

BCAS 高頻氧化鐵晶片磁珠

BCAS SERIES 系列

INTRODUCTION 產品介紹

The BCAS series has a modified internal electrode structure, which minimizes stray capacitance and increases the effective frequency range. This ferrite bead generates high impedance at high frequencies.

BCAS 系列使用新設計的內電極結構可降低寄生電容及增加使用頻寬，這類型的磁珠在高頻率時可產生較高的阻值。

FEATURES 特色

1. The BCAS series is similar to EBMS series at frequency below 100MHz, however at 1GHz; the impedance is 3 times larger.

BCAS 系列晶片於頻率低於 100MHz 時，其特性與 EBMS 系列類似，然而在 1GHz 時，阻值則比 EBMS 系列高 3 倍。

2. The BCAS is intended for high speed signal lines as this series provides significant impedance across a broad frequency range. Therefore, this series is ideal for high speed signal lines.

BCAS 系列適用於高速信號線，可於相當寬的頻率範圍提供高阻抗。因此，此系列適用於高速信號線。

3. The complete magnetic shielded structure minimizes crosstalk.

其完整之磁性遮蔽結構使串音降到最小。

APPLICATION 適用產品

1. This BCAS series realize high impedance at 1GHz and is suitable for noise suppression of digital interface from 500MHz to GHz range. BCAS 晶片在 1GHz 時具有高阻值，適用於 500MHz 到 GHz 範圍之數位介面的雜訊抑制。

2. Tablet, notebook, desktop computers and peripheral equipments. 平板、筆記型、桌上型電腦及其週邊設備。

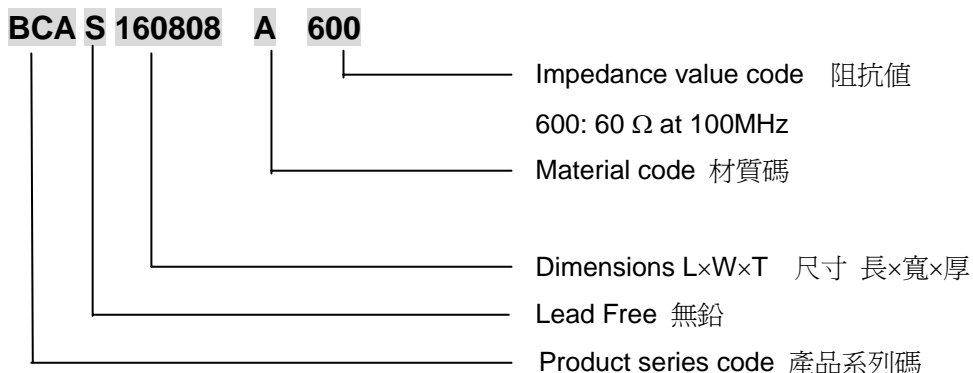
3. Blu-ray DVD recorder, DSC, DVC, LCD Television. 藍光錄放影機、數位相機、數位攝影機、液晶電視機。

4. Mobile phone, smart phone. 行動電話、智慧手機。

5. Digital communication equipment. 數位通訊設備。

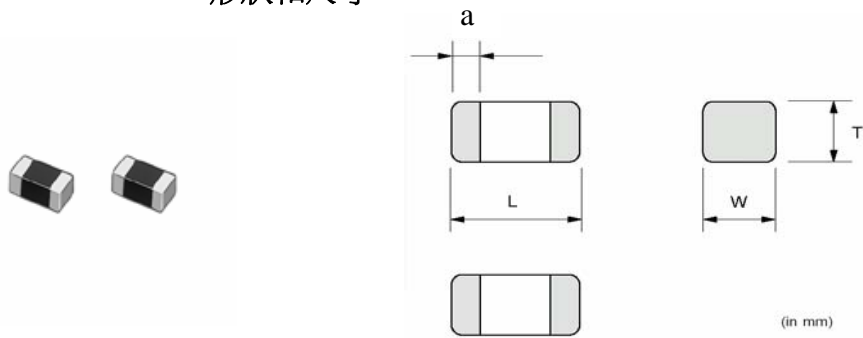
6. Various electronic equipments. 各式電子設備。

PART NUMBER SYSTEM 編碼系統



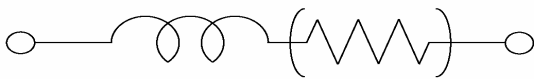
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SHAPES AND DIMENSIONS 形狀和尺寸



TYPE 系列	L 長 mm	W 寬 mm	T 厚 mm	a 銀寬 mm
BCAS100505	1.0±0.05	0.5±0.05	0.5±0.05	0.25±0.1
BCAS160808	1.6±0.15	0.8±0.15	0.8±0.15	0.4±0.2

EQUIVALENT CIRCUIT DIAGRAM 等效電路圖



Electrical characteristics 電氣特性

BCAS 100505 (0402) TYPE 系列

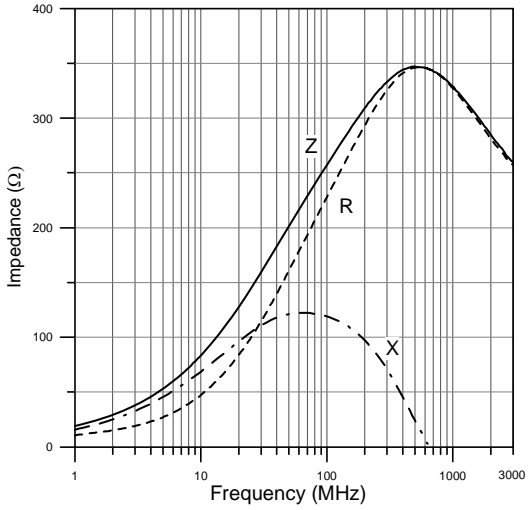
Part Number 產品料號	Impedance 阻抗 $\Omega \pm 25\%$ 歐姆 @ 100MHz	Impedance 阻抗 $\Omega \pm 40\%$ 歐姆 @ 1GHz	DC Resistance Ω (MAX) 直流電阻	Rated Current mA (MAX) 額定電流
BCAS100505A201	200	420	0.7	200
BCAS100505A221	220	420	0.7	200
BCAS100505A301	300	560	0.8	200
BCAS100505A331	330	560	0.8	200
BCAS100505A471	470	1000	1.0	100
BCAS100505A601	600	1100	1.2	100
BCAS100505A102	1000	1700	1.6	100
BCAS100505B121	120	300	0.5	300
BCAS100505B221	220	500	0.6	300
BCAS100505B301	300	800	0.7	300
BCAS100505B471	470	1100	0.8	300
BCAS100505B601	600	1400	0.85	300
BCAS100505H121	120	500	0.7	300
BCAS100505H221	220	1500	1.0	250
BCAS100505H301	300	1700	1.25	250
BCAS100505H331	330	2000	1.5	200
BCAS100505K121	120	300	0.5	300
BCAS100505K221	220	500	0.6	300
BCAS100505K301	300	800	0.7	300
BCAS100505K471	470	1100	0.8	300
BCAS100505K601	600	1400	0.85	300

*TEST EQUIPMENT: E4991A IMPEDANCE ANALYZER 設備儀器: E4991A 阻抗分析儀

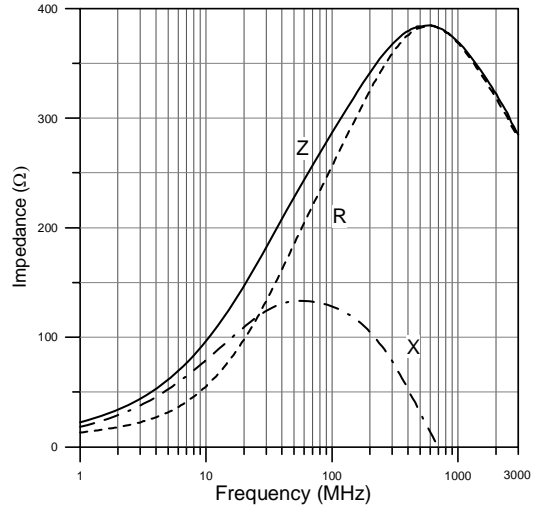
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TYPICAL ELECTRICAL CHARACTERISTICS 典型電氣特性
Z, R, X vs. FREQUENCY CHARACTERISTICS Z, R, X vs. 頻率特性

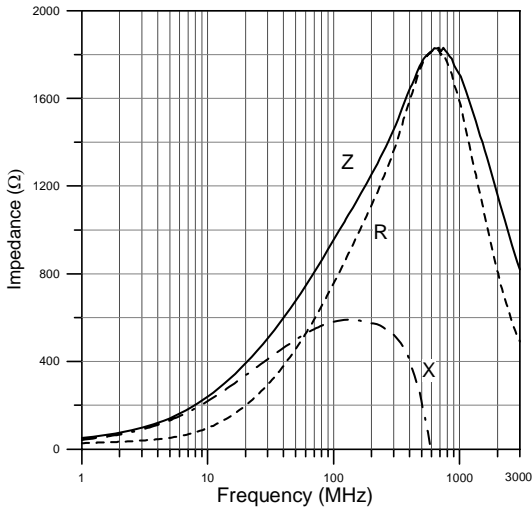
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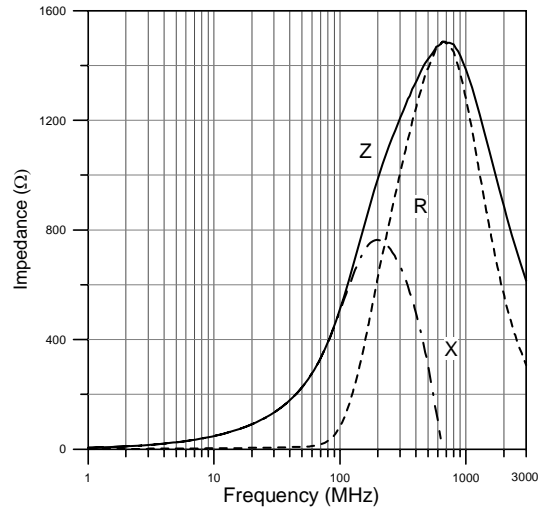
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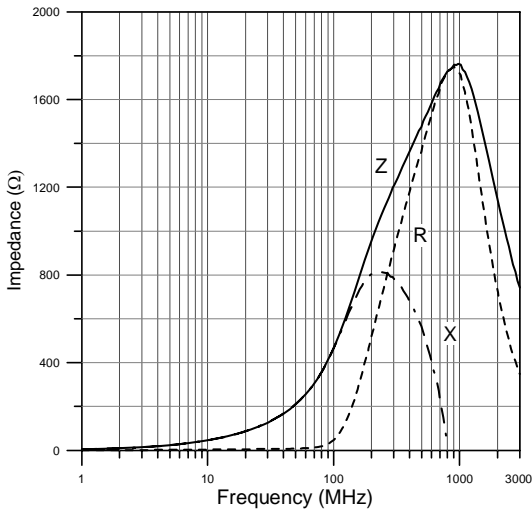
BCAS100505A102



BCAS100505B471



BCAS100505B601



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Electrical characteristics 電氣特性

BCAS 160808 (0603) TYPE 系列

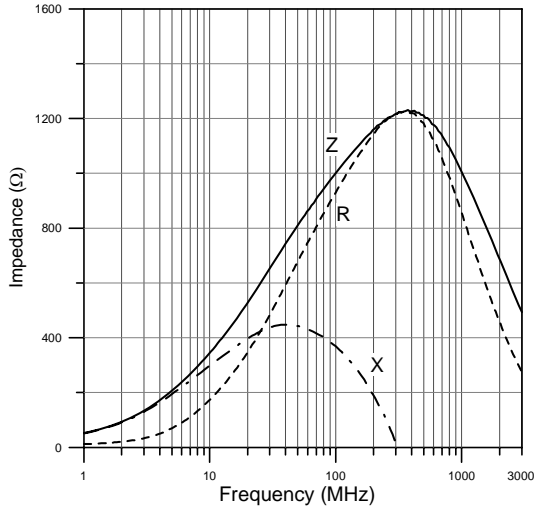
Part Number 產品料號	Impedance 阻抗 $\Omega \pm 25\%$ 歐姆 @ 100MHz	Impedance 阻抗 Ω 歐姆 @ 1GHz	DC Resistance Ω (MAX) 直流電阻	Rated Current mA (MAX) 額定電流
BCAS160808A121	120	140 $\pm 40\%$	0.25	300
BCAS160808A221	220	300 $\pm 40\%$	0.5	200
BCAS160808A301	300	400 $\pm 40\%$	0.5	200
BCAS160808A331	330	400 $\pm 40\%$	0.5	200
BCAS160808A471	470	500 $\pm 40\%$	0.7	200
BCAS160808A601	600	600 $\pm 40\%$	0.9	100
BCAS160808A801	800	1000 $\pm 40\%$	1.5	50
BCAS160808A102	1000	1200 $\pm 40\%$	1.5	50
BCAS160808A122	1200	1000 $\pm 40\%$	1.5	50
BCAS160808B121	120	300 $\pm 40\%$	0.25	300
BCAS160808B221	220	500 $\pm 40\%$	0.5	200
BCAS160808B301	300	800 $\pm 40\%$	0.5	200
BCAS160808B331	330	800 $\pm 40\%$	0.5	200
BCAS160808B471	470	800 (Min.)	1.2	100
BCAS160808B601	600	1200 (Min.)	1.5	100
BCAS160808B801	800	1200 (Min.)	1.8	100
BCAS160808B102	1000	1700 (Typ.)	1.8	50
BCAS160808H121	120	500 $\pm 40\%$	0.5	200
BCAS160808H221	220	1100 $\pm 40\%$	0.8	100
BCAS160808H301	300	1300 $\pm 40\%$	1.2	50
BCAS160808H331	330	1300 $\pm 40\%$	1.2	50
BCAS160808H471	470	2100 $\pm 40\%$	1.2	50
BCAS160808H601	600	3000 $\pm 40\%$	1.2	50
BCAS160808K121	120	300 (Typ.)	0.3	300
BCAS160808K221	220	500 (Typ.)	0.5	200
BCAS160808K301	300	800 (Typ.)	0.6	200
BCAS160808K331	330	800 (Typ.)	0.6	200
BCAS160808K471	470	800 (Typ.)	0.7	200
BCAS160808K601	600	1000 (Typ.)	0.8	200
BCAS160808K801	800	1200 (Typ.)	0.9	100
BCAS160808K102	1000	1400 (Typ.)	1.0	100

*TEST EQUIPMENT: E4991A IMPEDANCE ANALYZER 設備儀器: E4991A 阻抗分析儀

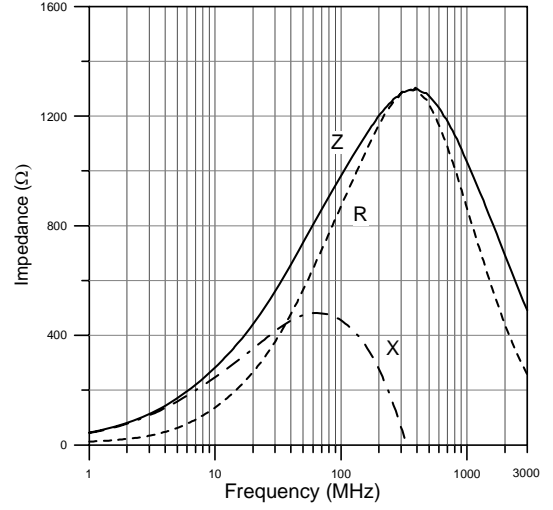
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TYPICAL ELECTRICAL CHARACTERISTICS 典型電氣特性
Z, R, X vs. FREQUENCY CHARACTERISTICS Z, R, X vs. 頻率特性

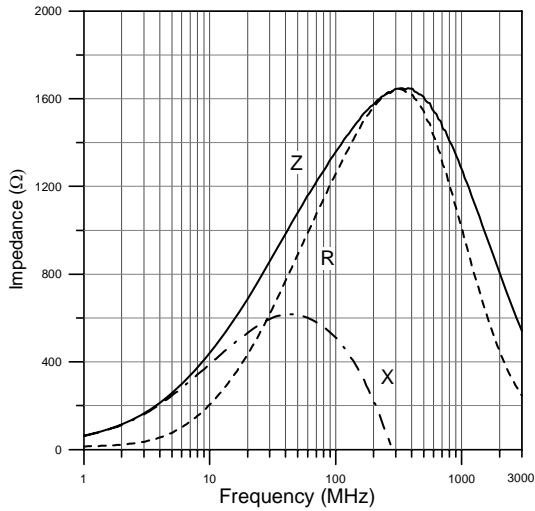
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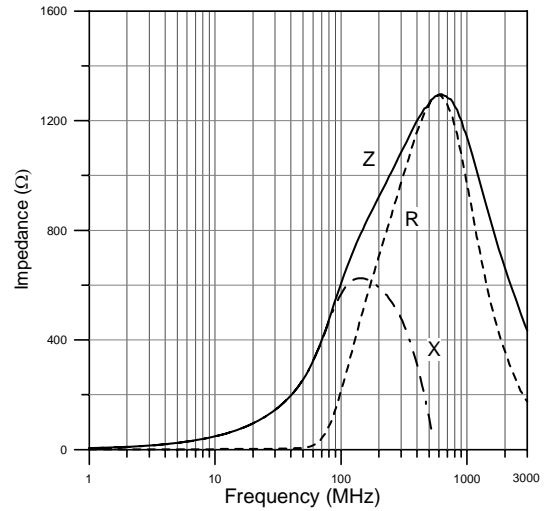
BCAS160808A102 0.1A



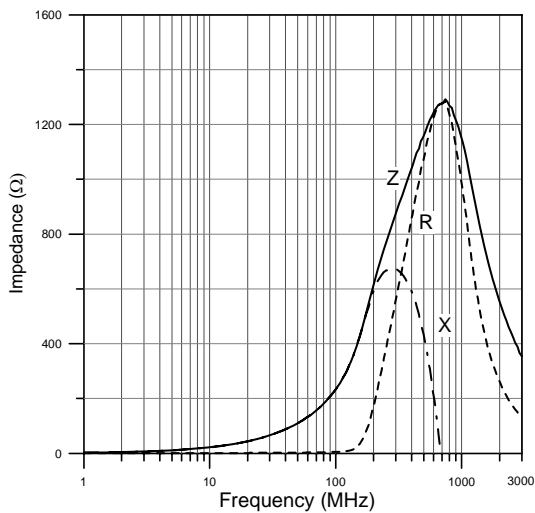
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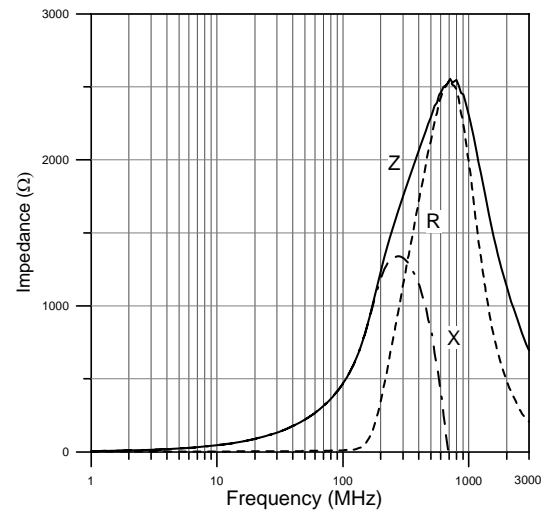
BCAS1060808B601



BCAS160808H221



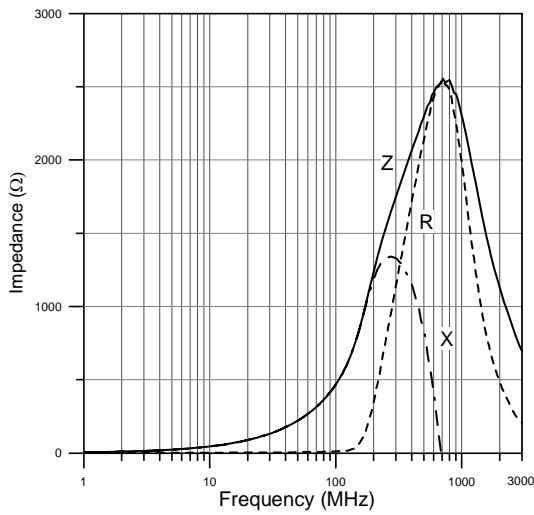
BCAS160808H471



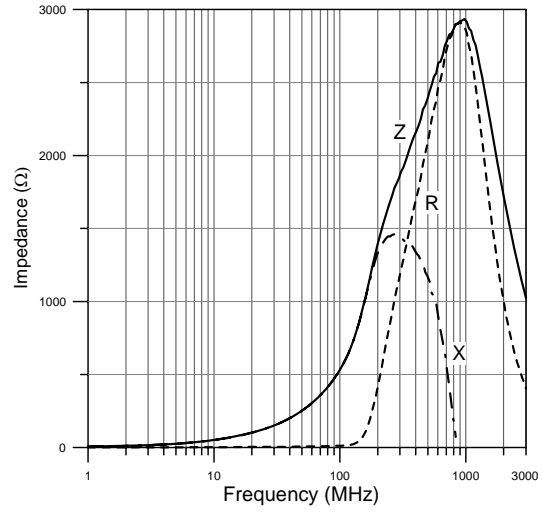
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TYPICAL ELECTRICAL CHARACTERISTICS 典型電氣特性
Z, R, X vs. FREQUENCY CHARACTERISTICS Z, R, X vs. 頻率特性

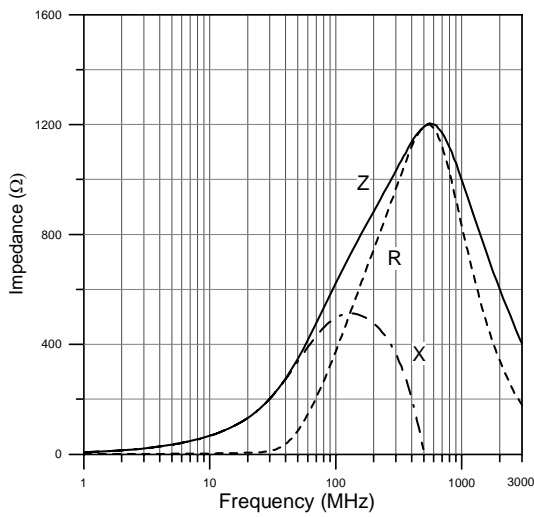
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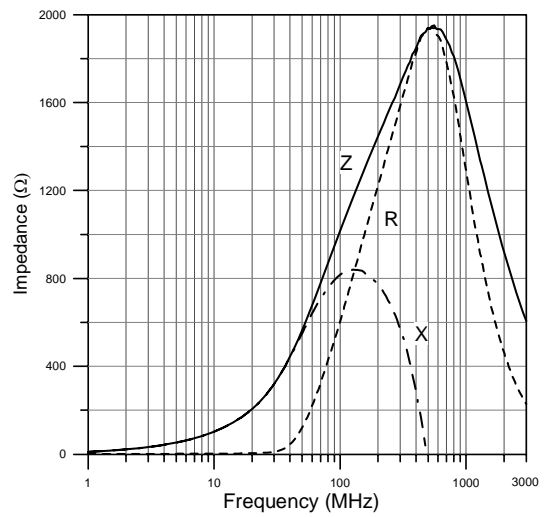
BCAS160808H601



BCAS160808K601



BCAS160808K102



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EBMS compare with BCAS in impedance curve characteristics.

EBMS & BCAS 阻抗特性曲線比較

EBMS TYPE

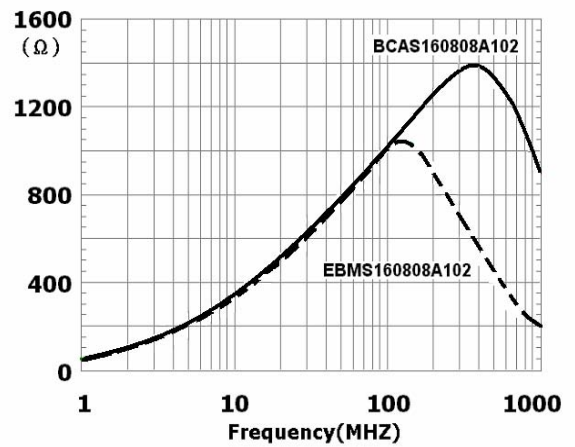
In the traditional vertical structure, the distributed capacitance exists between internal electrodes and between internal and outer electrodes, resulted the impedance is lower around hundreds of MHz.

在傳統的直向迴圈結構中，由於線圈的內部電極之間及內部電極與晶片外部電極之間存在著雜散電容，故在幾百 MHz 以上的高頻區阻抗值較低。

BCAS TYPE

With new transverse structure, the distributed capacitance is reduced. The impedance will be increased to 3 times of EBM type around 1GHz.

內部結構成橫向迴圈結構時，雜散電容減少，在 1GHz 附近的阻抗值可以達到舊型的 3 倍。



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