

# Multilayer High Frequency inductor

## CIH05T Series (1005/ EIA 0402)



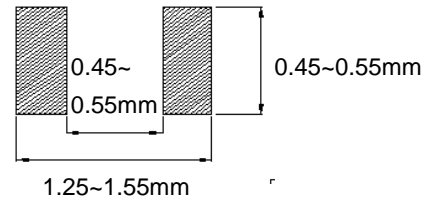
### APPLICATION

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

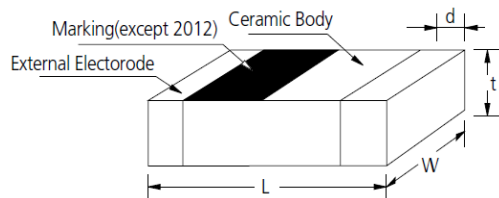
### FEATURES

- Lowest value of specific resistivity, good property of Q and high SRF.
- Possible to use at range above 100MHz
- 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
05	1.0±0.05	0.5±0.05	0.5±0.05	0.25±0.1

### DESCRIPTION

Part No.	Inductance (nH) @100MHz	Q (min) 100MHz	Q (typical.)					SRF (MHz) Min	DC resistance (Ω) Max.	Rated current (mA) Max.
			500 MHz	800 MHz	1.8GHz	2.0GHz	2.4GHz			
CIH05T1N0□	1.0±0.2nH,0.3nH	8	23	29	48	50	56	10000	0.12	300
CIH05T1N2□	1.2±0.2nH,0.3nH	8	23	29	48	50	56	10000	0.12	300
CIH05T1N5□	1.5±0.2nH,0.3nH	8	23	29	47	50	56	6000	0.13	300
CIH05T1N8□	1.8±0.2nH,0.3nH	8	20	26	41	43	49	6000	0.14	300
CIH05T2N0□	2.0±0.2nH,0.3nH	8	22	27	44	47	52	6000	0.16	300
CIH05T2N2□	2.2±0.2nH,0.3nH	8	22	27	44	47	52	6000	0.16	300
CIH05T2N4□	2.4±0.2nH,0.3nH	8	22	27	44	47	52	6000	0.16	300
CIH05T2N7□	2.7±0.2nH,0.3nH	8	22	27	43	45	50	6000	0.17	300
CIH05T3N0□	3.0± 0.2nH,0.3nH	8	24	30	46	48	53	6000	0.19	300
CIH05T3N3□	3.3±0.2nH,0.3nH	8	24	30	46	48	53	6000	0.19	300
CIH05T3N6□	3.6±0.2nH,0.3nH	8	24	30	46	48	53	6000	0.19	300
CIH05T3N9□	3.9±0.2nH,0.3nH	8	22	28	43	45	50	4000	0.22	300
CIH05T4N3□	4.3±0.2nH,0.3nH	8	22	28	43	45	50	4000	0.24	300
CIH05T4N7□	4.7±0.2nH,0.3nH	8	23	30	45	47	50	4000	0.24	300
CIH05T5N1□	5.1±0.2nH,0.3nH	8	22	28	42	43	45	4000	0.27	300
CIH05T5N6□	5.6±0.2nH,0.3nH	8	22	28	42	43	45	4000	0.27	300
CIH05T6N2□	6.2±0.2nH,0.3nH	8	22	28	40	41	41	3900	0.32	300
CIH05T6N8□	6.8±5%, 10%	8	22	28	40	41	41	3900	0.32	300
CIH05T7N5□	7.5±5%, 10%	8	22	28	38	38	36	3600	0.37	300
CIH05T8N2□	8.2±5%, 10%	8	22	28	38	38	36	3600	0.37	300
CIH05T9N1□	9.1±5%, 10%	8	22	28	37	36	31	3200	0.42	300
CIH05T10N□	10.0±5%, 10%	8	22	28	37	36	31	3200	0.42	300

Part No.	Inductance (nH) @100MHz	Q (min) 100MHz	Q (typical.)					SRF (MHz) Min	DC resistance (Ω) Max.	Rated current (mA) Max.
			500 MHz	800 MHz	1.8GHz	2.0GHz	2.4GHz			
CIH05T12N□	12.0±5%, 10%	8	22	28	33	31	23	2700	0.5	300
CIH05T15N□	15.0±5%, 10%	8	22	28	29	26	17	2300	0.55	300
CIH05T18N□	18.0±5%, 10%	8	23	28	26	22	11	2100	0.65	250
CIH05T22N□	22.0±5%, 10%	8	22	27	21	14	2	1900	0.8	250
CIH05T27N□	27.0±5%, 10%	8	20	23	10	3	-	1600	0.9	250
CIH05T33N□	33.0±5%, 10%	8	20	23	3	-	-	1300	1	250
CIH05T39N□	39.0±5%, 10%	8	20	21	-	-	-	1200	1.2	200
CIH05T47N□	47.0±5%, 10%	8	19	20	-	-	-	1000	1.3	200
CIH05T56N□	56.0±5%, 10%	8	19	18	-	-	-	750	1.4	180
CIH05T68N□	68.0±5%, 10%	8	17	15	-	-	-	750	1.4	180
CIH05T82N□	82.0±5%, 10%	8	16	11	-	-	-	600	1.6	150
CIH05TR10□	100.0±5%, 10%	8	15	9	-	-	-	600	1.6	130

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

※Tolerance (C :±0.2nH, S :±0.3nH, J :±5%, K :±10%)

※Measurement equipment & Jig: Agilent E4991A+16192A 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)

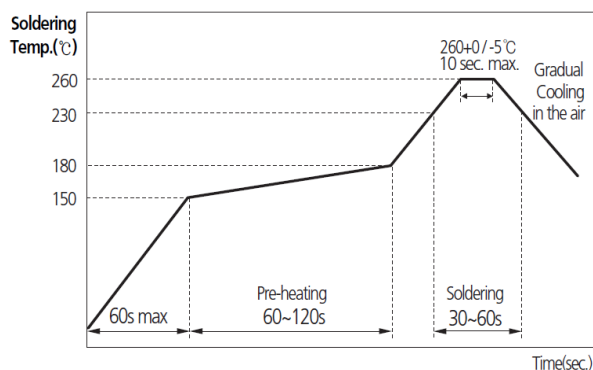
### PRODUCT IDENTIFICATION

**CI H 05 T 10N J N C**  
**(1) (2) (3) (4) (5) (6) (7) (8)**

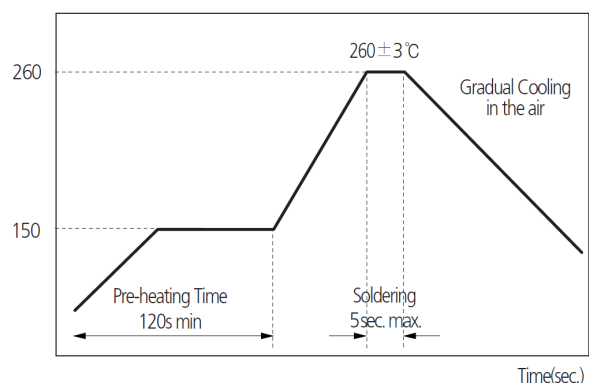
- (1) Chip Inductor
- (2) H:High frequency type
- (3) Dimension
- (4) Material code(T:Dielectric material)
- (5) Inductance(4N7:4.7nH, 10N:10nH, R10:100nH)
- (6) Tolerance(C:±0.2nH, S:±0.3nH, J:±5%, K:±10%)
- (7) Thickness option(N:Standard, A:Thinner than standard, B:Thicker than standard)
- (8) Packaging(C:paper tape, E:embossed tape)

### RECOMMENDED SOLDERING CONDITION

#### REFLOW SOLDERING



#### FLOW SOLDERING



## PACKAGING

Packaging Style	Quantity(pcs/reel)
Card Board Taping	10,000



Any data in this sheet are subject to change, modify or discontinue without notice.

The data sheets include the typical data for design reference only. If there is any question regarding the data sheets, please contact our sales personnel or application engineers.