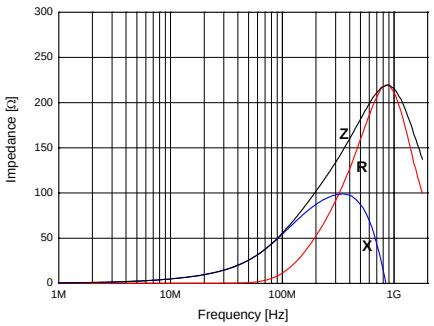
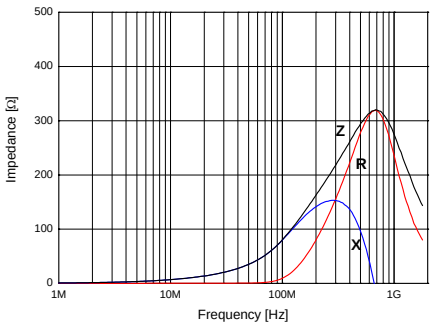
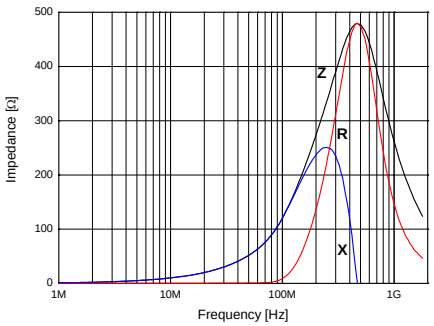


HB-1S1608-800J



HB-1S1608-121J



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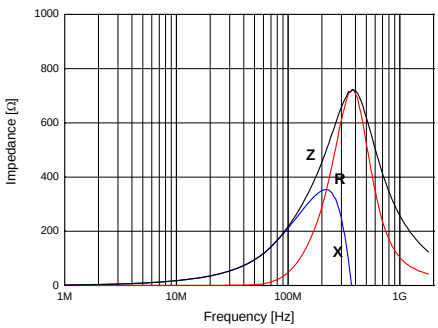

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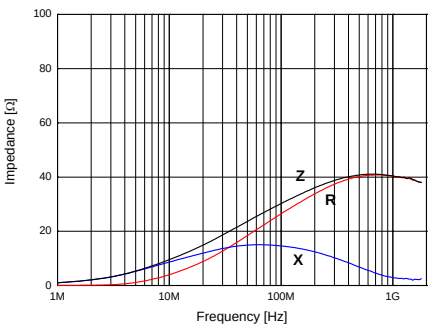

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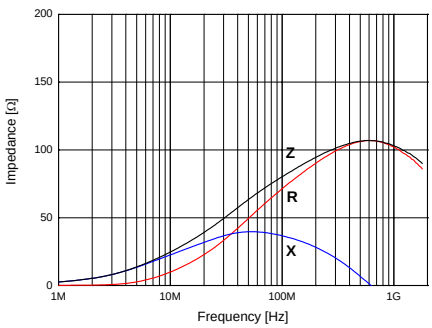

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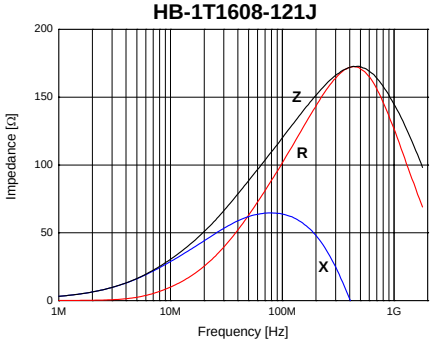

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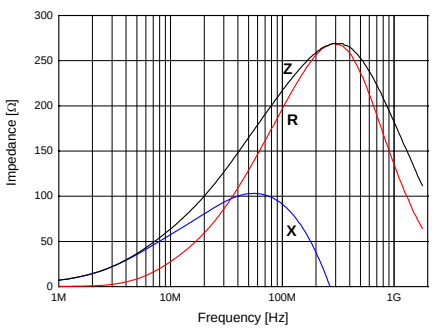

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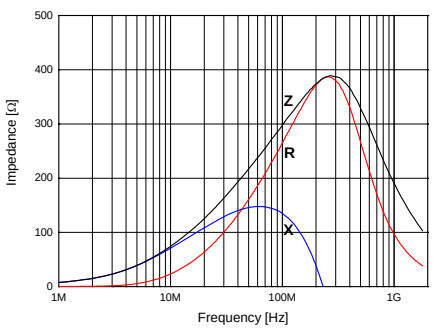
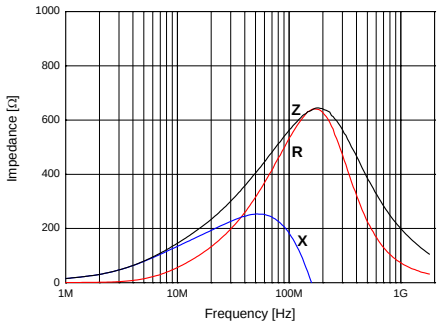
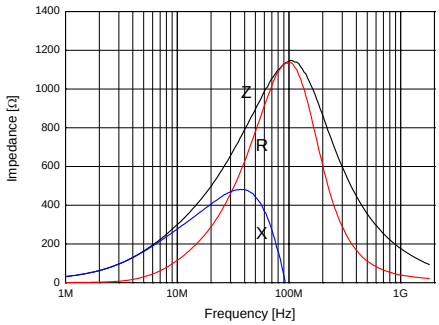


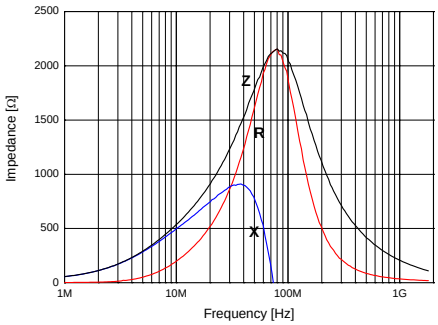
HB-1T1608-601J



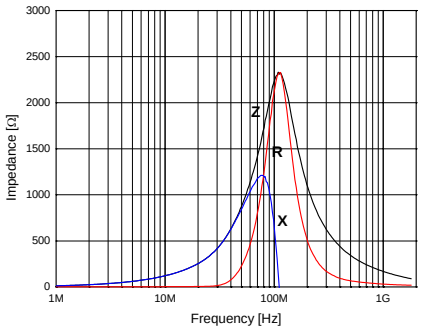
HB-1T1608-102J



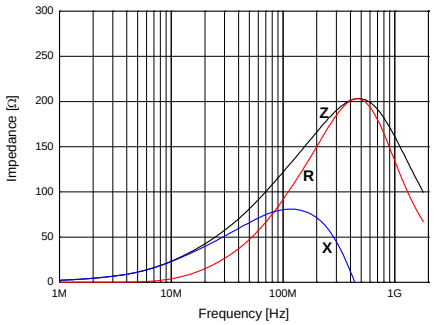
HB-1T1608-202J



HB-1B1608-222J

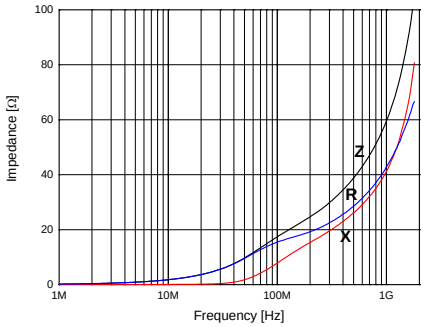


HB-1P1608-121J

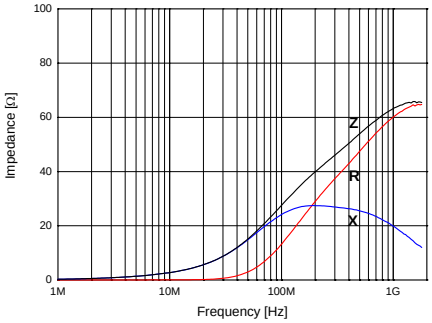


■ HB2012

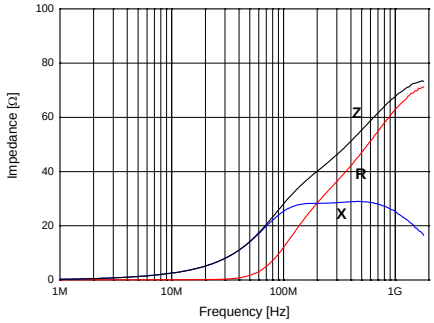
HB-1H2012-150J



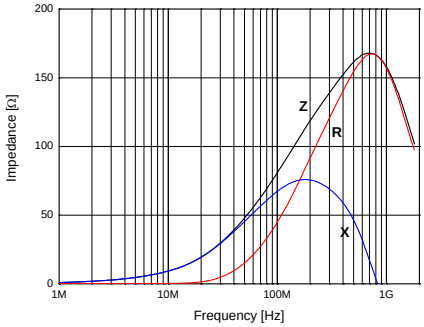
HB-1H2012-260J



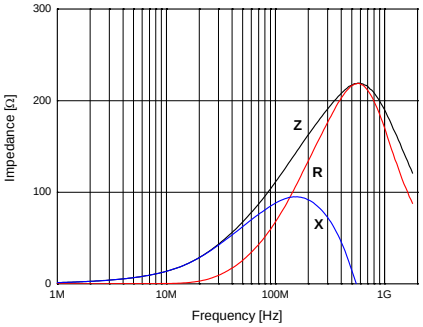
HB-1H2012-320J



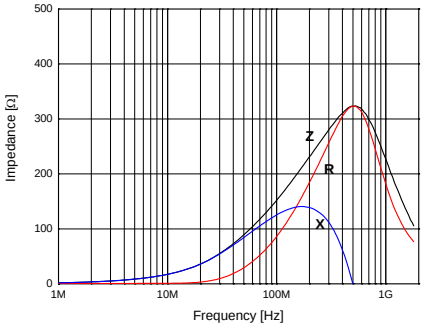
HB-1M2012-800J



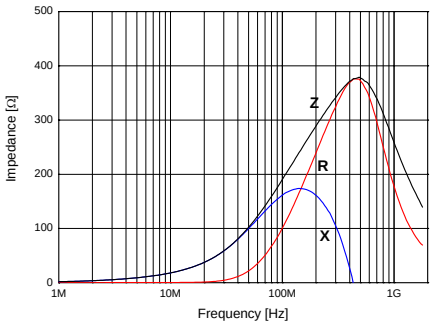
HB-1M2012-121J



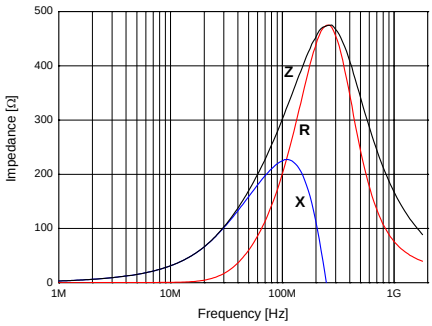
HB-1M2012-151J



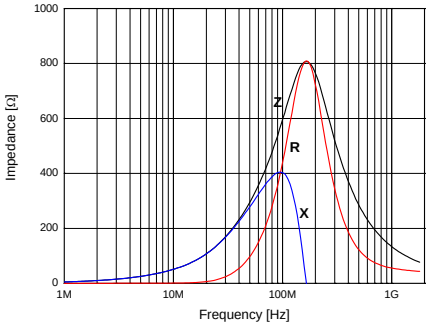
HB-1M2012-221J



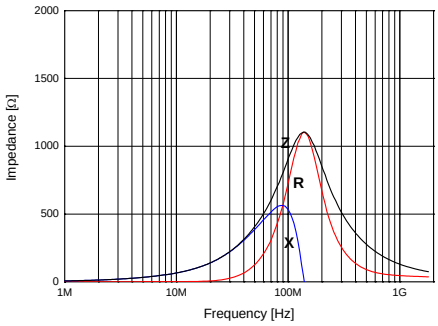
HB-1M2012-301J



HB-1M2012-601J



HB-1M2012-102J



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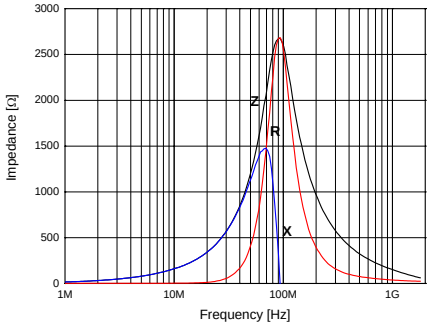

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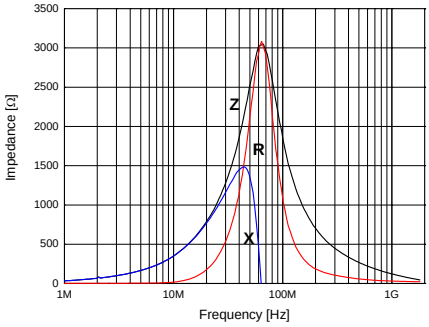
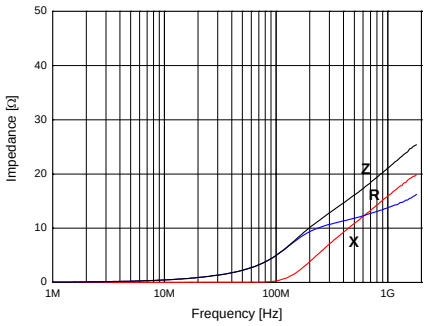


HB-1S2012-5R0J



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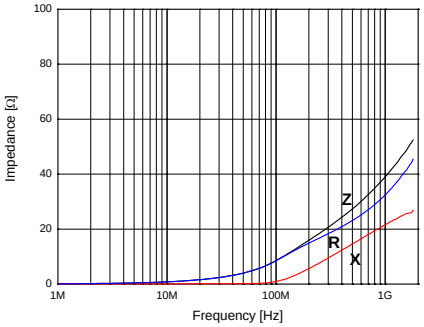
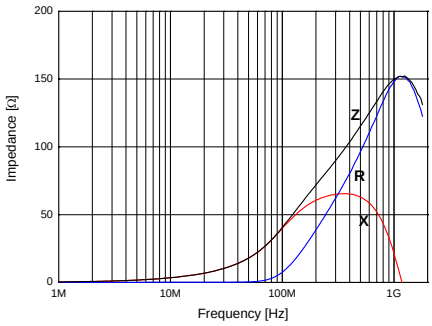


HB-1S2012-400J



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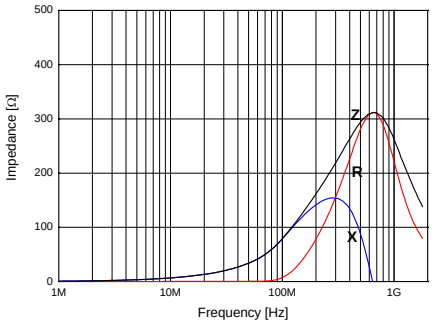
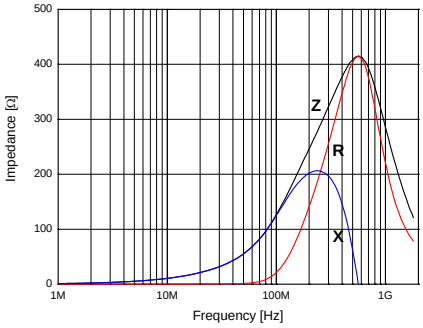


HB-1S2012-121J



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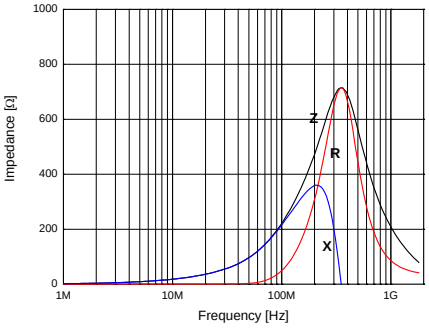

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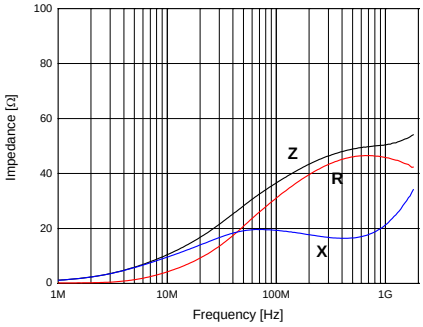

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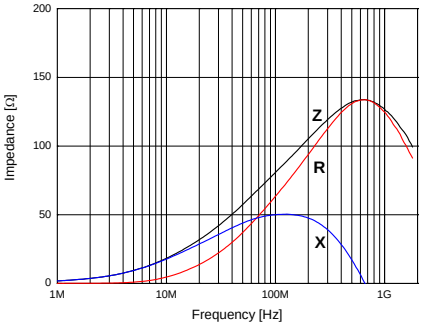

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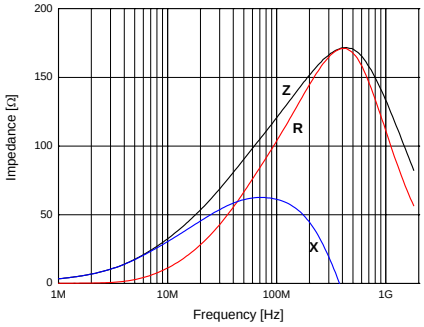

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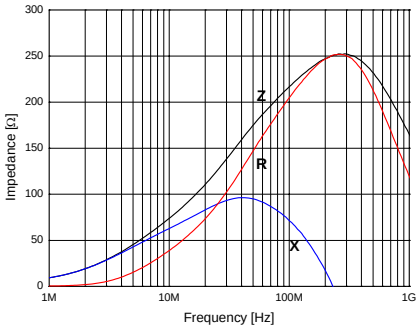
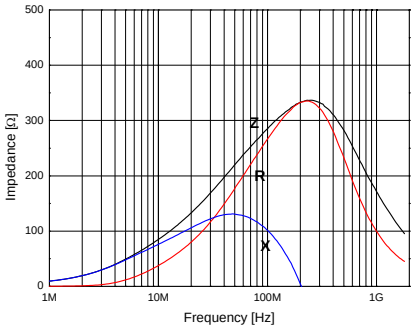


HB-1T2012-301J



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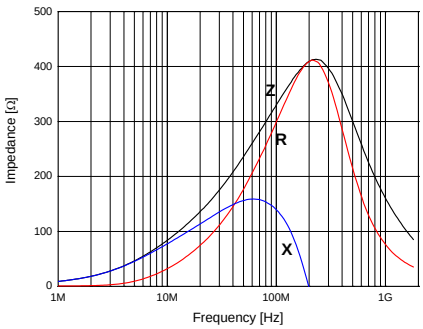

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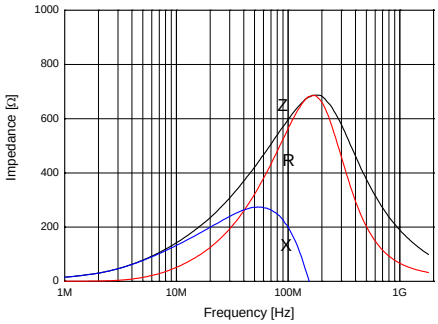
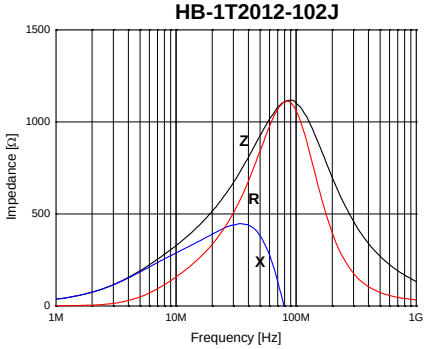


HB-1T2012-102J



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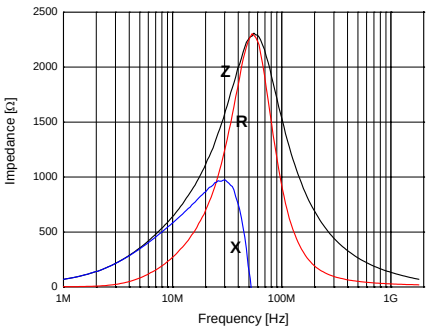

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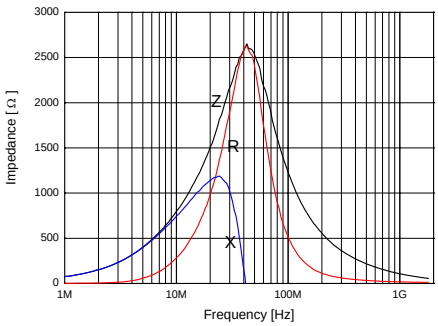
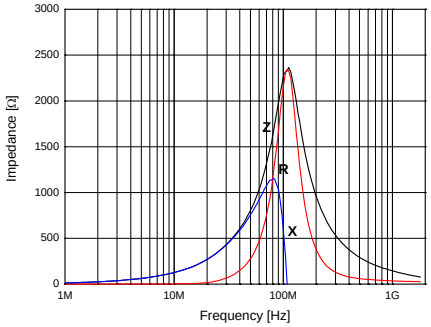
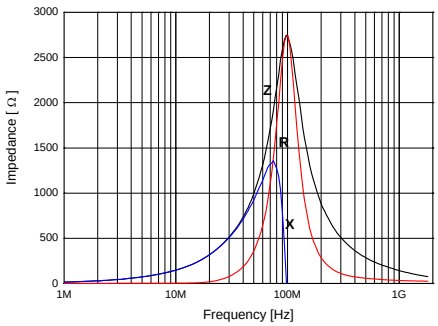


HB-1B2012-222J

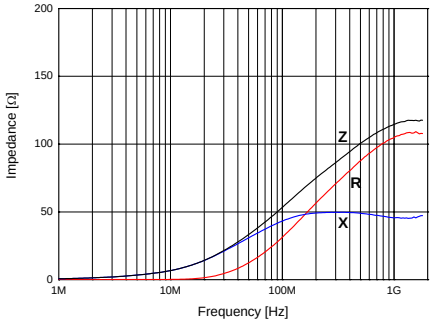


HB-1B2012-272J

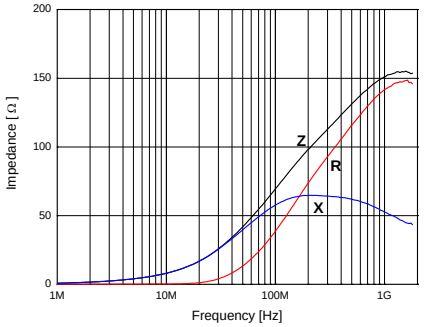


■ HB3216

HB-1H3216-500J



HB-1H3216-700J



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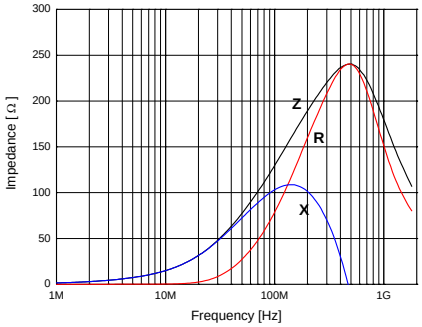

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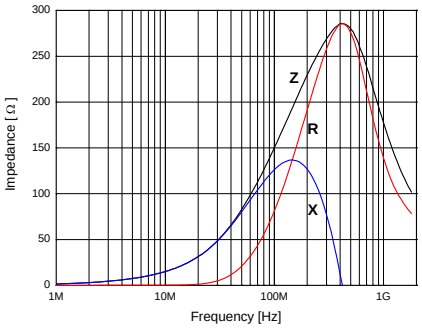

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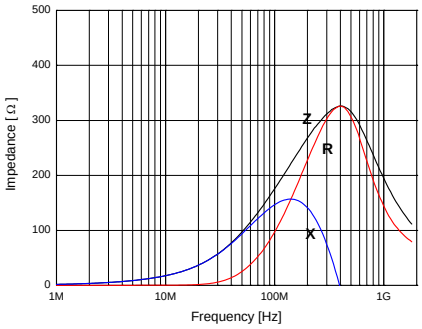

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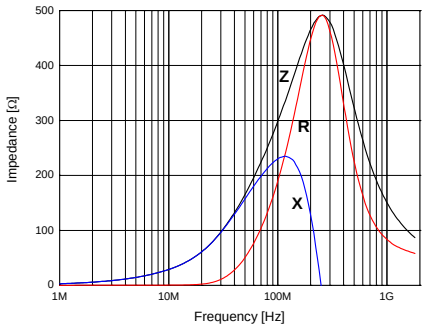

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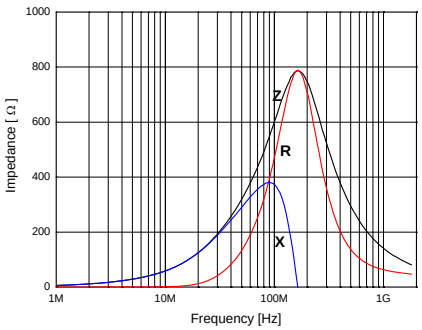
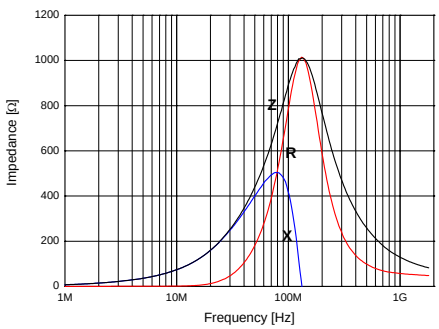
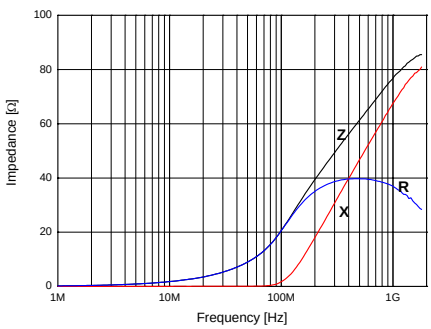


HB-1M3216-102J



HB-1S3216-200J



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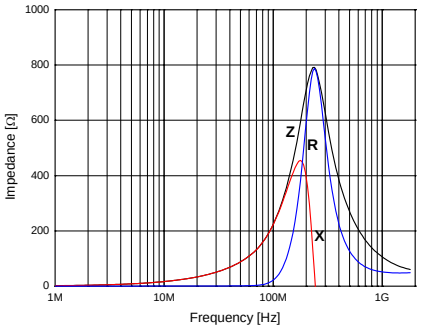

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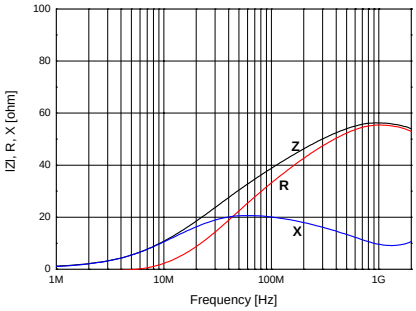
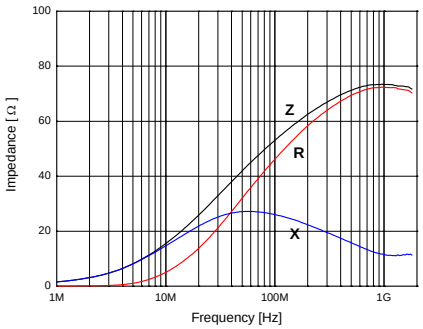


HB-1T3216-500J



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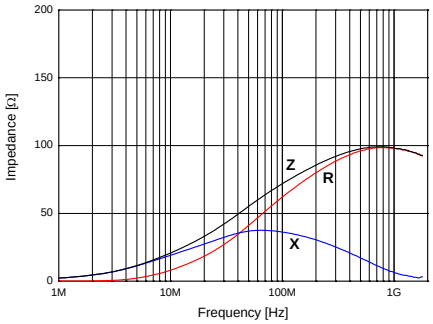
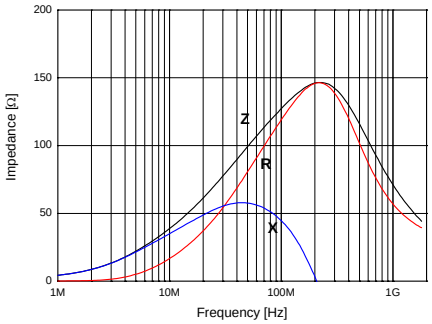


HB-1T3216-121J



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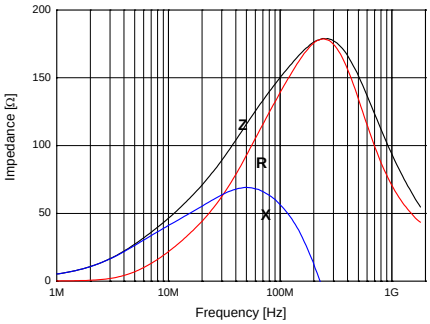

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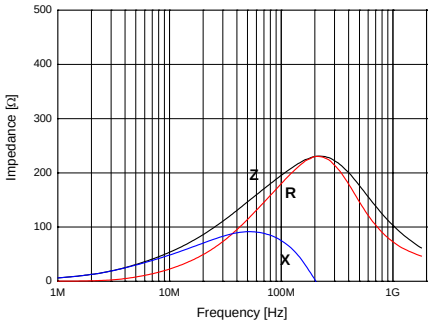

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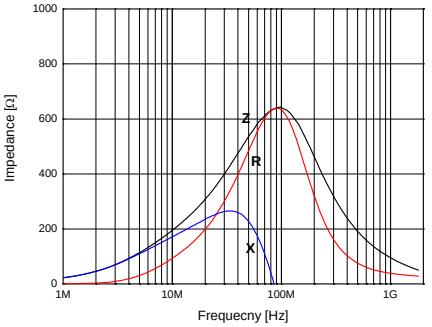

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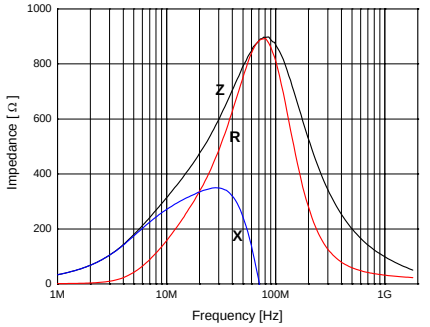
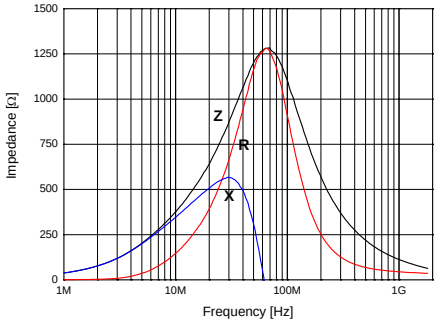


HB-1T3216-122J



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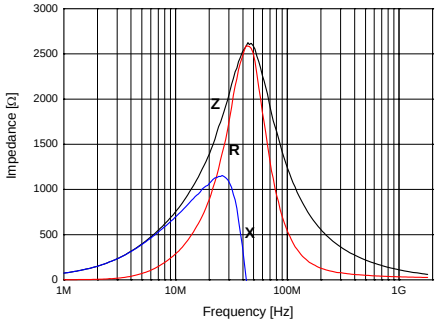
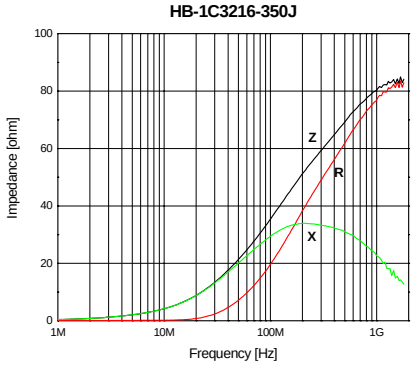
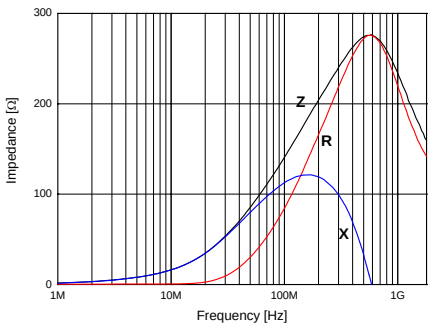


HB-1C3216-350J

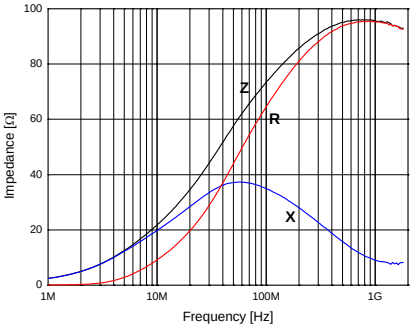


■ HB4516

HB-1M4516-151J

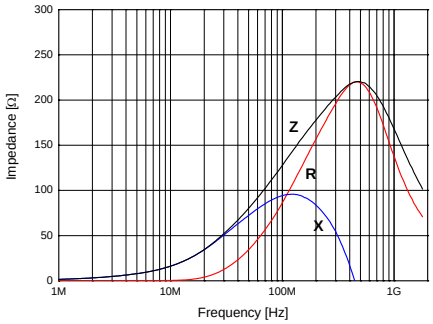


HB-1T4516-700J



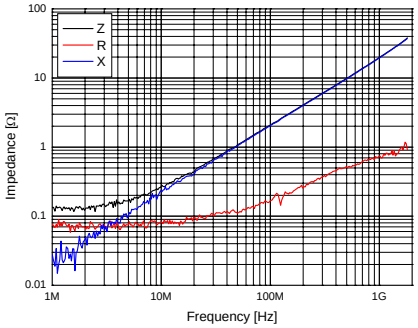
HB4532

HB-1H4532-121J

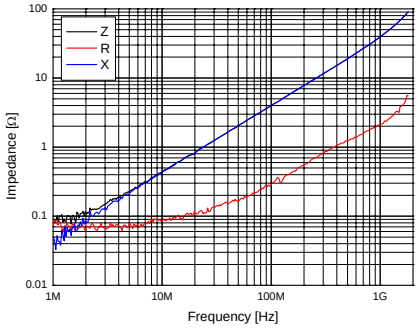


HB SERIES - L TYPE (For ultra high frequency signal line)

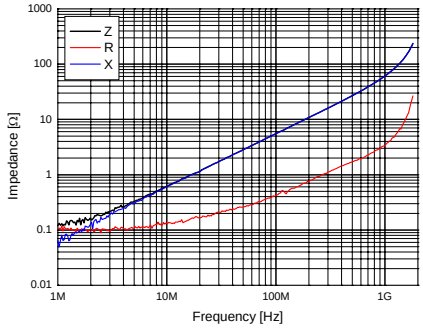
HB-1L1608-2R0J



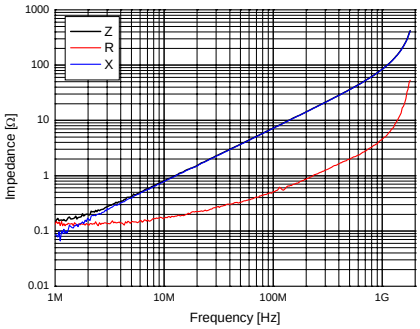
HB-1L1608-4R0J



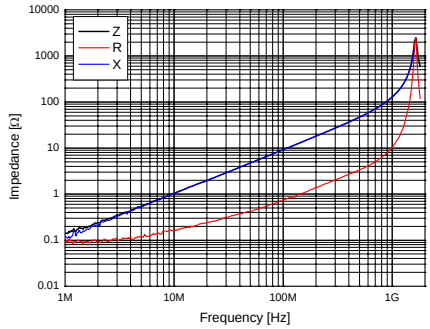
HB-1L1608-5R5J



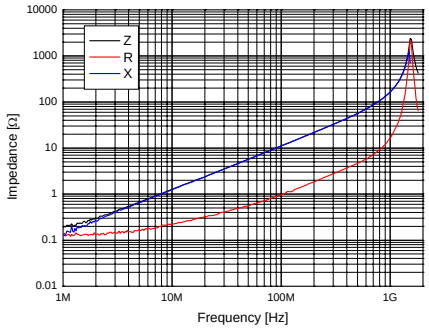
HB-1L1608-7R0J



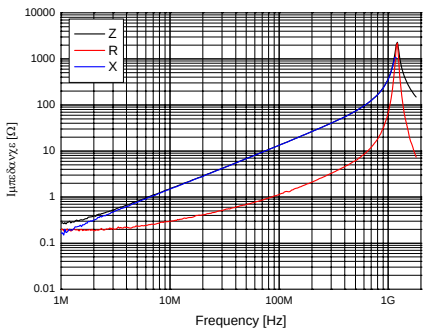
HB-1L1608-9R0J



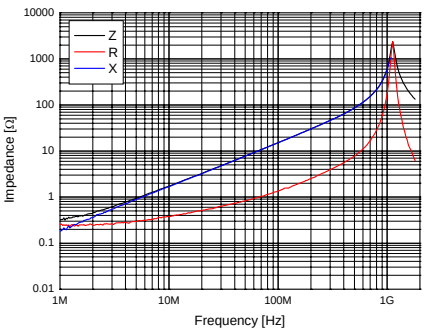
HB-1L1608-110J



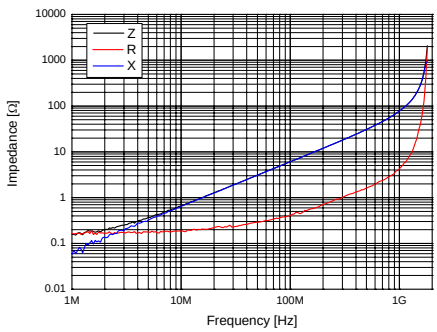
HB-1L1608-130J



HB-1L1608-150J



HB-1L2012-3R5J



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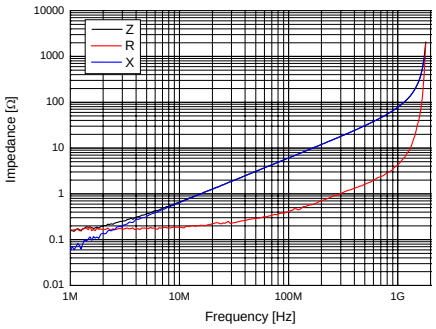

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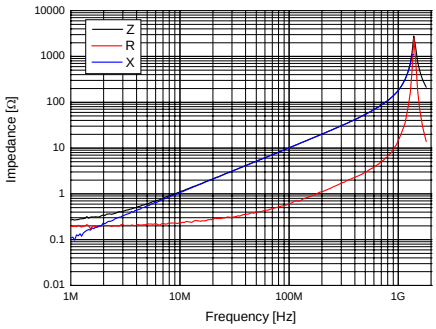
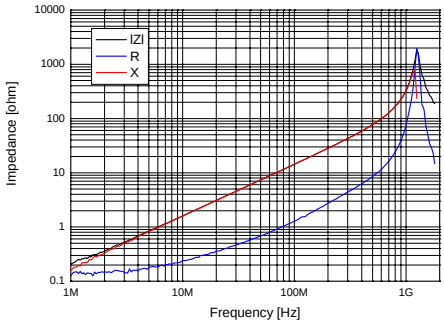


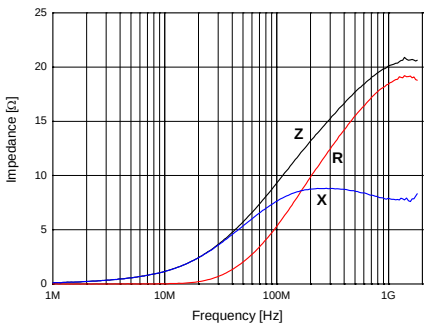
■ HB SERIES - Y TYPE (For ultra high frequency signal line)

HB-1Y1608-150J

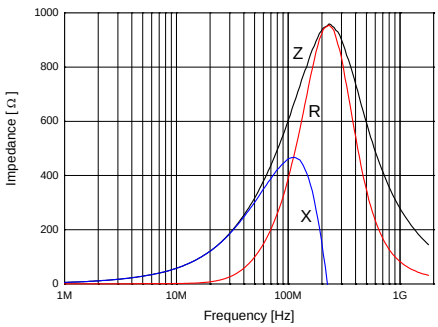


■ HH1005

HH-1H1005-100J



HH-1M1005-601J



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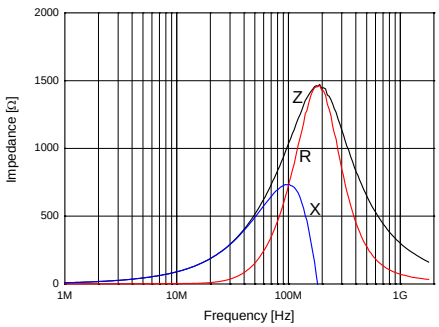
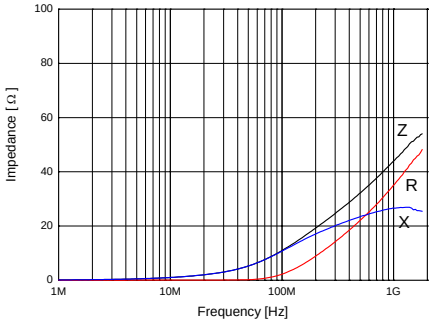
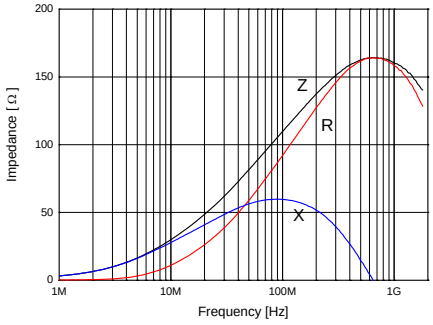


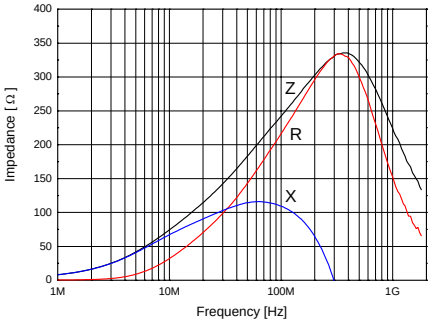
HH-1S1005-100J



HH-1T1005-121J



HH-1T1005-241J



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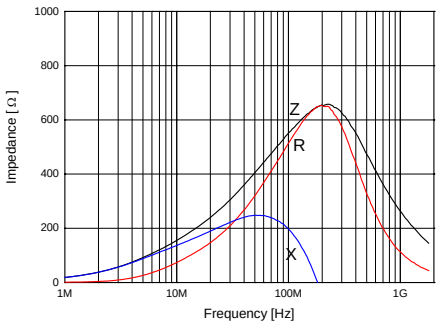
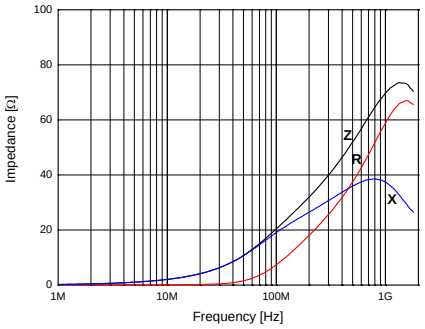
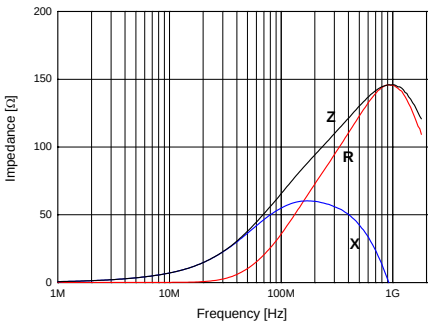


■ HH1608

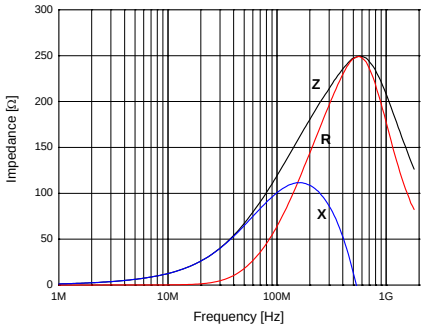
HH-1H1608-300J



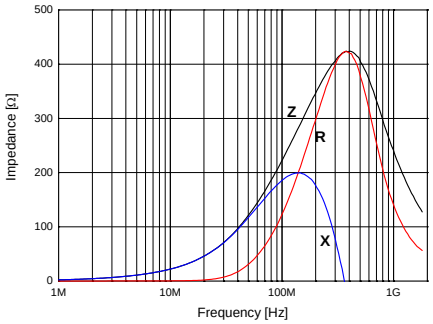
HH-1M1608-600J



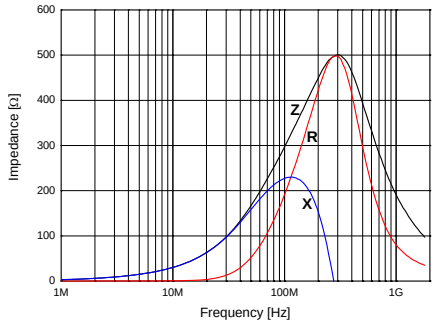
HH-1M1608-121J



HH-1M1608-221J



HH-1M1608-301J



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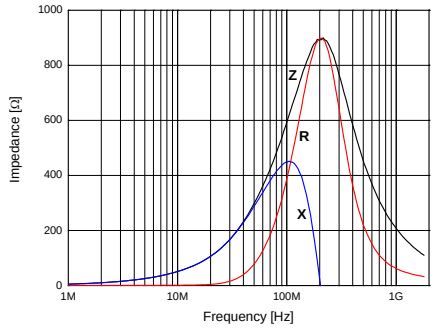
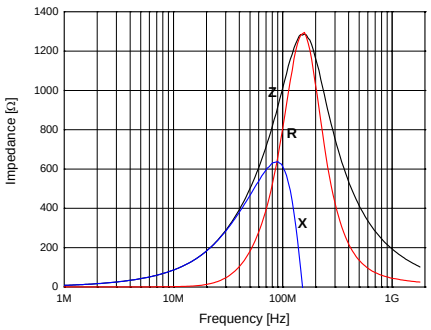


HH-1M1608-102J



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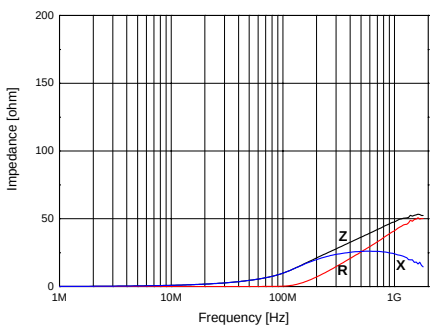

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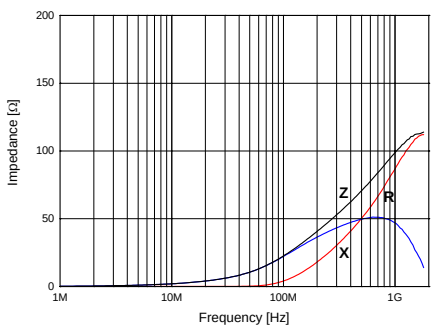
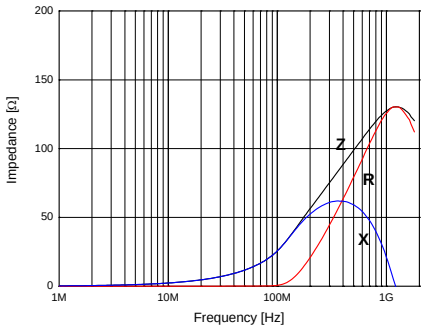


HH-1S1608-300J



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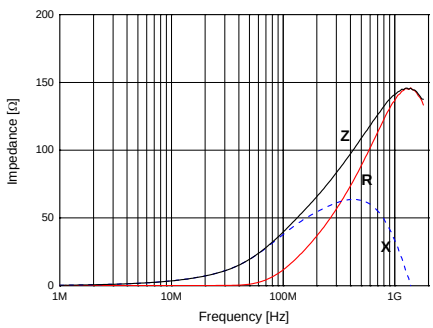

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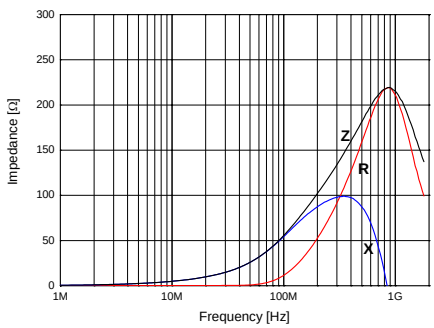
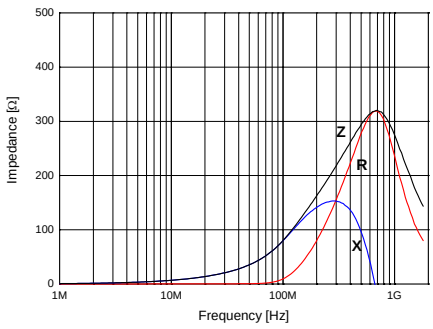
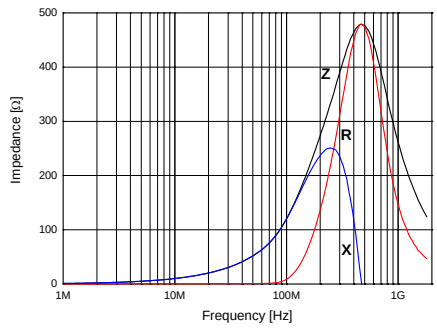


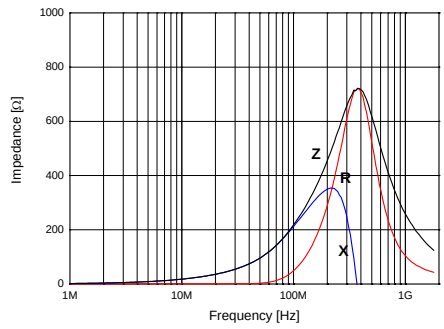
HH-1S1608-800J



HH-1S1608-121J



HH-1S1608-221J



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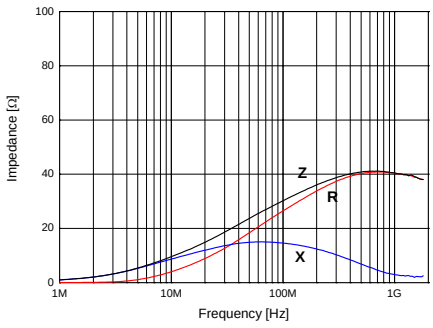

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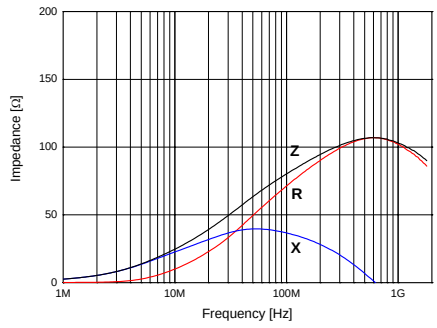

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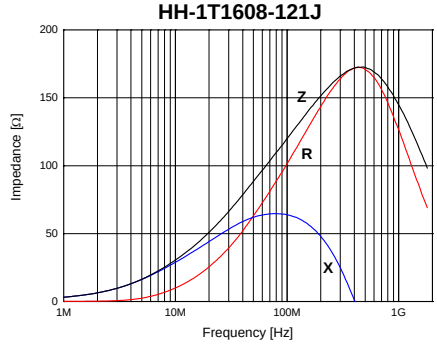

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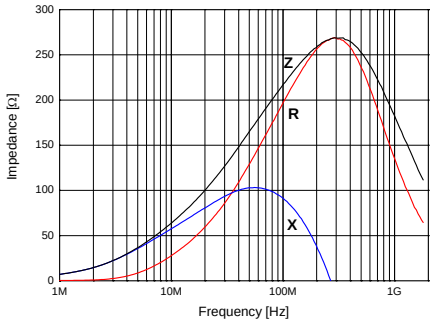

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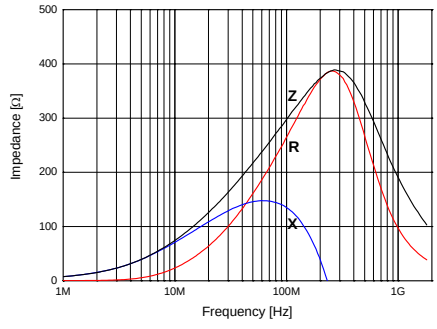
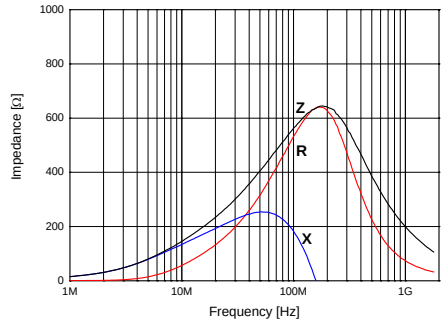
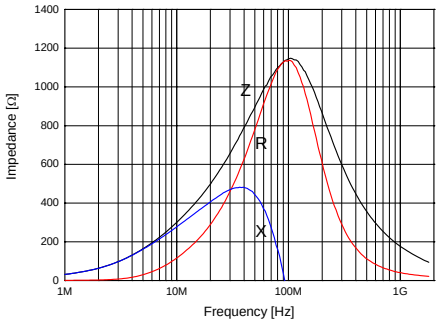


HH-1T1608-601J

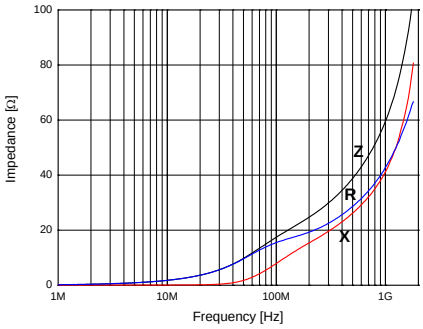


HH-1T1608-102J

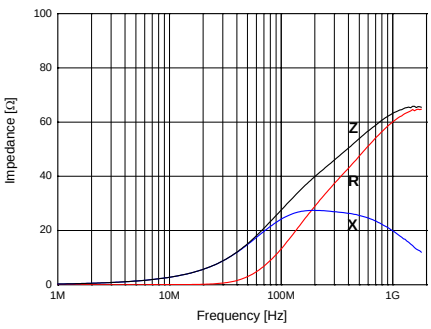


■ HH2012

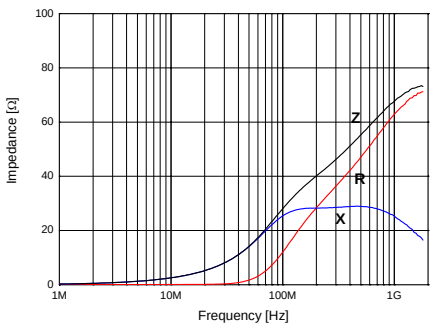
HH-1H2012-150J



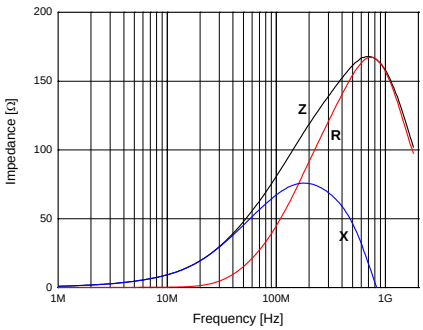
HH-1H2012-260J



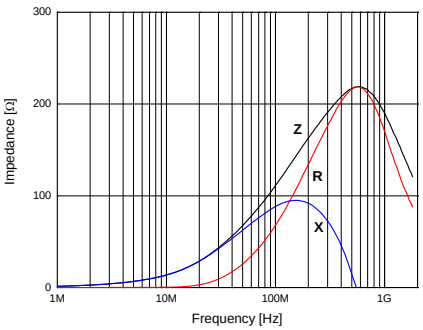
HH-1H2012-320J



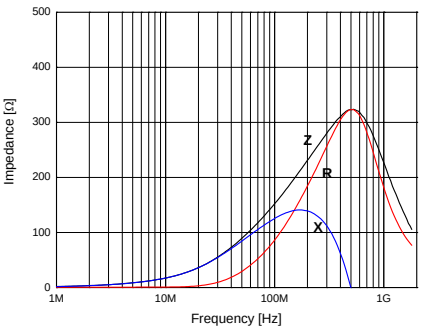
HH-1M2012-800J



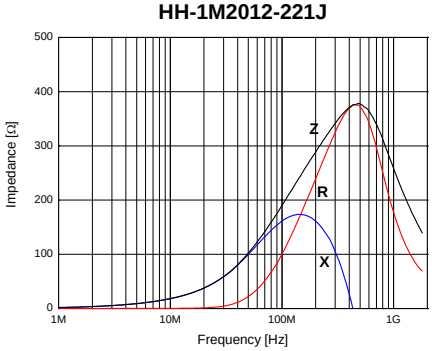
HH-1M2012-121J



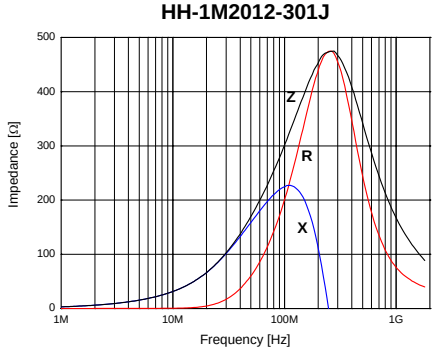
HH-1M2012-151J



HH-1M2012-221J



HH-1M2012-301J



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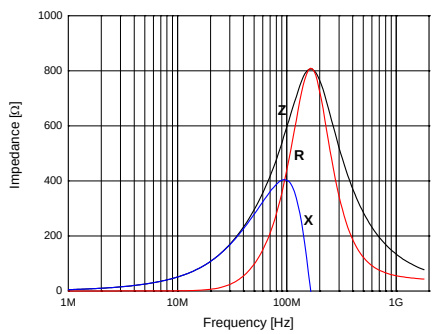
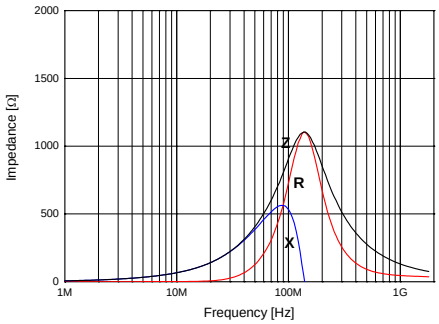
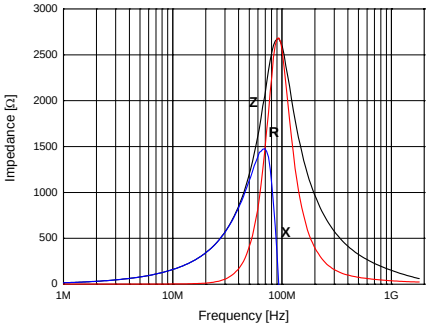


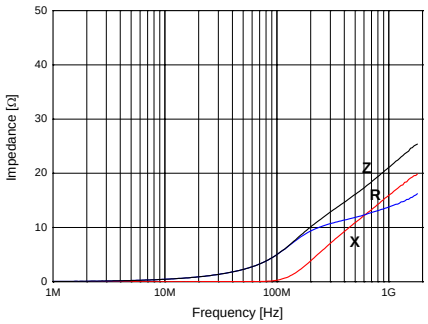
HH-1M2012-102J



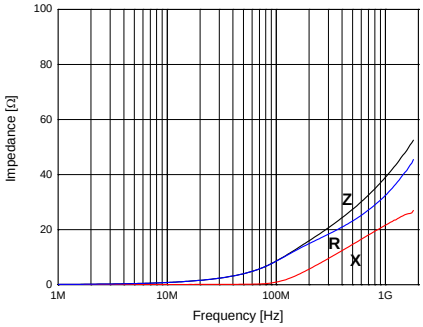
HH-1M2012-202J



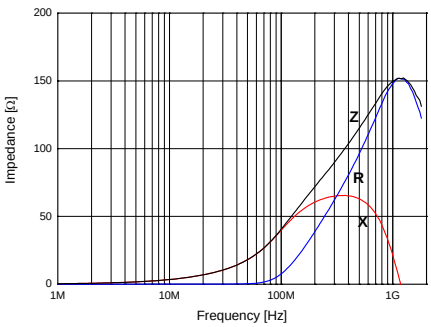
HH-1S2012-5R0J



HH-1S2012-8R0J



HH-1S2012-400J



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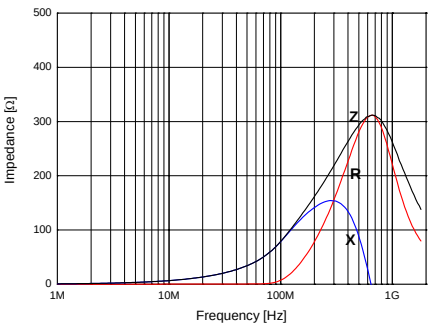
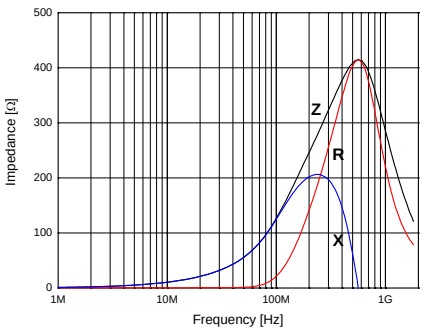
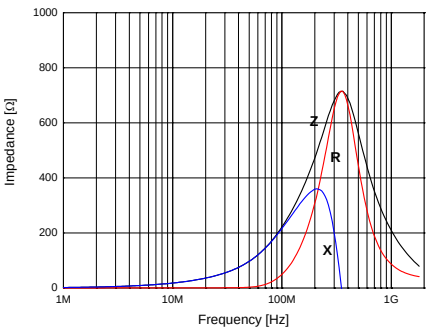


HH-1S2012-121J



HH-1S2012-221J



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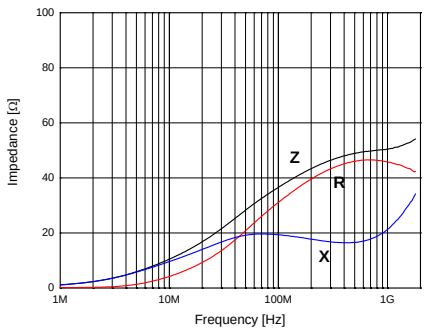

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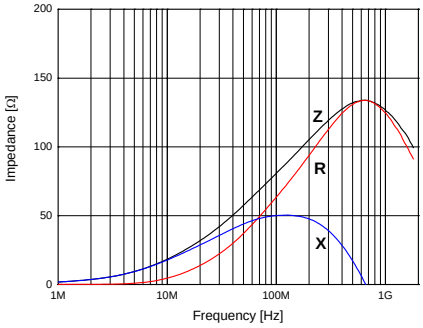

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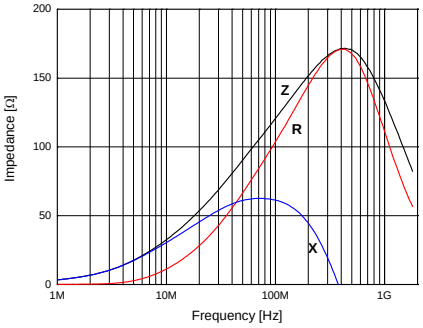
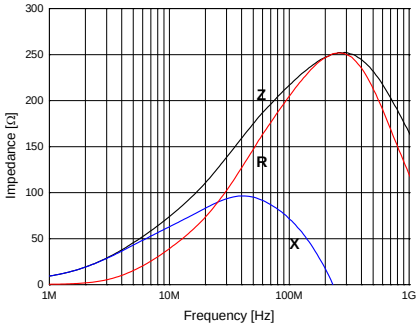
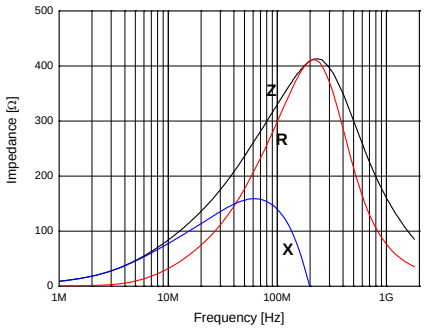


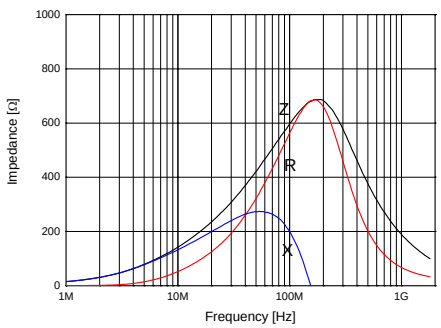
HH-1T2012-221J



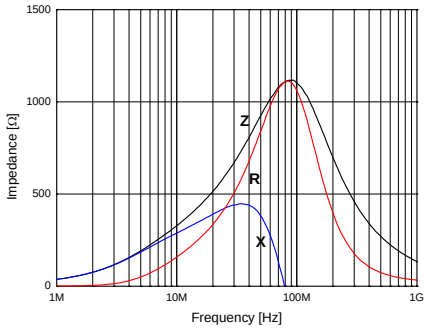
HH-1T2012-331J



HH-1T2012-601J

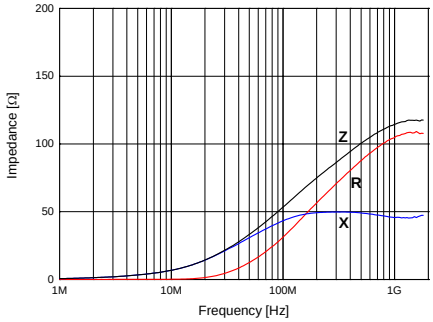


HH-1T2012-102J



■ HH3216

HH-1H3216-500J



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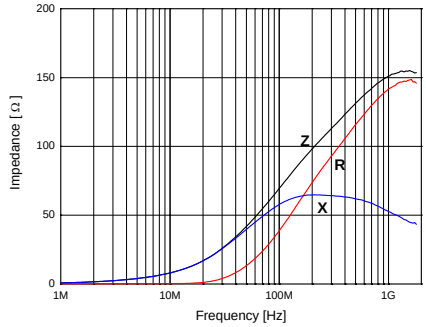
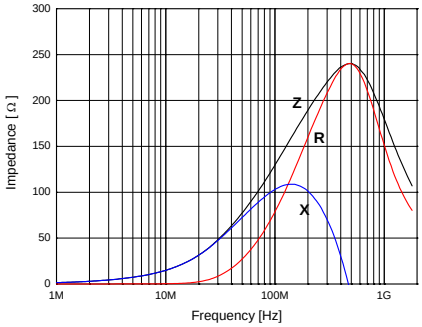
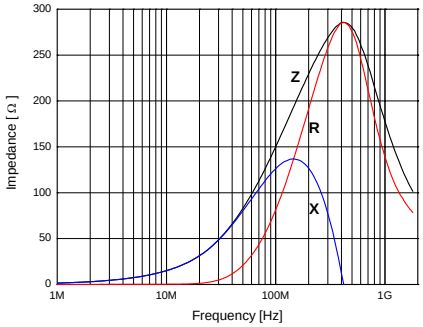


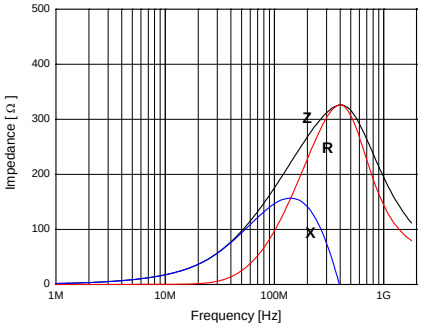
HH-1M3216-121J



HH-1M3216-151J



HH-1M3216-201J



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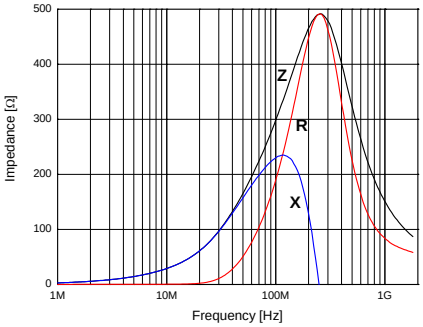

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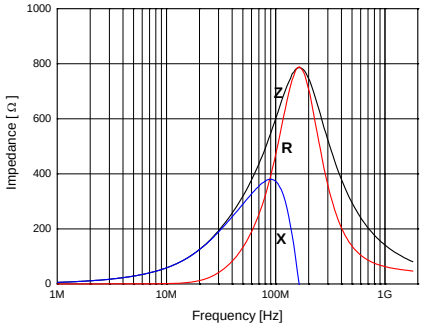
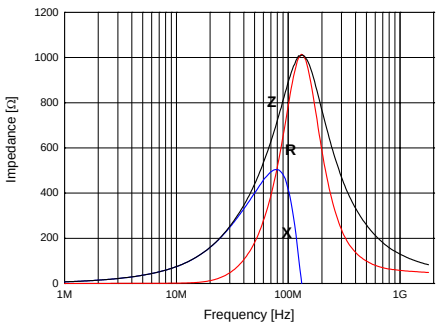
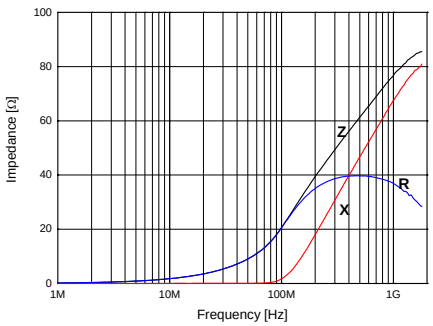


HH-1M3216-102J



HH-1S3216-200J



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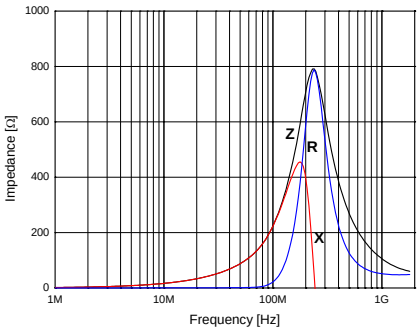
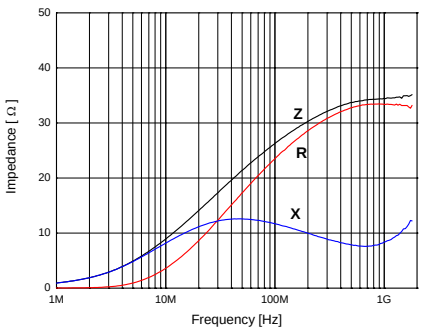


HH-1T3216-260J



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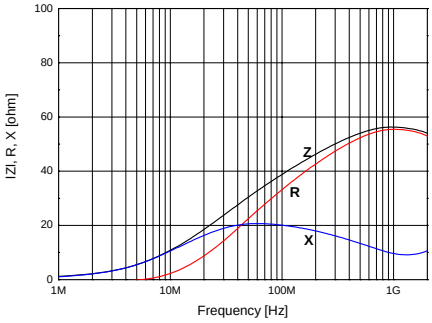
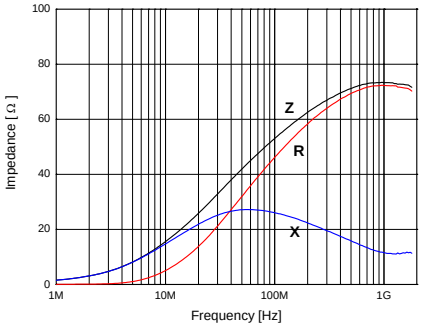
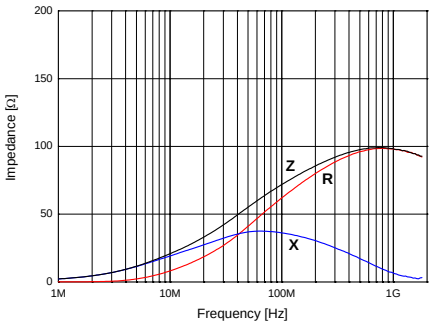


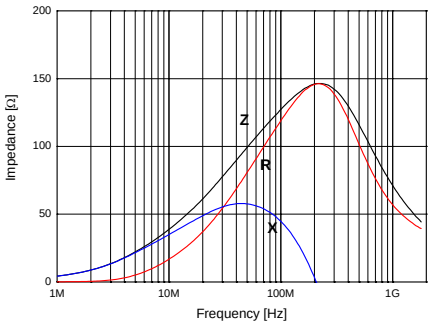
HH-1T3216-500J



HH-1T3216-700J



HH-1T3216-121J



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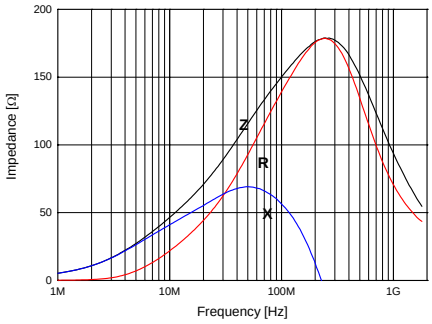
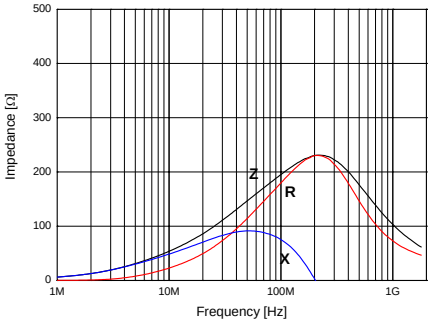


HH-1T3216-201J



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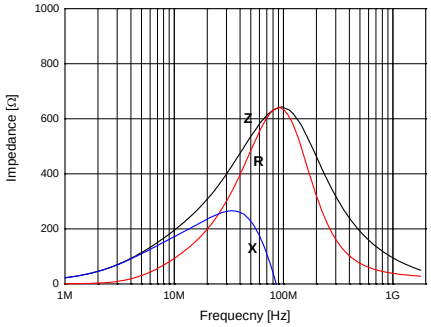
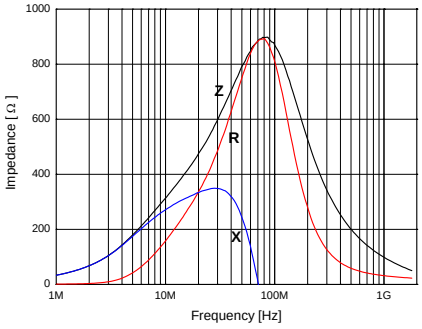
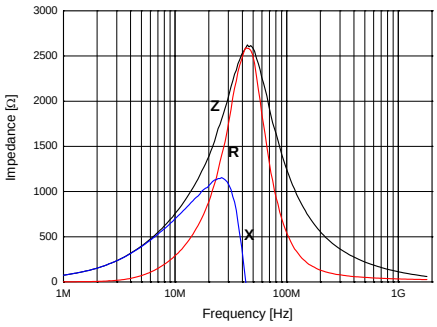


HH-1T3216-801J

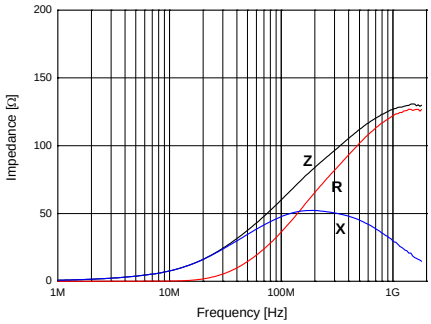


HH-1T3216-202J



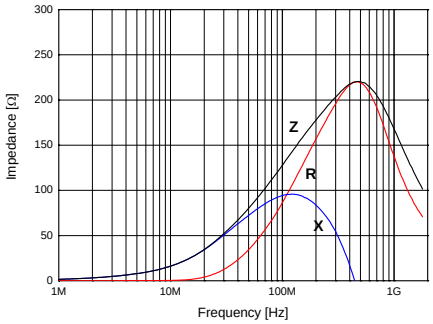
HH4516

HH-1H4516-600J

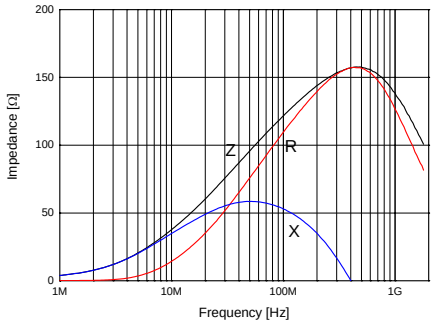


HH4532

HH-1H4532-121J



HH-1T4532-121J



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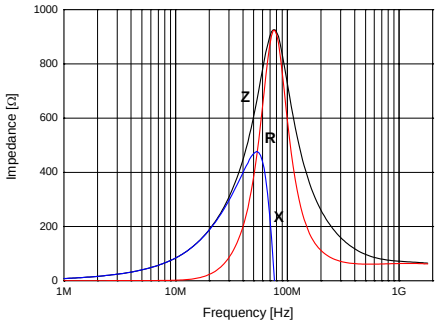

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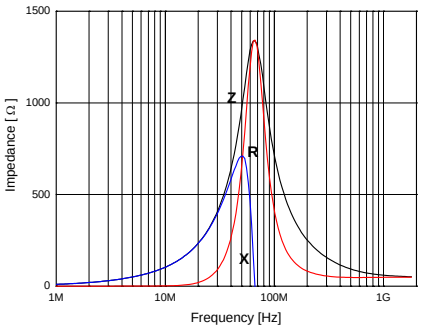
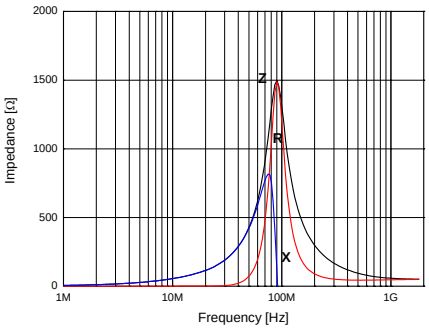
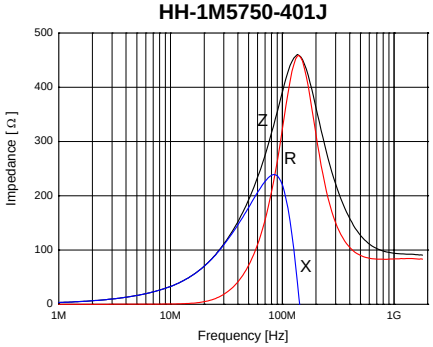


HH-1B4532-132J

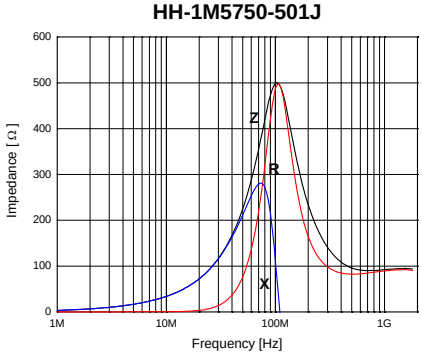


HH5750

HH-1M5750-401J

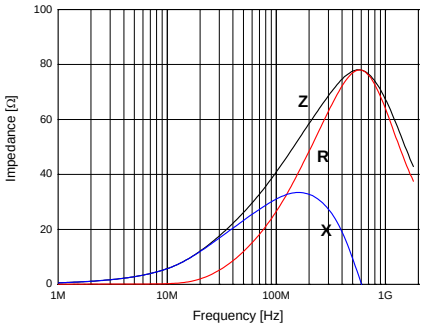


HH-1M5750-501J



■ HU SERIES (For ultra high current 6A)

HU-1H2012-400J



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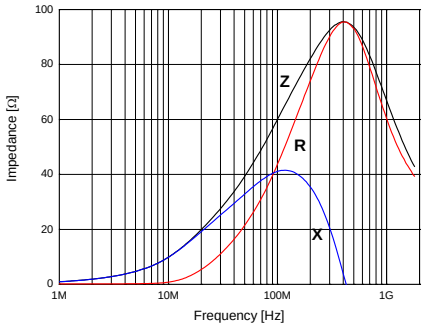
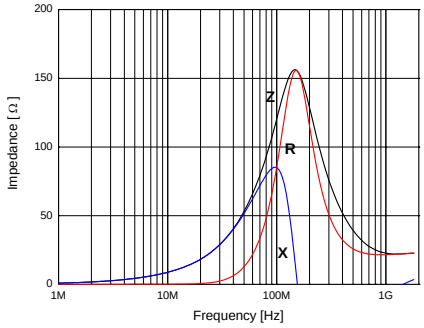
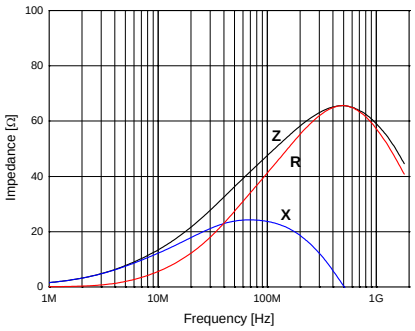


HU-1M2012-121J



HU-1T2012-500J



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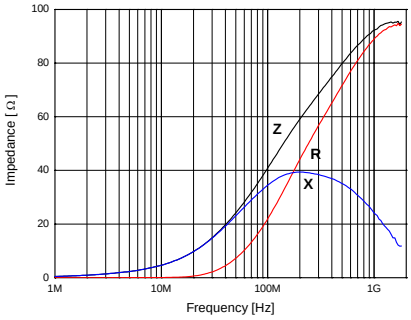

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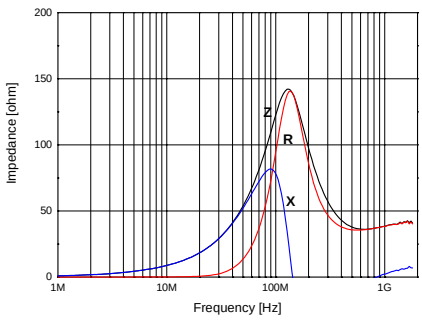

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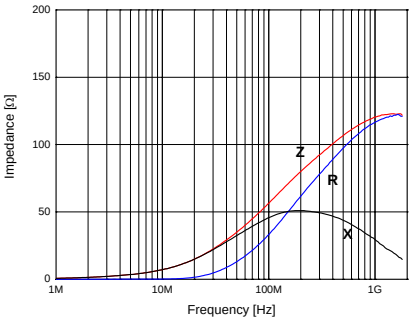
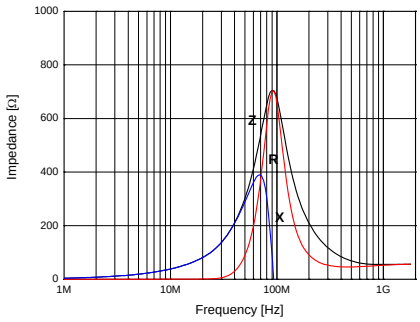
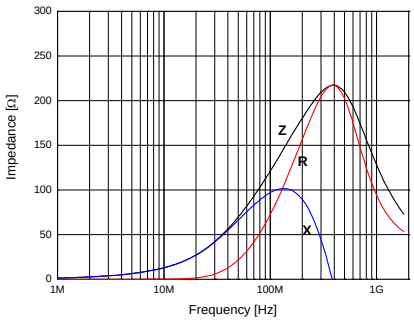


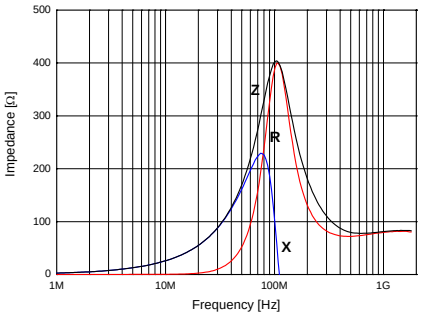
HU-1B4532-681J



HU-1M4532-121J

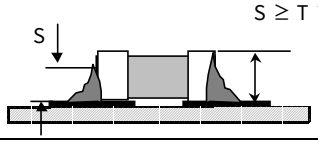
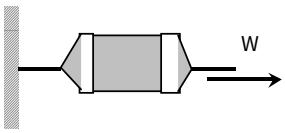
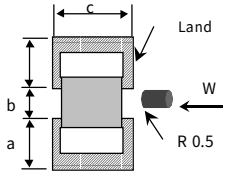
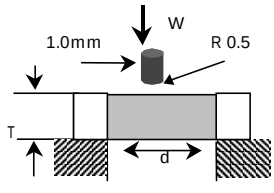


HU-1M5750-401J



RELIABILITY AND TEST CONDITIONS

CHIP FERRITE BEADS

ITEM		REQUIREMENTS 1005	1608	2012	3216	4516	4532	5750	TEST CONDITION
Operating temp. range		-55℃~+125℃							-
Storage temp. & humidity range		40℃ max. , 70% RH max.							at packing condition
Resistance to solder heat		1.No damage such as cracks should be caused in chip element. 2.More than 75% of the terminal electrode shall be covered with new solder. 3.Impedance change : ±within 30%							Preheat temperature : 100 to 150℃ Preheat time : 1min Solder temperature : 260 ±10℃ Dipping time : 10 ±0.5sec.
Solderability		1.More than 90% of the terminal electrode shall be covered with new solder. 2.Impedance change : ±within 30%							Preheat temperature : 100 to 150℃ Preheat time : 1min Solder temperature : 230 ±10℃ Dipping time : 3 ±1sec.
Reflow soldering		1.More than 50% of the terminal electrode shall be covered with new solder. S ≥ T * 0.5 							Preheat temperature : 150℃ Preheat time : 1min Solder temperature : 230 ±10℃ Soldering time : 10 sec. Max. (Reflow soldering profile)
Tensile strengh (Terminalstrength)		1.No mechanical damage Unit : Kgf(W)							
	W	-	1.0	2.0	2.5	2.5	3.0	3.0	
Adhension of Terminal electrode (Flexure strength)		1.No mechanical damage Unit : mm (a,b,c), Kgf(W)							
	a	0.7	1.0	1.0	1.3	1.5	1.5	1.8	
	b	0.5	0.8	1.0	1.5	3.6	3.6	4.6	
	c	0.7	1.3	1.3	3.0	3.0	3.8	5.8	
	d	0.7	2.0	4.0	5.0	5.0	5.0	5.0	
Body strength (Bending strength)		1.The body shall not be damaged by forces applied on the right. Unit : mm (d), Kgf(W)							
	d	-	1.3	1.3	2.0	3.0	3.8	4.8	
	W	-	2.0	3.0	4.0	4.0	5.0	5.0	

CHIP FERRITE BEADS

ITEM	REQUIREMENTS							TEST CONDITION
	1005	1608	2012	3216	4516	4532	5750	
Drop	1.No mechanical damae 2.Impedance change : ±within 30%							Drop 10 times on a concrete Floor from a height of 91cm
Vibration	1.No mechanical damae 2.Impedance change : ±within 30%							Frequency : 10~55~10Hz Amplitude : 1.52mm Direction and time : X,Y,Z directions for 2 hours
Thermal shock (Temperature cycle)	1.No mechanical damae 2.Impedance change : ±within 30%							Step1. –40 ±3℃ 30 ±3min. Step2. 85 ±3℃ 30 ±3min. Number of cycle : 100 times
Heat load resistance	1.No mechanical damae 2.Impedance change : ±within 30%							Temperature : 85 ±2℃ Applied current : rated current Time : 1,000 hours Measured at room ambient temperature after placing for 24 hours
Low temp. resistance	1.No mechanical damae 2.Impedance change : ±within 30%							Temperature : -40 ±5℃ Time : 1,000 hours Measured at room ambient temperature after placing for 24 hours
Humidity resistance	1.No mechanical damae 2.Impedance change : ±within 30%							Temperature : 40 ±2℃ Humidity : 90~95% RH Time : 500 hours Measured at room ambient temperature after placing for 24 hours
Humidity load resistance	1.No mechanical damae 2.Impedance change : ±within 30%							Temperature : 40 ±2℃ Humidity : 90~95% RH Applied current : rated current Time : 500 hours Measured at room ambient temperature after placing for 24 hours

■ PACKING

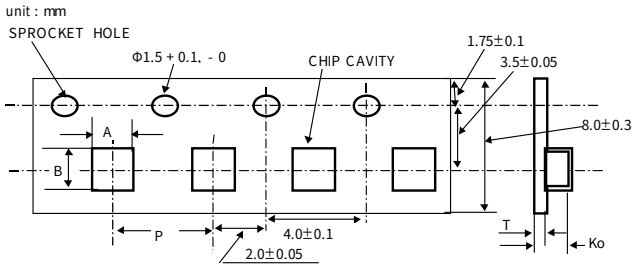
1. Label
   1) Part name.
   2) Lot No.
   3) Quantity.
   4) Manufacturer.

2. Standard quantity for packing

PCS

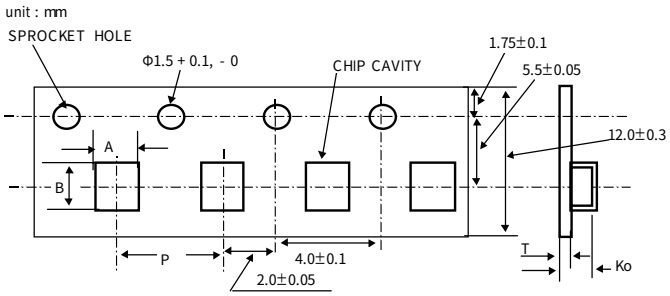
Type(EIA)	Packing	Tape & reel		Bulk
	Reel	Inner box	Carton box	Vinyl or Cassette
1005	50,000	500,000	2,000,000	As wanted
	10,000	100,000	400,000	
1608	8,000	80,000	320,000	
	4,000	40,000	160,000	
2012	3,000	30,000	120,000	
3216	3,000	30,000	120,000	
	7,000	70,000	280,000	
4516	3,000	21,000	84,000	
4532	1,500	10,500	42,000	
5750	1,000	7,000	28,000	

■ TAPE DIMENSION/ Embossing 8mm



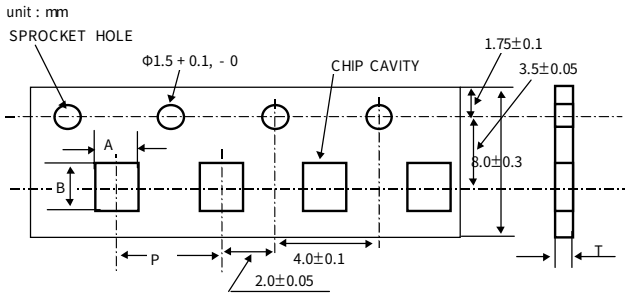
Type	A ± 0.1	B ± 0.1	P ± 0.1	K_0 ± 0.1	T (max.)
1608	1.00	1.80	4.0	0.95	0.3
2012	1.45	2.25	4.0	1.00	0.3
2012	1.45	2.25	4.0	1.35	0.3
3216	1.90	3.60	4.0	1.00	0.3
3216	1.90	3.60	4.0	1.35	0.3

■ TAPE DIMENSION/ Embossing 12mm



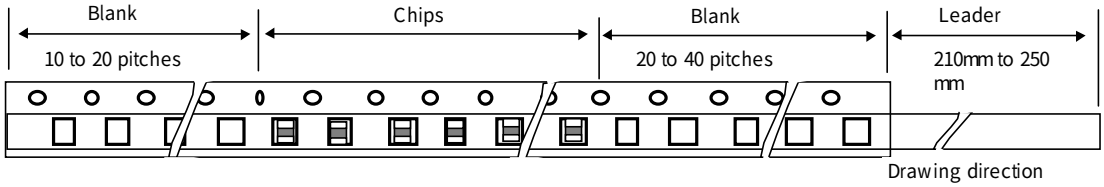
Type	A ± 0.1	B ± 0.1	P ± 0.1	K_0 ± 0.1	T (max.)
4516	1.90	4.90	4.0	1.00	0.3
4516	1.90	4.90	4.0	1.35	0.3
4532	3.60	4.90	8.0	1.40	0.3
4532	3.60	5.10	8.0	0.90	0.3
5750	5.20	6.10	8.0	2.05	0.3

■ TAPE DIMENSION/ Paper



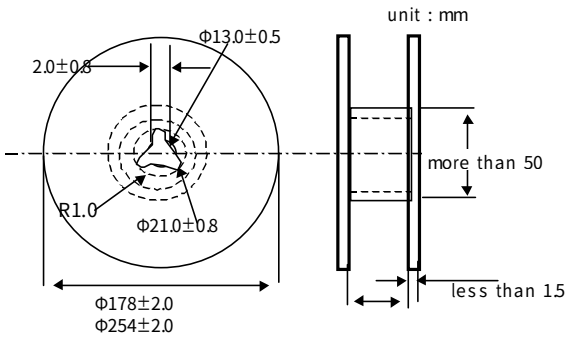
Type	A ± 0.1	B ± 0.1	P ± 0.1	T (max.)
1005	0.65	1.15	2.0	0.8
1608	1.00	1.80	2.0	1.1

■ LEADER AND BLANK PORTION



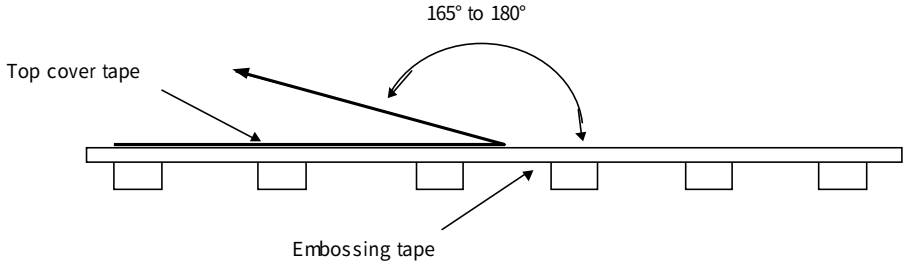
The pitch holes shift within ±0.3㎜ for cumulative 10 pitches

■ REEL DIMENSION



Type	W (㎜)
1005, 1608, 2012, 3216	9.0 ± 0.3
4516, 4532, 5750	13.0 ± 0.3

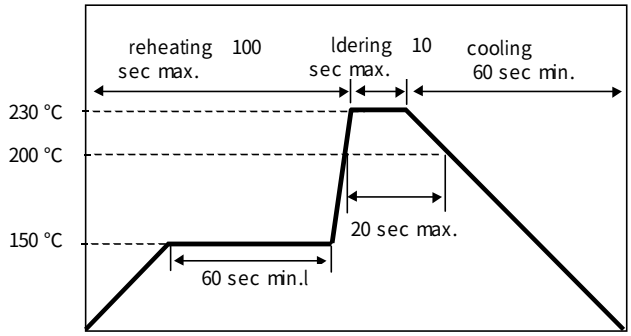
■ TOP COVER TAPE STRENGTH



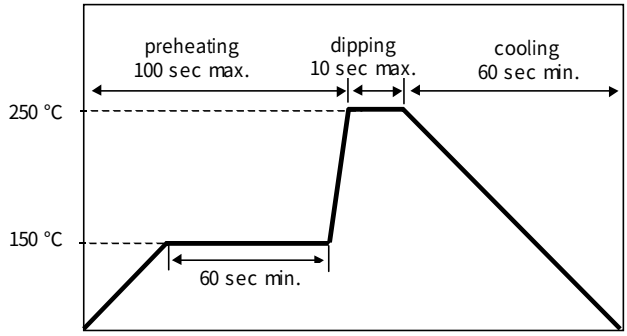
The force for tearing off top cover tape is 20 to 70 grams in the arrow direction

■ SOLDERING PROFILE

1. REFLOW SOLDERING



2. FLOW SOLDERING



3. MANUAL SOLDERING