SAMSUNG ELECTRO-MECHANICS

Ver. 201308

Multilayer High Frequency Inductor

CIH02T Series (0402/ EIA 01005)

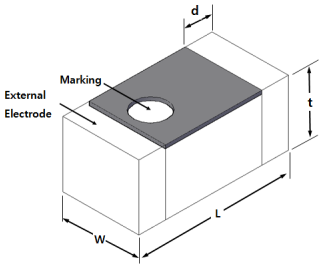
APPLICATION

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

FEATURES

- High Q value in high frequency range
- Small size(0.4×0.2×0.2)
- Monolithic structure for high reliability
- Do not contain lead and support lead-free soldering.
- RoHS compliant

DIMENSION



Type	Dimension [mm]			
	L	W	t	d
02	0.4±0.02	0.2±0.02	0.2±0.02	0.1±0.04

DESCRIPTION

Part No.	Inductance (nH)@100MHz	Q(Min.) 100MHz	Q Typical Frequency[Hz]					DC Resistance [Ω]max.	Rated current (mA)max.	SRF [GHz] min.
			500M	800M	1.8G	2.0G	2.4G			
CIH02T0N2□	0.2nH±0.1nH,0.2nH	-	11	13	23	24	27	0.1	350	10.0
CIH02T0N3□	0.3nH±0.1nH,0.2nH	-	11	13	23	24	27	0.2	350	10.0
CIH02T0N4□	0.4nH±0.1nH,0.2nH	-	12	14	24	25	29	0.2	350	10.0
CIH02T0N5□	0.5nH±0.1nH,0.2nH	-	12	14	24	25	29	0.2	350	10.0
CIH02T0N6□	0.6nH±0.1nH,0.2nH	-	12	15	26	27	31	0.3	320	10.0
CIH02T0N7□	0.7nH±0.1nH,0.2nH	-	12	15	26	27	31	0.4	320	10.0
CIH02T0N8□	0.8nH±0.1nH,0.2nH	-	12	14	27	28	32	0.4	320	10.0
CIH02T0N9□	0.9nH±0.1nH,0.2nH	-	11	13	22	23	27	0.4	320	10.0
CIH02T1N0□	1.0nH±0.1nH,0.2nH,0.3nH	2	11	13	22	23	27	0.4	250	10.0
CIH02T1N1□	1.1nH±0.1nH,0.2nH,0.3nH	2	11	14	23	24	28	0.5	250	10.0
CIH02T1N2□	1.2nH±0.1nH,0.2nH,0.3nH	2	11	14	24	25	29	0.5	250	10.0
CIH02T1N3□	1.3nH±0.1nH,0.2nH,0.3nH	2	11	14	24	25	29	0.6	250	10.0
CIH02T1N4□	1.4nH±0.1nH,0.2nH,0.3nH	2	10	13	22	23	26	0.6	250	10.0
CIH02T1N5□	1.5nH±0.1nH,0.2nH,0.3nH	2	10	13	22	23	26	0.6	220	10.0
CIH02T1N6□	1.6nH±0.1nH,0.2nH,0.3nH	2	10	13	22	23	26	0.6	220	10.0
CIH02T1N7□	1.7nH±0.1nH,0.2nH,0.3nH	2	10	13	23	24	27	0.6	200	10.0
CIH02T1N8□	1.8nH±0.1nH,0.2nH,0.3nH	2	11	14	23	25	28	0.6	200	10.0
CIH02T1N9□	1.9nH±0.1nH,0.2nH,0.3nH	2	10	14	22	24	26	0.6	200	9.0
CIH02T2N0□	2.0nH±0.1nH,0.2nH,0.3nH	2	10	13	21	23	25	0.6	200	9.0

Part No.	Inductance (nH)	Q(Min.) 100MHz	Q Typical Frequency[Hz]					DC Resistance [Ω]max.	Rated current (mA)max.	SRF [GHz] min.
			500M	800M	1.8G	2.0G	2.4G			
CIH02T2N1□	2.1nH±0.1nH,0.2nH,0.3nH	2	10	13	21	23	25	0.7	200	8.0
CIH02T2N2□	2.2nH±0.1nH,0.2nH,0.3nH	2	10	13	21	23	26	0.8	200	8.0
CIH02T2N3□	2.3nH±0.1nH,0.2nH,0.3nH	2	10	13	21	23	25	0.8	200	7.0
CIH02T2N4□	2.4nH±0.1nH,0.2nH,0.3nH	2	10	13	21	23	25	0.8	200	7.0
CIH02T2N5□	2.5nH±0.1nH,0.2nH,0.3nH	2	10	13	21	22	25	0.8	200	7.0
CIH02T2N6□	2.6nH±0.1nH,0.2nH,0.3nH	2	11	13	22	23	26	0.8	200	7.0
CIH02T2N7□	2.7nH±0.1nH,0.2nH,0.3nH	2	11	13	22	23	26	0.8	200	7.0
CIH02T2N8□	2.8nH±0.1nH,0.2nH,0.3nH	2	10	13	20	22	24	0.8	200	7.0
CIH02T2N9□	2.9nH±0.1nH,0.2nH,0.3nH	2	10	13	20	21	23	0.8	200	7.0
CIH02T3N0□	3.0nH±0.1nH,0.2nH,0.3nH	2	10	13	20	21	24	0.8	200	7.0
CIH02T3N1□	3.1nH±0.1nH,0.2nH,0.3nH	2	10	13	20	21	24	0.9	200	7.0
CIH02T3N2□	3.2nH±0.1nH,0.2nH,0.3nH	2	10	13	21	23	25	1.0	200	7.0
CIH02T3N3□	3.3nH±0.1nH,0.2nH,0.3nH	2	10	13	21	23	25	1.1	180	7.0
CIH02T3N4□	3.4nH±0.1nH,0.2nH,0.3nH	2	10	12	22	24	25	1.1	180	6.5
CIH02T3N5□	3.5nH±0.1nH,0.2nH,0.3nH	2	11	13	22	24	25	1.1	180	6.0
CIH02T3N6□	3.6nH±0.1nH,0.2nH,0.3nH	2	10	14	22	24	26	1.1	180	6.0
CIH02T3N7□	3.7nH±0.1nH,0.2nH,0.3nH	2	10	12	20	22	25	1.1	180	6.0
CIH02T3N8□	3.8nH±0.1nH,0.2nH,0.3nH	2	10	13	20	21	23	1.1	180	6.0
CIH02T3N9□	3.9nH±0.1nH,0.2nH,0.3nH	2	10	12	20	22	23	1.2	180	6.0
CIH02T4N0□	4.0nH±0.1nH,0.2nH,0.3nH	2	10	13	20	21	24	1.2	180	6.0
CIH02T4N3□	4.3nH±0.3nH,3%,5%	2	11	13	21	22	24	1.2	180	6.0
CIH02T4N7□	4.7nH±0.3nH,3%,5%	2	10	13	21	22	25	1.3	160	6.0
CIH02T5N1□	5.1nH±0.3nH,3%,5%	2	11	14	22	23	25	1.4	160	6.0
CIH02T5N6□	5.6nH±0.3nH,3%,5%	2	10	13	20	22	25	1.5	140	6.0
CIH02T6N2□	6.2nH±0.3nH,3%,5%	2	10	14	21	23	23	1.5	140	5.5
CIH02T6N8□	6.8nH±3%,5%	2	11	13	21	22	22	1.6	140	5.5
CIH02T7N5□	7.5nH±3%,5%	2	10	14	21	22	24	1.7	140	5.0
CIH02T8N2□	8.2nH±3%,5%	2	11	14	21	22	24	1.8	140	4.5
CIH02T9N1□	9.1nH±3%,5%	2	11	14	20	21	23	1.8	140	4.0
CIH02T10N□	10nH±3%,5%	3	11	14	21	22	23	2.1	140	4.0
CIH02T12N□	12nH±3%,5%	3	10	13	17	18	19	2.4	140	3.5
CIH02T15N□	15nH±3%,5%	3	11	13	17	18	18	2.6	140	3.0
CIH02T18N□	18nH±3%,5%	3	10	12	17	16	16	2.8	140	2.5

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

※ The Rated Current is the DC current value when the self-generation of heat rises to 20℃ (Reference ambient temperature:20℃)

※ Measurement : E4991A + 16196D

※ Residual Inductance : 0.11nH

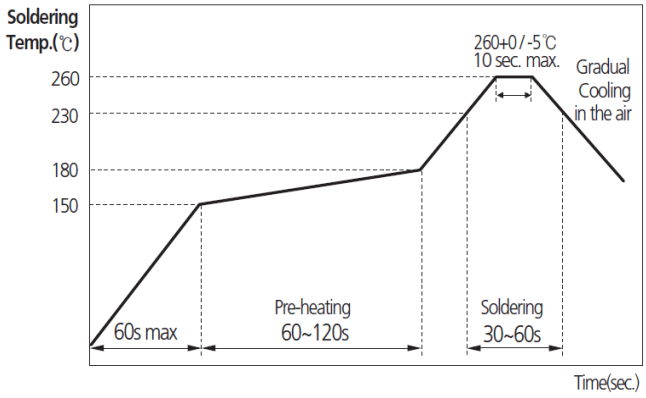
PRODUCT IDENTIFICATION

CI	H	02	T	1N0	S	N	C
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

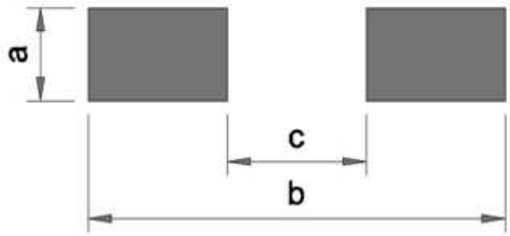
(1) Chip Inductor
(2) H:High frequency type
(3) Dimension
(4) Material code
(5) Inductance(1N0:1.0nH, 18N:18nH)
(6) Tolerance(S:±0.3nH, J:±5%)
(7) Thickness option(N:Standard, A:Thinner than standard, B:Thicker than standard)
(8) Packaging(C:paper tape, E:embossed tape)

RECOMMENDED SOLDERING CONDITION

REFLOW SOLDERING



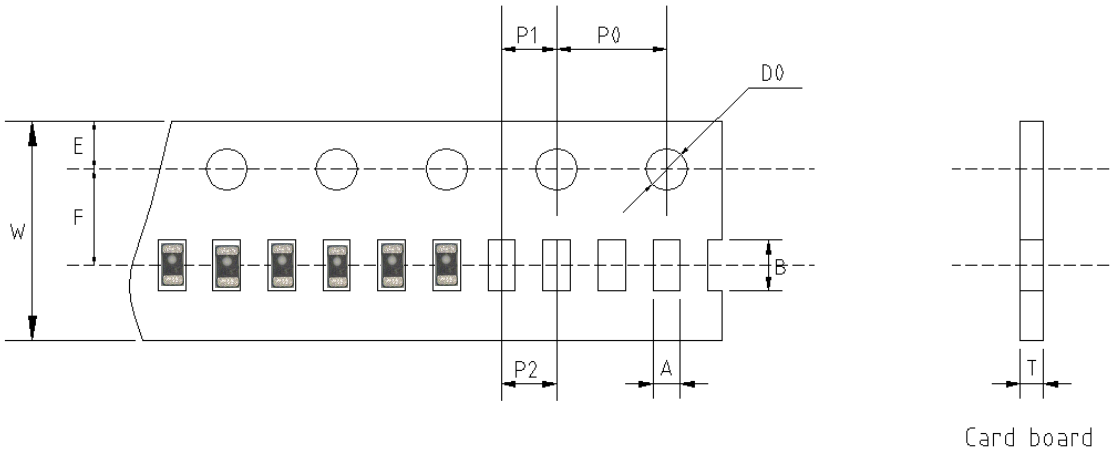
RECOMMENDED LAND PATTERN



Unit : mm

Series	Chip size	a	b	c
CIH02T	0402	0.26	0.54	0.20

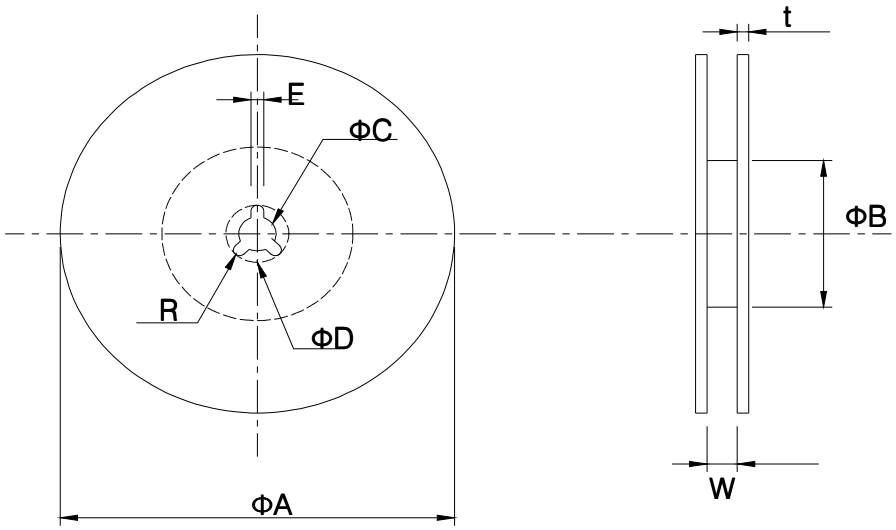
CARD BOARD TAPE CONDITION



Unit : mm

Type	Tape	Chip Thickness	Chip Cavity		T	W	E	F	P_1	P_2	P_0	D_0	Quantity /Reel (PCS)
			A	B									
0402	Card board	0.2	0.24 ±0.02	0.45 ±0.02	0.31 ±0.03	8.0 ±0.1	1.75 ±0.05	3.5 ±0.05	2.0 ±0.05	2.0 ±0.05	4.0 ±0.05	Φ1.5 +0.1	20,000

REEL CONDITION



Unit : mm

TYPE	A	B	C	D	E	W	t	R
7"REEL	φ180+0/-3	φ60+1/-0	φ13±0.3	25±0.5	2.0±0.5	9±0.5	1.2±0.2	1.0