KOME

KCBM Series

Multilayer Chip Ferrite Ultra-High Current Beads



Features

- A unique terminal electrode structure ensures permissible current 6.0A(max).
- High impedance and EMI suppression effective over a wide frequency range.
- Suitable reflow and wave soldering.

TYPE	SIZES	IMPEDANCE @100MHZ	OPERATING TEMP.
Ferrite chip bead	0201 – 1812	0 – 1500 Ω	-55 ~ +125 °C Includes product surface temperature rise

Applications

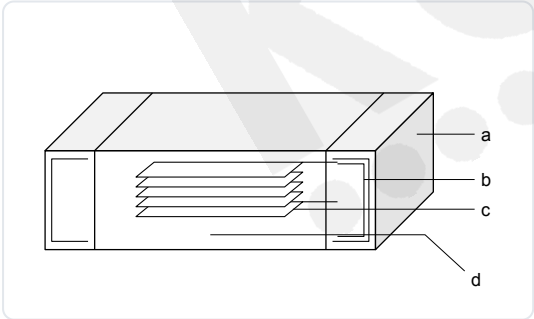
- Noise suppression in power lines or extra-large current signal lines of electrical equipment such as communication equipment, computers and LCD TVs.

Part number system

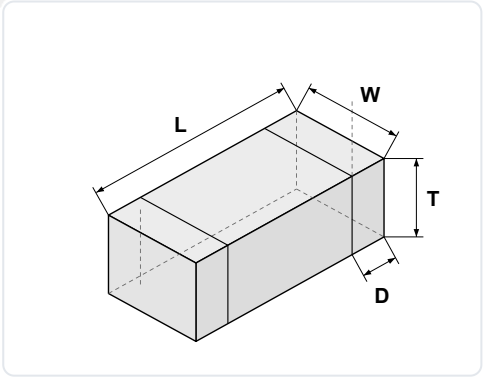
Example: KCBM0805U121T

KCBM	0805	U	121	T
Product Code Multilayer Chip Ferrite Ultra-High Current Beads	Dimensions (mm) 0201(060303) 0.6×0.3×0.3 · 0402(100505) 1.0×0.5×0.5 · 0603(160808) 1.6×0.8×0.8 · 0805(201209) 2.0×1.2×0.9 · 1206(321609) 3.2×1.6×0.9 · 1210(322513) 3.2×2.5×1.3 · 1806(451616) 4.5×1.6×1.6 · 1812(453215) 4.5×3.2×1.5	Material Code U · X	Impedance (Ω) Example: 110 = 11 · 121 = 120 · 102 = 1000	Packaging Style T = Tape & Reel · B = Bulk

Product structure and dimensions



a. Ni/Sn plating · b. Ag layer · c. Inner electrode · d. Body



Part No	L(mm)	W(mm)	T(mm)	D(mm)
060303 (0201)	0.6±0.03 (0.020± 0.003)	0.3±0.03 (0.010± 0.003)	0.3±0.03 (0.010± 0.003)	0.15±0.05 (0.010± 0.002)
100505 (0402)	1.0± 0.15 (0.040± 0.006)	0.5± 0.15 (0.020± 0.006)	0.5± 0.15 (0.020± 0.006)	0.25± 0.1 (0.010± 0.004)
160808 (0603)	1.6± 0.20 (0.063± 0.008)	0.8± 0.20 (0.031± 0.008)	0.8± 0.20 (0.031± 0.008)	0.3± 0.2 (0.01± 0.008)
201209 (0805)	2.0± 0.20 (0.079± 0.008)	1.2± 0.20 (0.047± 0.008)	0.9± 0.20 (0.035± 0.008)	0.5± 0.3 (0.020± 0.012)
321609 (1206)	3.2± 0.20 (0.126± 0.008)	1.6± 0.20 (0.063± 0.008)	0.9± 0.20 (0.035± 0.008)	0.5± 0.3 (0.020± 0.012)
322513 (1210)	3.2± 0.20 (0.126± 0.008)	2.5± 0.20 (0.098± 0.008)	1.3± 0.20 (0.051± 0.008)	0.5± 0.3 (0.020± 0.012)
451616 (1806)	4.5± 0.20 (0.186± 0.008)	1.6± 0.20 (0.063± 0.008)	1.6± 0.20 (0.063± 0.008)	0.5± 0.3 (0.020± 0.012)
453215 (1812)	4.5± 0.20 (0.186± 0.008)	3.2± 0.20 (0.126± 0.008)	1.5± 0.20 (0.060± 0.008)	0.5± 0.3 (0.020± 0.012)

Unit: mm (inch)

Electrical characteristics

Impedance testing conditions: E4982A or equivalent, test voltage 50mV ± 5mV, Temperature 15°C~35°C, Humidity 25%~75%.

RDC Testing conditions:RM3542A or equivalent, Temperature 15°C~35°C, Humidity 25%~75%.

Rated current:Apply the rated current, and the surface temperature rise of the product shall not exceed 40°C.

0603 Type

Part NO	Tolerance	Impedance(Ω)	Test frequency(MHz)	DCR (Ω)Max	Ir (mA)Max
KCBM0201X220T	±25%	22	100	0.040	1800
KCBM0201X330T	±25%	33	100	0.055	1500
KCBM0201X800T	±25%	80	100	0.130	1000
KCBM0201X121T	±25%	120	100	0.160	900

1005 Type

Part NO	Tolerance	Impedance(Ω)	Test frequency(MHz)	DCR (Ω)Max	Ir (mA)Max
KCBM0402U000T	0~15Ω	0	100	0.02	2000
KCBM0402U050T	0~15Ω	5	100	0.02	2000
KCBM0402U070T	0~11Ω	7	100	0.02	2000
KCBM0402U090T	5~13Ω	9	100	0.02	2000
KCBM0402U100T	7~15Ω	10	100	0.02	2000
KCBM0402U110T	7~15Ω	11	100	0.02	2000
KCBM0402U150T	9~21Ω	15	100	0.02	2000
KCBM0402U190T	12~25Ω	19	100	0.035	1800
KCBM0402U260T	±25%	26	100	0.06	1800
KCBM0402U300T	±25%	30	100	0.06	1500
KCBM0402U600T	±25%	60	100	0.10	1300
KCBM0402U750T	±25%	75	100	0.15	1000
KCBM0402U101T	±25%	100	100	0.15	1000
KCBM0402U121T	±25%	120	100	0.15	1000
KCBM0402U151T	±25%	150	100	0.20	700
KCBM0402U181T	±25%	180	100	0.25	700
KCBM0402U201T	±25%	200	100	0.25	700
KCBM0402U221T	±25%	220	100	0.28	700
KCBM0402U301T	±25%	300	100	0.30	600
KCBM0402U331T	±25%	330	100	0.40	500
KCBM0402U471T	±25%	470	100	0.40	500
KCBM0402U501T	±25%	500	100	0.40	500
KCBM0402U601T	±25%	600	100	0.50	500
KCBM0402U801T	±25%	800	100	0.65	300
KCBM0402U102T	±25%	1000	100	0.65	300

1608 Type

Part NO	Tolerance	Impedance(Ω)	Test frequency(MHz)	DCR (Ω)Max	Ir (mA)Max
KCBM0603U000T	0~15Ω	0	100	0.01	6000
KCBM0603U050T	0~15Ω	5	100	0.01	6000
KCBM0603U070T	0~11Ω	7	100	0.01	6000
KCBM0603U090T	5~13Ω	9	100	0.01	6000
KCBM0603U100T	7~15Ω	10	100	0.01	6000
KCBM0603U110T	7~15Ω	11	100	0.01	6000
KCBM0603U150T	9~21Ω	15	100	0.01	6000
KCBM0603U190T	12~25Ω	19	100	0.01	6000
KCBM0603U220T	±25%	22	100	0.03	6000
KCBM0603U260T	±25%	26	100	0.03	5000
KCBM0603U280T	±25%	28	100	0.03	4000
KCBM0603U300T	±25%	30	100	0.03	4000

Part NO	Tolerance	Impedance(Ω)	Test frequency(MHz)	DCR (Ω)Max	Ir (mA)Max
KCBM0603U310T	±25%	31	100	0.03	4000
KCBM0603U330T	±25%	33	100	0.03	4000
KCBM0603U400T	±25%	40	100	0.03	3500
KCBM0603U500T	±25%	50	100	0.04	3000
KCBM0603U600T	±25%	60	100	0.04	3000
KCBM0603U700T	±25%	70	100	0.06	2500
KCBM0603U750T	±25%	75	100	0.06	2500
KCBM0603U800T	±25%	80	100	0.06	2500
KCBM0603U101T	±25%	100	100	0.06	2500
KCBM0603U121T	±25%	120	100	0.065	2000
KCBM0603U151T	±25%	150	100	0.07	1500
KCBM0603U181T	±25%	180	100	0.09	1500
KCBM0603U201T	±25%	200	100	0.10	1500
KCBM0603U221T	±25%	220	100	0.12	1500
KCBM0603U301T	±25%	300	100	0.15	1500
KCBM0603U331T	±25%	330	100	0.18	1300
KCBM0603U471T	±25%	470	100	0.18	1300
KCBM0603U501T	±25%	500	100	0.18	1300
KCBM0603U601T	±25%	600	100	0.18	1300
KCBM0603U801T	±25%	800	100	0.30	800
KCBM0603U102T	±25%	1000	100	0.35	700

2012 Type

Part NO	Tolerance	Impedance(Ω)	Test frequency(MHz)	DCR (Ω)Max	Ir (mA)Max
KCBM0805U000T	0~15Ω	0	100	0.01	6000
KCBM0805U050T	0~15Ω	5	100	0.01	6000
KCBM0805U070T	0~11Ω	7	100	0.01	6000
KCBM0805U090T	5~13Ω	9	100	0.01	6000
KCBM0805U100T	7~15Ω	10	100	0.01	6000
KCBM0805U110T	7~15Ω	11	100	0.01	6000
KCBM0805U190T	12~25Ω	19	100	0.01	6000
KCBM0805U220T	±25%	22	100	0.01	6000
KCBM0805U260T	±25%	26	100	0.01	6000
KCBM0805U280T	±25%	28	100	0.01	6000
KCBM0805U300T	±25%	30	100	0.01	6000
KCBM0805U310T	±25%	31	100	0.01	6000
KCBM0805U330T	±25%	33	100	0.01	6000
KCBM0805U360T	±25%	36	100	0.01	6000
KCBM0805U380T	±25%	38	100	0.01	6000
KCBM0805U400T	±25%	40	100	0.03	4000
KCBM0805U500T	±25%	50	100	0.03	4000
KCBM0805U600T	±25%	60	100	0.03	4000
KCBM0805U700T	±25%	70	100	0.04	4000
KCBM0805U800T	±25%	80	100	0.04	4000
KCBM0805U900T	±25%	90	100	0.045	4000
KCBM0805U101T	±25%	100	100	0.045	4000
KCBM0805U121T	±25%	120	100	0.045	4000
KCBM0805U151T	±25%	150	100	0.07	3000
KCBM0805U181T	±25%	180	100	0.07	3000
KCBM0805U221T	±25%	220	100	0.07	3000
KCBM0805U301T	±25%	300	100	0.08	2500
KCBM0805U331T	±25%	330	100	0.09	2500

Part NO	Tolerance	Impedance(Ω)	Test frequency(MHz)	DCR (Ω)Max	Ir (mA)Max
KCBM0805U391T	±25%	390	100	0.09	2500
KCBM0805U501T	±25%	500	100	0.09	2500
KCBM0805U601T	±25%	600	100	0.10	2000
KCBM0805U801T	±25%	800	100	0.12	1500
KCBM0805U102T	±25%	1000	100	0.12	1500
KCBM0805U122T	±25%	1200	100	0.2	800
KCBM0805U152T	±25%	1500	100	0.3	800

3216 Type

Part NO	Tolerance	Impedance(Ω)	Test frequency(MHz)	DCR (Ω)Max	Ir (mA)Max
KCBM1206U000T	0~15Ω	0	100	0.01	6000
KCBM1206U050T	0~15Ω	5	100	0.01	6000
KCBM1206U070T	0~11Ω	7	100	0.01	6000
KCBM1206U090T	5~13Ω	9	100	0.01	6000
KCBM1206U100T	7~15Ω	10	100	0.01	6000
KCBM1206U110T	7~15Ω	11	100	0.01	6000
KCBM1206U150T	9~21Ω	15	100	0.015	6000
KCBM1206U190T	12~25Ω	19	100	0.015	6000
KCBM1206U220T	±25%	22	100	0.015	6000
KCBM1206U260T	±25%	26	100	0.015	6000
KCBM1206U280T	±25%	28	100	0.015	6000
KCBM1206U300T	±25%	30	100	0.015	6000
KCBM1206U310T	±25%	31	100	0.020	5000
KCBM1206U330T	±25%	33	100	0.02	5000
KCBM1206U360T	±25%	36	100	0.02	5000
KCBM1206U380T	±25%	38	100	0.02	5000
KCBM1206U400T	±25%	40	100	0.02	5000
KCBM1206U500T	±25%	50	100	0.02	5000
KCBM1206U600T	±25%	60	100	0.025	5000
KCBM1206U700T	±25%	70	100	0.035	4000
KCBM1206U800T	±25%	80	100	0.035	4000
KCBM1206U900T	±25%	90	100	0.035	4000
KCBM1206U101T	±25%	100	100	0.035	4000
KCBM1206U121T	±25%	120	100	0.035	4000
KCBM1206U151T	±25%	150	100	0.045	3000
KCBM1206U181T	±25%	180	100	0.055	3000
KCBM1206U221T	±25%	220	100	0.055	3000
KCBM1206U271T	±25%	270	100	0.06	3000
KCBM1206U301T	±25%	300	100	0.065	2500
KCBM1206U331T	±25%	330	100	0.080	2500
KCBM1206U391T	±25%	390	100	0.080	2500
KCBM1206U501T	±25%	500	100	0.080	2500
KCBM1206U601T	±25%	600	100	0.085	2200
KCBM1206U801T	±25%	800	100	0.11	2100
KCBM1206U102T	±25%	1000	100	0.12	2100

3225 Type

Part NO	Tolerance	Impedance(Ω)	Test frequency(MHz)	DCR (Ω)Max	Ir (mA)Max
KCBM1210U000T	0~15Ω	0	100	0.02	6000
KCBM1210U100T	7~15Ω	10	100	0.02	6000
KCBM1210U110T	7~15Ω	11	100	0.02	6000
KCBM1210U150T	9~21Ω	15	100	0.02	6000

Part NO	Tolerance	Impedance(Ω)	Test frequency(MHz)	DCR (Ω)Max	Ir (mA)Max
KCBM1210U190T	12~25Ω	19	100	0.02	6000
KCBM1210U220T	±25%	22	100	0.02	6000
KCBM1210U260T	±25%	26	100	0.02	6000
KCBM1210U280T	±25%	28	100	0.02	6000
KCBM1210U300T	±25%	30	100	0.02	6000
KCBM1210U310T	±25%	31	100	0.02	6000
KCBM1210U330T	±25%	33	100	0.02	6000
KCBM1210U360T	±25%	36	100	0.02	6000
KCBM1210U380T	±25%	38	100	0.02	6000
KCBM1210U400T	±25%	40	100	0.02	6000
KCBM1210U500T	±25%	50	100	0.02	6000
KCBM1210U600T	±25%	60	100	0.02	6000
KCBM1210U700T	±25%	70	100	0.02	6000
KCBM1210U800T	±25%	80	100	0.02	6000
KCBM1210U900T	±25%	90	100	0.03	5000
KCBM1210U101T	±25%	100	100	0.03	5000
KCBM1210U121T	±25%	120	100	0.03	5000
KCBM1210U151T	±25%	150	100	0.03	5000
KCBM1210U181T	±25%	180	100	0.06	4000
KCBM1210U221T	±25%	220	100	0.06	4000
KCBM1210U301T	±25%	300	100	0.06	4000
KCBM1210U331T	±25%	330	100	0.10	4000
KCBM1210U391T	±25%	390	100	0.10	4000
KCBM1210U501T	±25%	500	100	0.10	4000
KCBM1210U601T	±25%	600	100	0.15	3000
KCBM1210U801T	±25%	800	100	0.20	2500
KCBM1210U102T	±25%	1000	100	0.23	2500

4516 Type

Part NO	Tolerance	Impedance(Ω)	Test frequency(MHz)	DCR (Ω)Max	Ir (mA)Max
KCBM1806U000T	0~15Ω	0	100	0.009	6000
KCBM1806U190T	12~25Ω	19	100	0.009	6000
KCBM1806U220T	±25%	22	100	0.009	6000
KCBM1806U260T	±25%	26	100	0.009	6000
KCBM1806U280T	±25%	28	100	0.009	6000
KCBM1806U300T	±25%	30	100	0.009	6000
KCBM1806U310T	±25%	31	100	0.009	6000
KCBM1806U330T	±25%	33	100	0.009	6000
KCBM1806U360T	±25%	36	100	0.009	6000
KCBM1806U380T	±25%	38	100	0.009	6000
KCBM1806U400T	±25%	40	100	0.009	6000
KCBM1806U500T	±25%	50	100	0.009	6000
KCBM1806U600T	±25%	60	100	0.009	6000
KCBM1806U750T	±25%	75	100	0.02	6000
KCBM1806U800T	±25%	80	100	0.025	3500

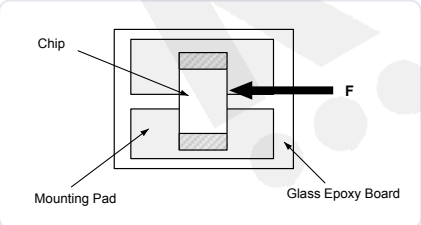
4532 Type

Part NO	Tolerance	Impedance(Ω)	Test frequency(MHz)	DCR (Ω)Max	Ir (mA)Max
KCBM1812U000T	0~15Ω	0	100	0.01	6000
KCBM1812U190T	12~25Ω	19	100	0.01	6000
KCBM1812U220T	±25%	22	100	0.01	6000
KCBM1812U260T	±25%	26	100	0.01	6000

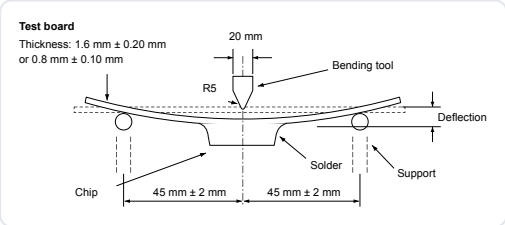
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KCBM1812U280T	±25%	28	100	0.01	6000
KCBM1812U300T	±25%	30	100	0.01	6000
KCBM1812U310T	±25%	31	100	0.01	6000
KCBM1812U330T	±25%	33	100	0.01	6000
KCBM1812U360T	±25%	36	100	0.01	6000
KCBM1812U380T	±25%	38	100	0.01	6000
KCBM1812U400T	±25%	40	100	0.01	6000
KCBM1812U500T	±25%	50	100	0.01	6000
KCBM1812U600T	±25%	60	100	0.01	6000
KCBM1812U700T	±25%	70	100	0.01	6000
KCBM1812U800T	±25%	80	100	0.02	6000
KCBM1812U900T	±25%	90	100	0.02	6000
KCBM1812U101T	±25%	100	100	0.02	6000
KCBM1812U121T	±25%	120	100	0.02	6000
KCBM1812U151T	±25%	150	100	0.02	6000
KCBM1812U181T	±25%	180	100	0.02	6000
KCBM1812U221T	±25%	220	100	0.02	6000
KCBM1812U501T	±25%	500	100	0.08	4000
KCBM1812U601T	±25%	600	100	0.08	4000

Reliability test method

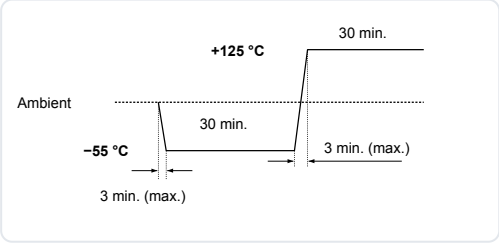
No.	Items	Requirements	Test Methods and Remarks
1	Operating Temperature Range	-55°C~+125°C	Includes product surface temperature rise
2	Solder ability	No mechanical damage. 95% (75% for 0603 series)or more of electrode area shall be coated by new solder.	Preheating temperature:120°C to 150°C Preheating time: 60s Solder 96.5%Sn/3.0%Ag/0.5%Cu of the Sn solder. Solder temperature: 245±3°C Immersion tin depth:10mm Duration : 3±0.3s Dip performance to a flux of about:3 ~ 5 s
3	Resistance to Soldering Heat	No mechanical damage. Inductance : Impedance change: within ±30%	Preheating temperature: 120°C to 150°C Preheating time: 60s Solder 96.5%Sn/3.0%Ag/0.5%Cu of the Sn solder. Solder temperature: 260°C±5°C Immersion tin depth:10mm Duration : 10±1s Dip performance to a flux of about:3~5 s
4	Adhesion of electrode	The termination and body should be no damage.	Applied force: 2N force for 0603 series;5N force for 1005 series;7N force for 1608 series;10N force for 2012, 3216 series. 15N force for 3225, 4532 series. Keep time :10±1S
5	Low temperature resistance	No mechanical damage. Impedance change: within ±30%	Temperature:-55±2°C Testing time: 1000 +24/−0 h
6	Bending strength	No mechanical damage	Testing board: glass epoxy-resin substrate For (1±0.5) mm/s compression speed, curvature: 2mm, hold time20s±1s .
7	Vibration	No mechanical damage. Impedance change: within ±30%	Amplitude modulation: 1.5mm Test time: A period of 2h in each of 3 mutually perpendicular directions. Frequency range: 10Hz to 55Hz to 10Hz for 1min.
8	High temperature resistance	No mechanical damage. Impedance change: within ±30%	Testing time: 1000 +24/−0 h Temperature: 125±2°C
9	Static Humidity	No mechanical damage. Impedance change: within ±30%	Humidity: 90% to 95% RH Temperature: 60°C±2°C Testing time: 1000 +24/−0 h
10	High temperature load	No mechanical damage. Impedance change: within ±30%	impose current: at room Testing time: 1000 +24/−0 h Temperature: 85±2°C
11	Temperature Shock	No mechanical damage. Impedance change: within ±30%	Temperature: -55°C for 30±3min +125°C for 30±3min Number of cycles: 100



Adhesion of electrode



Bending strength



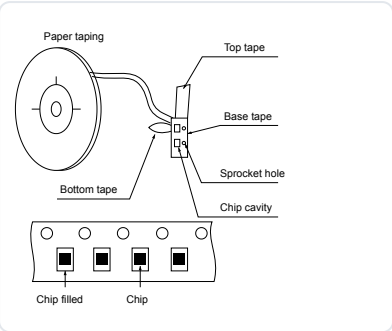
Temperature shock

Note: When there are questions concerning, measurement shall be made after 24±2hrs of recovery under the standard condition.

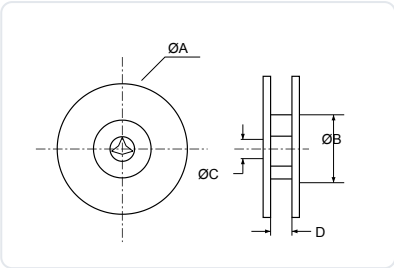
Product characteristic curve

See attached table.

Packaging



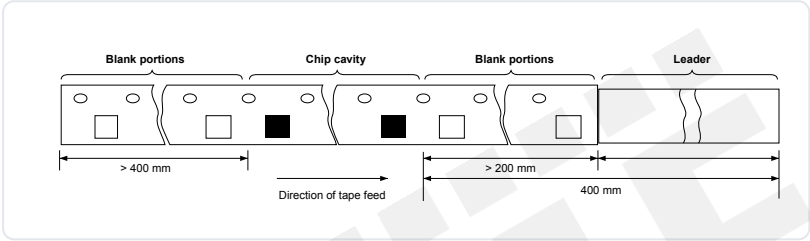
Taping drawings



Reel dimensions (Unit: mm)

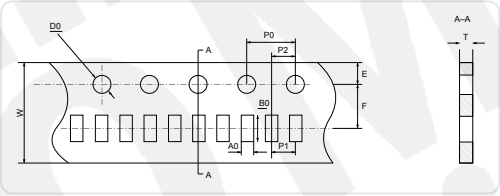
Size	A	B	C	D
7 inch	178±2.0	60±2.0	13.0±1.0	9.5±2.0
13 inch	330±2.0	100±2.0	13.5±1.0	12.4±2.0

Note: 7 inch is available in 060303, 100505, 160808, 201209, 321609, 322513 sizes, 13 inch is available in 451616, 453215 sizes



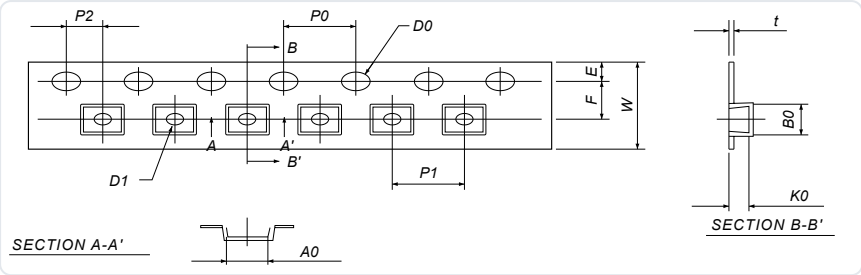
Leader and blank portion

Taping dimensions (Unit: mm) · Paper tape



Part NO.	A0	B0	W	F	E	P1	P2	P0	D0	T
060303	0.38±0.03	0.68±0.03	8.00±0.10	3.50±0.05	1.75±0.05	2.00±0.05	2.00±0.05	4.00±0.10	1.55±0.05	0.42±0.03
100505	0.59±0.10	1.12±0.10	8.00±0.20	3.50±0.10	1.75±0.20	2.00±0.10	2.00±0.10	4.00±0.20	1.55±0.10	0.60±0.10
160808	1.05±0.20	1.85±0.20	8.00±0.20	3.50±0.10	1.75±0.20	4.00±0.20	2.00±0.10	4.00±0.20	1.55±0.10	0.95±0.10
201209	1.45±0.20	2.35±0.20	8.00±0.20	3.50±0.10	1.75±0.20	4.00±0.20	2.00±0.10	4.00±0.20	1.55±0.10	0.95±0.10
321609	1.90±0.20	3.46±0.20	8.00±0.20	3.50±0.10	1.75±0.20	4.00±0.20	2.00±0.10	4.00±0.20	1.55±0.10	0.95±0.10

Taping dimensions (Unit: mm) · Embossed tape



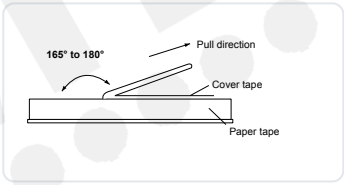
Size	453215	451616	322513	321611	201212
W	12.00+/-0.20	12.00+/-0.20	8.00+/-0.20	8.00+/-0.20	8.00+/-0.2
E	1.75+/-0.10	1.75+/-0.10	1.75+/-0.10	1.75+/-0.10	1.75+/-0.10
F	5.50+/-0.10	5.50+/-0.10	3.50+/-0.10	3.50+/-0.10	3.50+/-0.10
D0	1.50+/-0.10	1.50+/-0.10	1.50+/-0.10	1.50+/-0.10	1.50+/-0.10
D1	1.50+/-0.10	1.50+/-0.10	1.00+/-0.10	1.00+/-0.10	1.00+/-0.10
P0	4.00+/-0.10	4.00+/-0.10	4.00+/-0.10	4.00+/-0.10	4.00+/-0.10
P010	40.0+/-0.20	40.00+/-0.20	40.0+/-0.20	40.0+/-0.20	40.0+/-0.20
P1	8.00+/-0.10	8.00+/-0.10	4.00+/-0.10	4.00+/-0.10	4.00+/-0.10
P2	2.00+/-0.10	2.00+/-0.10	2.0+/-0.05	2.0+/-0.05	2.00+/-0.10
A0	3.66+/-0.10	1.93+/-0.10	2.77+/-0.10	1.88+/-0.10	1.52+/-0.10
B0	4.95+/-0.10	4.95+/-0.10	3.42+/-0.10	3.50+/-0.10	2.41+/-0.10
K0	1.85+/-0.10	1.93+/-0.10	1.55+/-0.10	1.27+/-0.10	1.35+/-0.10
t	0.24+/-0.10	0.24+/-0.10	0.22+/-0.10	0.22+/-0.10	0.23+/-0.10

Peeling off force

(1) Peeling force should be 0.1~0.7N pulling in the direction of arrow.

(2) Speed of peeling off: 300mm/min.

(3) The cover bond should not be damaged and bond the tape when it peeled off.



Packaging quantity (Unit: pcs)

SIZE	453215	451616	322513	321611	321609	201212	201209	160808	100505	060303
REEL	3000	5000	3000	3000	4000	3000	4000	4000	10000	15000
BOX	15000	25000	30000	30000	40000	30000	40000	40000	100000	150000
CASE	45000	75000	180000	180000	240000	180000	240000	240000	600000	900000

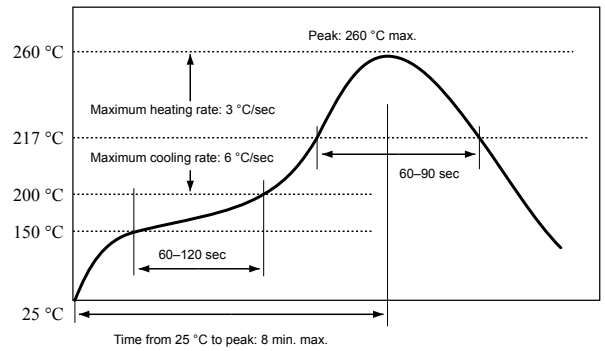
Recommended soldering conditions

Products can be applied to reflow soldering.

Pre-heating should be in such a way that the temperature difference between solder and ferrite surface is limited to 150°C max. Also cooling into solvent after soldering should be in such way that the temperature difference is limited to 100°C max. Un-enough pre-heating may cause cracks on the ferrite, resulting in the deterioration of product quality.

Products should be soldered within the following allowable range indicated by the slanted line. The excessive soldering conditions may cause the corrosion of the electrode. When soldering is repeated, allowable time is the accumulated time.

Reflow soldering profile



Preheat condition: 150 ~200°C/60~120sec

Allowed time above 217°C: 60~90sec

Max temp: 260 °C

Max time at max temp: 10 sec

Solder paste: Sn/3.0Ag/0.5Cu

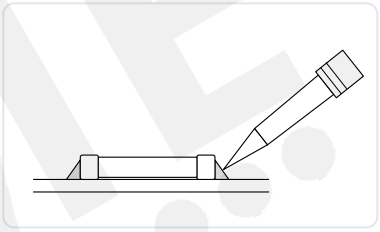
Allowed reflow time: 2x max

Iron soldering

Perform soldering at 350°C on 30W max

Time: < 5S

Take care not to apply the tip of the soldering iron to the terminal electrodes



Cleaning

(1) Cleaning temperature : 60°C max

(2) Cleaning time: 1 minute min.

(3) Ultrasonic output power: 200W max

Storage

Storage period

Products which inspected inductor company over 1 year ago should be examined and used, which can be Confirmed with inspection No. marked on the container. Solder ability should be checked if this period is exceeded.

Storage conditions

⑴Products should be storage in the warehouse on the following conditions: Temperature : -10~+40°C Humidity: 30~70% relative humidity

⑵Don't keep products in corrosive gases such as sulfur, chlorine gas or acid , or it may case oxidization of Electrodes resulting in poor solder ability.

⑶Products should be storaged on the palette for the prevention of the influence from humidity, dust and so on.

⑷Products should be storaged in the warehouse without heat shock, vibration, direct sunlight and so on.

⑸Products should be storaged under the airtight packaged condition.

Usage of ODS

For ODS listed below , we don't use in process. ODS: CCl4, HCFC, etc.

Notes

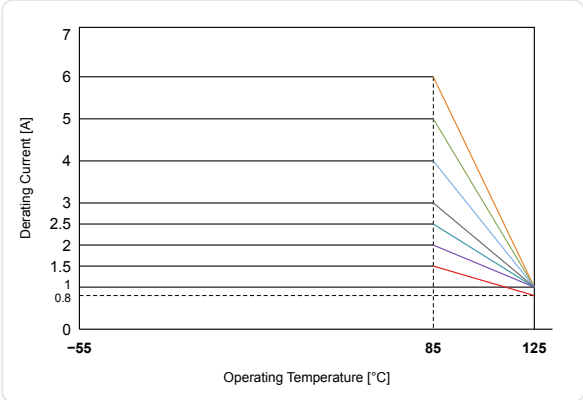
(1) If the parcel label on product is "Unitary lead free" that indicate the products in accord with ROHS appointed requests.

(2) This product specification guarantees the quality of our product as a single unit, Please make sure that your product has been evaluated and confirmed against your specifications when our product is mounted to your product.

(3) We can't warrant against failure caused by any use of our product that deviates from the intended use as described in this product specification.

Remark

When Operating temperatures exceed +85°C,derating of current is necessary for chip ferrite beads for which rated current is1A and over. Please apply the derating curve shown in chart according to the operating temperature.



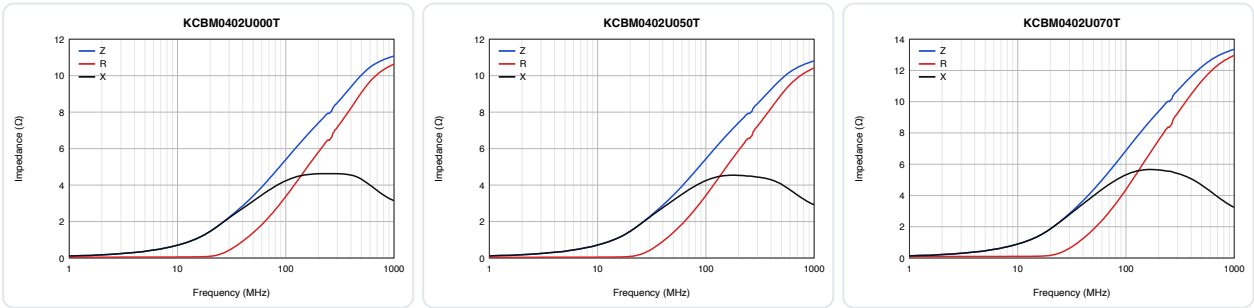
Revision of resume

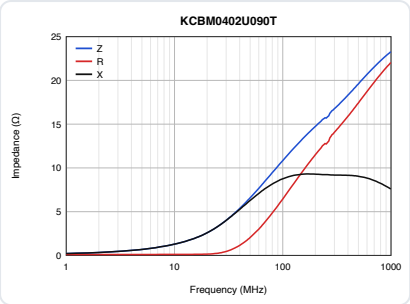
Version	Date	Description
18.01	2018-5-21	Initial issue
20.01	2020-5-28	Modified the bending strength test method and requirements of reliability test items.
21.01	2021-5-6	Modified the reliability test item of bending strength test method, changed the temperature cycling items into temperature shocking . Deleted the drop test item.
21.02	2021-11-8	Modified the working temperature range of reliability test items, modified the temperature conditions of low temperature resistance/high temperature resistance/temperature impact test. added the usage instructions of rated current derating
22.01	2022-3-28	Modified the electrical characteristics; modified the storage period.
A0	2024-05-16	Modified the version name to delete the welding, cleaning, and storage requirements
A1	2025-03-10	Add welding, cleaning, and storage requirements Remove the requirement for soldering rate in the reliability test for resistance to soldering heat. Update frequency curve Modify the naming of reel sizes
A2	2025-05-08	Corrected the reel dimensions guidelines and the packaging quantity for specifications 4516 and 4532. Modified the rated current standard for the KCBM0402 series with a specification of 5 to 15Ω.
A3	2025-09-23	Modified the rated currents of KCBM0805U152T, KCBM1806U750T and KCBM1806U800T. Corrected the P1 standards for 1608 and 2012 specification paper tapes .
A3	2025-12-01	Rename 'Margin of Error' to 'Accuracy Range'; Update the disk label diagram

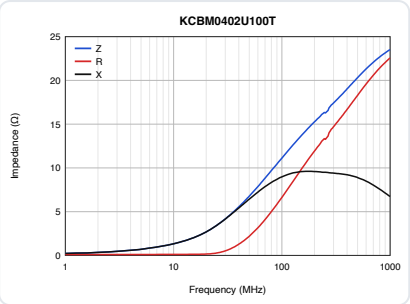
The information provided above is the product specifications. Until the product is changed, reserves the right to modify this content without notice. Any product changes will be notified to customers via PCN.

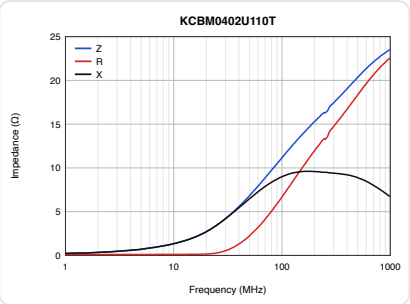
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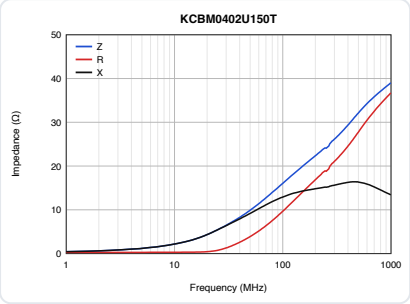
KCBM0402 Type

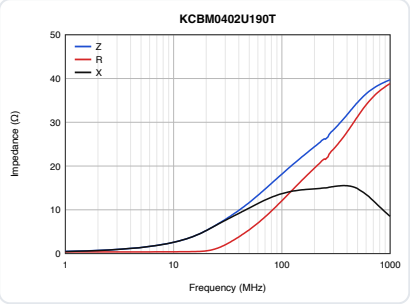


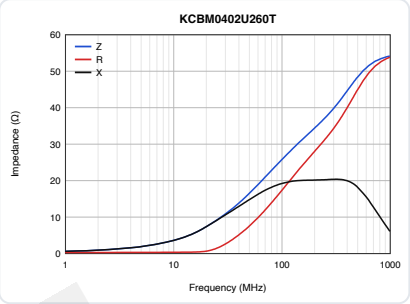

KCBM0402U090T
Z
R
X
Impedance (Ω)
Frequency (MHz)

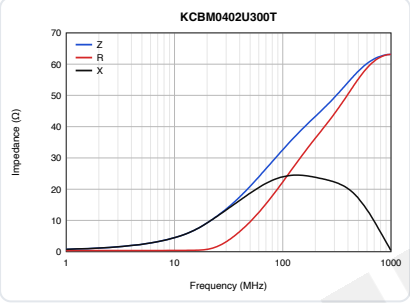

KCBM0402U100T
Z
R
X
Impedance (Ω)
Frequency (MHz)

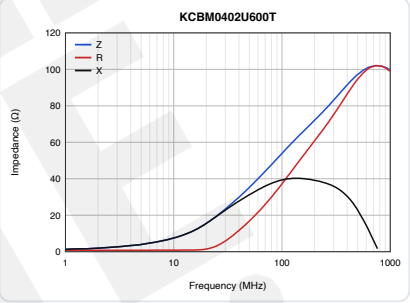

KCBM0402U110T
Z
R
X
Impedance (Ω)
Frequency (MHz)

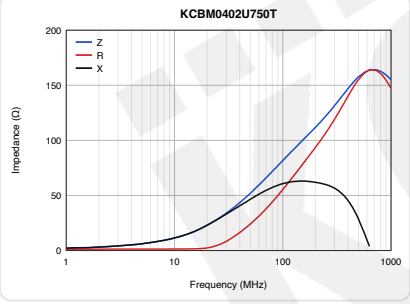

KCBM0402U150T
Z
R
X
Impedance (Ω)
Frequency (MHz)

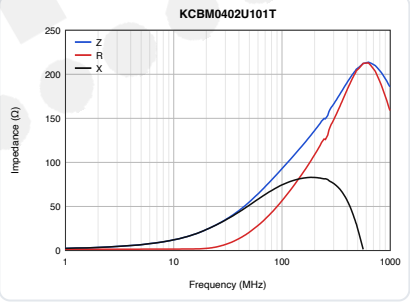

KCBM0402U190T
Z
R
X
Impedance (Ω)
Frequency (MHz)

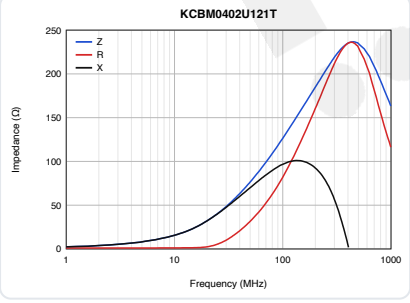

KCBM0402U260T
Z
R
X
Impedance (Ω)
Frequency (MHz)

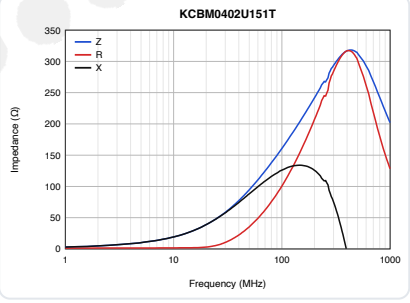

KCBM0402U300T
Z
R
X
Impedance (Ω)
Frequency (MHz)

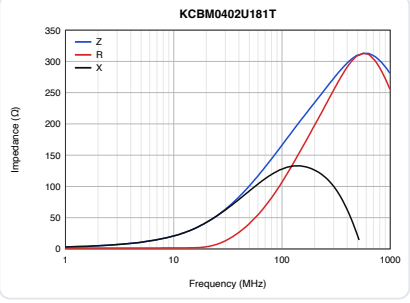

KCBM0402U600T
Z
R
X
Impedance (Ω)
Frequency (MHz)

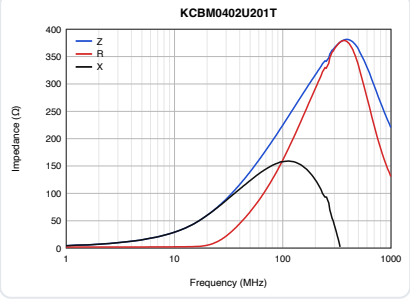

KCBM0402U750T
Z
R
X
Impedance (Ω)
Frequency (MHz)

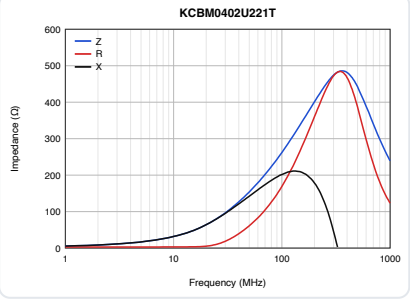

KCBM0402U101T
Z
R
X
Impedance (Ω)
Frequency (MHz)

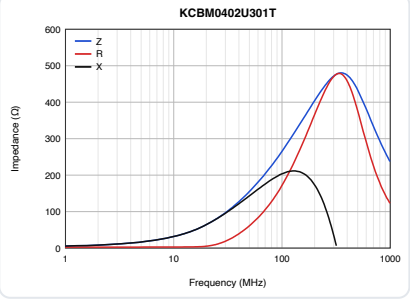

KCBM0402U121T
Z
R
X
Impedance (Ω)
Frequency (MHz)

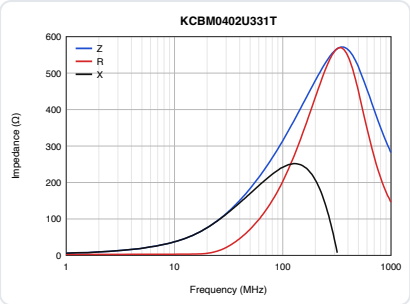

KCBM0402U151T
Z
R
X
Impedance (Ω)
Frequency (MHz)

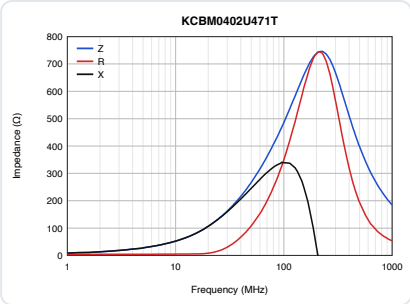

KCBM0402U181T
Z
R
X
Impedance (Ω)
Frequency (MHz)

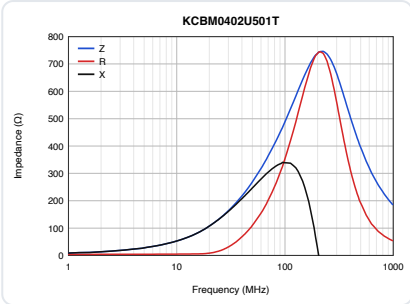

KCBM0402U201T
Z
R
X
Impedance (Ω)
Frequency (MHz)

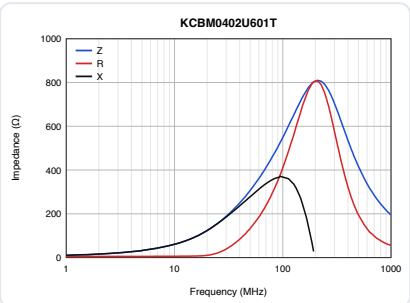

KCBM0402U221T
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R
X
Impedance (Ω)
Frequency (MHz)

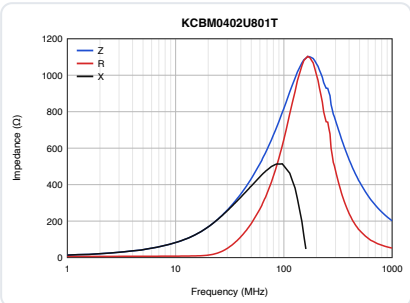

KCBM0402U301T
Z
R
X
Impedance (Ω)
Frequency (MHz)

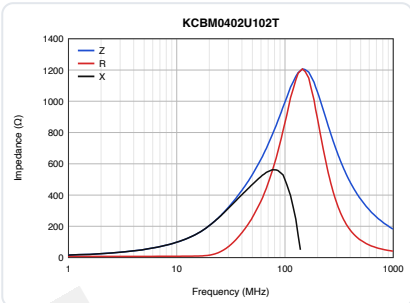




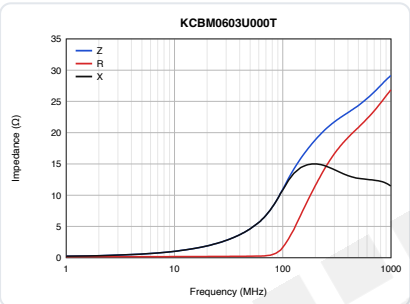


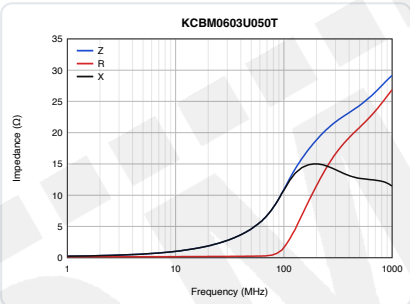


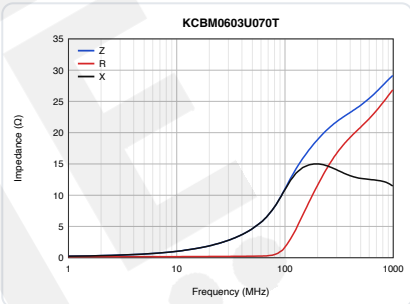


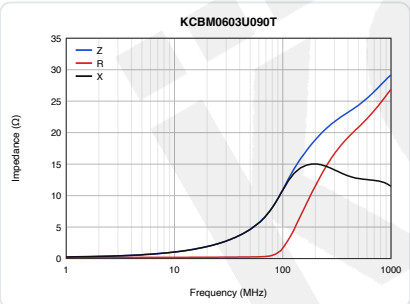


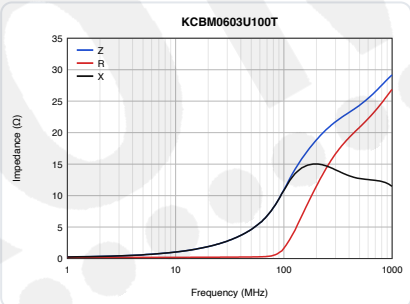
KCBM0603 Type

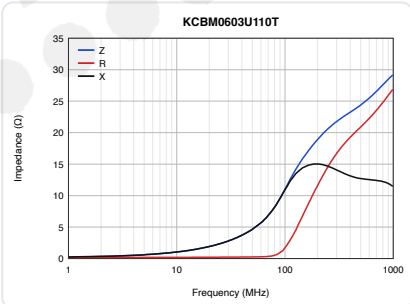


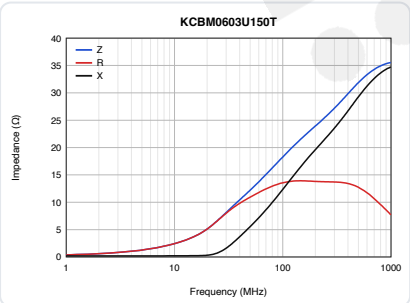


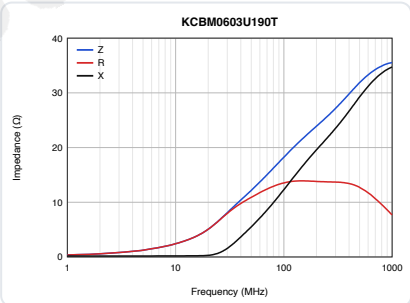


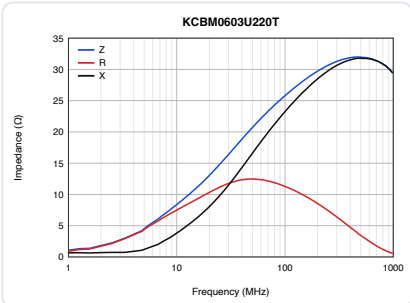


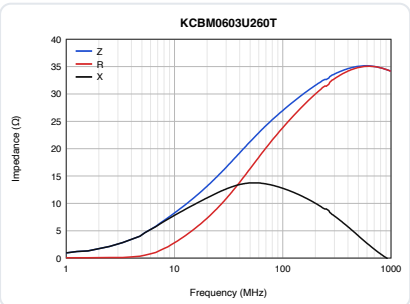


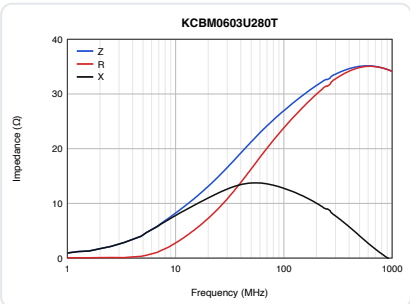


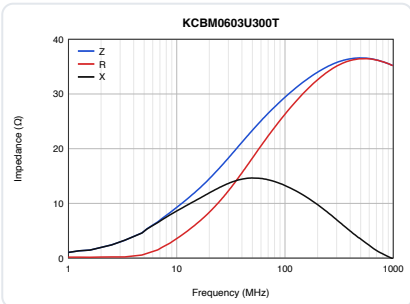


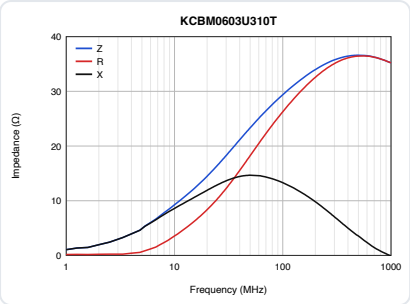


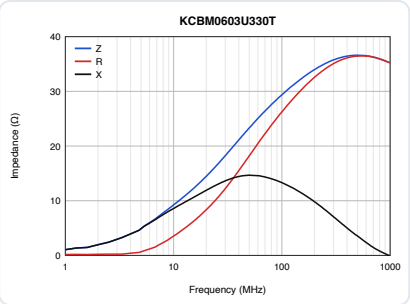


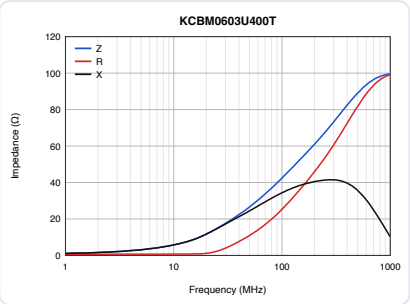


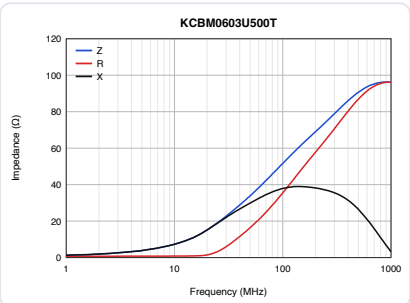


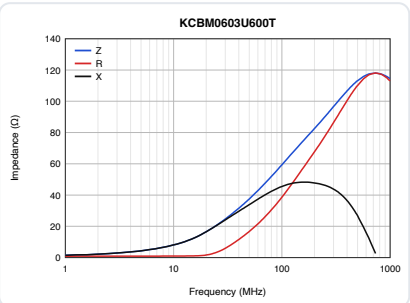


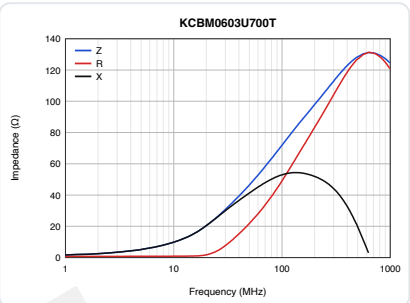

KCBM0603U310T
Z
R
X
Impedance (Ω)
Frequency (MHz)

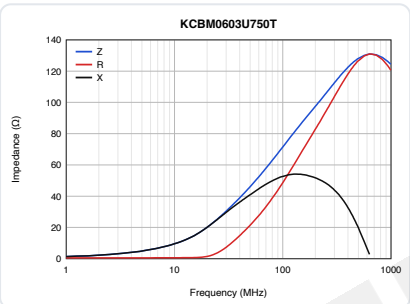

KCBM0603U330T
Z
R
X
Impedance (Ω)
Frequency (MHz)

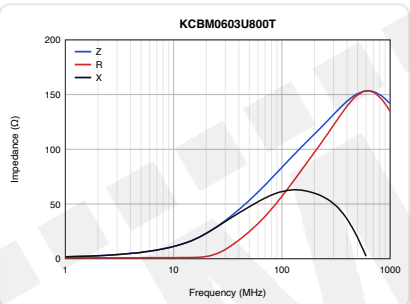

KCBM0603U400T
Z
R
X
Impedance (Ω)
Frequency (MHz)

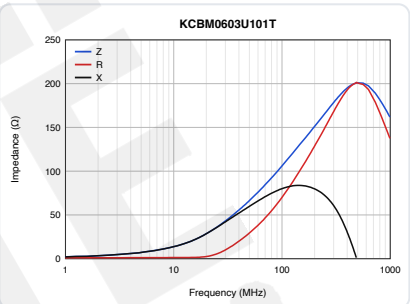

KCBM0603U500T
Z
R
X
Impedance (Ω)
Frequency (MHz)

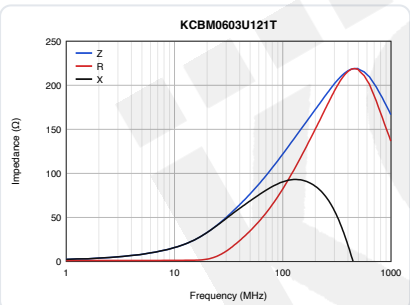

KCBM0603U600T
Z
R
X
Impedance (Ω)
Frequency (MHz)

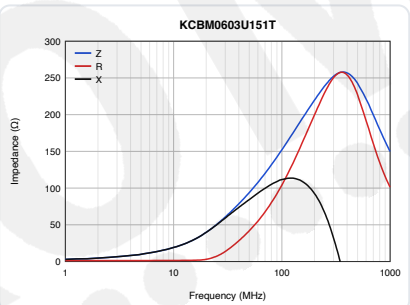

KCBM0603U700T
Z
R
X
Impedance (Ω)
Frequency (MHz)

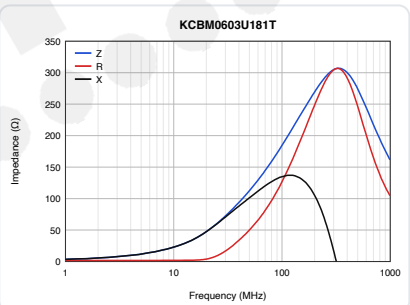

KCBM0603U750T
Z
R
X
Impedance (Ω)
Frequency (MHz)

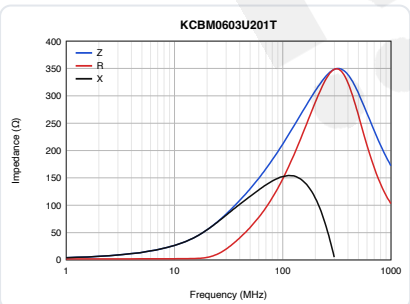

KCBM0603U800T
Z
R
X
Impedance (Ω)
Frequency (MHz)

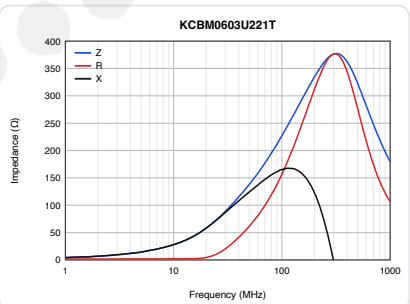

KCBM0603U101T
Z
R
X
Impedance (Ω)
Frequency (MHz)

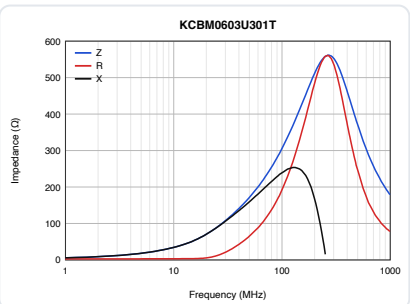

KCBM0603U121T
Z
R
X
Impedance (Ω)
Frequency (MHz)

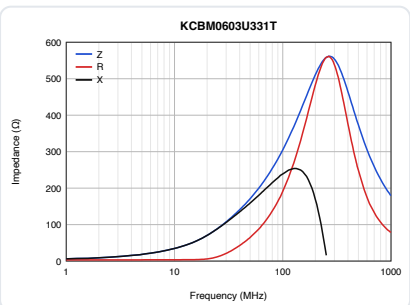

KCBM0603U151T
Z
R
X
Impedance (Ω)
Frequency (MHz)

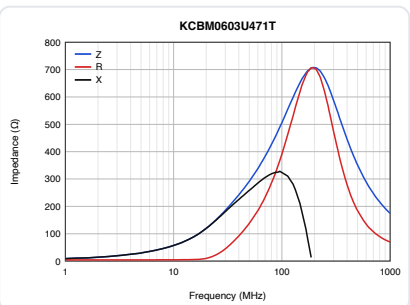

KCBM0603U181T
Z
R
X
Impedance (Ω)
Frequency (MHz)

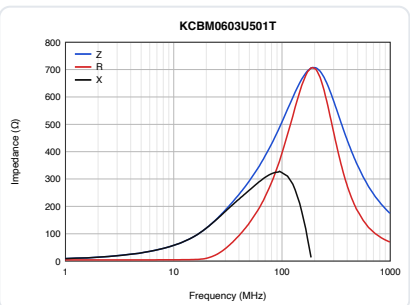

KCBM0603U201T
Z
R
X
Impedance (Ω)
Frequency (MHz)

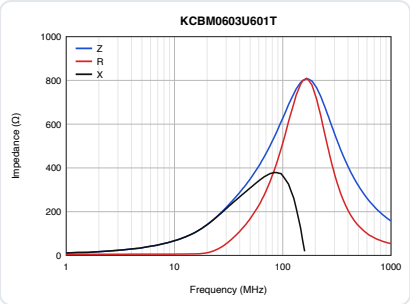

KCBM0603U221T
Z
R
X
Impedance (Ω)
Frequency (MHz)

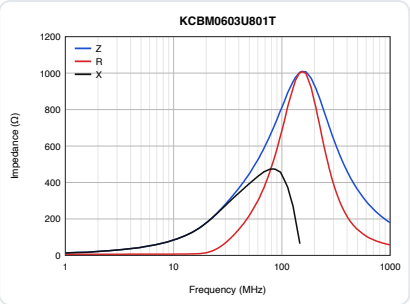

KCBM0603U301T
Z
R
X
Impedance (Ω)
Frequency (MHz)

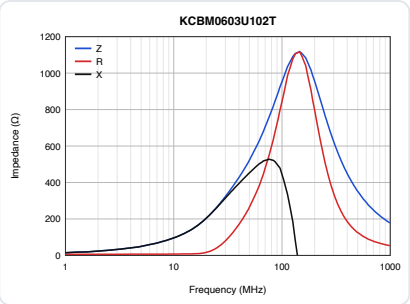

KCBM0603U331T
Z
R
X
Impedance (Ω)
Frequency (MHz)


KCBM0603U471T
Z
R
X
Impedance (Ω)
Frequency (MHz)

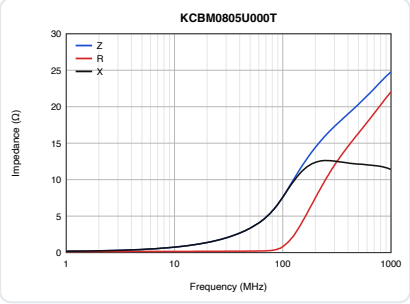

KCBM0603U501T
Z
R
X
Impedance (Ω)
Frequency (MHz)

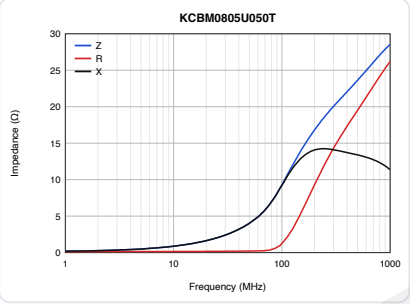


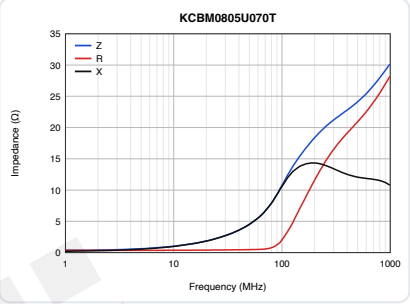


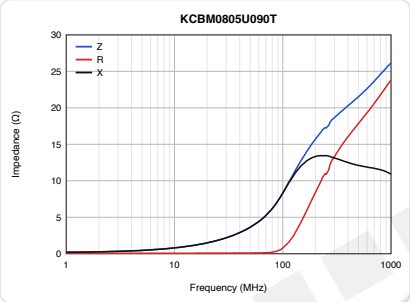


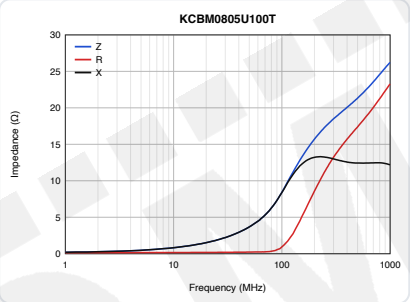
KCBM0805 Type

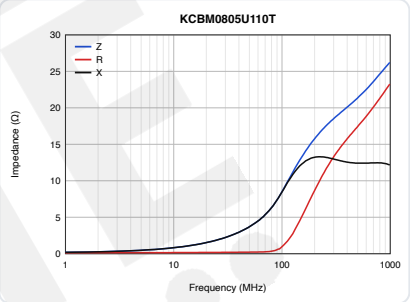


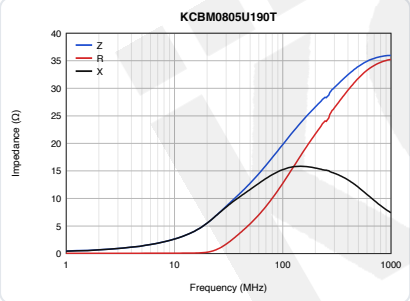


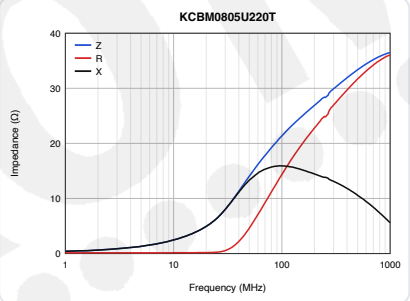


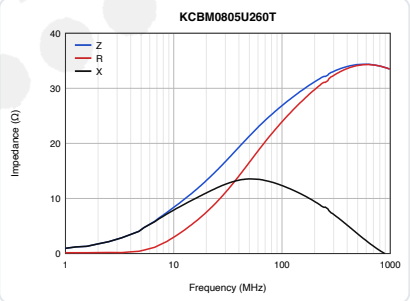


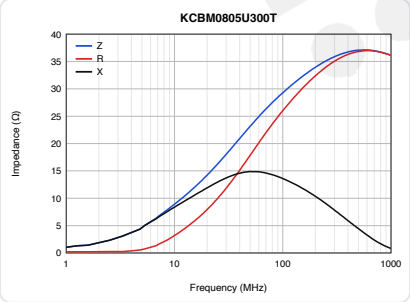


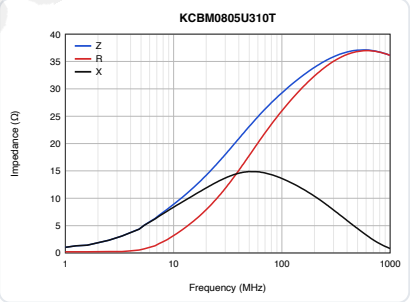


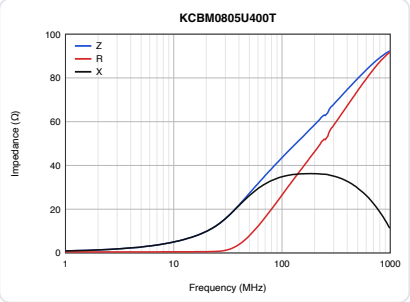


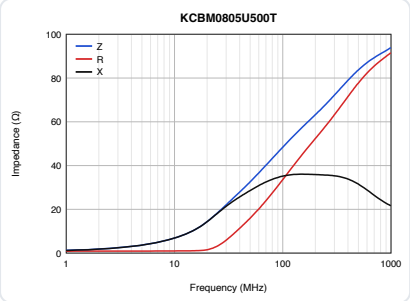


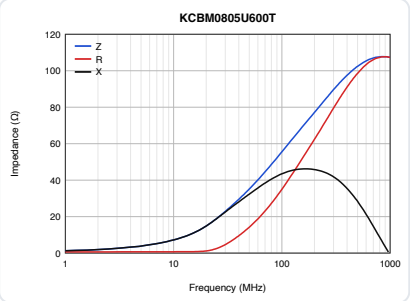


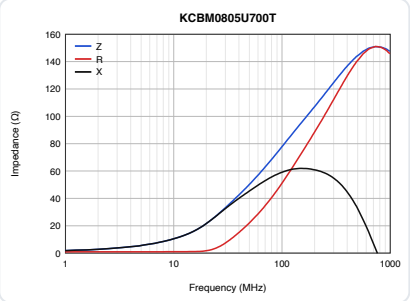


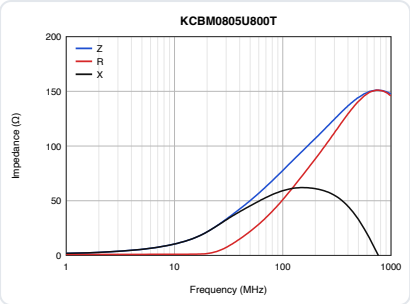


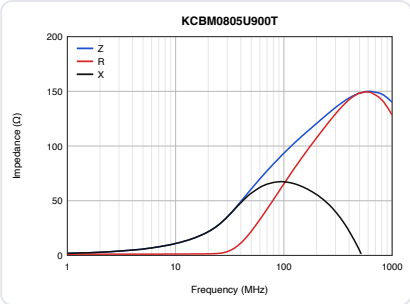


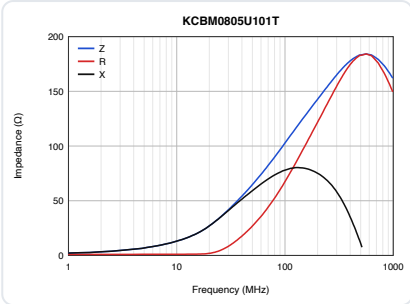


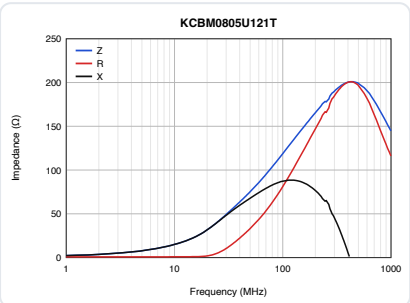


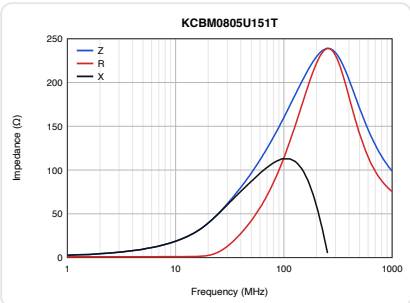


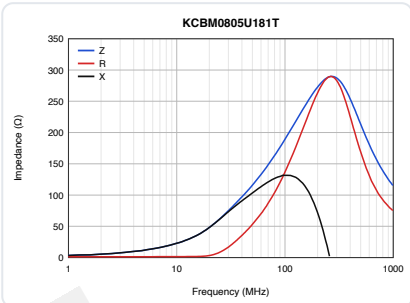


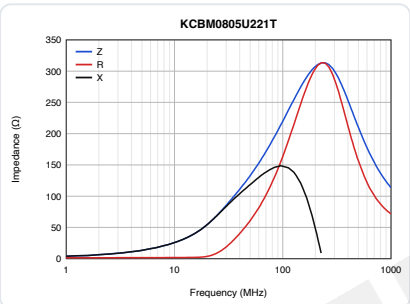


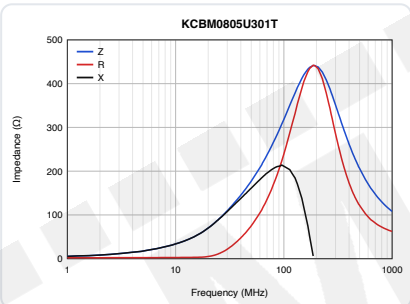


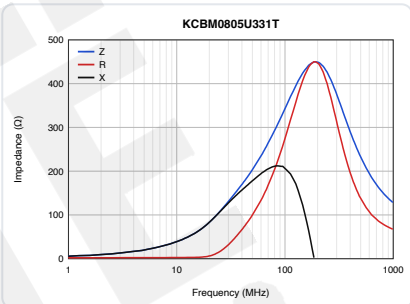


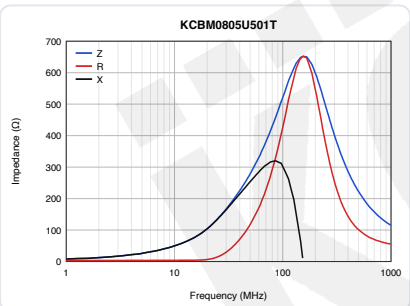


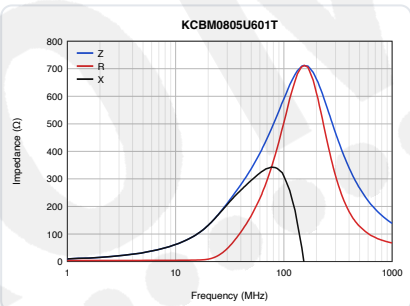


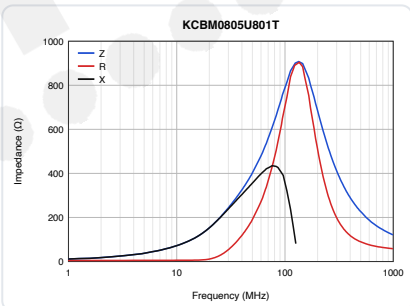


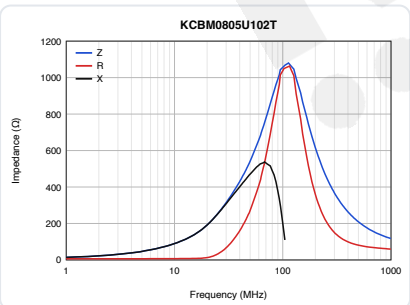


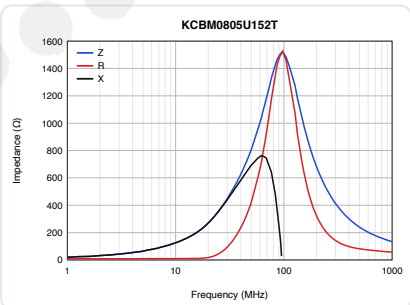




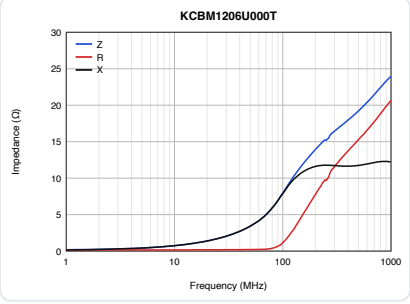


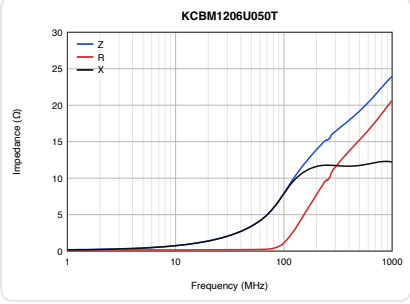


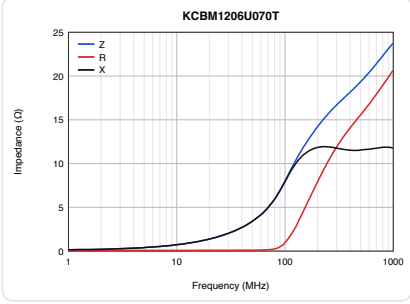


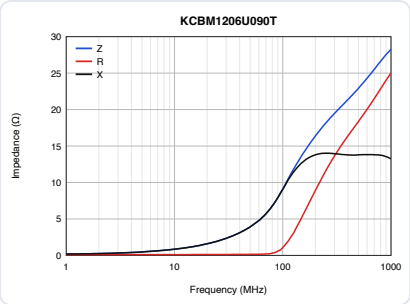


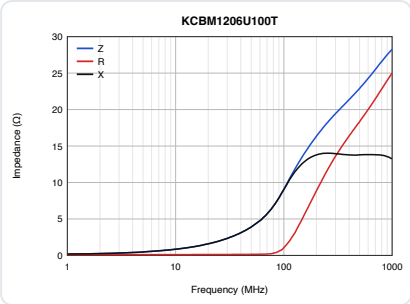
KCBM1206 Type

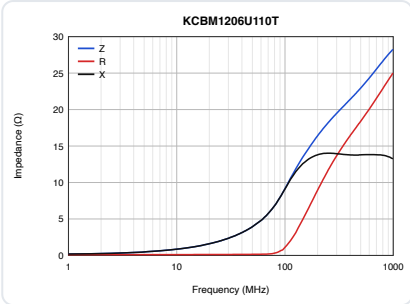


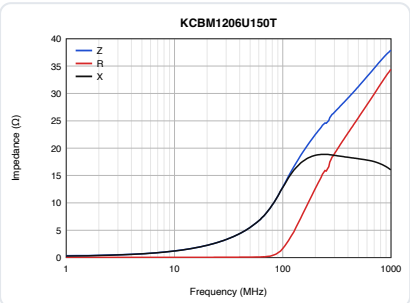


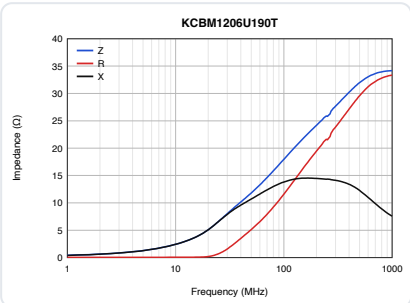


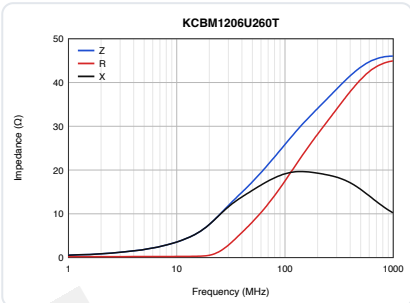

KCBM1206U090T
Z
R
X
Impedance (Ω)
Frequency (MHz)

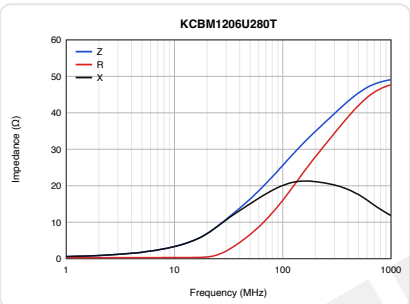

KCBM1206U100T
Z
R
X
Impedance (Ω)
Frequency (MHz)

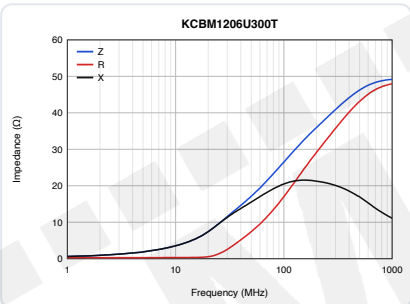

KCBM1206U110T
Z
R
X
Impedance (Ω)
Frequency (MHz)

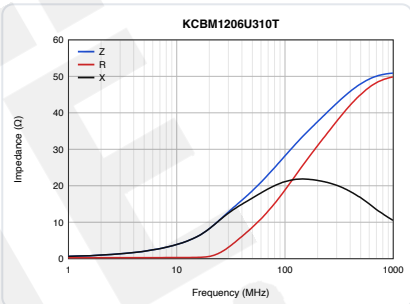

KCBM1206U150T
Z
R
X
Impedance (Ω)
Frequency (MHz)

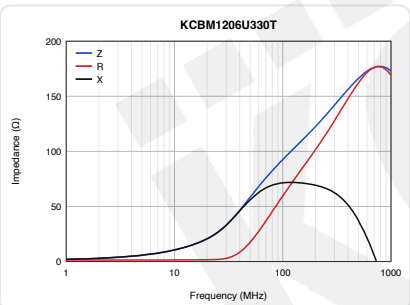

KCBM1206U190T
Z
R
X
Impedance (Ω)
Frequency (MHz)

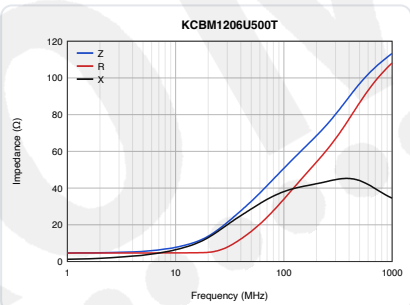

KCBM1206U260T
Z
R
X
Impedance (Ω)
Frequency (MHz)

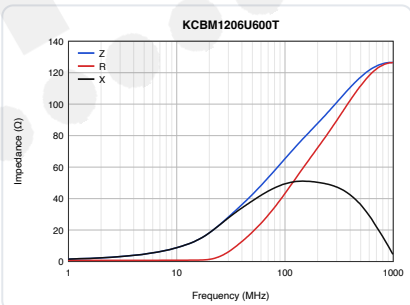

KCBM1206U280T
Z
R
X
Impedance (Ω)
Frequency (MHz)

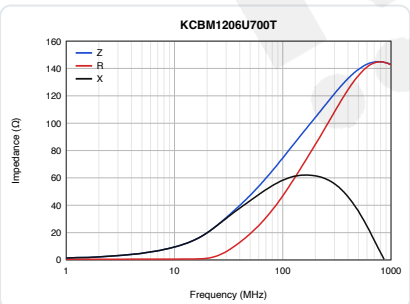

KCBM1206U300T
Z
R
X
Impedance (Ω)
Frequency (MHz)

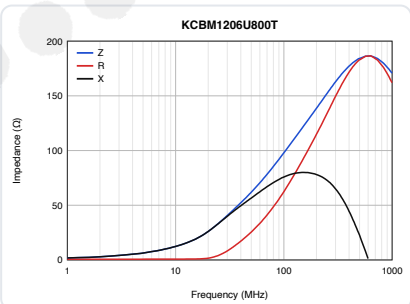

KCBM1206U310T
Z
R
X
Impedance (Ω)
Frequency (MHz)

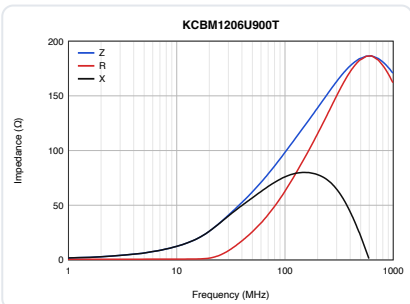

KCBM1206U330T
Z
R
X
Impedance (Ω)
Frequency (MHz)

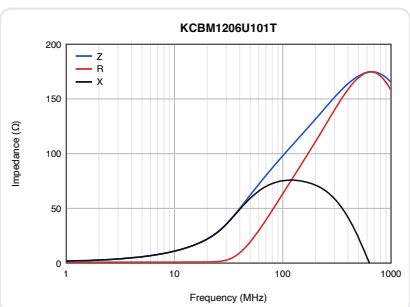

KCBM1206U500T
Z
R
X
Impedance (Ω)
Frequency (MHz)

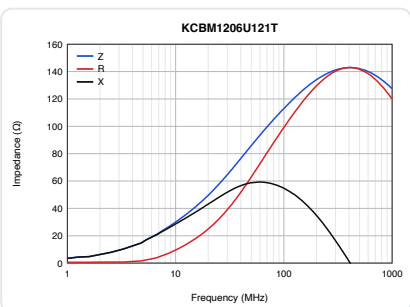

KCBM1206U600T
Z
R
X
Impedance (Ω)
Frequency (MHz)

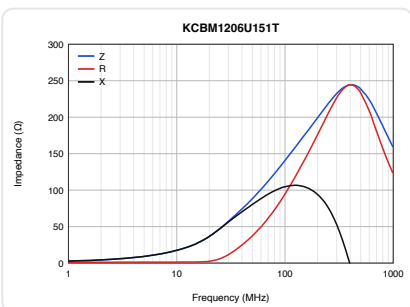

KCBM1206U700T
Z
R
X
Impedance (Ω)
Frequency (MHz)

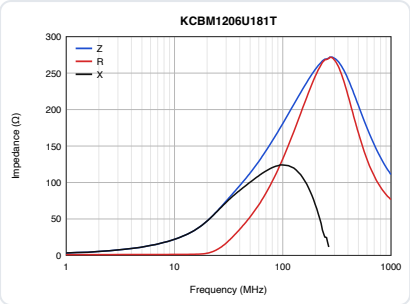

KCBM1206U800T
Z
R
X
Impedance (Ω)
Frequency (MHz)

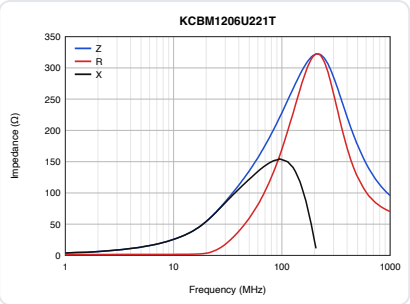

KCBM1206U900T
Z
R
X
Impedance (Ω)
Frequency (MHz)

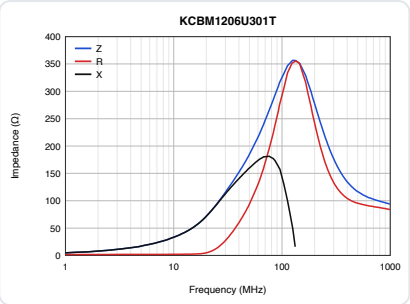

KCBM1206U101T
Z
R
X
Impedance (Ω)
Frequency (MHz)

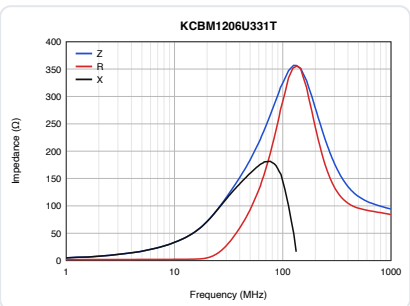

KCBM1206U121T
Z
R
X
Impedance (Ω)
Frequency (MHz)

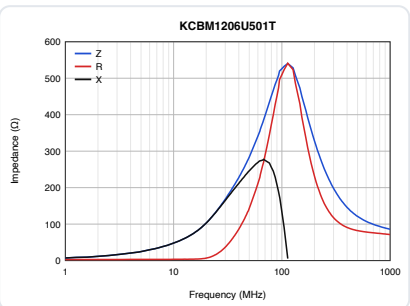

KCBM1206U151T
Z
R
X
Impedance (Ω)
Frequency (MHz)

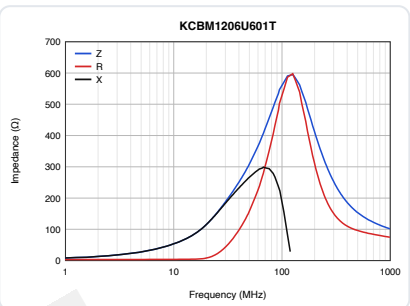


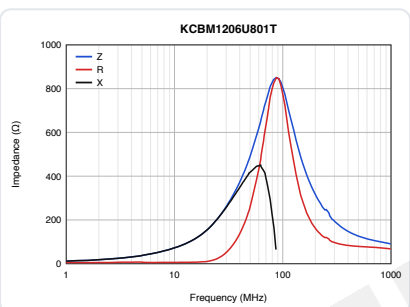


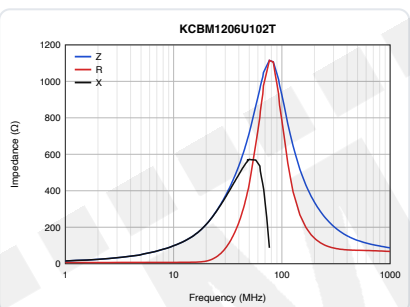




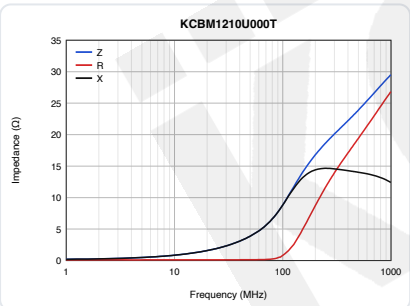


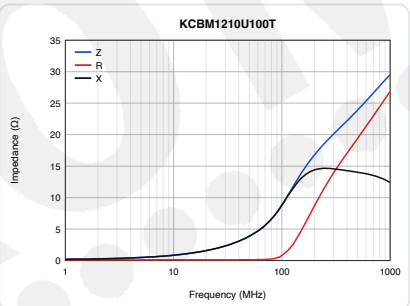


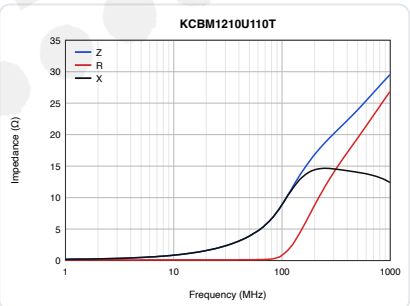


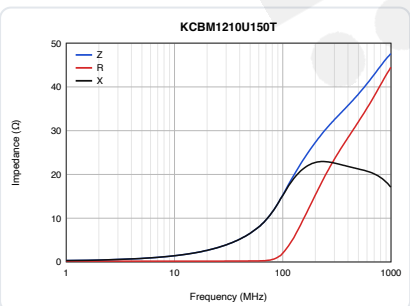


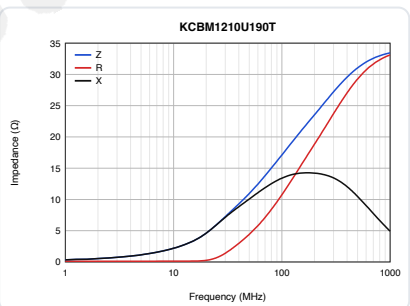
KCBM1210 Type

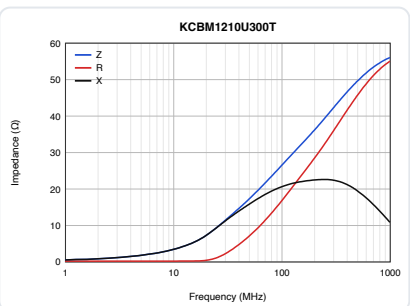


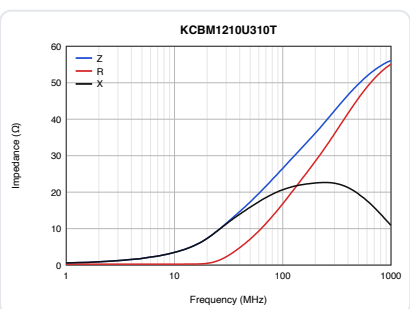


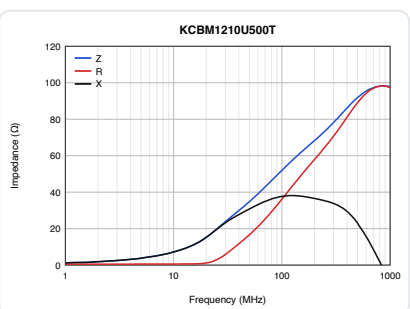


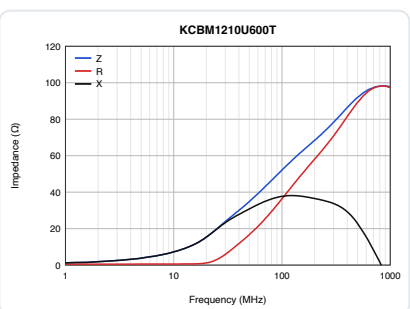


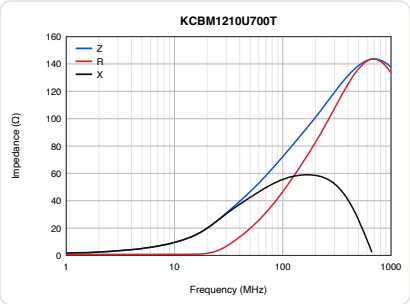


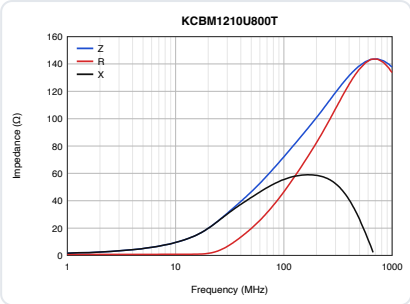


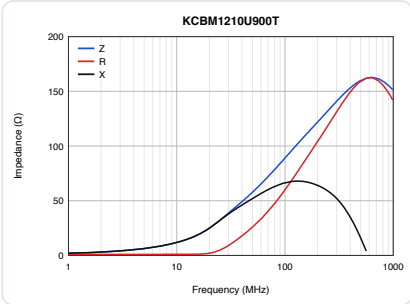


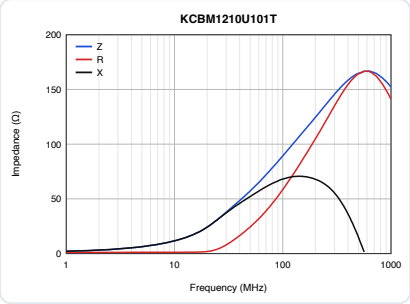


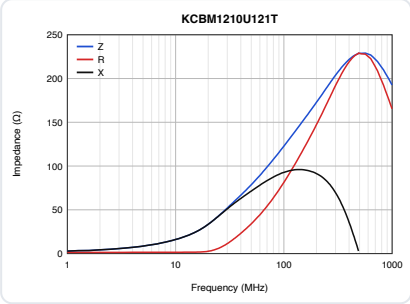


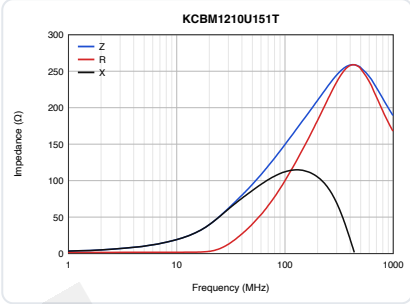


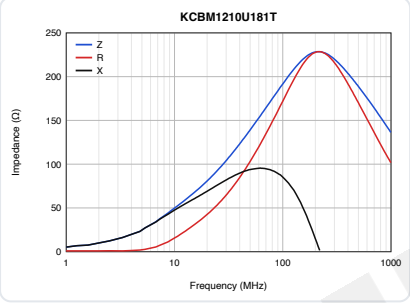


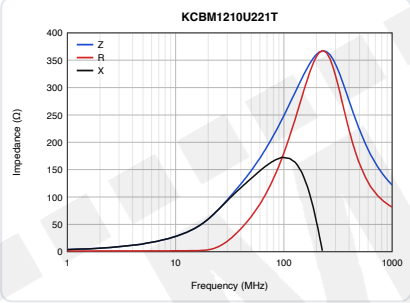


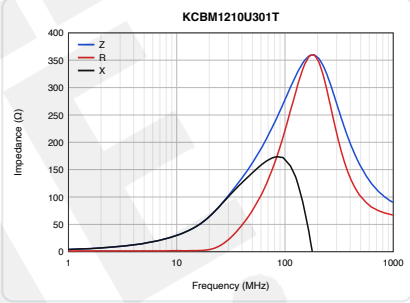


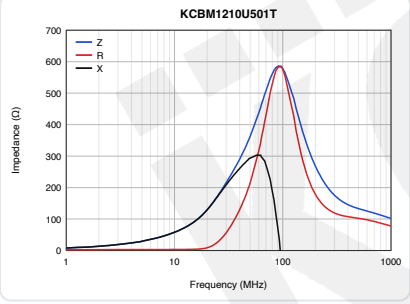


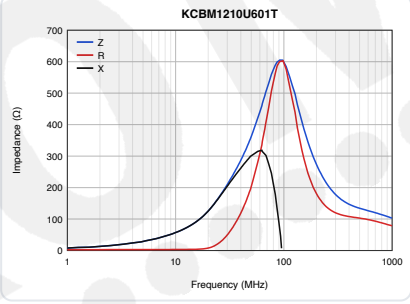


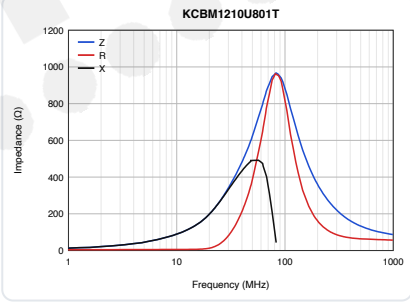


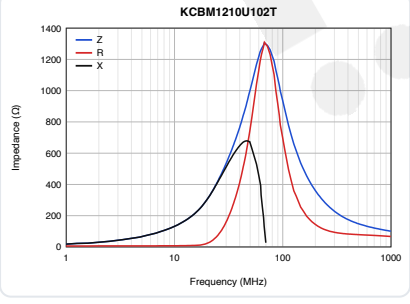




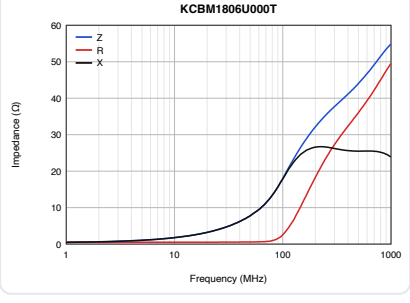


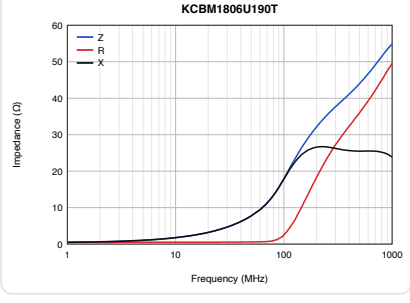


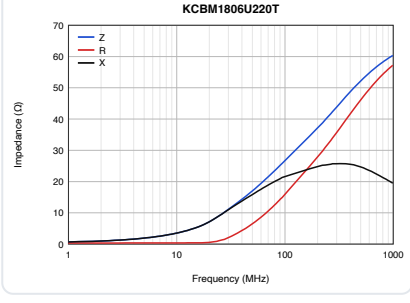


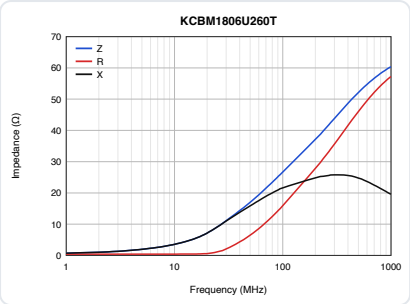


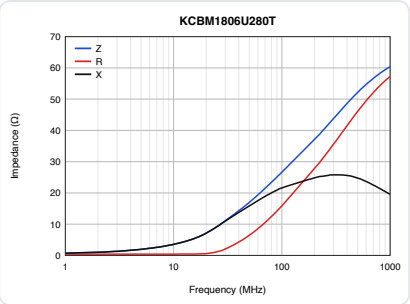
KCBM1806 Type

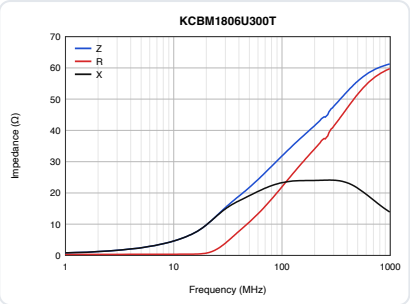


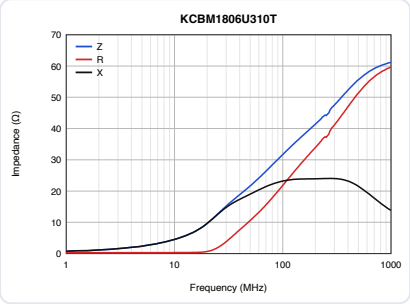


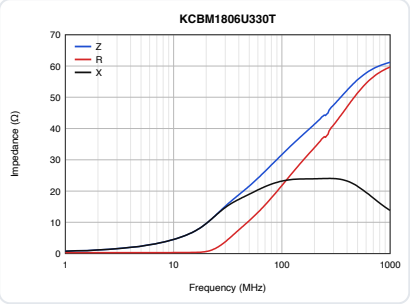


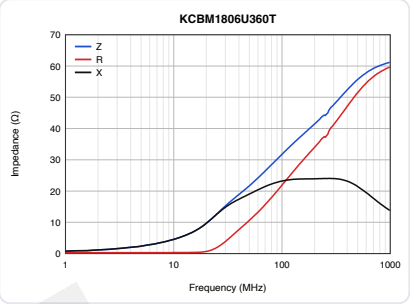


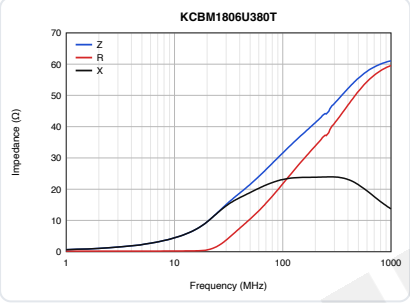


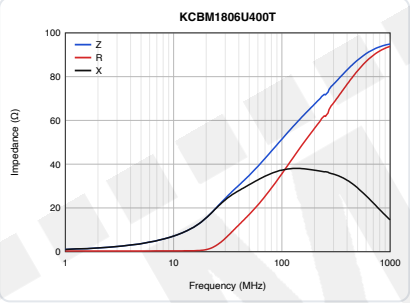


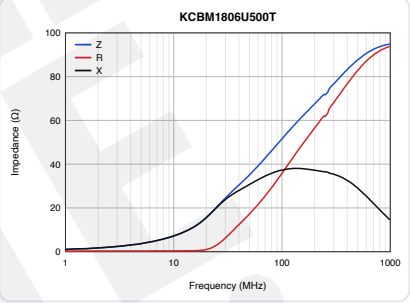


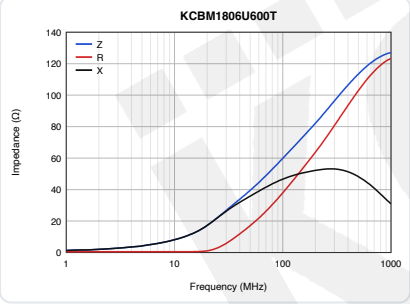


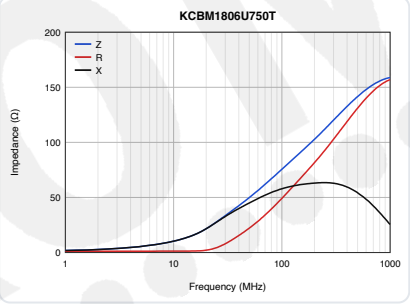


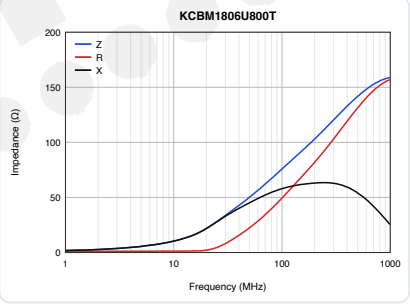




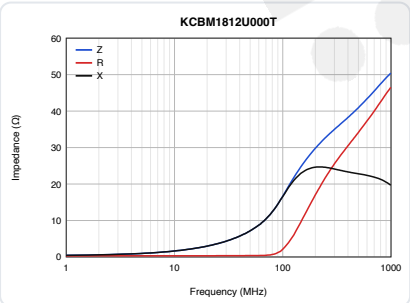


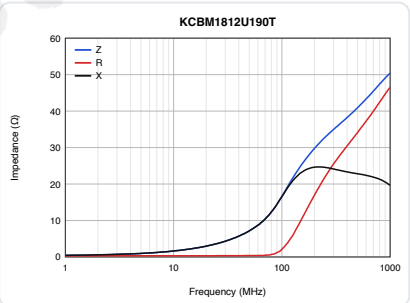


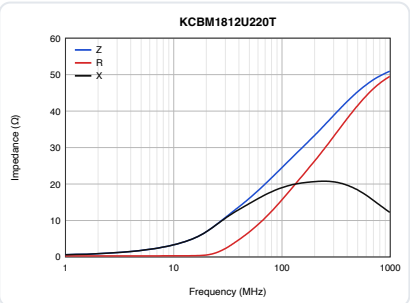


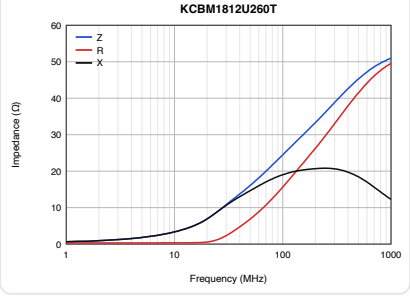


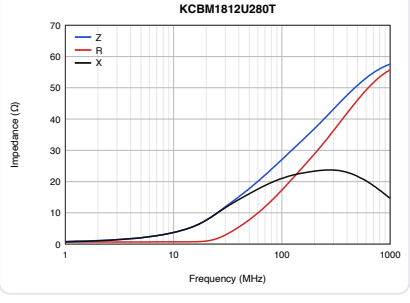
KCBM1812 Type

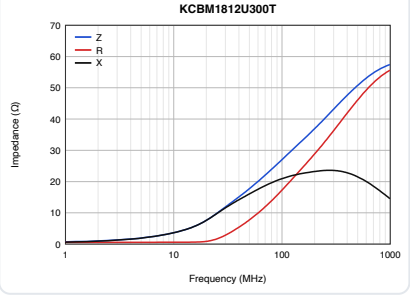


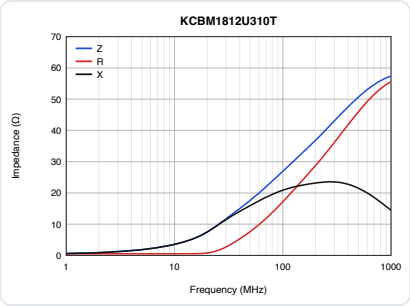


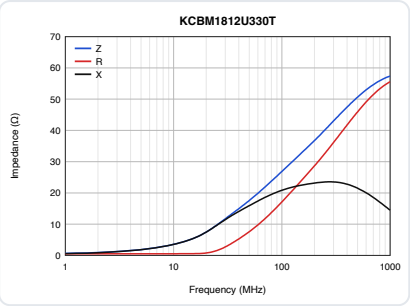


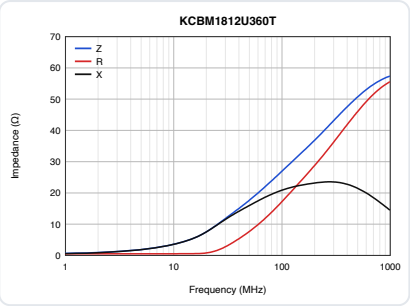


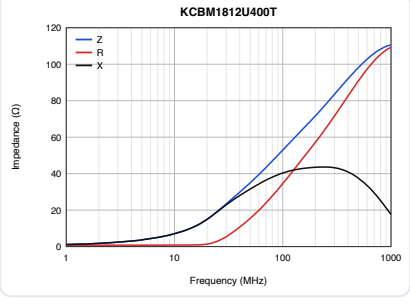


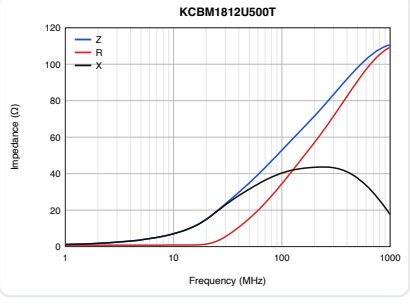


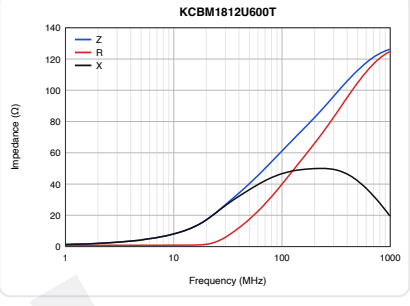

KCBM1812U310T
Z
R
X
Impedance (Ω)
Frequency (MHz)

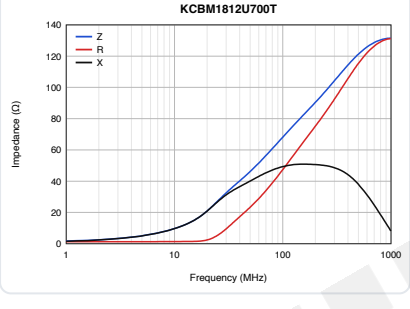

KCBM1812U330T
Z
R
X
Impedance (Ω)
Frequency (MHz)

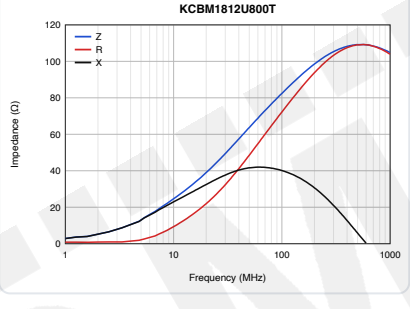

KCBM1812U360T
Z
R
X
Impedance (Ω)
Frequency (MHz)

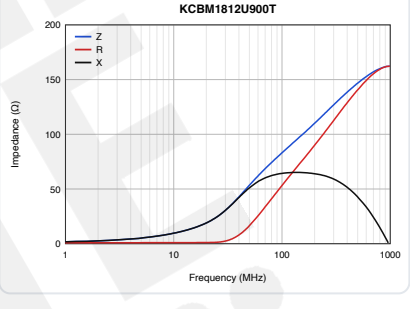

KCBM1812U400T
Z
R
X
Impedance (Ω)
Frequency (MHz)

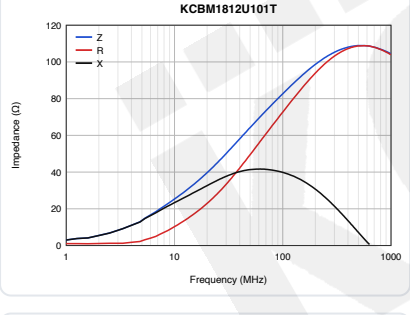

KCBM1812U500T
Z
R
X
Impedance (Ω)
Frequency (MHz)

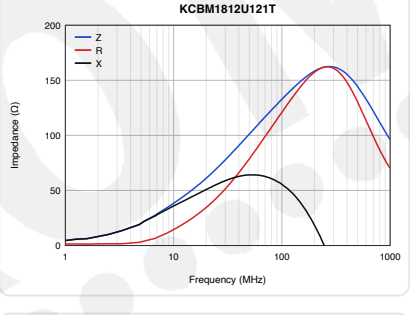

KCBM1812U600T
Z
R
X
Impedance (Ω)
Frequency (MHz)

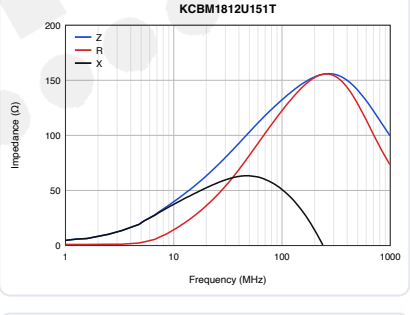

KCBM1812U700T
Z
R
X
Impedance (Ω)
Frequency (MHz)

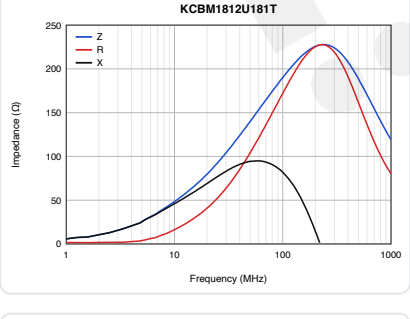

KCBM1812U800T
Z
R
X
Impedance (Ω)
Frequency (MHz)

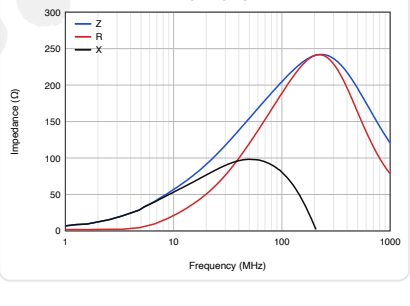

KCBM1812U900T
Z
R
X
Impedance (Ω)
Frequency (MHz)

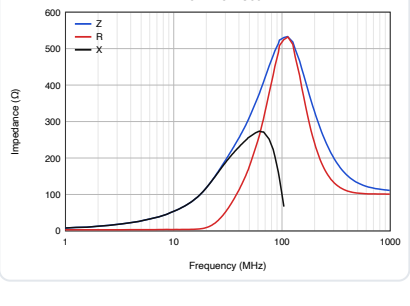

KCBM1812U101T
Z
R
X
Impedance (Ω)
Frequency (MHz)

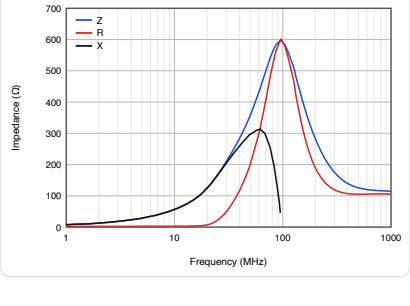

KCBM1812U121T
Z
R
X
Impedance (Ω)
Frequency (MHz)


KCBM1812U151T
Z
R
X
Impedance (Ω)
Frequency (MHz)


KCBM1812U181T
Z
R
X
Impedance (Ω)
Frequency (MHz)


KCBM1812U221T
Z
R
X
Impedance (Ω)
Frequency (MHz)


KCBM1812U501T
Z
R
X
Impedance (Ω)
Frequency (MHz)


KCBM1812U601T
Z
R
X
Impedance (Ω)
Frequency (MHz)