1. SUBJECT

This specification applies on the chip bead was made by

SYNTON-TECH Corporation。

2. FEATURES

These products cover a wide range of impedance characteristics and provide a powerful meanings of attenuating the electromagnetic interference. The parts not specified here also can be designed according the customer's requirements for larger currents.

3. APPLICATION

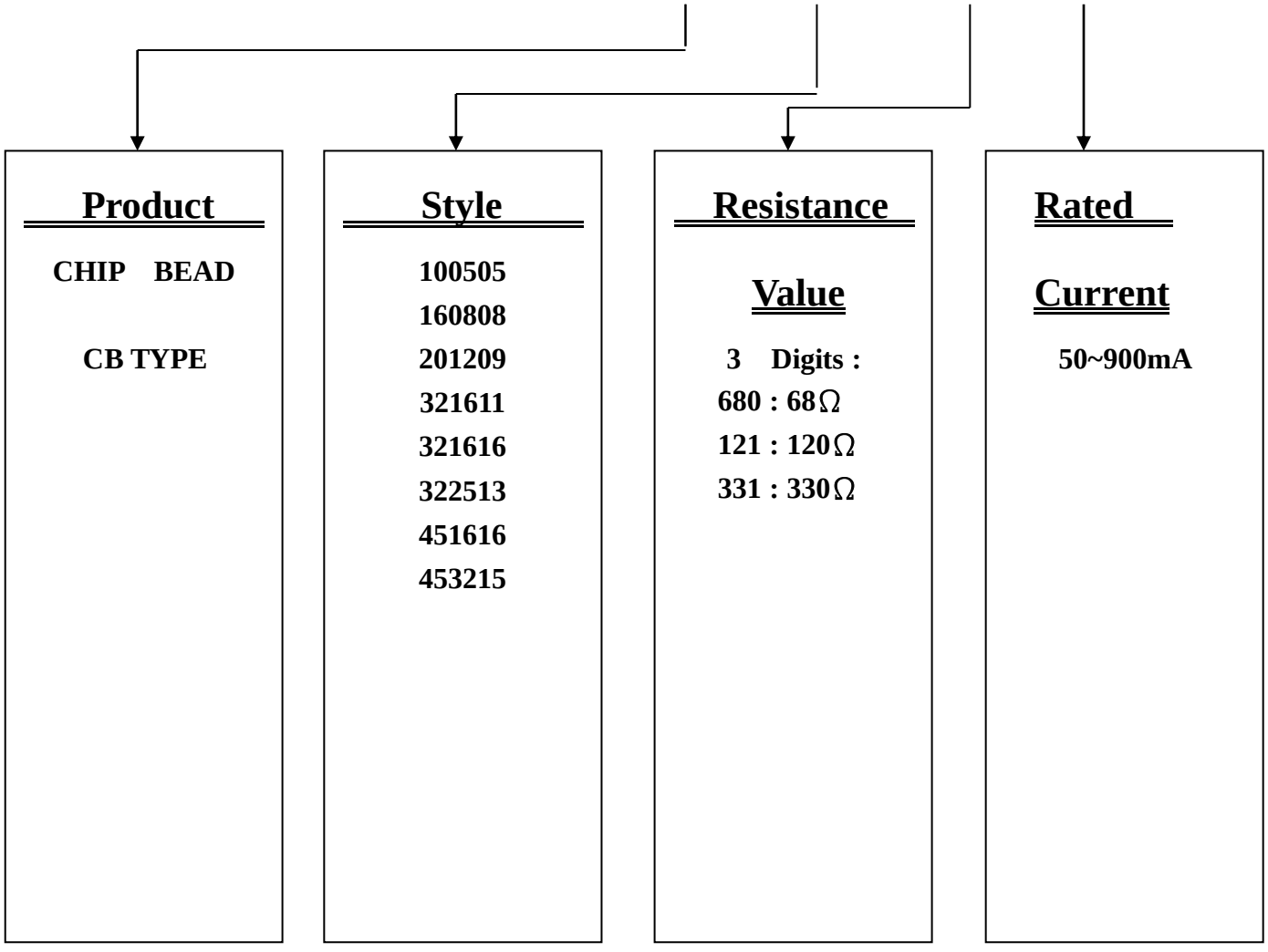
High current DC power line EMI suppress. Examples:

- CD-ROMs
- Hard Drives
- Modems
- Monitors
- Motherboards
- Printers

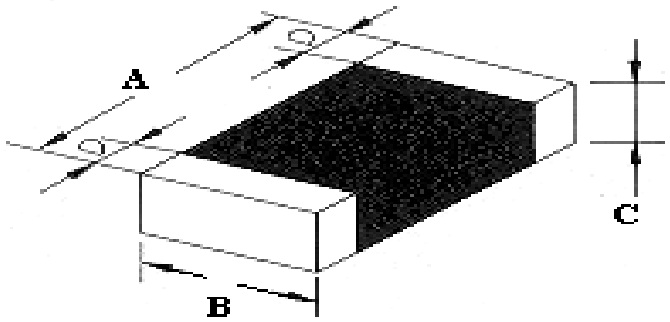
4. EXPLANATIONS OF ORDERING CODE

Example : **DESCRIPTION : CB 100505 25% 1K 0.25A**

SYNTON CODE : CB 100505 – 102 – 0.25A



5. DIMENSIONS



Unit: m/m

TYPE	A	B	C	D
CB100505	1.0 ±0.10	0.5 ±0.1	0.5 ±0.10	0.2 ±0.1
CB160808	1.6 ±0.25	0.8 ±0.2	0.8 ±0.15	0.3 ± 0.2
CB201209	2.0 ±0.25	1.2 ±0.2	0.9 ±0.20	0.5 ± 0.3
CB321611	3.2 ±0.25	1.6 ±0.2	1.1±0.3	0.5 ± 0.3
CB321616	3.2 ±0.25	1.6 ±0.2	1.6 ±0.3	0.5 ± 0.3
CB322513	3.2 ±0.25	2.5 ±0.3	1.3±0.3	0.5 ± 0.3
CB451616	4.5 ±0.25	1.6 ±0.3	1.6±0.3	0.5 ± 0.3
CB453215	4.5 ±0.25	3.2 ±0.3	1.5±0.3	0.5 ± 0.3

Figure1

6. ELECTRICAL CHARACTERISTICS

CB100505

Part No.	Impedance	DCR	IDC
	ohm ±25%	ohm(max)	Ma(max)
CB100505-100	10	0.05	500
CB100505-300	30	0.20	300
CB100505-600	60	0.40	200
CB100505-121	120	0.50	200
CB100505-121	120	1.10	50
CB100505-121	120	1.00	50
CB100505-221	220	0.70	100
CB100505-301	300	0.75	100
CB100505-301	300	0.7	200
CB100505-471	470	0.90	100
CB100505-601	600	1.10	50
CB100505-601	600	1.50	50
CB100505-102	1000	1.50	50
CB100505-102	1000	2.50	50
CB100505-102-0.25A	1000	0.7	250

Figure2

CB160808

Part No.	Impedance	DCR	IDC
	ohm ±25%	ohm(max)	Ma(max)
CB160808-100	10	0.10	900
CB160808-600	60	0.15	400
CB160808-680	68	0.15	400
CB160808-800	80	0.15	400
CB160808-121	120	0.15	400
CB160808-221	220	0.20	400
CB160808-301	300	0.30	400
CB160808-601	600	0.35	400
CB160808-102	1000	0.55	300

Figure3

CB201209

Part No.	Impedance ohm ±25%	DCR ohm(max)	IDC mA(max)
CB201209-070	7	0.10	300
CB201209-100	10	0.07	500
CB201209-110	11	0.10	300
CB201209-320	32	0.10	300
CB201209-600	60	0.15	300
CB201209-800	80	0.15	300
CB201209-121	120	0.20	300
CB201209-151	150	0.20	300
CB201209-301	300	0.25	300
CB201209-401	400	0.30	300
CB201209-601	600	0.25	200
CB201209-601	600	0.35	300
CB201209-202	2000	0.50	500

Figure4

CB321611

Part No.	Impedance	DCR	IDC
	ohm ±25%	ohm(max)	mA(max)
CB321611-190	19	0.10	800
CB321611-300	30	0.10	800
CB321611-310	31	0.10	800
CB321611-260	26	0.10	800
CB321611-420	42	0.10	800
CB321611-500	50	0.15	800
CB321616-700	70	0.15	500
CB321611-800	80	0.30	400
CB321611-151	150	0.20	450
CB321611-301	300	0.20	350
CB321611-501	500	0.25	350
CB321611-601	600	0.30	400
CB321611-801	800	0.30	350
CB321611-152	1500 (50MHz)	0.40	350
CB321611-202	2000 (50MHz)	0.40	350

Figure5

CB322513

Part No.	Impedance	DCR	IDC
	ohm ±25%	ohm(max)	mA(max)
CB322513-310	31	0.10	500
CB322513-600	60	0.30	400

Figure6

CB451616

Part No.	Impedance	DCR	IDC
	ohm ±25%	ohm(max)	mA(max)
CB451616-800	80	0.30	400

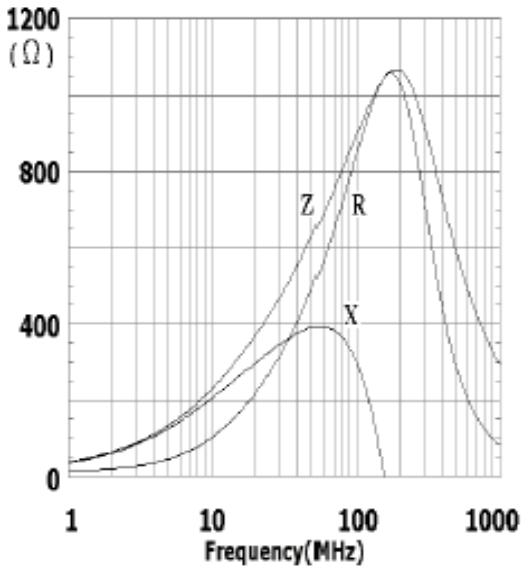
Figure7

CB453215

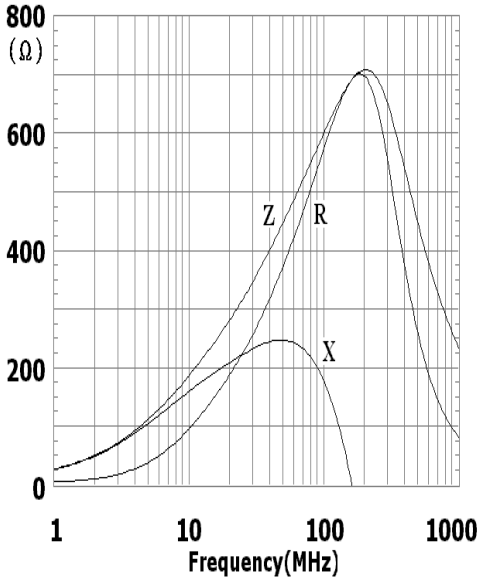
Part No.	Impedance	DCR	IDC
	ohm ±25%	ohm(max)	mA(max)
CB453215-700	70	0.20	500
CB453215-121	120	0.20	500
CB453215-151	150	0.20	500

Figure8

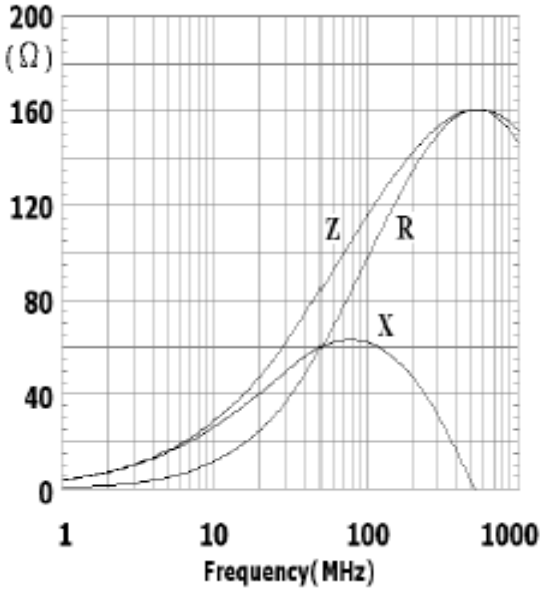
CB100505-102-0.25A



CB160808-601



CB100505-121



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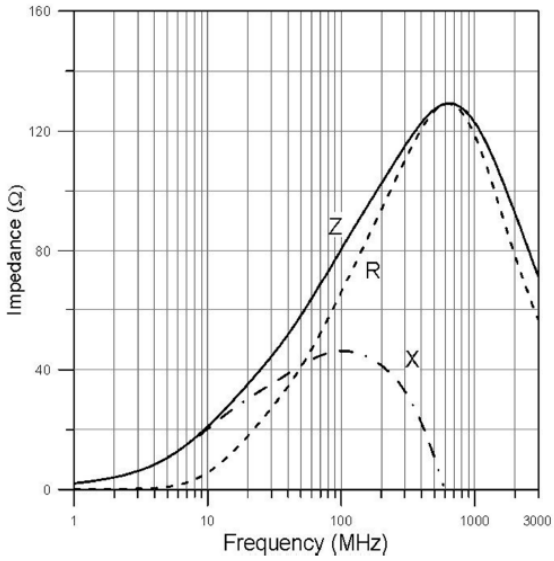
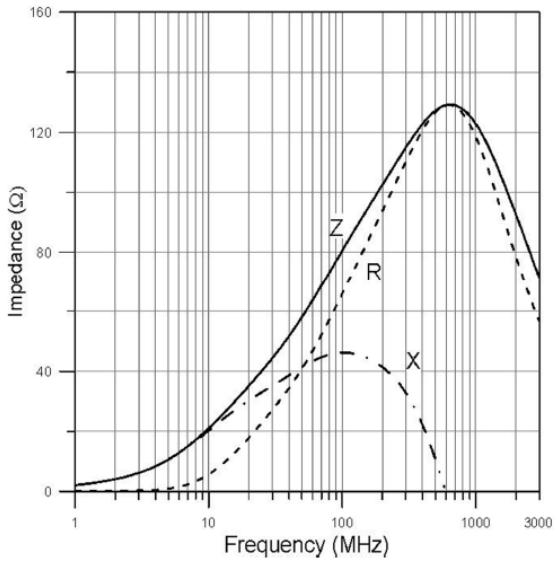
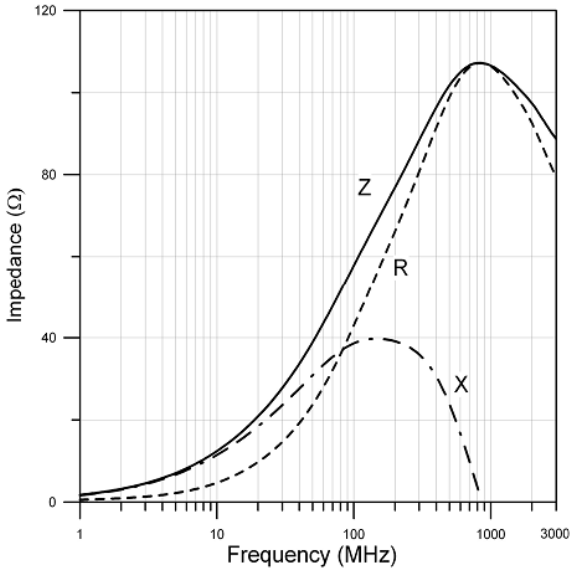


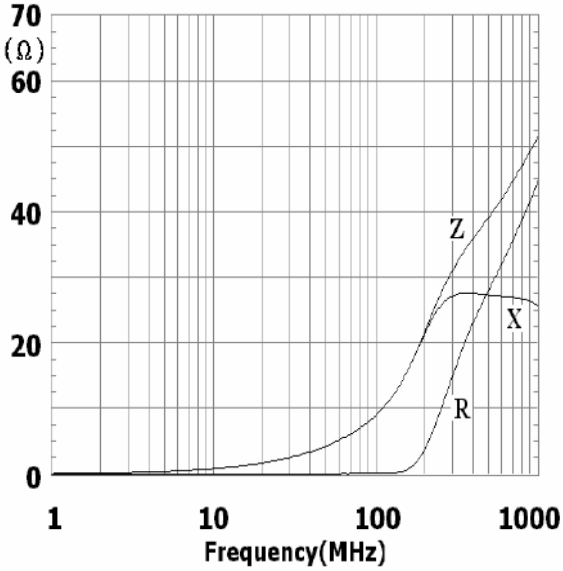
CB160808-800



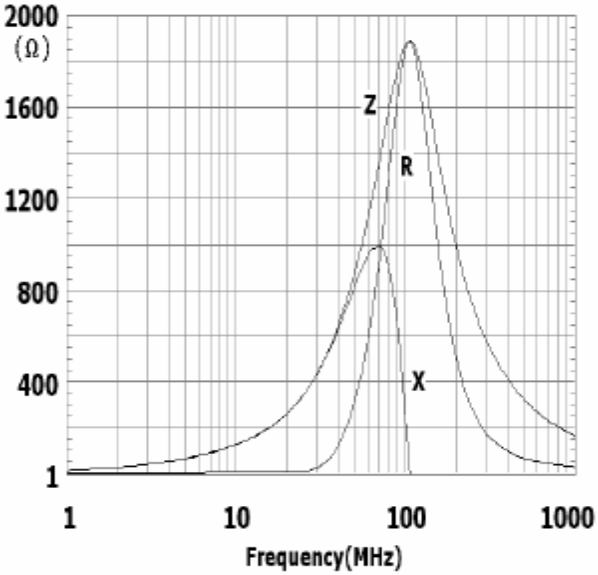
CB160808-600



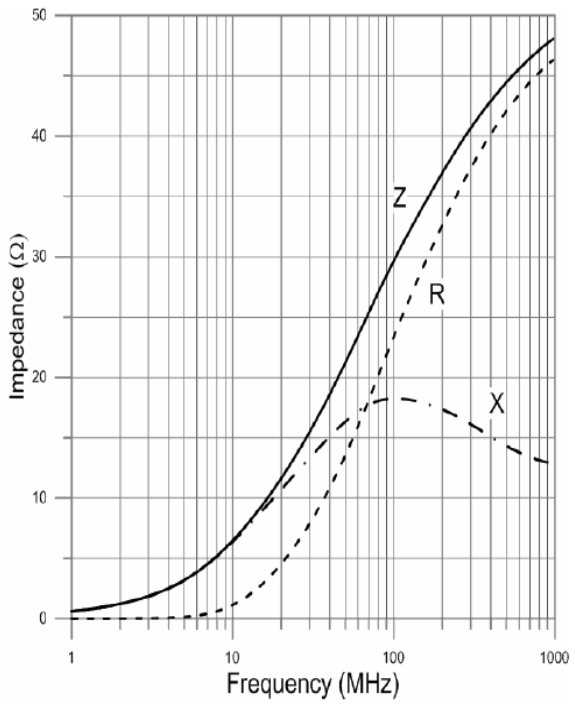
CB201209-100



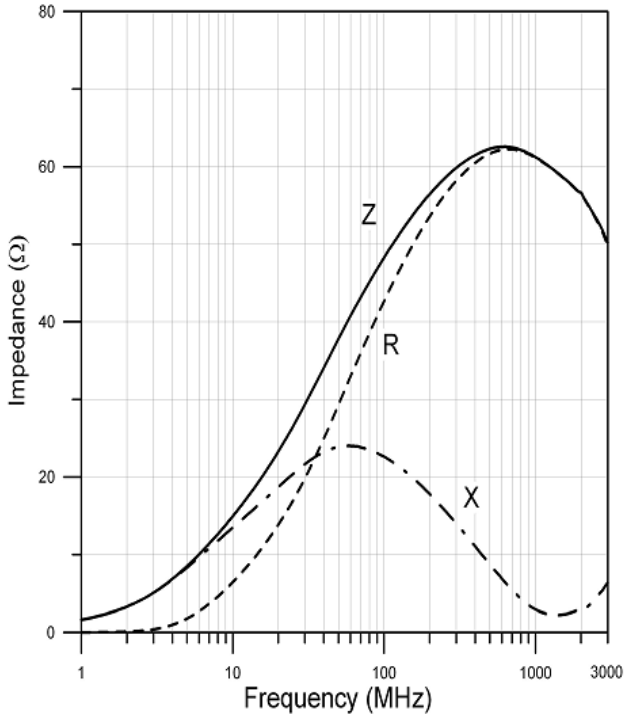
CB201209-202



CB321611-300



CB321611-500



7. RELIABILITY AND TEST CONDITION

Item	Performance	Test condition
Operating temperature range	-55 ~ +125℃	--
Storage temperature and humidity range	-10 ~ 40℃, 70% RH max	--
Soldering heat resistance	The chips must have no cracks. More than 75% of the terminal electrode must be covered with new solder. Impedance : within ±30% of initial value	Preheat:100-150℃, 60sec. Solder temperature:260±5℃ Dip time:6±1 sec.
Solderability	More than 90% of the terminal electrode must be covered with new solder.	Preheat:150℃, 60sec. Solder temperature:240±5℃ Dip time:3±1 sec.
Terminal strength	The terminal electrode and the ferrite must not be damaged by the force applied on the right conditions	Size / Force kg) / Time(sec) 1608 / 0.4 / >25 2012 / 0.6 3216 / 1.0 3225 / 1.0 4516 / 1.0 4532 / 1.5
Substrate bending test	The terminal electrode and the ferrite must not be damaged by the force applied on the right conditions.	After soldering a chip to a test substrate, bend the substrate by 3m/m and for 10 sec. then return. Soldering shall be done in accordance with the recommended PC board pattern and reflow soldering

High temperature resistance	Appearance: ferrite shall not be damaged Impedance : within ±30% of initial value	Temperature: +125±2℃ Applied current: Rated current(max.) Duration: 1008±12 hours Measurement: after placing for 24 hours min.
Humidity resistance	Appearance: ferrite shall not be damaged Impedance : within ±30% of initial value	Humidity: 90 to 95%RH Temperature: 40±2℃ Applied current: rated current (max.) Duration: 1008±12 hours Measurement: after placing for 24 hours min
Low temperature storage life test	Appearance: cracking, chipping or any other defects harmful to the characteristics shall not be allowed Impedance : within ±30% of initial value	Temperature: -55±2℃ Duration: 1008±12 hours Measurement: after placing for 24 hours min.
Temperature cycle	Appearance : cracking, chipping or any other defects that harmful to the characteristics shall not be allowed Impedance : within ±30% of initial value	One cycle: step1:-55±3℃ for 30min step2:25±2℃ for 3.0min step3:125±3℃ for 30min step4:25±2℃ for 3.0min total: 100cycles measurement: after exposure in the room condition for 24 hours