

On-Board Type Coils / Chip Inductors

For High Frequency Use Monolithic Type HCl Series

HCl Series

Small Size Multilayer Chip Inductor for High Frequency High Q, Stable Inductance in High Freq. Range.

小尺寸且適用於高頻、高Q 值及在高頻帶有穩定感值應用的積層晶片電感。



Features

1. Monolithic inorganic material construction.
2. Closed magnetic circuit avoids crosstalk.
3. S.M.T. type.
4. Suitable for flow and reflow soldering.
5. Shapes and dimensions follow E.I.A. spec.
6. Available in various sizes.
7. Excellent solderability and heat resistance.
8. High SRF up to 6GHz and above.
9. The products contain no lead and also support lead-free soldering.

Applications

Wireless communications, cellular phone, cordless phone, pager, etc..

Miscellaneous high-frequency circuits. EMI countermeasure in high-frequency circuits.

特徵

1. 單石無機材料結構。
2. 封閉磁路避免干擾。
3. 表面黏著型式。
4. 適合一般焊接及迴焊。
5. 形狀與尺寸符合E.I.A.標準。
6. 多種尺寸可供選擇。
7. 絕佳之焊錫性與耐熱性。
8. 至少6GHz 的自我共振頻率。
9. 產品無鉛適合無鉛錫。

應用

無線通訊、行動電話、無線電話、傳呼機.....等等。

各式各樣的高頻電路、高頻電路的EMI對策。

Lead Free Part Numbering

HCl	1608	F	—	10N	J
A	B	C		D	E

A : Series

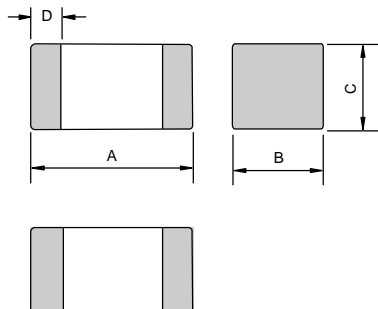
B : Dimension A x B

C : Lead Free Code

D : Inductance 10N=10nH

E : Inductance Tolerance S= $\pm 0.3\text{nH}$, J= $\pm 5\%$, K= $\pm 10\%$

Dimensions



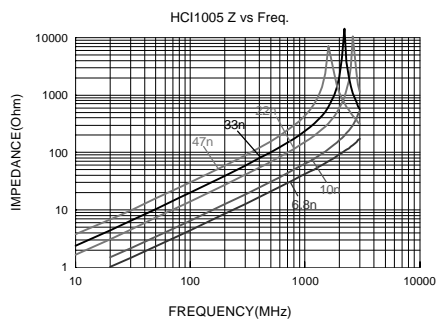
Chip size				
Size	A(mm)	B(mm)	C(mm)	D(mm)
1005	1.0 \pm 0.1	0.5 \pm 0.1	0.5 \pm 0.1	0.25 \pm 0.1
1608	1.6 \pm 0.15	0.8 \pm 0.15	0.8 \pm 0.15	0.3 \pm 0.2
2012	2.0 \pm 0.2	1.25 \pm 0.2	0.85 \pm 0.2	0.5 \pm 0.3
			1.25 \pm 0.2	

HCI 1005 Series

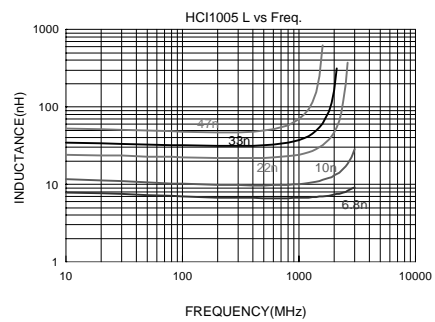
Part Number	Thickness C Size (mm)	Inductance		Q @ 100MHz		Rated Current (mA) max.	DCR (Ω) max.	SRF(MHz)	
		(nH)	Test Frequency (MHz)	Nominal Value	min.			typ.	min.
HCI1005-1N0S	0.5 \pm 0.1	1.0	100	11	8	300	0.09	>13000	10000
HCI1005-1N2S	0.5 \pm 0.1	1.2	100	11	8	300	0.09	>13000	10000
HCI1005-1N5S	0.5 \pm 0.1	1.5	100	11	8	300	0.12	>13000	6000
HCI1005-1N8S	0.5 \pm 0.1	1.8	100	11	8	300	0.12	11000	6000
HCI1005-2N2S	0.5 \pm 0.1	2.2	100	10	8	300	0.14	10000	6000
HCI1005-2N7S	0.5 \pm 0.1	2.7	100	10	8	300	0.14	9000	6000
HCI1005-3N3	0.5 \pm 0.1	3.3	100	10	8	300	0.16	8000	6000
HCI1005-3N9	0.5 \pm 0.1	3.9	100	10	8	300	0.19	7000	4000
HCI1005-4N7	0.5 \pm 0.1	4.7	100	10	8	300	0.21	6000	4000
HCI1005-5N6	0.5 \pm 0.1	5.6	100	10	8	300	0.23	5700	4000
HCI1005-6N8	0.5 \pm 0.1	6.8	100	10	8	300	0.25	5500	3900
HCI1005-8N2	0.5 \pm 0.1	8.2	100	10	8	300	0.28	4900	3600
HCI1005-10N	0.5 \pm 0.1	10	100	10	8	300	0.31	4300	3200
HCI1005-12N	0.5 \pm 0.1	12	100	11	8	300	0.40	3900	2700
HCI1005-15N	0.5 \pm 0.1	15	100	11	8	300	0.50	3500	2300
HCI1005-18N	0.5 \pm 0.1	18	100	11	8	300	0.55	3100	2100
HCI1005-22N	0.5 \pm 0.1	22	100	11	8	300	0.60	2800	1900
HCI1005-27N	0.5 \pm 0.1	27	100	11	8	300	0.70	2300	1600
HCI1005-33N	0.5 \pm 0.1	33	100	11	8	300	0.80	1900	1300
HCI1005-39N	0.5 \pm 0.1	39	100	11	8	200	1.00	1700	1200
HCI1005-47N	0.5 \pm 0.1	47	100	11	8	200	1.20	1500	1000
HCI1005-56N	0.5 \pm 0.1	56	100	11	8	200	1.30	1300	750
HCI1005-68N	0.5 \pm 0.1	68	100	11	8	180	2.00	1200	750
HCI1005-82N	0.5 \pm 0.1	82	100	10	8	150	2.20	1100	600
HCI1005-R10	0.5 \pm 0.1	100	100	10	8	150	2.50	1000	600
HCI1005-R12	0.5 \pm 0.1	120	100	10	8	150	2.70	800	600

NOTE: :TOLERANCE S: +/0.3nH J: +/5% K: +/10%

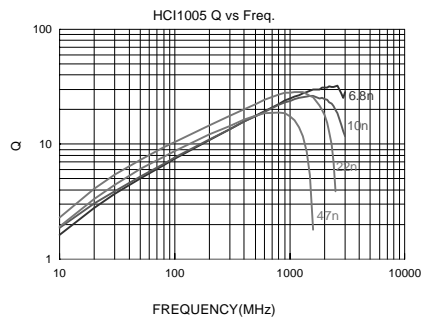
Impedance v.s. Frequency Characteristics



Inductance v.s. Frequency Characteristics



Q v.s. Frequency Characteristics

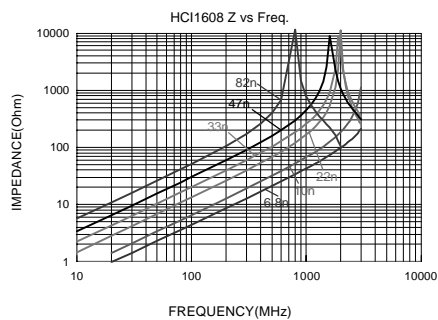


HCI 1608 Series

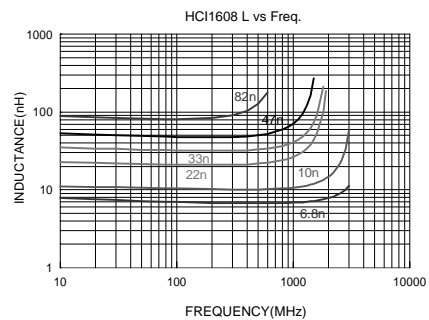
Part Number	Thickness C Size (mm)	Inductance		Q @ 100MHz		Rated Current (mA) max.	DCR (Ω) max.	SRF(MHz)	
		(nH)	Test Frequency (MHz)	Nominal Value	min.			typ.	min.
HCI1608-1N0S	0.80 \pm 0.15	1.0	100	14	8	300	0.05	>13000	10000
HCI1608-1N2S	0.80 \pm 0.15	1.2	100	14	8	300	0.05	>13000	10000
HCI1608-1N5S	0.80 \pm 0.15	1.5	100	14	8	300	0.10	>13000	6000
HCI1608-1N8S	0.80 \pm 0.15	1.8	100	10	8	300	0.10	>13000	6000
HCI1608-2N2S	0.80 \pm 0.15	2.2	100	12	8	300	0.10	12000	6000
HCI1608-2N7S	0.80 \pm 0.15	2.7	100	13	10	300	0.10	11000	6000
HCI1608-3N3	0.80 \pm 0.15	3.3	100	14	10	300	0.12	9000	6000
HCI1608-3N9	0.80 \pm 0.15	3.9	100	13	10	300	0.14	8000	6000
HCI1608-4N7	0.80 \pm 0.15	4.7	100	13	10	300	0.16	6500	4000
HCI1608-5N6	0.80 \pm 0.15	5.6	100	14	10	300	0.18	5800	4000
HCI1608-6N8	0.80 \pm 0.15	6.8	100	14	10	300	0.22	5600	4000
HCI1608-8N2	0.80 \pm 0.15	8.2	100	14	10	300	0.24	5200	3500
HCI1608-10N	0.80 \pm 0.15	10	100	14	12	300	0.26	4600	3400
HCI1608-12N	0.80 \pm 0.15	12	100	14	12	300	0.28	4000	2600
HCI1608-15N	0.80 \pm 0.15	15	100	15	12	300	0.32	3400	2300
HCI1608-18N	0.80 \pm 0.15	18	100	15	12	300	0.35	3000	2000
HCI1608-22N	0.80 \pm 0.15	22	100	16	12	300	0.40	2900	1600
HCI1608-27N	0.80 \pm 0.15	27	100	16	12	300	0.45	2200	1400
HCI1608-33N	0.80 \pm 0.15	33	100	17	12	300	0.55	1800	1200
HCI1608-39N	0.80 \pm 0.15	39	100	18	12	300	0.60	1600	1100
HCI1608-47N	0.80 \pm 0.15	47	100	17	12	300	0.70	1600	900
HCI1608-56N	0.80 \pm 0.15	56	100	17	12	300	0.75	1400	900
HCI1608-68N	0.80 \pm 0.15	68	100	18	12	300	0.85	1200	700
HCI1608-82N	0.80 \pm 0.15	82	100	18	12	300	0.95	1100	600
HCI1608-R10	0.80 \pm 0.15	100	100	18	12	300	1.00	1000	600
HCI1608-R12	0.80 \pm 0.15	120	50	16	8	300	1.20	800	500
HCI1608-R15	0.80 \pm 0.15	150	50	13	8	300	1.20	800	500
HCI1608-R18	0.80 \pm 0.15	180	50	13	8	300	1.30	700	400
HCI1608-R22	0.80 \pm 0.15	220	50	12	8	300	1.50	600	400
HCI1608-R27	0.80 \pm 0.15	270	50	14	8	150	1.90	550	300

NOTE: :TOLERANCE S: \pm 0.3nH J: \pm 5% K: \pm 10%

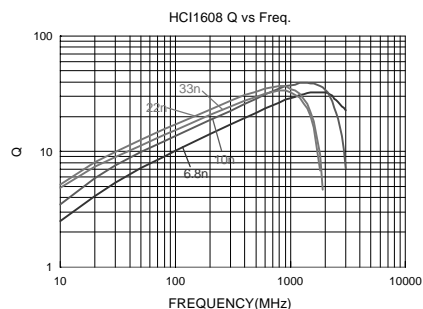
Impedance v.s. Frequency Characteristics



Inductance v.s. Frequency Characteristics



Q v.s. Frequency Characteristics

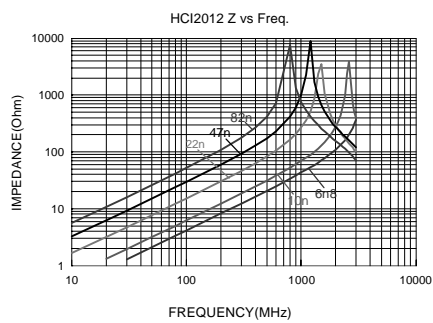


HCI 2012 Series

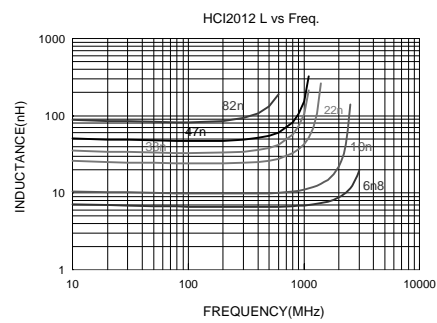
Part Number	Thickness C Size (mm)	Inductance		Q @ 100MHz		Rated Current (mA)max.	DCR (Ω) max.	SRF(MHz)	
		(nH)	Test Frequency (MHz)	Nominal Value	min.			typ.	min.
HCI2012-1N5S	0.85 \pm 0.2	1.5	100	21	10	300	0.10	>6000	4000
HCI2012-1N8S	0.85 \pm 0.2	1.8	100	18	10	300	0.10	>6000	4000
HCI2012-2N2S	0.85 \pm 0.2	2.2	100	18	10	300	0.10	>6000	4000
HCI2012-2N7S	0.85 \pm 0.2	2.7	100	19	12	300	0.10	>6000	4000
HCI2012-3N3	0.85 \pm 0.2	3.3	100	16	12	300	0.13	>6000	4000
HCI2012-3N9	0.85 \pm 0.2	3.9	100	18	12	300	0.15	>6000	4000
HCI2012-4N7	0.85 \pm 0.2	4.7	100	18	12	300	0.20	>6000	3500
HCI2012-5N6	0.85 \pm 0.2	5.6	100	20	15	300	0.23	5400	3200
HCI2012-6N8	0.85 \pm 0.2	6.8	100	20	15	300	0.25	4200	2800
HCI2012-8N2	0.85 \pm 0.2	8.2	100	21	15	300	0.28	3700	2400
HCI2012-10N	0.85 \pm 0.2	10	100	20	15	300	0.30	3100	2100
HCI2012-12N	0.85 \pm 0.2	12	100	21	15	300	0.35	3000	1900
HCI2012-15N	0.85 \pm 0.2	15	100	22	15	300	0.40	2600	1600
HCI2012-18N	0.85 \pm 0.2	18	100	24	15	300	0.45	2300	1500
HCI2012-22N	0.85 \pm 0.2	22	100	23	18	300	0.50	2100	1400
HCI2012-27N	0.85 \pm 0.2	27	100	23	18	300	0.55	1800	1300
HCI2012-33N	0.85 \pm 0.2	33	100	24	18	300	0.60	1700	1200
HCI2012-39N	0.85 \pm 0.2	39	100	23	18	300	0.65	1400	1000
HCI2012-47N	0.85 \pm 0.2	47	100	23	18	300	0.70	1200	900
HCI2012-56N	0.85 \pm 0.2	56	100	23	18	300	0.75	1100	800
HCI2012-68N	0.85 \pm 0.2	68	100	25	18	300	0.80	900	700
HCI2012-82N	0.85 \pm 0.2	82	100	24	18	300	0.90	800	600
HCI2012-R10	1.25 \pm 0.2	100	100	23	18	300	0.90	800	600
HCI2012-R12	1.25 \pm 0.2	120	50	22	13	300	0.95	700	500
HCI2012-R15	1.25 \pm 0.2	150	50	22	13	300	1.00	700	500
HCI2012-R18	1.25 \pm 0.2	180	50	23	13	300	1.10	600	400
HCI2012-R22	1.25 \pm 0.2	220	50	20	12	300	1.20	550	350
HCI2012-R27	1.25 \pm 0.2	270	50	20	12	300	1.30	480	300
HCI2012-R33	1.25 \pm 0.2	330	50	22	12	300	1.40	400	250
HCI2012-R39	1.25 \pm 0.2	390	50	17	10	300	1.30	400	250
HCI2012-R47	1.25 \pm 0.2	470	50	17	10	300	1.50	350	200

NOTE: :TOLERANCE S: \pm 0.3nH J: \pm 5% K: \pm 10%

Impedance v.s. Frequency Characteristics



Inductance v.s. Frequency Characteristics



Q v.s. Frequency Characteristics

