

# Multilayer Ferrite Power Chip Inductor

## 積層式鐵氧體大電流晶片電感

### INTRODUCTION 產品介紹

Multilayer chip power inductors are SMD components that possess a ultra-low DC resistance and low profile. This component can keep low inductance variation in high current application. Therefore, it is suitable in DC-DC converter.

積層式大電流晶片電感係表面黏著式晶片，具極低直流電阻及薄型化元件高度。於大電流使用下仍具低電感量變化，所以適用於 DC-DC 轉換器。

### FEATURE 特色

1. 0.9 mm in height, which is suitable for low-profile applications.  
高度 0.9 mm，符合低高度之應用。
2. Comparing with a winding type, this series is small, low height, and high efficiency.  
相較於繞線式電感，此系列產品具有小尺寸、薄型化及高效率的特性。
3. Stable low DC resistance.  
有穩定的低直流電阻。
4. No cross coupling between inductors due to the complete magnetic shield, which is suitable for high dense printed circuit boards.  
經由完整的磁性迴路，電感間無交互耦合現象，適合高密度之印刷電路板。

### APPLICATION 適用產品

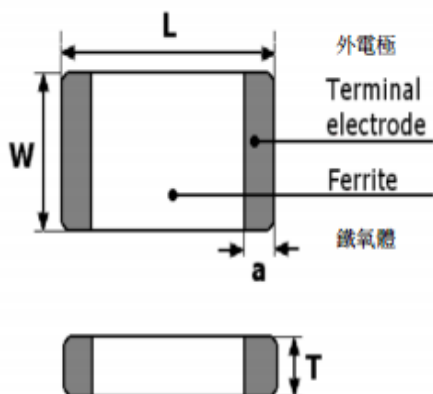
DC-DC converters and power modules can be applied in the following products. For example, cellular phone, DSC, DVC, PDA, DVD and HDD.

適用於手機、DSC、DVC、PDA、DVD 及 HDD 等 DC-DC 轉換器及電源模組。

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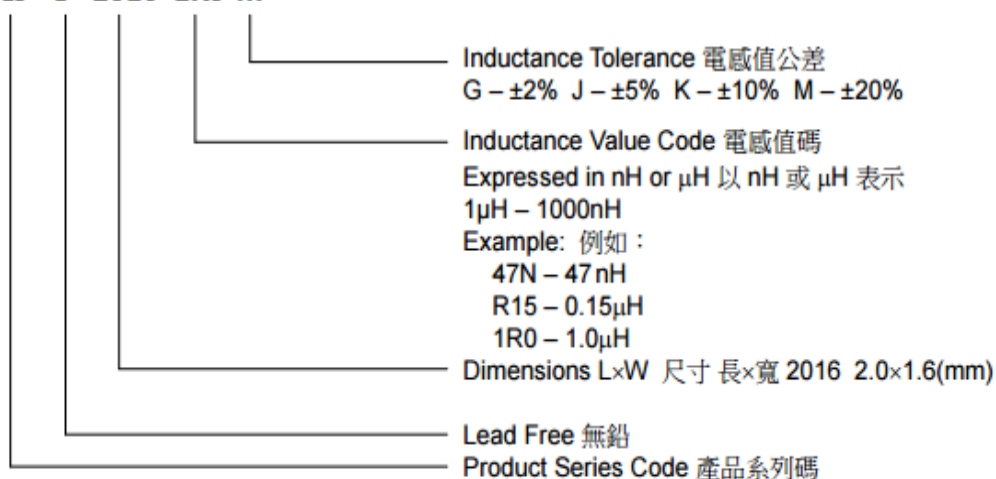
### SIZE AND DIMENSION 尺寸和邊長



SIZE 尺寸	L 長 mm	W 寬 mm	T 厚 mm	a 銀寬 mm
201209 (0805)	2.0±0.2	1.25±0.2	0.9±0.1	0.3~0.7
201609 (0806)	2.0±0.15	1.6±0.15	0.9±0.1	0.3~0.7
252009 (1008)	2.5±0.2	2.0±0.2	0.9±0.1	0.4~0.8

### PART NUMBER SYSTEM 編碼系統

ZCI S 2016 1R0 M



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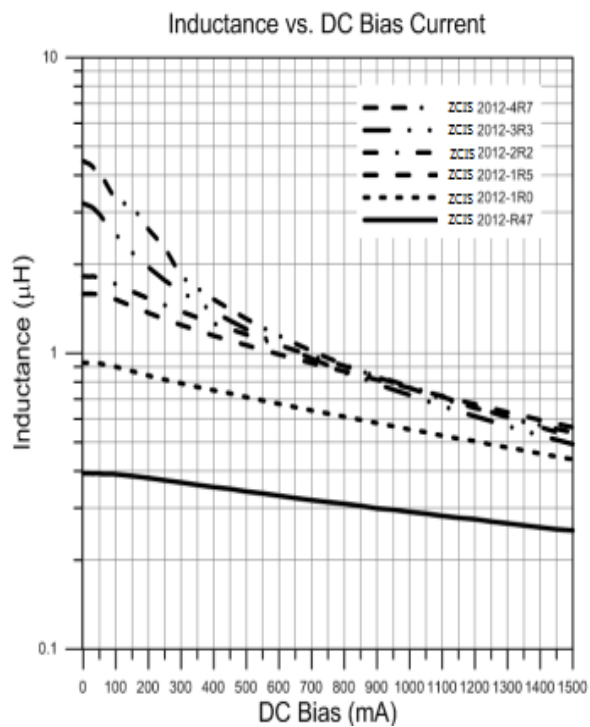
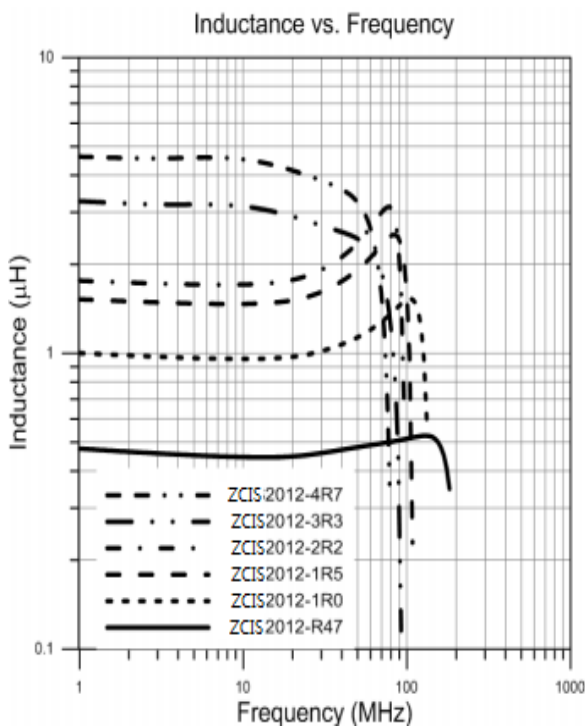
## 積層式鐵氧體大電流晶片電感

### ZCIS 2012 (0805) TYPE 類型

#### Electrical Characteristics 電氣特性

Part Number 產品料號	Inductance 感值 ( $\mu\text{H}$ ) Tolerance 公差	Test Frequency 測試頻率 (MHz)	Self-resonant Frequency 共振頻率 (MHz) Min.	DC Resistance 直流電阻 ( $\Omega$ )	Rated Current 額定電流 (mA) Max.	Thickness 厚度 (mm)
ZCIS2012-R47M	0.47 $\pm$ 20%	1	100	0.10 $\pm$ 25%	1100	0.9 $\pm$ 0.1
ZCIS 2012-R68M	0.68 $\pm$ 20%	1	100	0.12 $\pm$ 25%	1000	0.9 $\pm$ 0.1
ZCIS2012-R82M	0.82 $\pm$ 20%	1	90	0.14 $\pm$ 25%	900	0.9 $\pm$ 0.1
ZCIS2012-1R0M	1.0 $\pm$ 20%	1	90	0.16 $\pm$ 25%	800	0.9 $\pm$ 0.1
ZCIS2012-1R2M	1.2 $\pm$ 20%	1	80	0.16 $\pm$ 25%	800	0.9 $\pm$ 0.1
ZCIS 2012-1R5M	1.5 $\pm$ 20%	1	70	0.22 $\pm$ 25%	700	0.9 $\pm$ 0.1
ZCIS2012-1R8M	1.8 $\pm$ 20%	1	60	0.22 $\pm$ 25%	700	0.9 $\pm$ 0.1
ZCIS 2012-2R2M	2.2 $\pm$ 20%	1	50	0.25 $\pm$ 25%	600	0.9 $\pm$ 0.1
ZCIS2012-3R3M	3.3 $\pm$ 20%	1	40	0.22 $\pm$ 25%	500	0.9 $\pm$ 0.1
ZCIS 2012-4R7M	4.7 $\pm$ 20%	1	30	0.30 $\pm$ 25%	500	0.9 $\pm$ 0.1

\* TEST EQUIPMENT: E4991A IMPEDANCE ANALYZER 量測儀器：E4991A 阻抗分析儀



# Multilayer Ferrite Power Chip Inductor

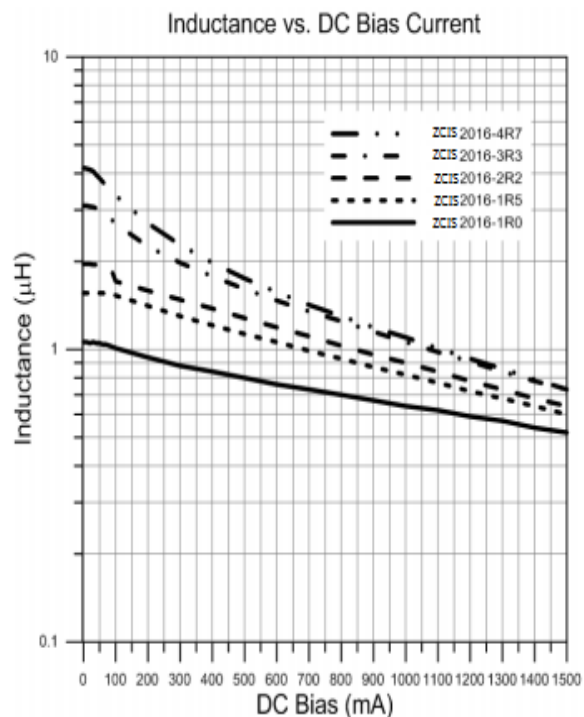
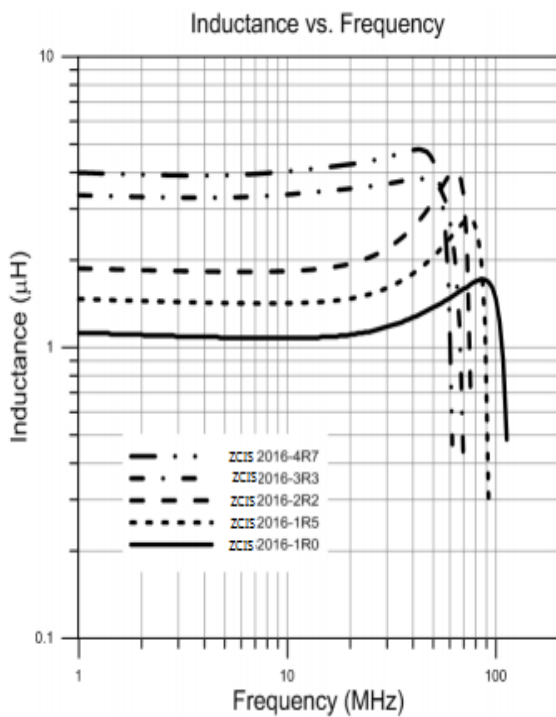
## 積層式鐵氧體大電流晶片電感

### ZCIS2016 (0806) TYPE 類型

#### Electrical Characteristics 電氣特性

Part Number 產品料號	Inductance 感值 ( $\mu\text{H}$ ) Tolerance 公差	Test Frequency 測試頻率 (MHz)	Self-resonant Frequency 共振頻率 (MHz) Min.	DC Resistance 直流電阻 ( $\Omega$ )	Rated Current 額定電流 (mA) Max.	Thickness 厚度 (mm)
ZCIS 2016-R47M	0.47 $\pm$ 20%	1	100	0.14 $\pm$ 30%	1500	0.9 $\pm$ 0.1
ZCIS 2016-R68M	0.68 $\pm$ 20%	1	90	0.15 $\pm$ 30%	1500	0.9 $\pm$ 0.1
ZCIS 2016-R82M	0.82 $\pm$ 20%	1	80	0.16 $\pm$ 30%	1500	0.9 $\pm$ 0.1
ZCIS 2016-1R0M	1.0 $\pm$ 20%	1	60	0.16 $\pm$ 30%	1400	0.9 $\pm$ 0.1
ZCIS 2016-1R2M	1.2 $\pm$ 20%	1	60	0.16 $\pm$ 30%	1400	0.9 $\pm$ 0.1
ZCIS 2016-1R5M	1.5 $\pm$ 20%	1	50	0.20 $\pm$ 30%	1200	0.9 $\pm$ 0.1
ZCIS 2016-1R8M	1.8 $\pm$ 20%	1	50	0.20 $\pm$ 30%	1200	0.9 $\pm$ 0.1
ZCIS 2016-2R2M	2.2 $\pm$ 20%	1	40	0.22 $\pm$ 30%	1200	0.9 $\pm$ 0.1
ZCIS 2016-3R3M	3.3 $\pm$ 20%	1	30	0.24 $\pm$ 30%	1100	0.9 $\pm$ 0.1
ZCIS 2016-4R7M	4.7 $\pm$ 20%	1	20	0.30 $\pm$ 30%	1100	0.9 $\pm$ 0.1

\* TEST EQUIPMENT: E4991A IMPEDANCE ANALYZER 量測儀器：E4991A 阻抗分析儀



# Multilayer Ferrite Power Chip Inductor

## 積層式鐵氧體大電流晶片電感

### ZCIS2520 (1008) TYPE 類型

#### Electrical Characteristics 電氣特性

Part Number 產品料號	Inductance 感值 ( $\mu\text{H}$ ) Tolerance 公差	Test Frequency 測試頻率 (MHz)	Self-resonant Frequency 共振頻率 (MHz) Min.	DC Resistance 直流電阻 ( $\Omega$ )	Rated Current 額定電流 (mA) Max.	Thickness 厚度 (mm)
ZCIS2520-R47M	0.47 $\pm$ 20%	1	100	0.07 $\pm$ 25%	1800	0.9 $\pm$ 0.1
ZCIS2520-R68M	0.68 $\pm$ 20%	1	90	0.09 $\pm$ 25%	1700	0.9 $\pm$ 0.1
ZCIS2520-R82M	0.82 $\pm$ 20%	1	80	0.10 $\pm$ 25%	1700	0.9 $\pm$ 0.1
ZCIS2520-1R0M	1.0 $\pm$ 20%	1	60	0.11 $\pm$ 25%	1600	0.9 $\pm$ 0.1
ZCIS2520-1R2M	1.2 $\pm$ 20%	1	60	0.11 $\pm$ 25%	1600	0.9 $\pm$ 0.1
ZCIS2520-1R5M	1.5 $\pm$ 20%	1	50	0.13 $\pm$ 25%	1500	0.9 $\pm$ 0.1
ZCIS2520-1R8M	1.8 $\pm$ 20%	1	50	0.13 $\pm$ 25%	1500	0.9 $\pm$ 0.1
ZCIS2520-2R2M	2.2 $\pm$ 20%	1	40	0.17 $\pm$ 25%	1300	0.9 $\pm$ 0.1
ZCIS2520-3R3M	3.3 $\pm$ 20%	1	30	0.16 $\pm$ 25%	1200	0.9 $\pm$ 0.1
ZCIS2520-4R7M	4.7 $\pm$ 20%	1	25	0.20 $\pm$ 25%	1100	0.9 $\pm$ 0.1

\* TEST EQUIPMENT: E4991A IMPEDANCE ANALYZER 量測儀器：E4991A 阻抗分析儀

