

# Multilayer High Frequency inductor

## CIH03Q Series (0603/ EIA 0201)



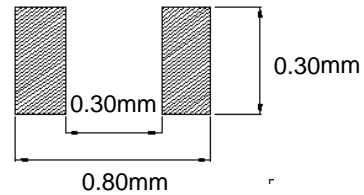
### APPLICATION

Mobile communication systems, noise suppression at high frequency and Impedance matching.

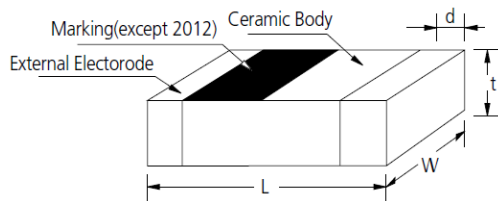
### FEATURES

- High Q value in high frequency range
- Small size(0.6x0.3x0.3)
- Monolithic structure for high reliability
- Do not contain lead and support lead-free soldering.
- RoHS compliant

### RECOMMENDED LAND PATTERN



### DIMENSION



Type	Dimension [mm]			
	L	W	t	d
03	0.6±0.03	0.3±0.03	0.3±0.03	0.1±0.05

### DESCRIPTION

Part No.	Inductance(nH)	Test Freq. [MHz]	Q (Min.)	Q Typical Frequency[Hz]					DC Resistance [ $\Omega$ ]max.	Rated current (mA)max.	SRF [MHz]min.
				500M	800M	1.8G	2.0G	2.4G			
CIH03Q0N6□	0.6±0.1nH,0.2nH,0.3nH	500	13	>24	>31	>53	>56	>64	0.06	600	10000
CIH03Q0N7□	0.7±0.1nH,0.2nH,0.3nH	500	13	>24	>31	>53	>56	>64	0.06	600	10000
CIH03Q0N8□	0.8±0.1nH,0.2nH,0.3nH	500	13	>24	>31	>53	>56	>64	0.07	550	10000
CIH03Q0N9□	0.9±0.1nH,0.2nH,0.3nH	500	13	>24	>31	>53	>56	>64	0.07	550	10000
CIH03Q1N0□	1.0±0.1nH,0.2nH,0.3nH	500	13	24	31	53	56	64	0.09	490	10000
CIH03Q1N1□	1.1±0.1nH,0.2nH,0.3nH	500	13	24	31	53	56	64	0.12	420	10000
CIH03Q1N2□	1.2±0.1nH,0.2nH,0.3nH	500	13	22	27	50	55	59	0.12	420	10000
CIH03Q1N3□	1.3±0.1nH,0.2nH,0.3nH	500	13	22	27	50	55	59	0.12	420	10000
CIH03Q1N4□	1.4±0.1nH,0.2nH,0.3nH	500	13	19	24	39	41	47	0.11	440	10000
CIH03Q1N5□	1.5±0.1nH,0.2nH,0.3nH	500	13	19	24	39	41	46	0.11	440	10000
CIH03Q1N6□	1.6±0.1nH,0.2nH,0.3nH	500	13	19	24	39	41	46	0.13	410	10000
CIH03Q1N7□	1.7±0.1nH,0.2nH,0.3nH	500	13	19	24	39	41	46	0.13	410	10000
CIH03Q1N8□	1.8±0.1nH,0.2nH,0.3nH	500	13	18	24	39	41	46	0.16	370	10000
CIH03Q1N9□	1.9±0.1nH,0.2nH,0.3nH	500	13	18	23	37	41	45	0.20	330	10000
CIH03Q2N0□	2.0±0.1nH,0.2nH,0.3nH	500	13	18	23	37	41	45	0.20	330	10000
CIH03Q2N1□	2.1±0.1nH,0.2nH,0.3nH	500	13	17	23	37	39	44	0.20	330	10000
CIH03Q2N2□	2.2±0.1nH,0.2nH,0.3nH	500	13	17	23	37	39	43	0.20	330	10000
CIH03Q2N3□	2.3±0.1nH,0.2nH,0.3nH	500	13	17	23	36	38	43	0.20	330	10000
CIH03Q2N4□	2.4±0.1nH,0.2nH,0.3nH	500	13	17	22	36	38	42	0.20	330	10000
CIH03Q2N5□	2.5±0.1nH,0.2nH,0.3nH	500	13	17	22	34	35	39	0.22	310	9500

Part No.	Inductance(nH)	Test Freq. [MHz]	Q (Min.)	Q Typical Frequency[Hz]					DC Resistance [ $\Omega$ ]max	Rated current (mA)max	SRF [MHz]min.
				500M	800M	1.8G	2.0G	2.4G			
CIH03Q2N6□	2.6±0.1nH,0.2nH,0.3nH	500	13	17	22	33	35	39	0.22	310	9300
CIH03Q2N7□	2.7±0.1nH,0.2nH,0.3nH	500	13	17	22	33	35	39	0.22	310	9100
CIH03Q2N8□	2.8±0.1nH,0.2nH,0.3nH	500	13	17	22	33	35	39	0.22	310	8900
CIH03Q2N9□	2.9±0.1nH,0.2nH,0.3nH	500	13	17	22	33	35	39	0.22	310	8700
CIH03Q3N0□	3.0±0.1nH,0.2nH,0.3nH	500	13	17	22	33	39	43	0.30	270	8600
CIH03Q3N1□	3.1±0.1nH,0.2nH,0.3nH	500	13	17	22	33	39	43	0.30	270	8400
CIH03Q3N2□	3.2±0.1nH,0.2nH,0.3nH	500	13	18	22	33	35	39	0.30	270	8200
CIH03Q3N3□	3.3±0.1nH,0.2nH,0.3nH	500	13	18	22	33	35	39	0.30	270	8100
CIH03Q3N4□	3.4±0.1nH,0.2nH,0.3nH	500	13	16	22	33	35	39	0.30	270	8000
CIH03Q3N5□	3.5±0.1nH,0.2nH,0.3nH	500	13	16	22	33	35	39	0.30	270	7800
CIH03Q3N6□	3.6±0.1nH,0.2nH,0.3nH	500	13	16	22	33	35	39	0.30	270	7700
CIH03Q3N7□	3.7±0.1nH,0.2nH,0.3nH	500	13	16	22	33	35	38	0.30	270	7600
CIH03Q3N8□	3.8±0.1nH,0.2nH,0.3nH	500	13	16	22	33	35	38	0.30	270	7500
CIH03Q3N9□	3.9±0.1nH,0.2nH,0.3nH	500	13	16	22	33	35	38	0.30	270	7300
CIH03Q4N3□	4.3±3%,5%,0.3nH	500	13	16	21	32	34	37	0.38	260	6500
CIH03Q4N7□	4.7±3%,5%,0.3nH	500	13	16	21	32	34	37	0.44	220	6200
CIH03Q5N1□	5.1±3%,5%,0.3nH	500	13	16	21	32	34	37	0.44	220	5900
CIH03Q5N6□	5.6±3%,5%,0.3nH	500	13	16	21	32	34	37	0.47	210	5500
CIH03Q6N2□	6.2±3%,5%,0.3nH	500	13	16	21	32	33	36	0.47	210	5100
CIH03Q6N8□	6.8±3%,5%	500	13	16	21	31	32	35	0.55	190	4800
CIH03Q7N5□	7.5±3%,5%	500	13	16	20	30	32	34	0.61	190	4600
CIH03Q8N2□	8.2±3%,5%	500	13	16	20	30	31	33	0.57	190	4300
CIH03Q9N1□	9.1±3%,5%	500	13	16	20	30	30	32	0.73	170	4000
CIH03Q10N□	10.0±3%,5%	500	13	16	20	28	29	31	0.73	170	3800
CIH03Q12N□	12.0±3%,5%	500	12	16	20	27	27	27	0.85	160	3300
CIH03Q15N□	15.0±3%,5%	500	12	15	19	24	24	23	0.89	150	2600
CIH03Q18N□	18.0±3%,5%	500	11	15	19	23	23	21	1.05	140	2300
CIH03Q22N□	22.0±3%,5%	500	10	15	19	22	22	19	1.29	130	1900
CIH03Q27N□	27.0±5%	500	14	18	21	18	15	-	1.90	140	2200
CIH03Q33N□	33.0±5%	300	10	16	17	11	-	-	2.00	140	1800
CIH03Q39N□	39.0±5%	300	10	15	17	-	-	-	2.10	130	1800
CIH03Q47N□	47.0±5%	300	10	16	17	-	-	-	2.60	120	1600
CIH03Q56N□	56.0±5%	300	10	15	15	-	-	-	3.30	110	1400
CIH03Q68N□	68.0±5%	300	9	15	15	-	-	-	3.30	110	1200
CIH03Q82N□	82.0±5%	300	9	15	14	-	-	-	3.80	100	1200
CIH03QR10□	100.0±5%	300	9	14	12	-	-	-	4.30	90	900

\*Operating temperature range -55 to +125°C

※Tolerance (B :±0.1nH, C :±0.2nH, S :±0.3nH, H :±3%, J :±5%)

※Measurement equipment & Jig

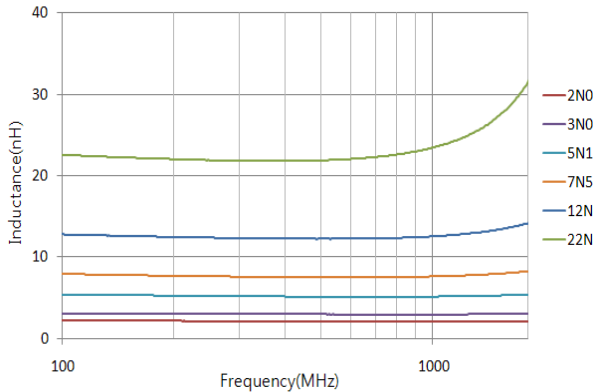
- Impedance Measuring equipment & Jig : Agilent E4991A + 16197A Bottom Electrode SMD Test Fixture or Equivalent
- Resistance Measuring equipment & Jig : Agilent 4338B + 16089A Large Kelvin Clip Leads or Equivalent

※ The Rated Current is either the DC value at which the internal Ls value is decreased within 5% with the application of DC\_Current, or the value of current at which the temperature of the element is increased within 20°C (Reference ambient temperature:20°C)

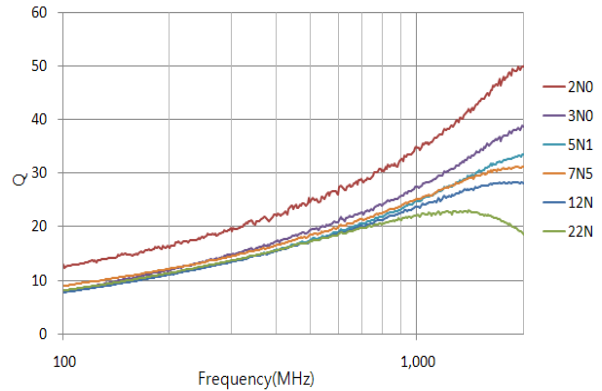
※ Residual Inductance of short chip: 0.30nH

**CHARACTERISTIC DATA**

■ Inductance-Frequency



■ Q-Frequency



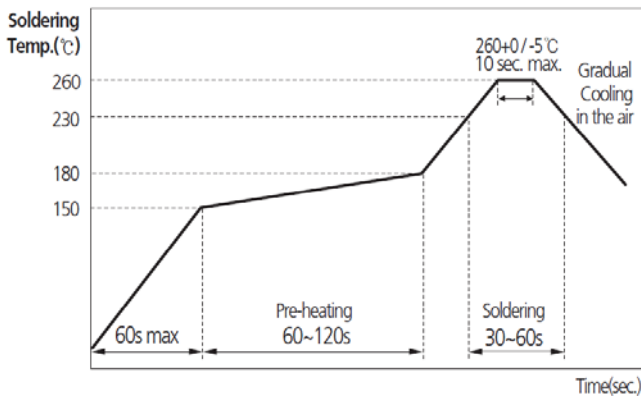
**PRODUCT IDENTIFICATION**

**CI H 03 Q 0N6 C N C**  
**(1) (2) (3) (4) (5) (6) (7) (8)**

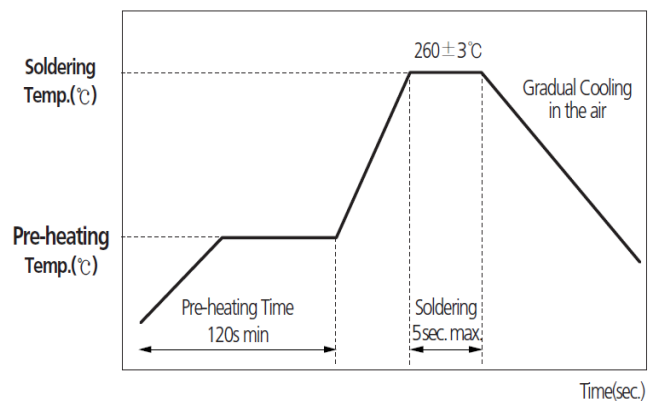
- (1) Chip Inductor
- (2) H:High frequency type
- (3) Dimension
- (4) Material code(Q:Dielectric material High Q type)
- (5) Inductance(0N6:0.6nH, 4N7:4.7nH, 10N:10nH)
- (6) Tolerance(B:±0.1nH, C:±0.2nH, S:±0.3nH, H:±3%, J:±5%)
- (7) Thickness option(N:Standard, A:Thinner than standard, B:Thicker than standard)
- (8) Packaging(C:paper tape, E:embossed tape)

**RECOMMENDED SOLDERING CONDITION**

**REFLOW SOLDERING**



**FLOW SOLDERING**



**PACKAGING**

Packaging Style	Quantity(pcs/reel)
Card Board Taping	15,000

■ NOTICE :All specifications are subject to change without previous notice. Please contact with product representatives or engineers to check specifications.