

# BCAS 高頻氧化鐵晶片磁珠

## BCAS SERIES 系列

### INTRODUCTION 簡介

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

這種類型的磁珠當在高頻率時會產生高的阻值,主要組成爲阻抗的成分. BCAS 系列的內電極已經修正過,使環境電容干擾降到最低,且加寬作用頻率之範圍

### FEATURES 特徵

1. The BCAS series is similar to EBMS series at frequency below 100MHz, however at 1GHz the impedance is approx. 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 standard signal lines as this series provides significant impedance across a broad frequency range. The BCAS provides a sharper roll-off after the cut off frequency, therefore this series is ideal for high speed signal lines.

BCAS 系列適用於標準信號線,於相當寬的頻率範圍提供高阻抗. BCAS 系列於截斷頻率後曲線較陡峭,因此此系列適用於高速信號線

3. The magnetic shielded structure minimizes crosstalk.

其磁性遮蔽結構使串音降到最小

### APPLICATION 應用

1. The BCAS series is realized high impedance at 1GHz and suitable for noise suppression of digital interface from 500MHz to GHz range.

BCAS 晶片實現了於 1GHz 時有高阻值,適用於 500MHz 到 1GHz 範圍之數位介面的雜訊抑制

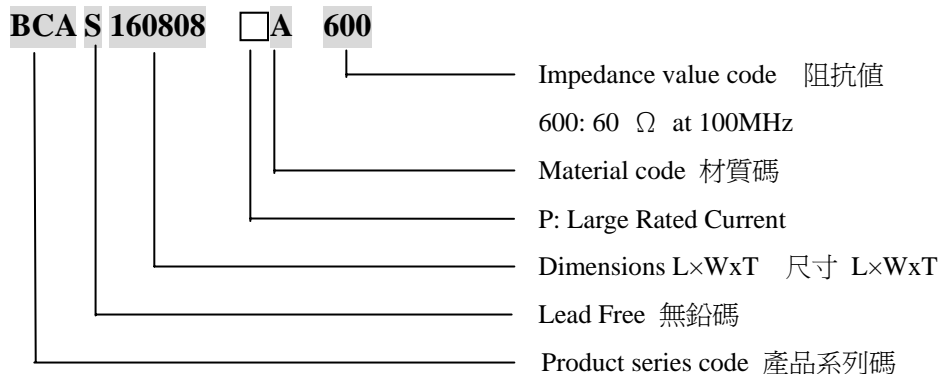
2. The BCAS series is effective in suppressing the ringing because resistance especially grows in the lower frequency.

BCAS 系列於抑制共鳴音,因爲於較低的頻率時,其阻抗增加很快

3. The magnetic shielded structure minimizes cross talk.

該磁性遮蔽結構使串音降到最小

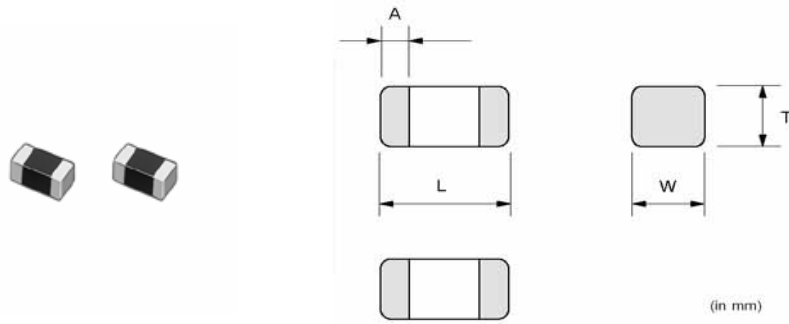
### PART NUMBER SYSTEM 料號系統



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### SHAPES AND DIMENSIONS 形狀和尺寸



TYPE 系列	L 長 m/m	W 寬 m/m	T 厚 m/m	A 銀寬 m/m
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 對等電路圖



(Resistance element becomes dominant at high frequencies.).

阻抗的成分在高頻率時變成一種主要的因素

## Electrical characteristics 電氣特性

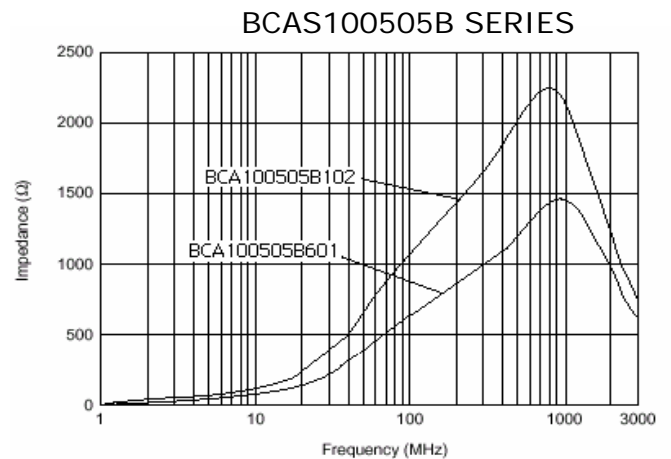
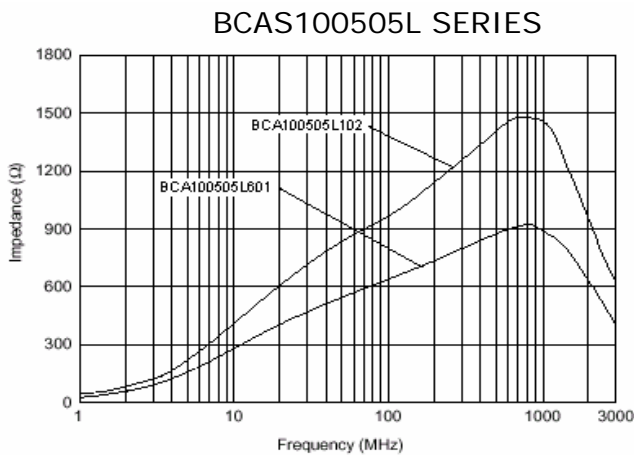
### BCAS 100505 (0402) TYPE 系列

Part Number 料號	Impedance(Ω) ±25% @ 100MHz 阻值	Impedance(Ω) ±40% @ 1GHz 阻值	DC Resistance Ω (MAX) 直流阻抗	Rated Current mA (MAX) 額定電流
BCAS100505L601	600	1000	200	1.3
BCAS100505L102	1000	1400	100	2.0
BCAS100505B601	600	1400	100	1.7
BCAS100505B102	1000	2000	50	2.3

\*TEST EQUIPMENT:HP4291A IMPEDANCE ANALYZER 設備儀器: HP4291A 阻值分析儀

## TYPICAL ELECTRICAL CHARACTERISTICS 典型之電氣特性

### Z vs. FREQUENCY CHARACTERISTICS Z vs. 頻率之電器特性



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# Electrical characteristics 電氣特性

## BCAS 160808 (0603) TYPE 系列

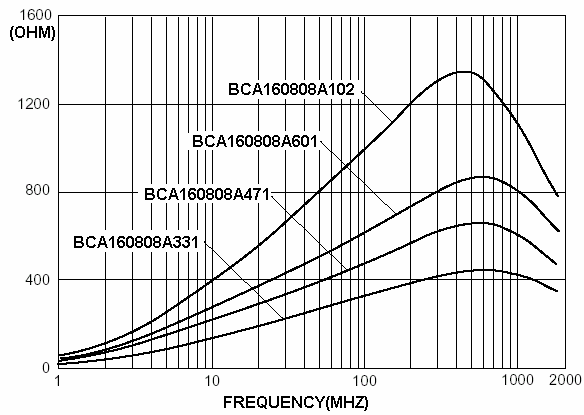
Part Number 料號	Impedance( $\Omega$ ) $\pm$ 25% @ 100MHz 阻值	Impedance( $\Omega$ ) @ 1GHz 阻值	DC Resistance $\Omega$ (MAX) 直流阻抗	Rated Current mA (MAX) 額定電流
BCAS160808A331	330	400 $\pm$ 40%	0.5	200
BCAS160808A471	470	600 $\pm$ 40%	0.7	200
BCAS160808A601	600	700 $\pm$ 40%	0.9	100
BCAS160808A102	1000	1200 $\pm$ 40%	1.5	50
BCAS160808L471	470	600 (Typ.)	0.85	200
BCAS160808L601	600	700 (Typ.)	1.0	200
BCAS160808L102	1000	1000(Typ.)	1.6	100
BCAS160808B471	470	1000(Typ.)	1.2	100
BCAS160808B601	600	1200(Typ.)	1.5	100
BCAS160808B102	1000	1700(Typ.)	1.8	50
BCAS160808H121	120	500 $\pm$ 40%	0.5	200
BCAS160808H221	220	1100 $\pm$ 40%	0.8	100
BCAS160808H331	330	1600 $\pm$ 40%	1.2	50

\*TEST EQUIPMENT:HP4291A IMPEDANCE ANALYZER 設備儀器: HP4291A 阻值分析儀

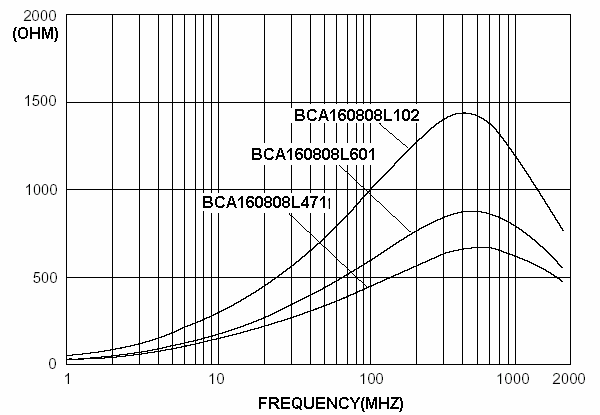
### TYPICAL ELECTRICAL CHARACTERISTICS 典型之電氣特性

### Z vs. FREQUENCY CHARACTERISTICS Z vs. 頻率之電器特性

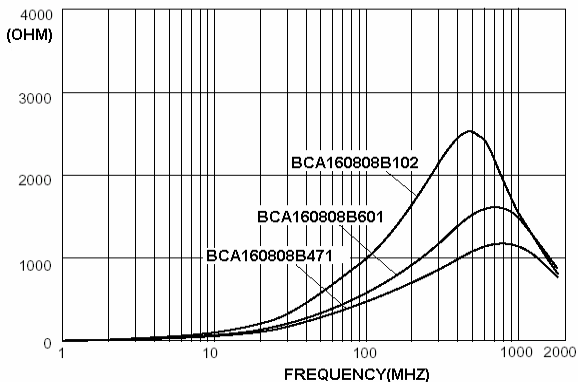
BCAS160808A SERIES



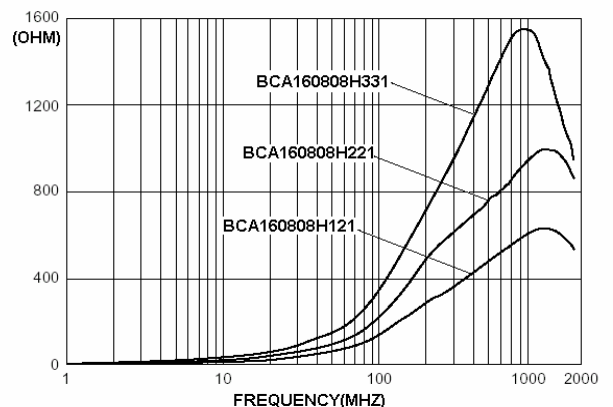
BCAS160808L SERIES



BCAS160808B SERIES



BCAS160808H SERIES



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# Electrical characteristics 電氣特性

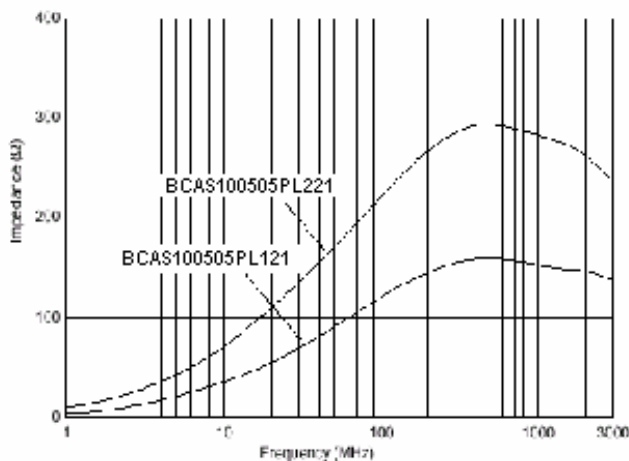
Part Number 料號	Impedance(Ω) ±25% @ 100MHz 阻值	Impedance(Ω) @ 1GHz 阻值	DC Resistance Ω (MAX) 直流阻抗	Rated Current mA (MAX) 額定電流
<b>1005 Series</b>				
BCAS100505PL121 120	-	-	0.10	1500
BCAS100505PL221 220	-	-	0.28	700
<b>16080 Series</b>				
BCAS160808PL101 100	-	140(Typ.)	0.045	2000
BCAS160808PL121 120	-	145(Typ.)	0.04	2000
BCAS160808PL221 220	-	300(Typ.)	0.15	1000
BCAS160808PL331 330	-	450(Typ.)	0.21	500
BCAS160808PL391 390	-	520(Typ.)	0.30	500
BCAS160808PL471 470	-	550(Typ.)	0.21	500
BCAS160808PL601 600	-	700(Typ.)	0.35	500

\*TEST EQUIPMENT:HP4291A IMPEDANCE ANALYZER 設備儀器: HP4291A 阻值分析儀

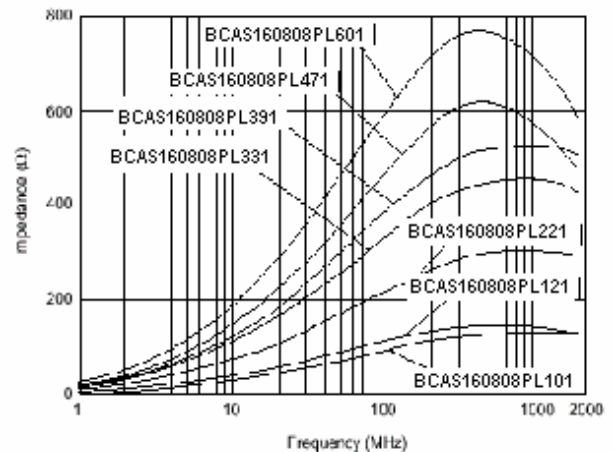
\* At rated current is 1500mA or over , if operating temperatures exceeding +85°C, derating of current is required.  
當額定電流大於或者等於 1500mA 時,如果操作溫度超過 85 度時,會降低晶片的額定電流。

## TYPICAL ELECTRICAL CHARACTERISTICS 典型之電氣特性 Z vs. FREQUENCY CHARACTERISTICS Z vs. 頻率之電器特性

BCAS100505PL SERIES



BCAS160808PL SERIES



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