



THE DATASHEET OF CIH05T2N4SNC



Multilayer High Frequency inductor

CIH05T Series (1005/ EIA 0402)



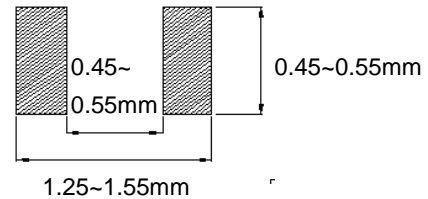
APPLICATION

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

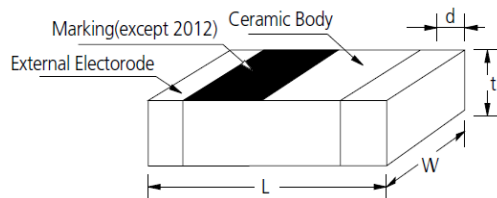
FEATURES

- 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)

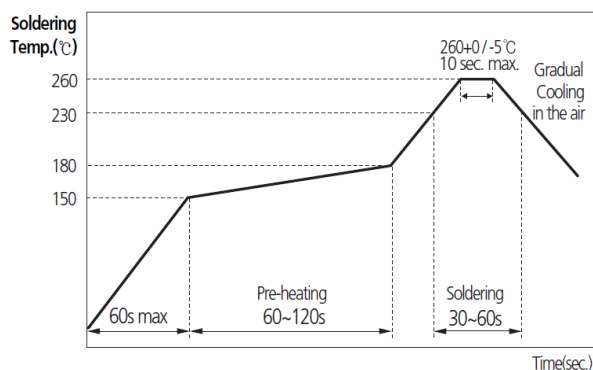
PRODUCT IDENTIFICATION

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

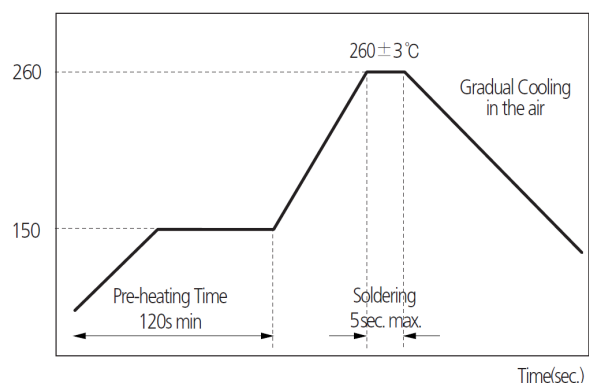
- (1) Chip Inductor
- (2) H:High frequency type
- (3) Dimension
- (4) Material code(T:Dielectric material)
- (5) Inductance(4N7:4.7nH, 10N:10nH, R10:100nH)
- (6) Tolerance(C:±0.2nH, S:±0.3nH, J:±5%, K:±10%)
- (7) Thickness option(N:Standard, A:Thinner than standard, B:Thicker than standard)
- (8) Packaging(C:paper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

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