

# 叠层片式铁氧体电感—CI系列

## Multilayer Chip Ferrite Inductor – CI Series

Operating Temp.: -40°C ~ +85°C



### 特征

- 叠层独石结构、高度可靠性。
- 体积小。
- 良好的磁屏蔽，无交叉耦合。
- 无引线结构，适合表面安装。
- 良好的焊接性，适合于回流焊或波峰焊。

### FEATURES

- Monolithic structure for high reliability.
- Compact size inductor possible.
- No cross coupling due to magnetic shield.
- Perfect shape for mounting with no directionality.
- Excellent solderability and high heat resistance for reflow soldering or wave soldering.

### 用途

- 广泛运用于通讯、视频/音频、计算机、遥控器等领域。

### APPLICATIONS

- Widely use in communications, video and audio equipment, computer, remote control, etc.

### 产品型号

### PRODUCT IDENTIFICATION

**CI**

①  
①

**1608**

②

**Q**

③  
②

**1R0**

④

**K**

⑤

**I**

⑥

**F**

⑦

分类 Type	
CI	片式铁氧体电感 Chip Ferrite Inductor

外形尺寸(L×W) (mm) External Dimensions (L×W) (mm)	
1005 [0402]	1.0×0.5
1608 [0603]	1.6×0.8
2012 [0805]	2.0×1.25
3216 [1206]	3.2×1.6

材料代号 Material Code
L, P, B, Q, S, T

④

公称电感量 Nominal Inductance	Example	Nominal Value
47N		0.047μH
R10		0.1μH
1R0		1.0μH

※R=小数点，N=nH

⑤

电感公差 Inductance Tolerance	
K	±10%
M	±20%

⑥

包装 Packing	
B	散装 Bulk Package
T	编带 Tape & Reel

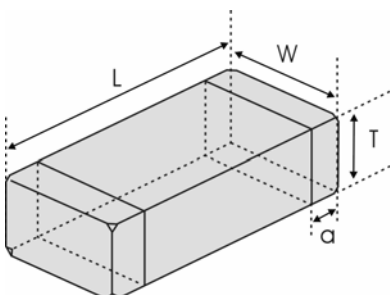
⑦

无有害物质产品 Hazardous Substance Free Products
F

### 外观尺寸

### SHAPE AND DIMENSIONS

Unit: mm [inch]



Type	L	W	T	a
CI1005 [0402]	1.0±0.15 [.039±.006]	0.5±0.15 [.020±.006]	0.5±0.15 [.020±.006]	0.25±0.1 [.010±.004]
CI1608 [0603]	1.6±0.15 [.063±.006]	0.8±0.15 [.031±.006]	0.8±0.15 [.031±.006]	0.3±0.2 [.012±.008]
CI2012 [0805]	2.0 (+0.3, -0.1) [.079 (+.012, -.004)]	1.25±0.2 [.049±.008]	0.85±0.2 [.033±.008]	0.5±0.3 [.020±.012]
			1.25±0.2 [.049±.008]	
CI3216 [1206]	3.2±0.2 [.126±.008]	1.6±0.2 [.063±.008]	0.85±0.2 [.033±.008]	0.5±0.3 [.020±.012]
			1.1±0.2 [.043±.008]	

## CI1005 TYPE

Part Number 型号	Inductance 电感量	Min. Quality Factor 品质因子	L, Q Test Freq. L/Q 测试频率	Min. Self- resonant Frequency 自谐振频率	Max. DC Resistance 直流电阻	Max. Rated Current 额定电流	Thickness 厚度
Units 单位	$\mu\text{H}$	—	MHz	MHz	$\Omega$	mA	mm [inch]
Symbol 符号	L	Q	Freq.	S.R.F	DCR	I <sub>r</sub>	T
CI1005L47N□	0.047	10	50	220	0.45	25	0.5±0.15 [.020±.006]
CI1005L68N□	0.068	10	50	210	0.45	25	
CI1005L82N□	0.082	10	50	200	0.45	25	
CI1005LR10□	0.1	10	25	200	0.8	25	
CI1005LR12□	0.12	10	25	165	0.8	25	
CI1005LR15□	0.15	10	25	140	0.9	25	
CI1005LR18□	0.18	10	25	120	0.9	25	
CI1005LR22□	0.22	10	25	110	1.2	25	
CI1005LR27□	0.27	15	25	95	1.2	25	
CI1005LR33□	0.33	15	25	85	1.25	18	
CI1005QR39□	0.39	20	10	85	0.6	15	
CI1005QR47□	0.47	20	10	80	0.7	15	
CI1005QR56□	0.56	20	10	75	0.8	15	
CI1005QR68□	0.68	20	10	70	0.9	15	
CI1005QR82□	0.82	20	10	65	0.9	15	
CI1005P1R0□	1.0	20	10	60	1.0	15	
CI1005P1R2□	1.2	20	10	55	1.25	15	
CI1005P1R5□	1.5	20	10	50	1.4	15	
CI1005P1R8□	1.8	20	10	45	1.55	15	
CI1005P2R2□	2.2	20	10	40	1.7	10	
CI1005Q1R0□	1.0	20	10	40	0.9	15	
CI1005Q1R2□	1.2	20	10	35	1.2	15	
CI1005Q1R5□	1.5	20	10	30	1.2	15	
CI1005Q1R8□	1.8	20	10	30	1.45	15	
CI1005Q2R2□	2.2	20	10	28	1.7	10	
CI1005Q2R7□	2.7	20	10	22	2	10	
CI1005Q3R3□	3.3	20	10	20	2.35	10	

※□: Please specify the inductance tolerance code (K=±10%, M=±20%). The product with tolerance less than ±10%, ±20% is also available. Please contact your local sales.

## CI1608 TYPE

Part Number 型号	Inductance 电感量	Min. Quality Factor 品质因子	L, Q Test Freq. L/Q 测试频率	Min. Self- resonant Frequency 自谐振频率	Max. DC Resistance 直流电阻	Max. Rated Current 额定电流	Thickness 厚度
Units 单位	$\mu\text{H}$	—	MHz	MHz	$\Omega$	mA	mm [inch]
Symbol 符号	L	Q	Freq.	S.R.F	DCR	I <sub>r</sub>	T
CI1608L47N□	0.047	10	50	260	0.3	50	0.8±0.15 [.031±.006]
CI1608L68N□	0.068	10	50	250	0.3	50	
CI1608L82N□	0.082	10	50	245	0.3	50	
CI1608LR10□	0.1	15	25	240	0.5	50	
CI1608LR12□	0.12	15	25	205	0.5	50	
CI1608LR15□	0.15	15	25	180	0.6	50	
CI1608LR18□	0.18	15	25	165	0.6	50	
CI1608LR22□	0.22	15	25	150	0.8	50	
CI1608LR27□	0.27	15	25	136	0.8	50	
CI1608LR33□	0.33	15	25	125	0.85	35	
CI1608LR39□	0.39	15	25	110	1	35	
CI1608LR47□	0.47	15	25	105	1.35	35	
CI1608LR56□	0.56	15	25	95	1.55	35	

## CI1608 TYPE

Part Number 型号	Inductance 电感量	Min. Quality Factor 品质因子	L, Q Test Freq. L/Q 测试频率	Min. Self- resonant Frequency 自谐频率	Max. DC Resistance 直流电阻	Max. Rated Current 额定电流	Thickness 厚度
Units 单位	$\mu\text{H}$	—	MHz	MHz	$\Omega$	mA	mm [inch]
Symbol 符号	L	Q	Freq.	S.R.F	DCR	I <sub>r</sub>	T
CI1608LR68□	0.68	15	25	90	1.7	35	0.8±0.15 [.031±.006]
CI1608LR82□	0.82	15	25	85	2.1	35	
CI1608B1R0□	1.0	35	10	90	0.70	25	
CI1608B1R2□	1.2	35	10	85	0.80	25	
CI1608B1R5□	1.5	35	10	80	0.95	25	
CI1608B1R8□	1.8	35	10	75	1.15	25	
CI1608B2R2□	2.2	35	10	70	1.25	25	
CI1608P1R0□	1.0	35	10	90	0.6	25	
CI1608P1R1□	1.1	35	10	90	0.6	25	
CI1608P1R2□	1.2	35	10	85	0.8	25	
CI1608P1R5□	1.5	35	10	80	0.8	25	
CI1608P1R8□	1.8	35	10	75	0.95	25	
CI1608P2R2□	2.2	35	10	70	1.15	15	
CI1608Q1R0□	1.0	35	10	75	0.6	25	
CI1608Q1R1□	1.1	35	10	75	0.6	25	
CI1608Q1R2□	1.2	35	10	65	0.8	25	
CI1608Q1R5□	1.5	35	10	60	0.8	25	
CI1608Q1R8□	1.8	35	10	55	0.95	25	
CI1608Q2R2□	2.2	35	10	50	1.15	15	
CI1608Q2R7□	2.7	35	10	45	1.35	15	
CI1608Q3R3□	3.3	35	10	40	1.55	15	
CI1608Q3R9□	3.9	35	10	35	1.7	15	
CI1608Q4R7□	4.7	35	10	33	2.1	15	
CI1608S5R6□	5.6	35	4	22	1.55	5	
CI1608S6R8□	6.8	35	4	20	1.7	5	
CI1608S8R2□	8.2	35	4	18	2.1	5	
CI1608S100□	10	30	2	17	1.85	3	
CI1608S120□	12	30	2	15	2.1	3	
CI1608T150□	15	20	1	14	1.7	1	
CI1608T180□	18	20	1	13	1.85	1	
CI1608T220□	22	20	1	11	2.1	1	
CI1608T270□	27	20	1	10	2.75	1	
CI1608T330□	33	20	1	9	2.95	1	

※□: Please specify the inductance tolerance code (K=±10%, M=±20%). The product with tolerance less than ±10%, ±20% is also available. Please contact your local sales.

## CI2012 TYPE

Part Number 型号	Inductance 电感量	Min. Quality Factor 品质因子	L, Q Test Freq. L/Q 测试频率	Min. Self- resonant Frequency 自谐频率	Max. DC Resistance 直流电阻	Max. Rated Current 额定电流	Thickness 厚度
Units 单位	$\mu\text{H}$	—	MHz	MHz	$\Omega$	mA	mm [inch]
Symbol 符号	L	Q	Freq.	S.R.F	DCR	I <sub>r</sub>	T
CI2012L47N□	0.047	15	50	320	0.2	300	0.85±0.2 [.033±.008]
CI2012L68N□	0.068	15	50	280	0.2	300	
CI2012L82N□	0.082	15	50	255	0.2	300	
CI2012LR10□	0.1	20	25	235	0.3	250	
CI2012LR12□	0.12	20	25	220	0.3	250	
CI2012LR15□	0.15	20	25	200	0.4	250	
CI2012LR18□	0.18	20	25	185	0.4	250	
CI2012LR22□	0.22	20	25	170	0.5	250	
CI2012LR27□	0.27	20	25	150	0.5	250	
CI2012LR33□	0.33	20	25	145	0.55	250	
CI2012LR39□	0.39	25	25	135	0.65	200	
CI2012LR47□	0.47	25	25	125	0.65	200	
CI2012LR56□	0.56	25	25	115	0.75	150	
CI2012LR68□	0.68	25	25	105	0.8	150	
CI2012LR82□	0.82	25	25	100	1	150	
CI2012P1R0□	1.0	45	10	95	0.4	50	
CI2012P1R2□	1.2	45	10	85	0.5	50	
CI2012P1R5□	1.5	45	10	80	0.5	50	
CI2012P1R8□	1.8	45	10	75	0.6	50	
CI2012P2R2□	2.2	45	10	70	0.65	30	
CI2012Q1R0□	1.0	45	10	75	0.4	50	
CI2012Q1R1□	1.1	45	10	65	0.5	50	
CI2012Q1R2□	1.2	45	10	65	0.5	50	
CI2012Q1R5□	1.5	45	10	60	0.5	50	
CI2012Q1R8□	1.8	45	10	55	0.6	50	
CI2012Q2R2□	2.2	45	10	50	0.65	30	
CI2012Q2R4□	2.4	45	10	47	0.70	30	
CI2012Q2R7□	2.7	45	10	45	0.75	30	
CI2012Q3R3□	3.3	45	10	41	0.8	30	
CI2012Q3R9□	3.9	45	10	38	0.9	30	
CI2012Q4R7□	4.7	45	10	35	1	30	
CI2012S5R6□	5.6	50	4	32	0.9	15	
CI2012S6R8□	6.8	50	4	29	1	15	
CI2012S8R2□	8.2	50	4	26	1.1	15	
CI2012S100□	10	50	2	24	1.15	15	
CI2012S120□	12	50	2	22	1.25	15	
CI2012T150□	15	30	1	19	0.8	5	
CI2012T180□	18	30	1	18	0.9	5	
CI2012T220□	22	30	1	16	1.1	5	
CI2012T270□	27	30	1	14	1.15	5	
CI2012T330□	33	30	0.4	13	1.25	5	
CI2012T390□	39	35	2	8	2.9	4	
CI2012T470□	47	35	2	7.5	3	4	
CI2012T560□	56	35	2	7	3.1	4	
CI2012T680□	68	25	1	6.5	2.9	2	
CI2012T820□	82	25	1	6	3	2	
CI2012T101□	100	25	1	5.5	3.1	2	
							1.25±0.2 [.049±.008]

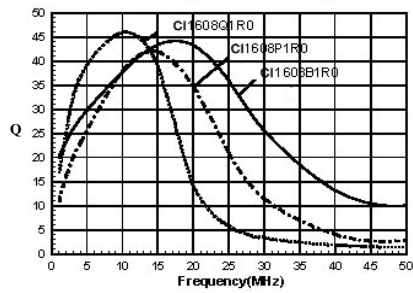
※□: Please specify the inductance tolerance code (K=±10%, M=±20%). The product with tolerance less than ±10%, ±20% is also available. Please contact your local sales.

## CI3216 TYPE

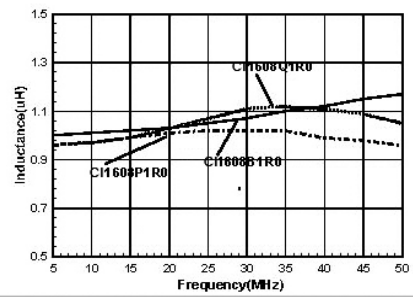
Part Number 型号	Inductance 电感量	Min. Quality Factor 品质因子	L, Q Test Freq. L/Q 测试频率	Min. Self- resonant Frequency 自谐频率	Max. DC Resistance 直流电阻	Max. Rated Current 额定电流	Thickness 厚度
Units 单位	μH	—	MHz	MHz	Ω	mA	mm [inch]
Symbol 符号	L	Q	Freq.	S.R.F	DCR	I <sub>r</sub>	T
CI3216L47N□	0.047	20	50	320	0.15	300	0.85±0.2 [.033±.008]
CI3216L68N□	0.068	20	50	280	0.25	300	
CI3216LR10□	0.1	20	25	235	0.25	250	
CI3216LR12□	0.12	20	25	220	0.3	250	
CI3216LR15□	0.15	20	25	200	0.3	250	
CI3216LR18□	0.18	20	25	185	0.4	250	
CI3216LR22□	0.22	20	25	170	0.4	250	
CI3216LR27□	0.27	20	25	150	0.5	250	
CI3216LR33□	0.33	20	25	145	0.6	250	
CI3216LR39□	0.39	25	25	135	0.5	200	
CI3216LR47□	0.47	25	25	125	0.6	200	
CI3216LR56□	0.56	25	25	115	0.7	150	
CI3216LR68□	0.68	25	25	105	0.8	150	
CI3216LR82□	0.82	25	25	100	0.9	150	
CI3216Q1R0□	1.0	45	10	75	0.4	100	
CI3216Q1R2□	1.2	45	10	65	0.5	100	
CI3216Q1R5□	1.5	45	10	60	0.5	50	
CI3216Q1R8□	1.8	45	10	55	0.5	50	
CI3216Q2R2□	2.2	45	10	50	0.6	50	
CI3216Q2R7□	2.7	45	10	45	0.6	50	
CI3216Q3R3□	3.3	45	10	41	0.7	50	
CI3216Q3R9□	3.9	45	10	38	0.8	50	
CI3216Q4R7□	4.7	45	10	35	0.9	50	
CI3216S5R6□	5.6	50	4	32	0.7	25	
CI3216S6R8□	6.8	50	4	29	0.8	25	
CI3216S8R2□	8.2	50	4	26	0.9	25	
CI3216S100□	10	50	2	24	1	25	
CI3216S120□	12	50	2	22	1.05	15	
CI3216T150□	15	35	1	19	0.7	5	
CI3216T180□	18	35	1	18	0.7	5	
CI3216T220□	22	35	1	16	0.9	5	
CI3216T270□	27	35	1	14	0.9	5	
CI3216T330□	33	35	0.4	13	1.05	5	
CI3216T390□	39	40	2	11	3	5	
CI3216T470□	47	40	2	10	3.4	5	
CI3216T560□	56	40	2	9.5	3.8	4	
CI3216T680□	68	40	1	9.5	3	4	
CI3216T820□	82	40	1	9	3.4	4	
CI3216T101□	100	40	1	8	3.8	4	

※□: Please specify the inductance tolerance code (K=±10%, M=±20%). The product with tolerance less than ±10%, ±20% is also available. Please contact your local sales.

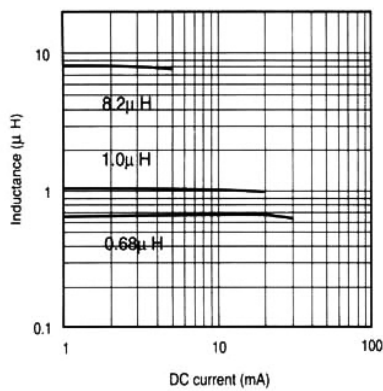
B,P,Q 三种材料电感的区别  
Q vs.Frequency Characteristics



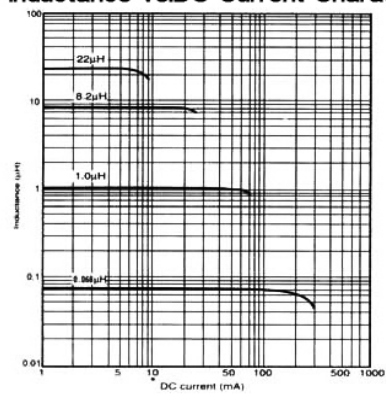
B,P,Q Material Comparison  
Inductance vs. Frequency Characteristics



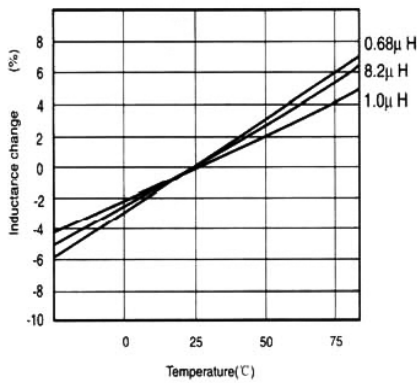
CI1005 TYPE  
Inductance vs.DC Current Characteristics



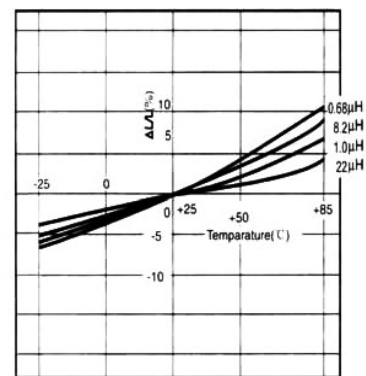
CI1608TYPE  
Inductance vs.DC Current Characteristics



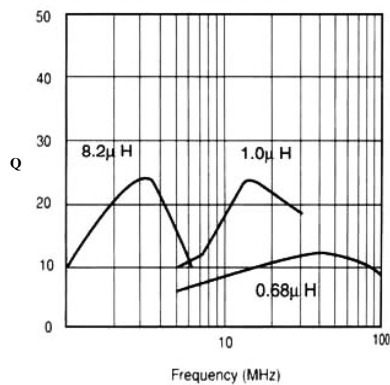
Inductance vs.Temperature Characteristics



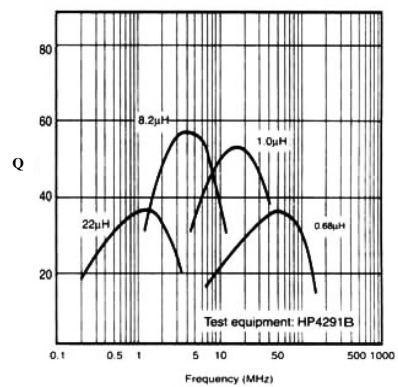
Inductance vs.Temperature Characteristics



Q vs.Frequency Characteristics

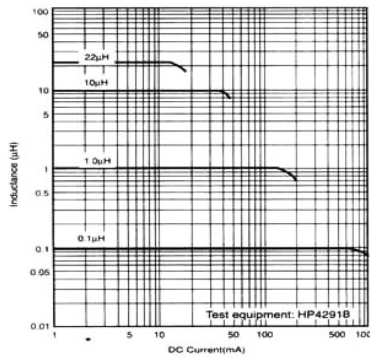


Q vs.Frequency Characteristics

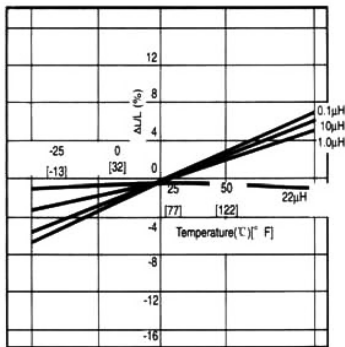


CI 2012 TYPE

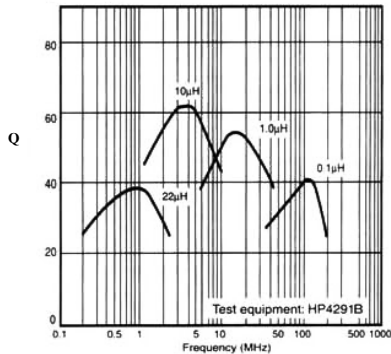
Inductance vs. DC Current Characteristics



Inductance vs. Temperature Characteristics

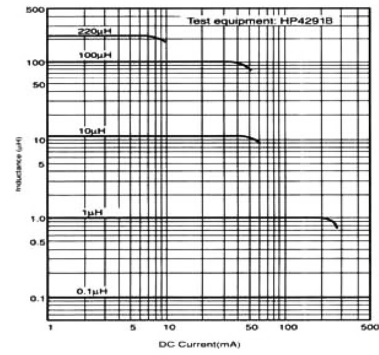


Q vs. Frequency Characteristics

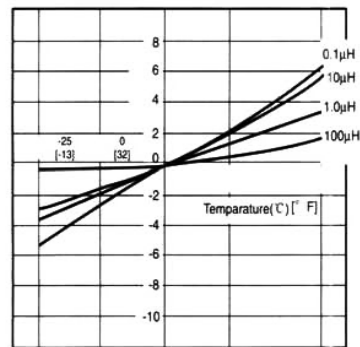


CI 3216 TYPE

Inductance vs. DC Current Characteristics



Inductance vs. Temperature Characteristics



Q vs. Frequency Characteristics

