

Skywell chip ferrite beads provide outstanding electrical characteristics in package as small as 0402, They are used for noise suppression applications covering a wide frequency range.

### FEATURES

Wide Frequency Characteristics

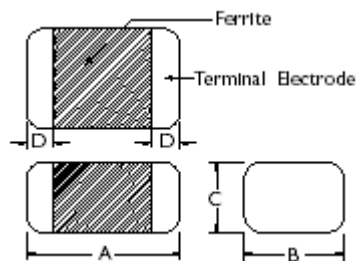
High Z Characteristics

Wide Temperature Range

Suitable for Flow and Reflow Soldering

### OUTLINE & CONSTRUCTION

Skywell multi-layer chip Impedance is formed without a wound wire and has a closed magnetic circuit formed by simultaneous forming of alternative layers of ferrite paste and conductor paste.



### SIZE & DIMENSIONS

Type	A	B	C	D
<b>CB0402</b>	1.00 $\pm$ 0.10	0.50 $\pm$ 0.10	0.50 $\pm$ 0.10	0.25 $\pm$ 0.10
<b>CB0603</b>	1.60 $\pm$ 0.15	0.80 $\pm$ 0.15	0.80 $\pm$ 0.15	0.30 $\pm$ 0.20
<b>CB0805</b>	2.00 $\pm$ 0.20	1.20 $\pm$ 0.20	0.90 $\pm$ 0.20	0.50 $\pm$ 0.30
<b>CB1206</b>	3.20 $\pm$ 0.20	1.60 $\pm$ 0.20	1.10 $\pm$ 0.20	0.50 $\pm$ 0.30
<b>CB1206H</b>	3.20 $\pm$ 0.20	1.60 $\pm$ 0.20	1.60 $\pm$ 0.20	0.50 $\pm$ 0.30
<b>CB1210</b>	3.20 $\pm$ 0.20	2.50 $\pm$ 0.30	1.30 $\pm$ 0.20	0.50 $\pm$ 0.30

### APPLICATIONS

PC Computer and Peripherals – Motherboard, HDD, VGA and etc..

Consumer Electronics such as DVD, VCD and etc..

Communication Devices – Pager, Handset Phones, Cordless Phones

Automotive Electronics.

### PART NUMBERING SYSTEM

Skywell chip bead can be ordered by using the part number system illustrated as follows:

For examples: **CB0603-101P**

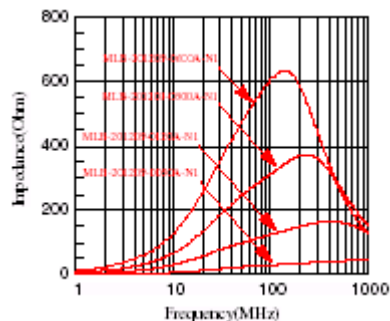
CB	0603	—	101	P
<u>Type</u>	<u>Size</u>	<u>Dash</u>	<u>Impedance Code</u>	<u>Tolerance</u>
Ferrite Bead	0402		at 100MHz	
	0603		3-digit code	
	0805		101=100 ohm	+ -25%
	1206			
	1210			

### 0603 SIZE PRODUCT SPECIFICATIONS

Part Number	Impedance ( $\Omega$ )	Rdc ( $\Omega$ ) Max.	Idc (mA) Max.	Operating Temp.
CB0603-300P	30 $\pm$ 25%	0.20	400	-25 $\square$ to +85 $\square$
CB0603-400P	40 $\pm$ 25%		300	
CB0603-600P	60 $\pm$ 25%			
CB0603-800P	80 $\pm$ 25%	0.40	250	
CB0603-101P	100 $\pm$ 25%		200	
CB0603-121P	120 $\pm$ 25%			
CB0603-181P	180 $\pm$ 25%	0.50		
CB0603-221P	220 $\pm$ 25%			
CB0603-241P	240 $\pm$ 25%			
CB0603-301P	300 $\pm$ 25%			
CB0603-451P	450 $\pm$ 25%	0.70	150	
CB0603-601P	600 $\pm$ 25%		100	
CB0603-102P	1000 $\pm$ 25%	1.00		

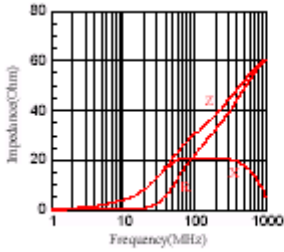
### TYPICAL ELECTRICAL CHARACTERISTICS

This series covers wide frequency range and has a wide impedance characteristics

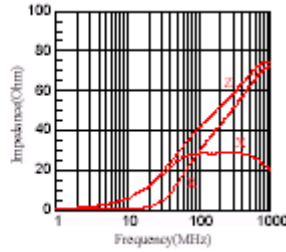


### PERFORMANCE CHARACTERISTICS CURVE

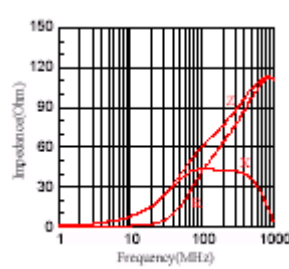
CB0603-300P



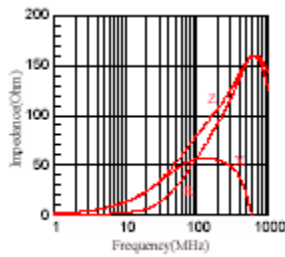
CB0603-400P



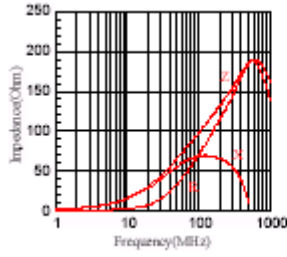
CB0603-600P



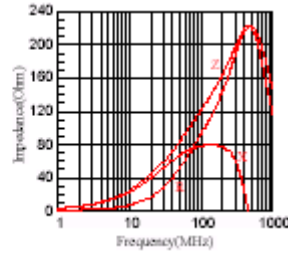
CB0603-800P



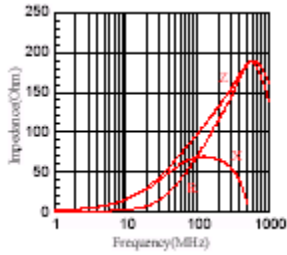
CB0603-101P



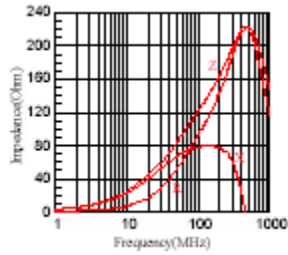
CB0603-121P



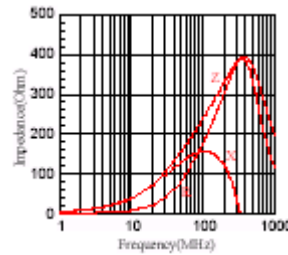
CB0603-181P



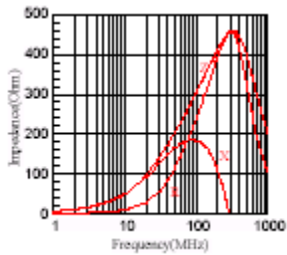
CB0603-221P



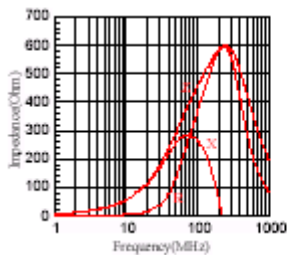
CB0603-241P



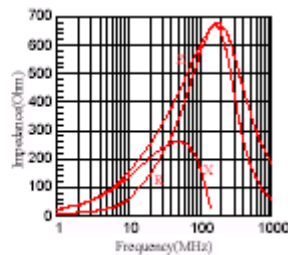
CB0603-301P



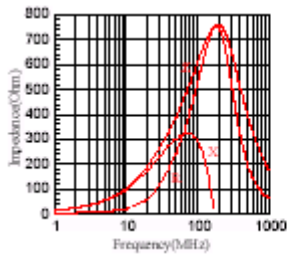
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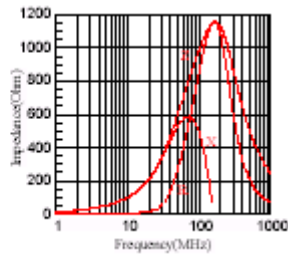
CB0603-601P



CB0603-601P



CB0603-102P

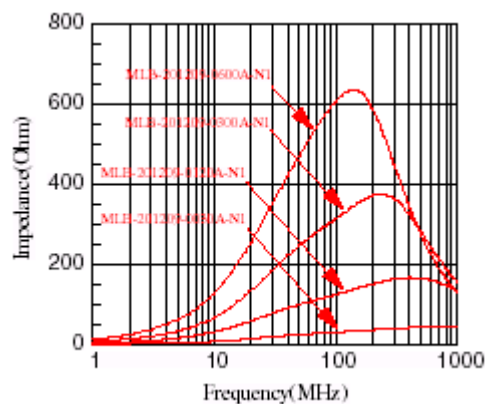


### 0805 SIZE PRODUCT SPECIFICATIONS

Part Number	Impedance ( $\Omega$ )	Rdc ( $\Omega$ ) Max.	Idc (mA) Max.	Operating Temp.
CB0805-100P	10 $\pm$ 25%	0.10	600	-25 $\square$ to +85 $\square$
CB0805-170P	17 $\pm$ 25%		500	
CB0805-300P	30 $\pm$ 25%			
CB0805-800P	80 $\pm$ 25%	0.30	400	
CB0805-121P	120 $\pm$ 25%		300	
CB0805-151P	150 $\pm$ 25%			
CB0805-221P	220 $\pm$ 25%	0.50	250	
CB0805-301P	300 $\pm$ 25%			
CB0805-401P	400 $\pm$ 25%			
CB0805-601P	600 $\pm$ 25%	0.60	200	
CB0805-102P	1000 $\pm$ 25%	0.80	100	
CB0805-122P	1200 $\pm$ 25%			
CB0805-152P	1500 $\pm$ 25%	1.00		
CB0805-202P	2000 $\pm$ 25%			
CB0805-222P	2200 $\pm$ 25%			
CB0805-272P	27000 $\pm$ 25%	1.50		

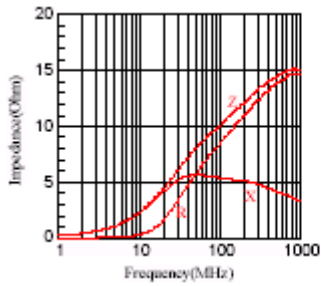
### TYPICAL ELECTRICAL CHARACTERISTICS

This series covers wide frequency range and has a wide impedance characteristics

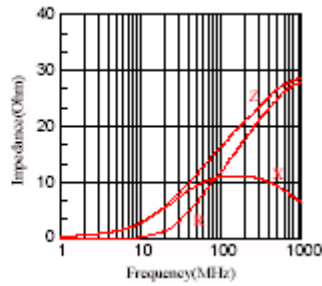


### PERFORMANCE CHARACTERISTICS CURVE 0805 SERIES

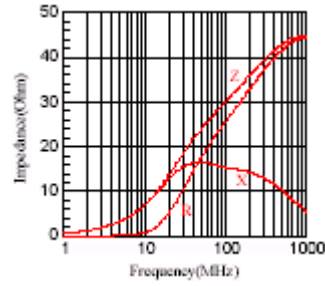
CB0805-100P



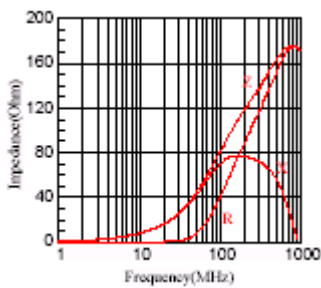
CB0805-170P



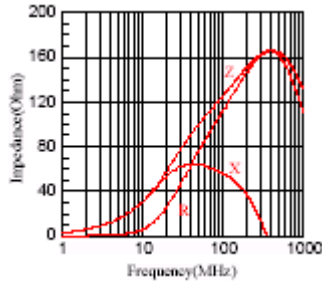
CB0805-300P



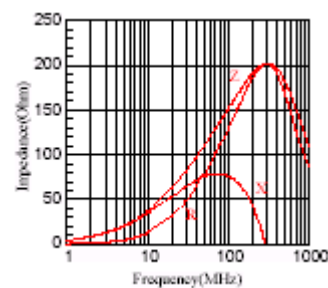
CB0805-800P



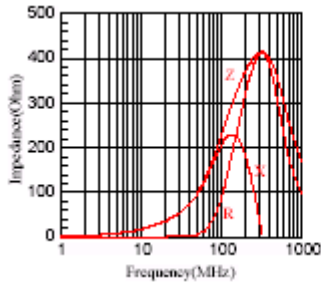
CB0805-121P



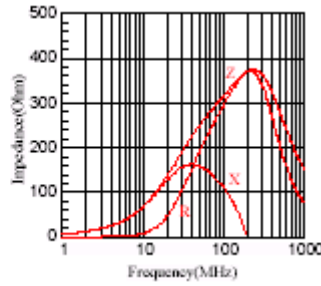
CB0805-151P



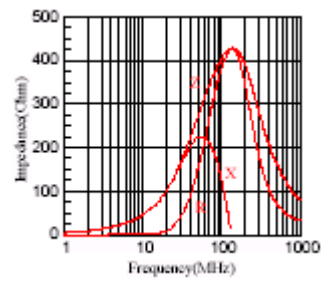
CB0805-221P



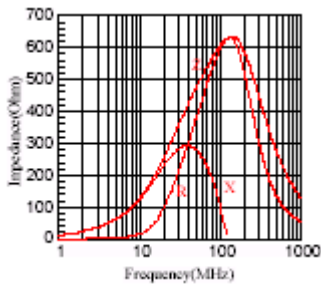
CB0805-301P



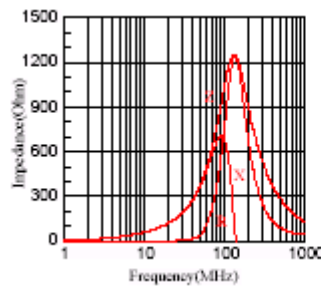
CB0805-401P



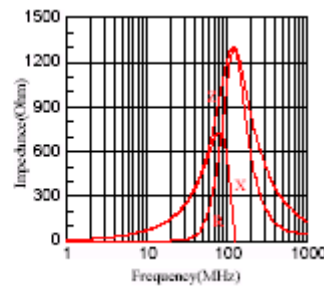
CB0805-601P



CB0805-102P

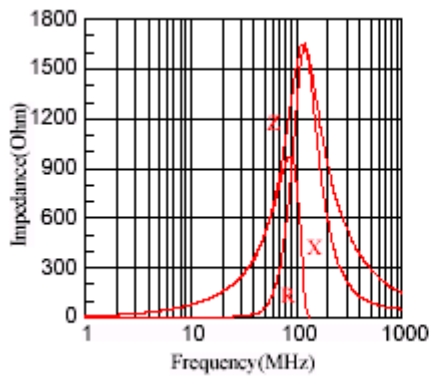


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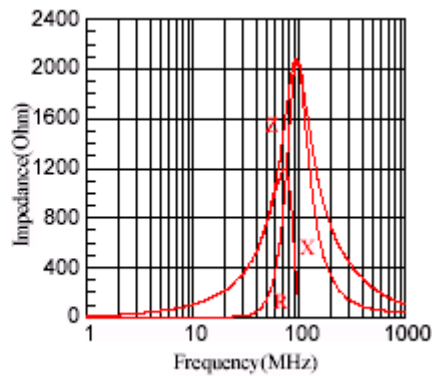


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CB0805-152P



CB0805-152P

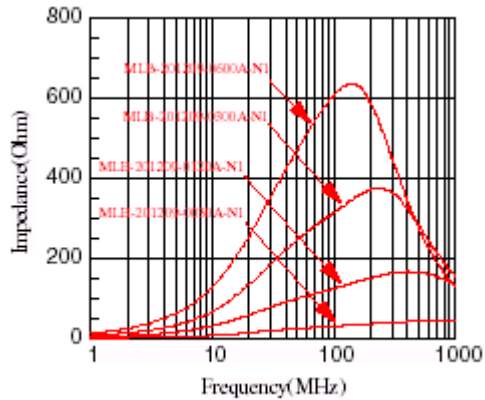


### 1206 & 1210 SIZE PRODUCT SPECIFICATIONS

Part Number	Impedance ( $\Omega$ )	Rdc ( $\Omega$ ) Max.	Idc (mA) Max.	Operating Temp.
CB1206-260P	26 $\pm$ 25%	0.20	600	-25 $\square$ to +85 $\square$
CB1206-310P	31 $\pm$ 25%		500	
CB1206-500P	50 $\pm$ 25%			
CB1206-700P	70 $\pm$ 25%			
CB1206-900P	90 $\pm$ 25%	0.30	400	
CB1206-121P	120 $\pm$ 25%			
CB1206-151P	150 $\pm$ 25%			
CB1206-221P	220 $\pm$ 25%	0.40	300	
CB1206-401P	400 $\pm$ 25%			
CB1206-501P	500 $\pm$ 25%			
CB1206-601P	600 $\pm$ 25%	0.50	250	
CB1206-122P	1200 $\pm$ 25%	0.70	200	
CB1206-152P	1500 $\pm$ 25%	1.00	150	
CB1206-202P	2000 $\pm$ 25%	1.50		
CB1210-520P	52 $\pm$ 25%	0.3		300
CB1210-600P	60 $\pm$ 25%			

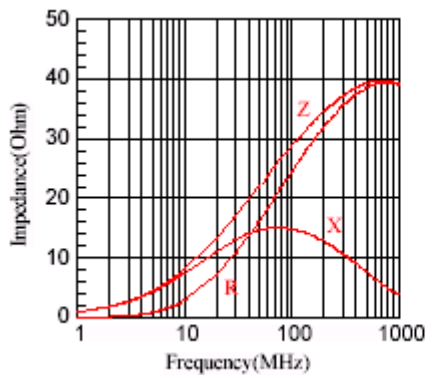
### TYPICAL ELECTRICAL CHARACTERISTICS

This series covers wide frequency range and has a wide impedance characteristics

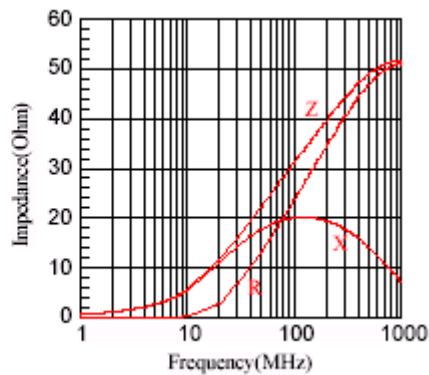


### PERFORMANCE CHARACTERISTICS CURVE 1206 & 1210 SERIES

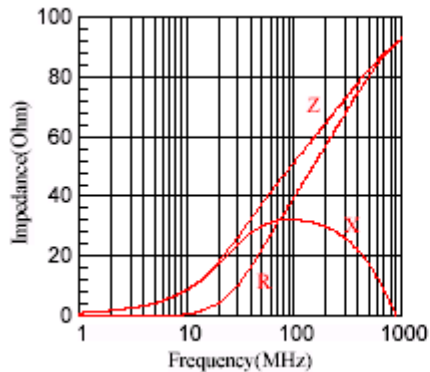
CB1206-260P



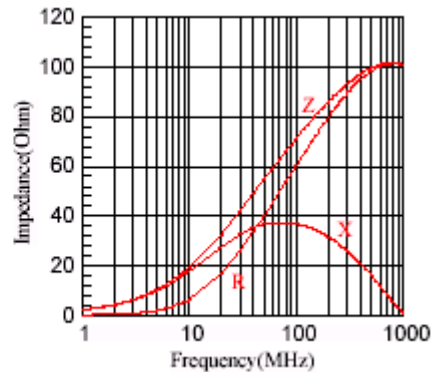
CB1206-310P



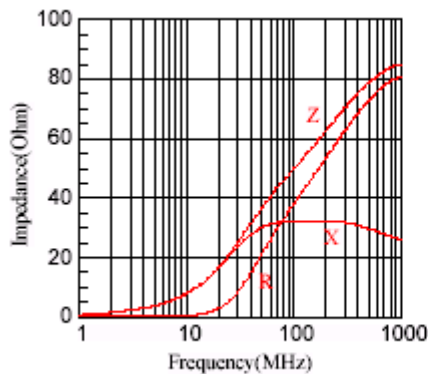
CB1206-500P



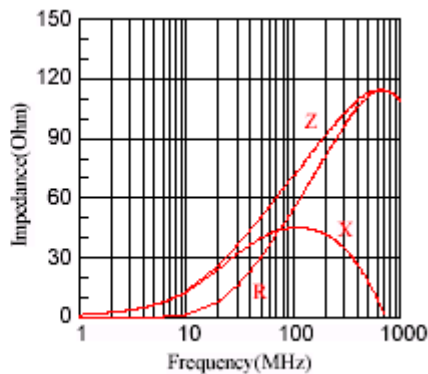
CB1206-700P



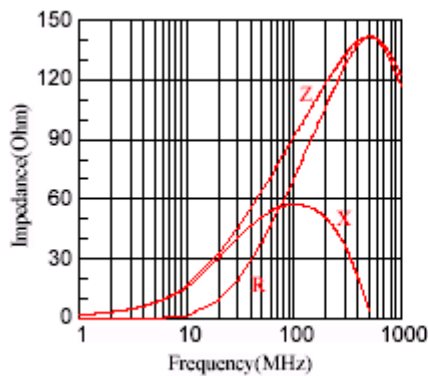
CB1206-500P



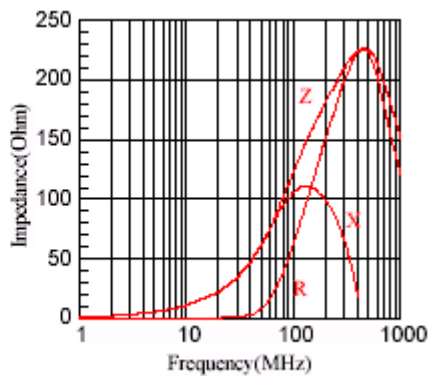
CB1206-700P



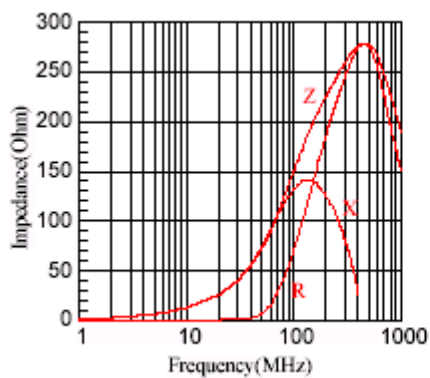
CB1206-900P



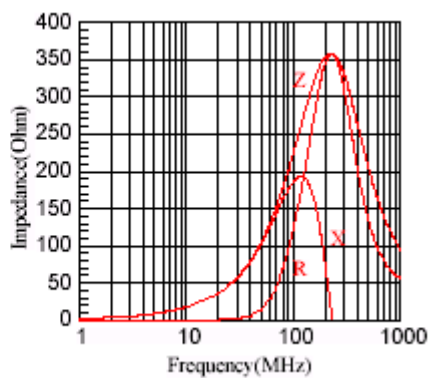
CB1206-121P



CB1206-151P

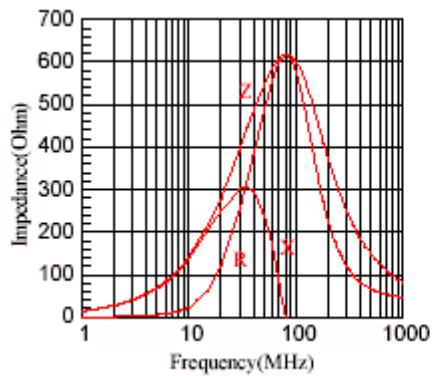


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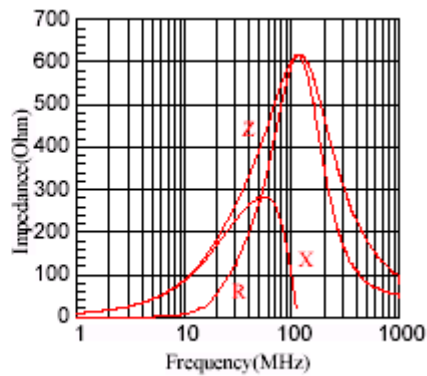




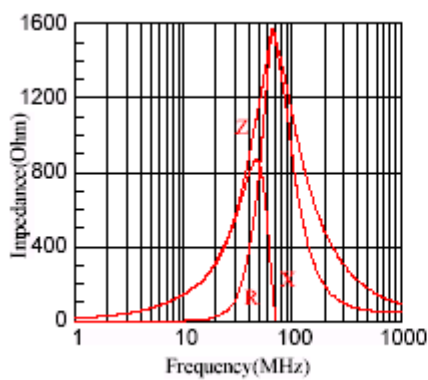
CB1206-401P



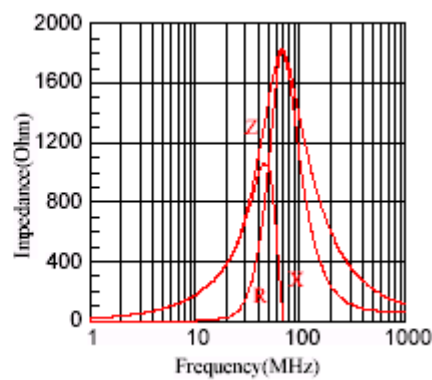
CB1206-501P



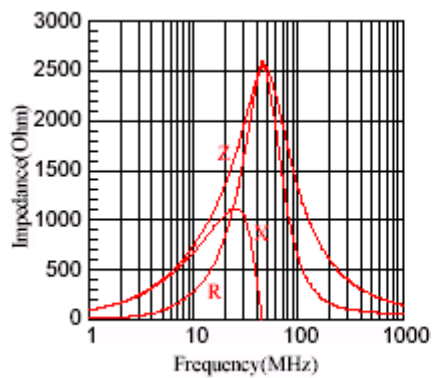
CB1206-601P



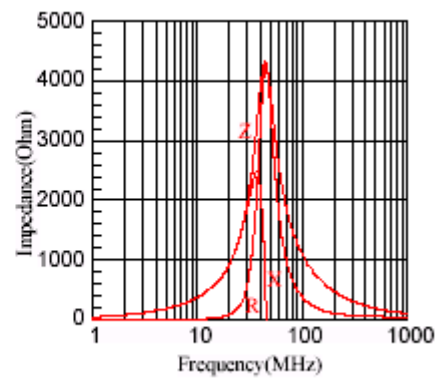
CB1206-601P



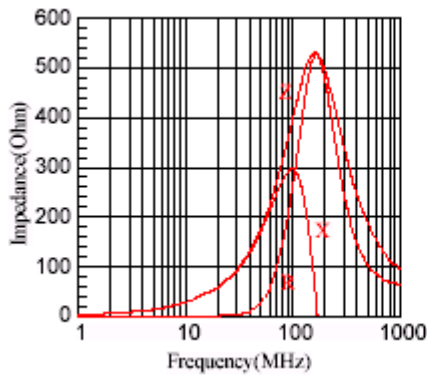
CB1206-122P



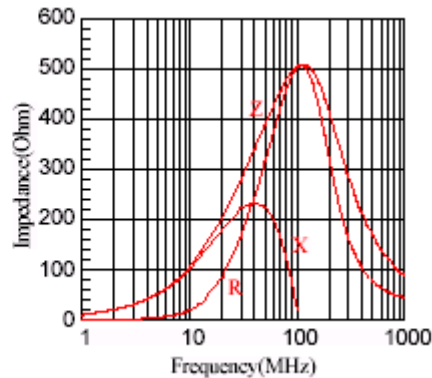
CB1206-152P



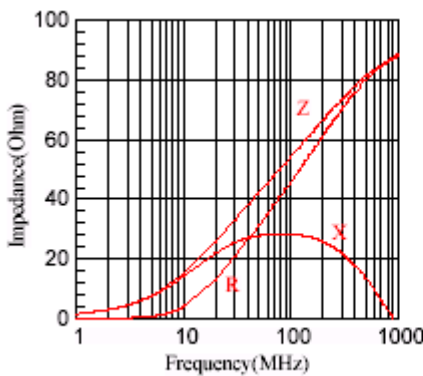
CB1206-202P



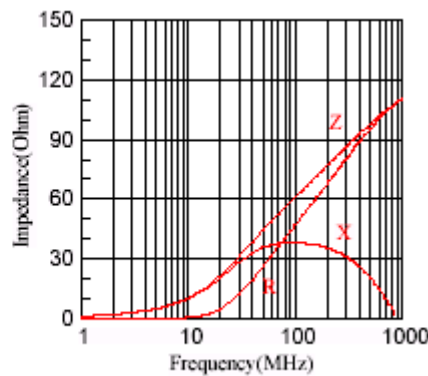
CB1206-202P



CB1210-520P



CB1210-600P

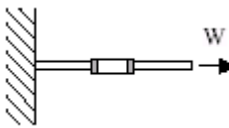
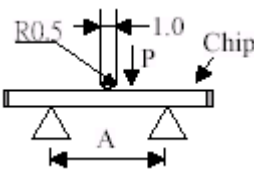


## TEST SPECIFICATIONS

### Climatic Test

TEST ITEMS	SPECIFICATIONS	TEST CONDITIONS
Thermal Shock (Temperature Cycle)	Impedance should be within 20% Of the initial value	Temperature cycles -25°C then 85°C for 30 minutes each, total 50 cycles.
Humidity Resistance		Temperature: 60°C Humidity: 90% RH Applied Current: rated current
High Temperature Resistance		Temperature: 80°C Applied Current: rated current

### Performance Test

TEST	SPECIFICATIONS	TEST CONDITIONS		
Solderability	More than 90% of the terminal electrode Will be covered with fresh solder.	Solder: H63A (Eutectic Solder) Solder Temperature: 230+ $-5^{\circ}$ C Flux: Rosin		
Soldering Heat Resistance	No crack on the chip More than 75% of the terminal electrode Will be covered with solder	Solder: H63A (Eutectic Solder) Solder Temperature: 260+ $-5^{\circ}$ C Flux: Rosin		
Terminal Strength	The terminal electrode will not break and No damage on the ferrite. 	TYPE	KGf	TIMES (Sec.)
		CB0603	0.6	30+ $-5$ sec.
		CB0805		
		CB1206	1.0	
		CB1206H		
CB1210				
Bending Strength	There is no mechanical damage. No damage on the ferrite dielectric 	TYPE	KGf	A (mm)
		CB0603	0.6	1.0
		CB0805	1.0	1.4
		CB1206	2.0	2.0
		CB1206H		
CB1210	2.5			

Notes: Operating Temperature Range:  $-25^{\circ}$ C ~  $+85^{\circ}$ C

Storage Temperature Range:  $-40^{\circ}$ C ~  $+85^{\circ}$ C

Please contact Skywell at [sales@skywellnet.com](mailto:sales@skywellnet.com) if you have any question regarding this specification.