SAMSUNG ELECTRO-MECHANICS

Ver 201207

Multilayer High Frequency inductor

CIH05T Series (1005/ EIA 0402)



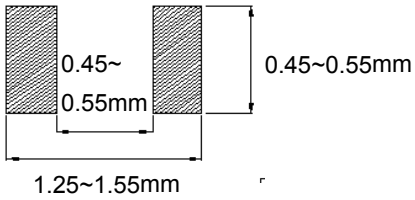
APPLICATION

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

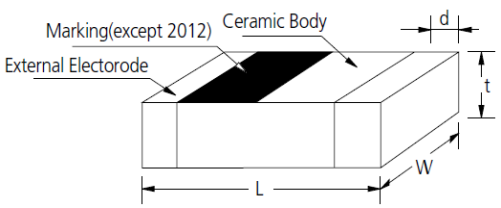
FEATURES

- 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	0.50	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	0.80	250
CIH05T27N□	27.0±5%, 10%	8	20	23	10	3	-	1600	0.90	250
CIH05T33N□	33.0±5%, 10%	8	20	23	3	-	-	1300	1.00	250
CIH05T39N□	39.0±5%, 10%	8	20	21	-	-	-	1200	1.20	200
CIH05T47N□	47.0±5%, 10%	8	19	20	-	-	-	1000	1.30	200
CIH05T56N□	56.0±5%, 10%	8	19	18	-	-	-	750	1.40	180
CIH05T68N□	68.0±5%, 10%	8	17	15	-	-	-	750	1.40	180
CIH05T82N□	82.0±5%, 10%	8	16	11	-	-	-	600	1.60	150
CIH05TR10□	100.0±5%, 10%	8	15	9	-	-	-	600	1.60	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 witch 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℃ (Reference ambient temperature:20℃)

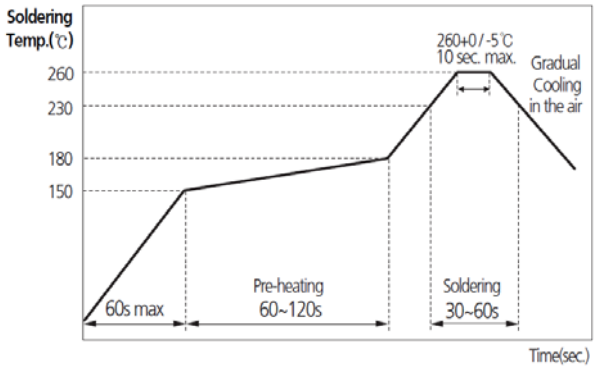
PRODUCT IDENTIFICATION

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

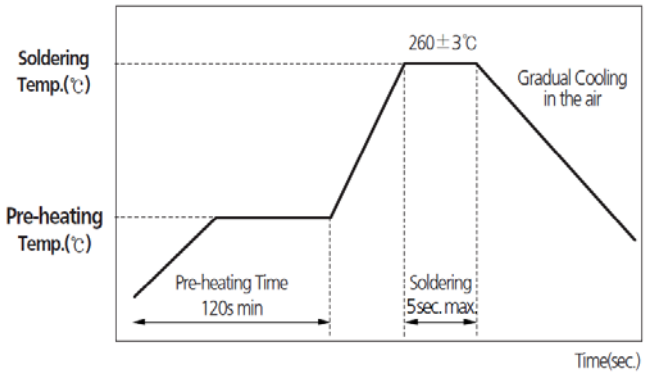
(1) Chip Inductor
(2) H:High frequency type
(3) Dimension
(4) Material code(T:Dielectric material)
(5) Inductance(4N7:4.7nH, 10N:10nH, R10:100nH)
(6) Tolerance(C:±0.2nH, S:±0.3nH, J:±5%, K:±10%)
(7) Thickness option(N:Standard, A:Thinner than standard, B:Thicker than standard)
(8) Packaging(C:paper tape,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

RECOMMENDED SOLDERING CONDITION

REFLOW SOLDERING



FLOW SOLDERING



PACKAGING

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

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