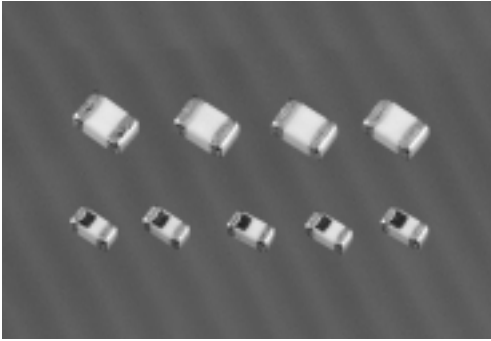


CIH Series High Frequency Type



The CIH Series has dielectric material and 100% Ag as an internal conductor.

Therefore it has high Q and IZI at high frequencies.

It is possible to use for high frequencies over 100MHz.

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.

APPLICATIONS

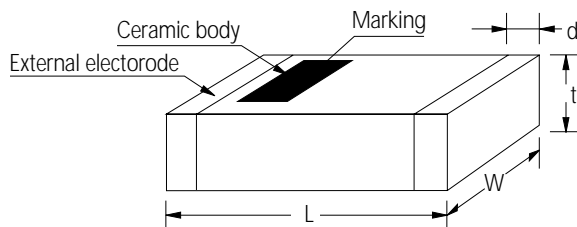
- Mobile communication systems, noise suppression at high frequency, Impedance matching.

PART NUMBERING

CI **H** **21** **T** **12N** **J** **N** **E**
 (1) (2) (3) (4) (5) (6) (7) (8)

- (1) CHIP INDUCTOR
 (2) H: High frequency type
 (3) Dimensions
 (4) Material code (T, B: Dielectric material)
 (5) Inductance (4N7: 4.7nH ; 10N: 10nH ; R10: 100nH)
 (6) Tolerance (S: $\pm 0.3nH$; J: $\pm 5\%$; K: $\pm 10\%$)
 (7) Thickness option (N: Standard ; A: Thinner than standard ; B: Thicker than standard)
 (8) Packaging style (C: paper tape, 7" reel ; E: embossed tape, 7" reel)

DIMENSIONS



► Polarity marking in case of 1608

Unit : mm

Type	EIA Code	L	W	t	d
05	0402	1.0 ± 0.05	0.5 ± 0.05	0.5 ± 0.05	0.25 ± 0.1
10	0603	1.6 ± 0.15	0.8 ± 0.15	0.8 ± 0.15	0.3 ± 0.2
21	0805	$2.0 \begin{smallmatrix} +0.3 \\ -0.1 \end{smallmatrix}$	1.25 ± 0.2	0.85 ± 0.2	0.5 ± 0.3
				$1.00 \begin{smallmatrix} +0.2 \\ -0.3 \end{smallmatrix}$	

CIH 1005(0402) TYPE

Part No. (1005 type)	Product's Thickness (mm)	Inductance (nH) @100MHz	Q min			SRF (MHz), min	DC resistance (Ω),max	Rated current (mA),max
			100MHz	800MHz	1800MHz			
CIH 05T 1N0S	0.5±0.05	1.0±0.3nH	8	20	30	10000	0.12	300
CIH 05T 1N2S	0.5±0.05	1.2±0.3nH	8	20	28	10000	0.12	300
CIH 05T 1N5S	0.5±0.05	1.5±0.3nH	8	22	35	6000	0.13	300
CIH 05T 1N8S	0.5±0.05	1.8±0.3nH	8	22	35	6000	0.14	300
CIH 05T 2N2S	0.5±0.05	2.2±0.3nH	8	22	35	6000	0.16	300
CIH 05T 2N7S	0.5±0.05	2.7±0.3nH	8	22	35	6000	0.17	300
CIH 05T 3N3□	0.5±0.05	3.3±0.3nH, 10%	8	22	35	6000	0.19	300
CIH 05T 3N9□	0.5±0.05	3.9±0.3nH, 10%	8	22	32	4000	0.22	300
CIH 05T 4N7□	0.5±0.05	4.7±0.3nH, 10%	8	22	32	4000	0.24	300
CIH 05T 5N6□	0.5±0.05	5.6±0.3nH, 10%	8	22	29	4000	0.27	300
CIH 05T 6N8□	0.5±0.05	6.8±10%, 5%	8	21	29	3900	0.32	250
CIH 05T 8N2□	0.5±0.05	8.2±10%, 5%	8	21	29	3600	0.37	250
CIH 05T 10N□	0.5±0.05	10.0±10%, 5%	8	21	28	3200	0.42	250
CIH 05T 12N□	0.5±0.05	12.0±10%, 5%	8	20	27	2700	0.50	250
CIH 05T 15N□	0.5±0.05	15.0±10%, 5%	8	20	21	2300	0.55	250
CIH 05T 18N□	0.5±0.05	18.0±10%, 5%	8	20	15	2100	0.65	200
CIH 05T 22N□	0.5±0.05	22.0±10%, 5%	8	20	13	1900	0.80	200
CIH 05T 27N□	0.5±0.05	27.0±10%, 5%	8	17	-	1600	0.90	200
CIH 05T 33N□	0.5±0.05	33.0±10%, 5%	8	17	-	1300	1.00	200
CIH 05T 39N□	0.5±0.05	39.0±10%, 5%	8	16	-	1200	1.20	150
CIH 05T 47N□	0.5±0.05	47.0±10%, 5%	8	15	-	1000	1.30	150
CIH 05T 56N	0.5±0.05	56.0±10%, 5%	8	-	-	750	1.40	150
CIH 05T 68N	0.5±0.05	68.0±10%, 5%	8	-	-	750	1.40	150
CIH 05T 82N	0.5±0.05	82.0±10%, 5%	8	-	-	600	1.60	100
CIH 05T R10	0.5±0.05	100.0±10%, 5%	8	-	-	600	1.60	100

□: Tolerance (S: ±0.3nH, J: ±5%, K: ±10%)

* Test equipment: HP4291A + HP16193A

CIH 1608(0603) TYPE

Part No. (1608 type)	Product's Thickness (mm)	Inductance (nH) @100MHz	Q min		SRF (MHz), min	DC resistance (Ω),max	Rated current (mA),max
			100MHz	800MHz			
CIH 10T 1N2 S	0.8±0.15	1.2±0.3nH	8	20	10000	0.05	300
CIH 10T 1N5 S	0.8±0.15	1.5±0.3nH	8	20	6000	0.10	300
CIH 10T 1N8 S	0.8±0.15	1.8±0.3nH	8	20	6000	0.10	300
CIH 10T 2N2 S	0.8±0.15	2.2±0.3nH	8	20	6000	0.10	300
CIH 10T 2N7 S	0.8±0.15	2.7±0.3nH	10	25	6000	0.10	300
CIH 10T 3N3□	0.8±0.15	3.3±0.3nH,10%	10	25	6000	0.12	300
CIH 10T 3N9□	0.8±0.15	3.9±0.3nH,10%	10	27	6000	0.14	300
CIH 10T 4N7□	0.8±0.15	4.7±0.3nH,10%	10	27	4000	0.16	300
CIH 10T 5N6□	0.8±0.15	5.6±0.3nH,10%	10	27	4000	0.18	300
CIH 10T 6N8□	0.8±0.15	6.8±10%, 5%	10	27	4000	0.22	300
CIH 10T 8N2□	0.8±0.15	8.2±10%, 5%	10	26	3500	0.24	300
CIH 10T 10N□	0.8±0.15	10.0±10%, 5%	12	26	3400	0.26	300
CIH 10T 12N□	0.8±0.15	12.0±10%, 5%	12	24	2600	0.28	300
CIH 10T 15N□	0.8±0.15	15.0±10%, 5%	12	24	2300	0.32	300
CIH 10T 18N□	0.8±0.15	18.0±10%, 5%	12	24	2000	0.35	300
CIH 10T 22N□	0.8±0.15	22.0±10%, 5%	12	25	1600	0.40	300
CIH 10T 27N□	0.8±0.15	27.0±10%, 5%	12	25	1400	0.45	300
CIH 10T 33N□	0.8±0.15	33.0±10%, 5%	12	24	1200	0.55	300
CIH 10T 39N□	0.8±0.15	39.0±10%, 5%	12	20	1100	0.60	300
CIH 10T 47N□	0.8±0.15	47.0±10%, 5%	12	20	900	0.77	300
CIH 10T 56N□	0.8±0.15	56.0±10%, 5%	12	20	900	0.75	300
CIH 10T 68N□	0.8±0.15	68.0±10%, 5%	12	⁽¹⁾ 20	700	0.85	300
CIH 10T 82N□	0.8±0.15	82.0±10%, 5%	12	⁽¹⁾ 20	600	0.95	300
CIH 10T R10□	0.8±0.15	100.0±10%, 5%	12	⁽¹⁾ 20	600	1.00	300
CIH 10T R12	0.8±0.15	⁽²⁾ 120.0±10%, 5%	⁽²⁾ 8	-	500	1.20	300
CIH 10T R15	0.8±0.15	⁽²⁾ 150.0±10%, 5%	⁽²⁾ 8	-	500	1.20	300
CIH 10T R18	0.8±0.15	⁽²⁾ 180.0±10%, 5%	⁽²⁾ 8	-	400	1.30	300
CIH 10T R22	0.8±0.15	⁽²⁾ 220.0±10%, 5%	⁽²⁾ 8	-	400	1.50	300
CIH 10T R27	0.8±0.15	⁽²⁾ 270.0±10%, 5%	⁽²⁾ 8	-	400	1.50	300

□: Tolerance (S: ±0.3nH, J: ±5%, K: ±10%)

* Test equipment: HP4291A + HP16092A

▷ "(1), (2)" in the table means below (1):Test at 500MHz ; (2):Test at 50MHz

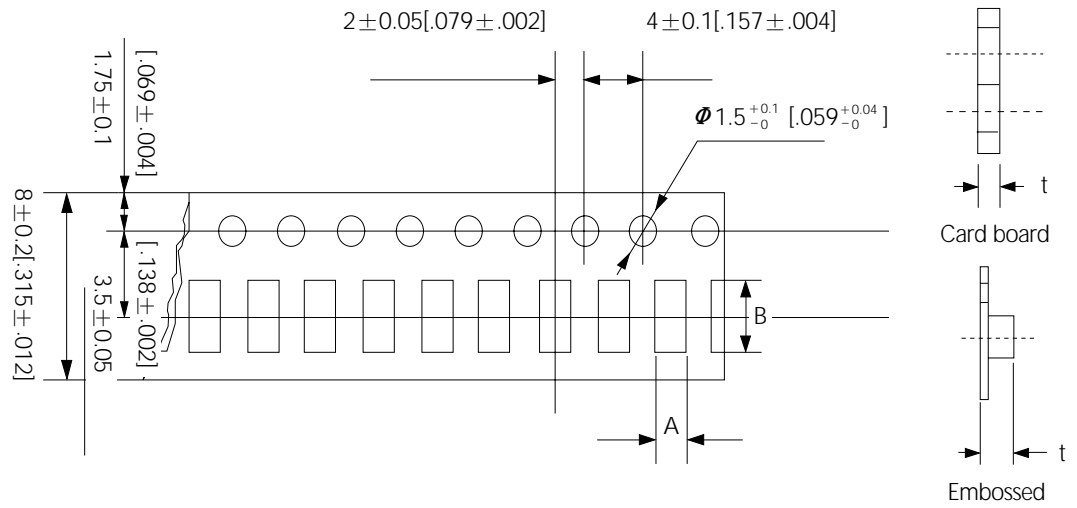
CIH 2012(0805) TYPE

Part No. (2012 type)	Product's Thickness (mm)	Inductance (nH)	Q min	L, Q test frequency (MHz)	SRF (MHz), min	DC resistance (Ω),max	Rated current (mA),max
CIH 21T 1N5 S	0.85±0.2	1.5±0.3nH	10	100	4000	0.10	300
CIH 21T 1N8 S	0.85±0.2	1.8±0.3nH	10	100	4000	0.10	300
CIH 21T 2N2 S	0.85±0.2	2.2±0.3nH	10	100	4000	0.10	300
CIH 21T 2N7 S	0.85±0.2	2.7±0.3nH	12	100	4000	0.10	300
CIH 21T 3N3□	0.85±0.2	3.3±0.3nH,10%	12	100	4000	0.13	300
CIH 21T 3N9□	0.85±0.2	3.9±0.3nH,10%	12	100	4000	0.15	300
CIH 21T 4N7□	0.85±0.2	4.7±0.3nH,10%	12	100	3500	0.20	300
CIH 21T 5N6□	0.85±0.2	5.6±0.3nH,10%	15	100	3200	0.23	300
CIH 21T 6N8□	0.85±0.2	6.8±10%, 5%	15	100	2800	0.25	300
CIH 21T 8N2□	0.85±0.2	8.2±10%, 5%	15	100	2400	0.28	300
CIH 21T 10N□	0.85±0.2	10.0±10%, 5%	15	100	2100	0.30	300
CIH 21T 12N□	0.85±0.2	12.0±10%, 5%	15	100	1900	0.35	300
CIH 21T 15N□	0.85±0.2	15.0±10%, 5%	15	100	1600	0.40	300
CIH 21T 18N□	0.85±0.2	18.0±10%, 5%	15	100	1500	0.45	300
CIH 21T 22N□	0.85±0.2	22.0±10%, 5%	18	100	1400	0.50	300
CIH 21T 27N□	0.85±0.2	27.0±10%, 5%	18	100	1300	0.55	300
CIH 21T 33N□	0.85±0.2	33.0±10%, 5%	18	100	1200	0.60	300
CIH 21T 39N□	0.85±0.2	39.0±10%, 5%	18	100	1000	0.65	300
CIH 21T 47N□	1.00 ^{+0.2} _{-0.3}	47.0±10%, 5%	18	100	900	0.70	300
CIH 21T 56N□	1.00 ^{+0.2} _{-0.3}	56.0±10%, 5%	18	100	800	0.75	300
CIH 21T 68N□	1.00 ^{+0.2} _{-0.3}	68.0±10%, 5%	18	100	700	0.80	300
CIH 21T 82N□	1.00 ^{+0.2} _{-0.3}	82.0±10%, 5%	18	100	600	0.90	300
CIH 21T R10□	1.00 ^{+0.2} _{-0.3}	100.0±10%, 5%	18	100	600	0.90	300
CIH 21T R12□	1.00 ^{+0.2} _{-0.3}	120.0±10%, 5%	13	50	500	0.95	300
CIH 21T R15□	1.00 ^{+0.2} _{-0.3}	150.0±10%, 5%	13	50	500	1.00	300
CIH 21T R18□	1.00 ^{+0.2} _{-0.3}	180.0±10%, 5%	13	50	400	1.00	300
CIH 21T R22□	1.00 ^{+0.2} _{-0.3}	220.0±10%, 5%	12	50	350	1.20	300
CIH 21T R27□	1.00 ^{+0.2} _{-0.3}	270.0±10%, 5%	12	50	300	1.30	300
CIH 21T R33□	1.00 ^{+0.2} _{-0.3}	330.0±10%, 5%	12	50	250	1.40	300
CIH 21T R39□	1.00 ^{+0.2} _{-0.3}	390.0±10%, 5%	10	50	250	1.50	300
CIH 21T R47□	1.00 ^{+0.2} _{-0.3}	470.0±10%, 5%	10	50	200	1.50	300

□ : Tolerance (S : ±0.3nH, J : ±5%, K : ±10%)

* Test equipment : HP4291A + HP16092A

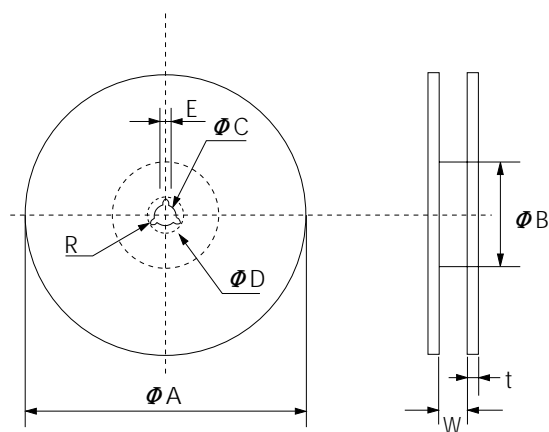
PACKAGING



Unit: mm

Type	Tape	A	B	tmax	T	quantity/reel (pcs)
05	Card	0.65 ± 0.1 [.026 ± .004]	1.15 ± 0.1 [.045 ± .004]	0.8 [.031]	0.5 ± 0.05 [.02 ± .002]	10,000
10	Card	1.1 ± 0.2 [.043 ± .008]	1.9 ± 0.2 [.075 ± .008]	1.5 [.059]	0.8 ± 0.15 [.031 ± .006]	4,000
21	Embossed	1.5 ± 0.2 [.059 ± .008]	2.3 ± 0.2 [.091 ± .008]	1.5 [.059]	0.85 [.033]	4,000
				2.0 [.079]	1.0 [.039]	3,000

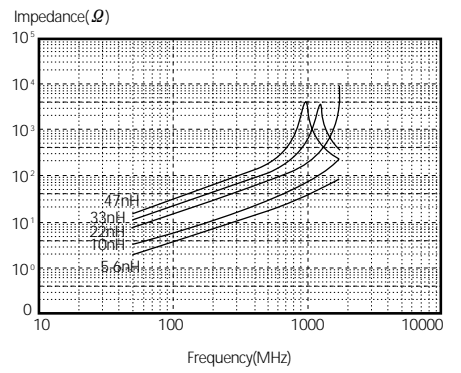
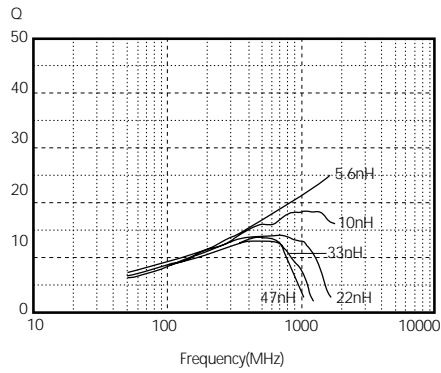
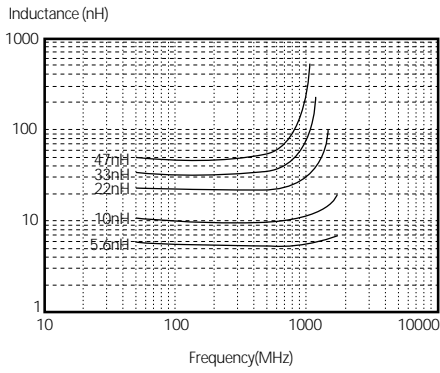
T: chip's thickness



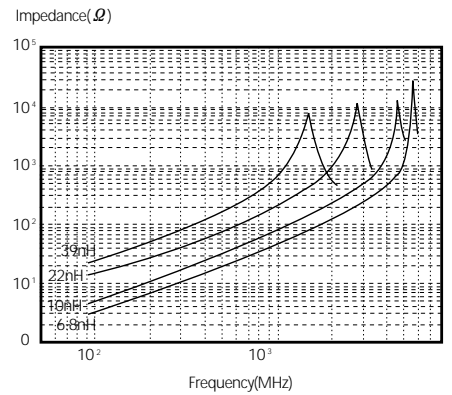
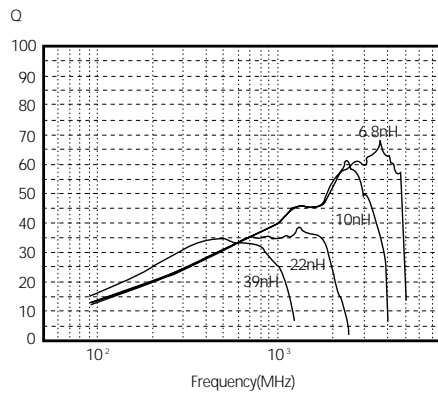
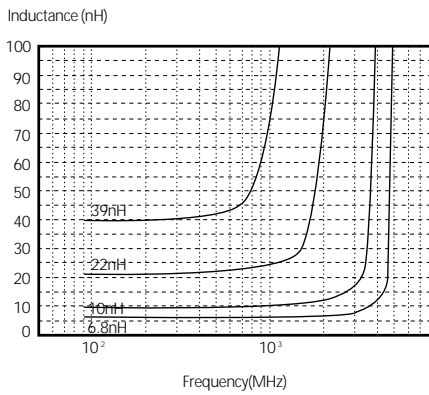
Unit: mm

A	B	C	D	E	W	t	R
178 ± 2	50 ± 1.0	13 ± 0.5	21 ± 0.8	2 ± 0.5	10.0 ± 1.0	1.2 ± 0.5	1.0

1005 TYPE



1608 TYPE



2012 TYPE

