SAMSUNG ELECTRO-MECHANICS

201207

Multilayer High Frequency inductor

CIH03T Series (0603/ EIA 0201)

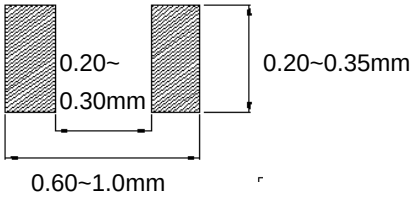
APPLICATION

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

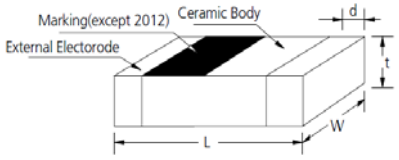
FEATURES

- Lowest value of specific resistance, 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
03	0.6±0.03	0.3±0.03	0.3±0.03	0.15±0.05

DESCRIPTION

Part No.	Inductance (nH)@100MHz	Q (Min.) 100 MHz	Q (typical.)					SRF (MHz) Min	DC resistance (Ω) Max.	Rated current (mA) Max.
			500MHz	800MHz	1.8GHz	2.0GHz	2.4GHz			
CIH03T1N0□	1.0±0.2nH,0.3nH	4	17	20	28	30	33	13000	0.14	300
CIH03T1N2□	1.2±0.2nH,0.3nH	4	16	20	28	30	33	10000	0.14	250
CIH03T1N3□	1.3±0.2nH,0.3nH	4	16	20	28	30	33	10000	0.14	250
CIH03T1N5□	1.5±0.2nH,0.3nH	4	15	20	27	29	32	10000	0.18	230
CIH03T1N8□	1.8±0.2nH,0.3nH	4	15	20	27	29	31	10000	0.19	200
CIH03T2N0□	2.0±0.2nH,0.3nH	4	15	20	26	28	30	8800	0.22	200
CIH03T2N2□	2.2±0.2nH,0.3nH	4	15	20	26	28	30	8800	0.22	200
CIH03T2N4□	2.4±0.2nH,0.3nH	5	15	20	26	28	30	7500	0.25	200
CIH03T2N7□	2.7±0.2nH,0.3nH	5	15	20	26	28	30	7700	0.25	200
CIH03T3N0□	3.0±0.2nH,0.3nH	5	15	20	26	28	30	7200	0.27	200
CIH03T3N3□	3.3±0.2nH,0.3nH	5	15	20	26	28	30	6700	0.3	200
CIH03T3N6□	3.6±0.2nH,0.3nH	5	15	20	27	29	31	6000	0.3	200
CIH03T3N9□	3.9±0.2nH,0.3nH	5	15	20	27	29	31	6000	0.3	200
CIH03T4N3□	4.3±0.2nH,0.3nH	5	15	19	26	28	30	5600	0.35	200
CIH03T4N7□	4.7±0.2nH,0.3nH	5	15	19	26	28	30	5300	0.4	200
CIH03T5N6□	5.6±0.2nH,0.3nH	5	15	19	26	27	28	4600	0.4	200
CIH03T6N2□	6.2±0.2nH,0.3nH	5	17	18	23	24	25	4100	0.48	150
CIH03T6N8□	6.8±5%	5.5	14	18	23	24	25	4100	0.48	150
CIH03T7N5□	7.5±5%	5	14	18	22	23	23	3700	0.51	150
CIH03T8N2□	8.2±5%	5	14	18	22	23	23	3400	0.55	150
CIH03T10N□	10.0±5%	5	14	17	22	22	21	3300	0.63	150
CIH03T12N□	12.0±5%	6	14	17	21	21	19	3000	0.7	150
CIH03T15N□	15.0±5%	6	13	16	19	18	14	2700	0.8	100
CIH03T18N□	18.0±5%	6	13	17	16	14	9	2100	0.9	100
CIH03T22N□	22.0±5%	5	13	15	14	11	5	1800	1.2	100
CIH03T24N□	24.0±5%	5	13	15	12	9	3	1800	1.6	100
CIH03T27N□	27.0±5%	4	12	14	10	7	2	1800	1.8	50

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			500MHz	800MHz	1.8GHz	2.0GHz	2.4GHz			
CIH03T33N□	33.0±5%	4	12	14	8	5	1	1700	2.1	50
CIH03T39N□	39.0±5%	4	12	13	4	1	-	1500	2.4	50
CIH03T47N□	47.0±5%	4	11	12	2	-	-	1300	2.8	50
CIH03T56N□	56.0±5%	4	11	11	-	-	-	1100	3.0	50
CIH03T68N□	68.0±5%	5	13	11	-	-	-	1050	3.0	50
CIH03T82N□	82.0±5%	5	12	8	-	-	-	900	4.0	50
CIH03TR10□	100.0±5%	5	11	-	-	-	-	770	4.5	50

*Operating temperature range –55 to +125°C

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

※Measurement equipment & Jig : Agilent E4991A+16196C 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℃)

※ Residual Inductance of short chip: 0.30nH

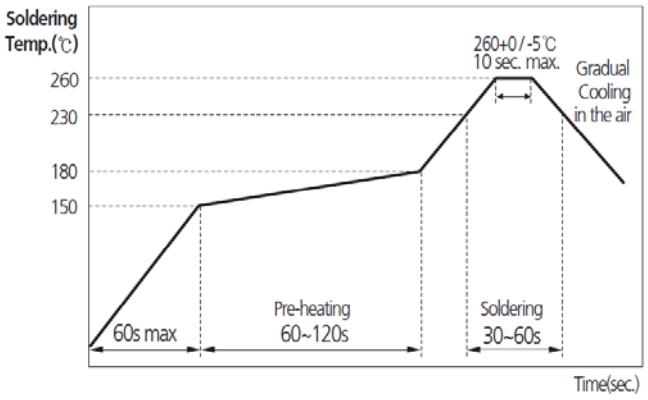
PRODUCT IDENTIFICATION

CI	H	03	T	10N	J	N	C
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

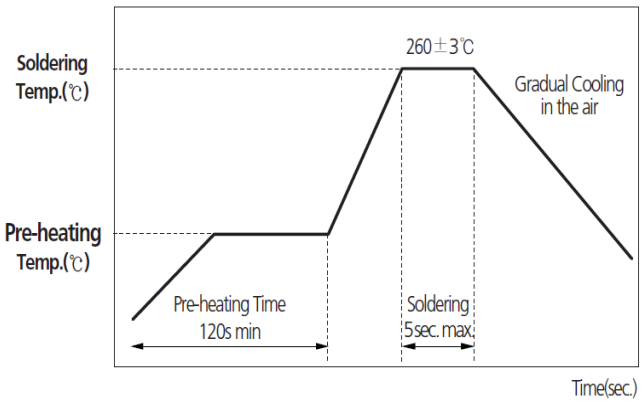
(1) Chip Inductor
(2) H:High frequency type
(3) Dimension
(4) Material code(T:Dielectric material)
(5) Inductance(4N7:4.7nH, 10N:10nH, R10:100nH)
(6) Tolerance(B:±0.1nHC:±0.2nH, S:±0.3nH, J:±5%)
(7) Thickness option(N:Standard, A:Thinner than standard, B:Thicker than standard)
(8) Packaging(C:paper tape, E:embossed tape)

RECOMMENDED SOLDERING CONDITION

REFLOW SOLDERING



FLOW SOLDERING



PACKAGING

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