

## Cautions and Warnings

Please be noted that this spec is only for reference if you have projects designed with the product number listed in. If you are looking for new project design-in, please find BSCH Series specification/datasheet on Chilisin website. Or you may find our sales contact for more information on old part number at your convenience. Appreciated your attention and understanding.

**Note:** Please be sure to request approval specifications that provide further details of the products. Kindly note that the content of these specifications are subject to change or may be discontinued without prior notice. This product may not be designed/used in medical or high risk applications without Chilisin approval. Please contact our sales department before ordering.

## CLH Series



The CLH Series is a type of ceramic chip inductor produced using the multilayer technology. The series provides excellent Q factor and SRF characteristics and is suitable for high frequency applications.

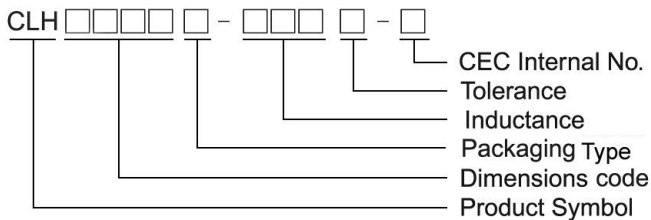
### Features

- RoHS compliant
- Excellent Q factor and SRF characteristics
- Small size of 1005/1608 is suitable for small portable devices
- Supports operating frequency up to 6GHz with nominal inductance values from 1.0nH to 470nH.

### Applications

- RF resonance and impedance matching circuit
- RF and wireless communication
- Information technology equipment, computers, telecommunications, radar detectors, automotive electronics, cellular phones, pagers, PDAs, keyless remote systems
- L-C filter configurations

### Product Identification



- Packing Type: T: Taping B: Bulk
- Product series identification:

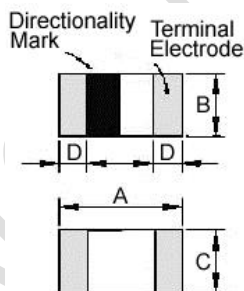
CLH0603-F: Top side half mark.

CLH1005-S: Top side full mark.

CLH1608-S: Top side full mark.

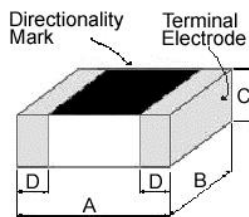
### Shape and Dimensions

CLH0603-F Series

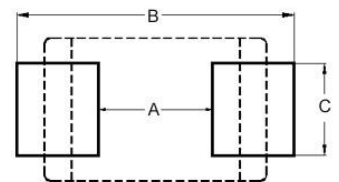


CLH1005-S Series

CLH1608-S Series



### Recommended Pattern



Dimensions in mm

TYPE	A	B	C	D
0603	0.6±0.03	0.3±0.03	0.3±0.03	0.15±0.05
1005	1.0±0.10	0.5±0.10	0.5±0.10	0.25±0.10
1608	1.6±0.15	0.8±0.15	0.8±0.15	0.3±0.2

Dimensions in mm

TYPE	A	B	C
CLH0603	0.3	0.75 ~ 1.05	0.3
CLH1005	0.4	1.2 ~ 1.4	0.5
CLH1608	0.7 ~ 0.8	1.8 ~ 2.0	0.6 ~ 0.8

## SMD Multilayer Ceramic Chip Inductors - CLH Series

### Electrical Characteristics

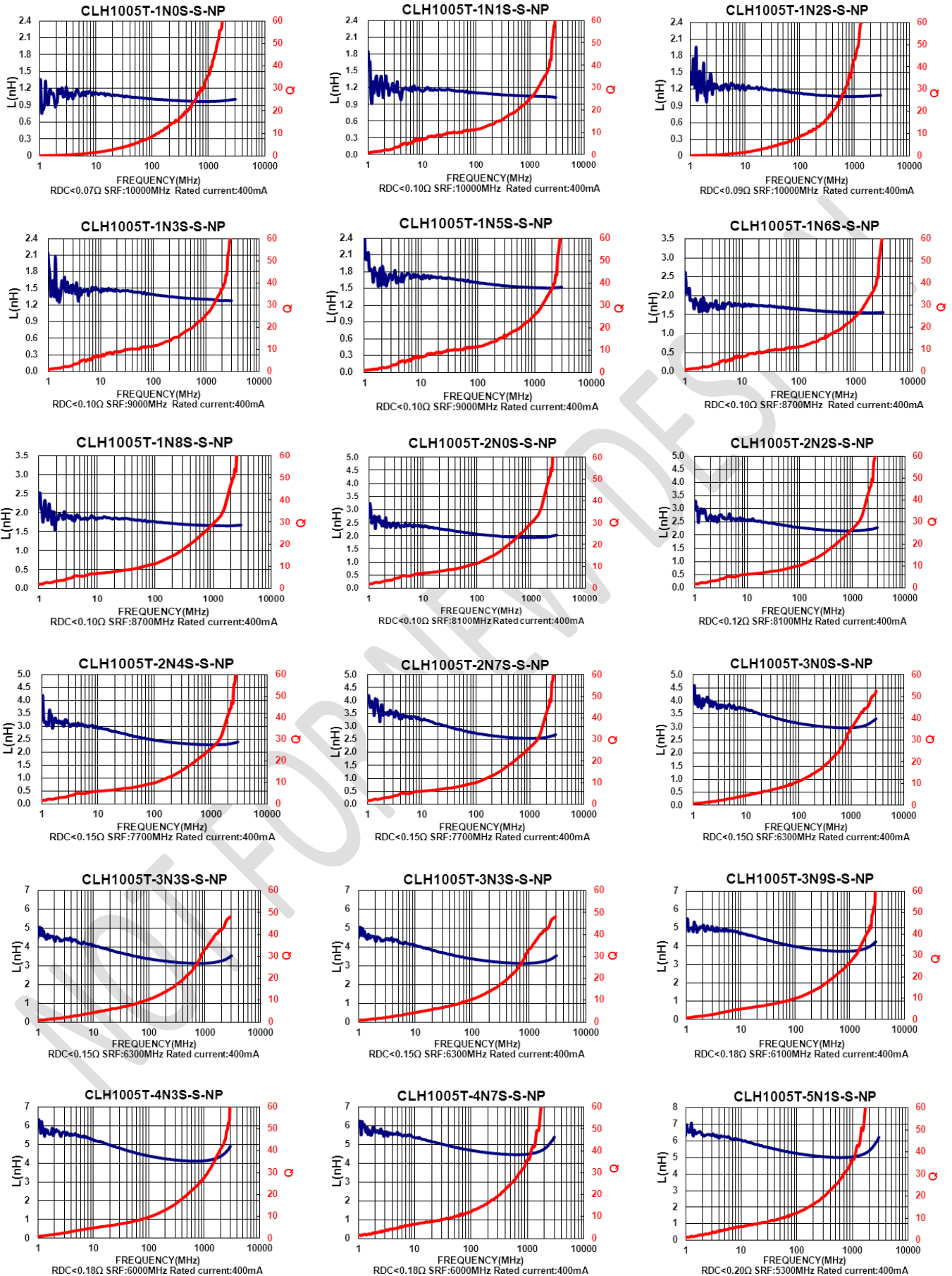
Part Number	Inductance (nH)	Tolerance (±%)	Test Frequency (MHz)	Q Min	SRF (MHz) Typ.	RDC (Ω) Max	Rated Current (mA) Max
CLH1005T-1N0□-S-NP	1.0	±0.2nH/±0.3nH	100	8	10000	0.07	400
CLH1005T-1N1□-S-NP	1.1	±0.3nH	100	8	10000	0.10	400
CLH1005T-1N2□-S-NP	1.2	±0.2nH/±0.3nH	100	8	10000	0.09	400
CLH1005T-1N3□-S-NP	1.3	±0.3nH	100	8	9000	0.10	400
CLH1005T-1N5□-S-NP	1.5	±0.3nH	100	8	9000	0.10	400
CLH1005T-1N6□-S-NP	1.6	±0.3nH	100	8	8700	0.10	400
CLH1005T-1N8□-S-NP	1.8	±0.3nH	100	8	8700	0.10	400
CLH1005T-2N0□-S-NP	2.0	±0.3nH	100	8	8100	0.10	400
CLH1005T-2N2□-S-NP	2.2	±0.3nH	100	8	8100	0.12	400
CLH1005T-2N4□-S-NP	2.4	±0.3nH	100	8	7700	0.15	400
CLH1005T-2N7□-S-NP	2.7	±0.3nH	100	8	7700	0.15	400
CLH1005T-3N0□-S-NP	3.0	±0.3nH	100	8	6300	0.15	400
CLH1005T-3N3□-S-NP	3.3	±0.3nH	100	8	6300	0.15	400
CLH1005T-3N6□-S-NP	3.6	±0.3nH	100	8	6100	0.15	400
CLH1005T-3N9□-S-NP	3.9	±0.3nH	100	8	6100	0.18	400
CLH1005T-4N3□-S-NP	4.3	±0.3nH	100	8	6000	0.18	400
CLH1005T-4N7□-S-NP	4.7	±0.3nH	100	8	6000	0.18	400
CLH1005T-5N1□-S-NP	5.1	±0.3nH	100	8	5300	0.20	400
CLH1005T-5N6□-S-NP	5.6	±0.3nH	100	8	5100	0.20	400
CLH1005T-6N2□-S-NP	6.2	±0.3nH/5/10	100	8	4500	0.22	400
CLH1005T-6N8□-S-NP	6.8	5 / 10	100	8	4550	0.24	400
CLH1005T-7N5□-S-NP	7.5	5 / 10	100	8	4200	0.24	300
CLH1005T-8N2□-S-NP	8.2	5 / 10	100	8	4100	0.24	300
CLH1005T-9N1□-S-NP	9.1	5 / 10	100	8	3900	0.26	300
CLH1005T-10N□-S-NP	10	5 / 10	100	8	3900	0.26	300
CLH1005T-12N□-S-NP	12	5 / 10	100	8	3000	0.28	300
CLH1005T-15N□-S-NP	15	5 / 10	100	8	2500	0.32	300
CLH1005T-18N□-S-NP	18	5 / 10	100	8	2200	0.36	300
CLH1005T-22N□-S-NP	22	5 / 10	100	8	1900	0.42	300
CLH1005T-27N□-S-NP	27	5 / 10	100	8	1700	0.46	300
CLH1005T-33N□-S-NP	33	5 / 10	100	8	1600	0.58	200
CLH1005T-39N□-S-NP	39	5 / 10	100	8	1200	0.65	200
CLH1005T-47N□-S-NP	47	5 / 10	100	8	1000	0.72	200
CLH1005T-56N□-S-NP	56	5 / 10	100	8	800	0.82	200
CLH1005T-68N□-S-NP	68	5 / 10	100	8	800	0.92	180
CLH1005T-82N□-S-NP	82	5 / 10	100	8	700	1.20	150

**Note: When ordering, please specify tolerance code. Tolerance : C=±0.2nH , S=±0.3nH , J=±5% , K=±10%**

- Operating temperature range - 55°C ~ 125°C(Including self - temperature rise)
- Rate Current : Applied the current to coils, the temperature rise shall not be more than 30°C
- Residual impedance of short chip : 0nH
- Measure Equipment :  
L & Q : Agilent E4991A+Agilent 16197A  
SRF : HP8753D  
RDC : HP4338B or CHEN HWA 502

# SMD Multilayer Ceramic Chip Inductors - CLH Series

Test Instruments : Agilent E4991A Material/Impedance Analyzer



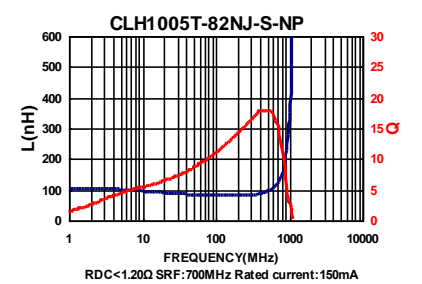
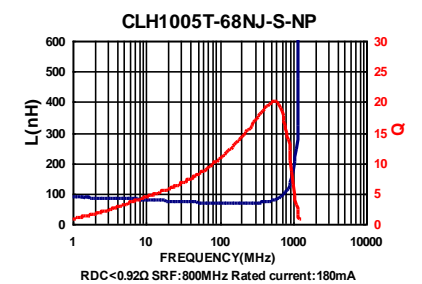
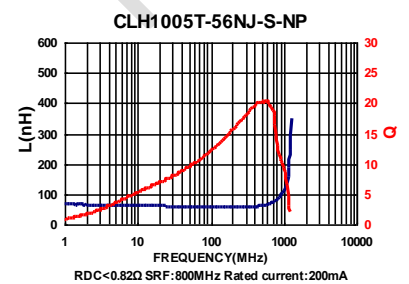
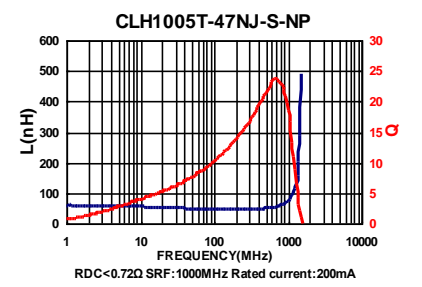
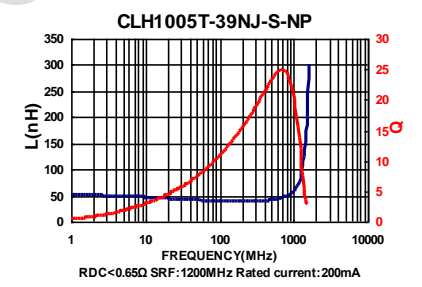
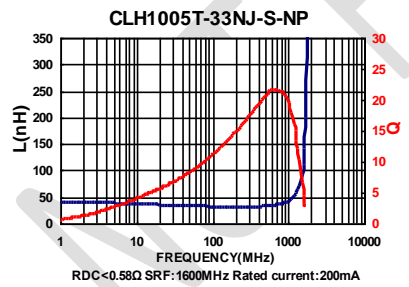
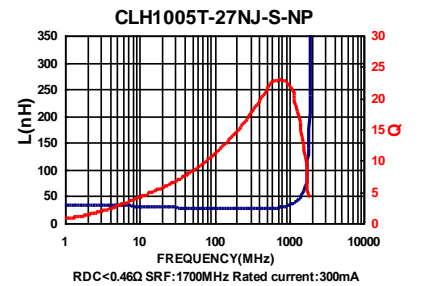
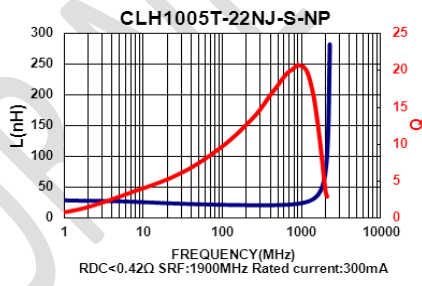
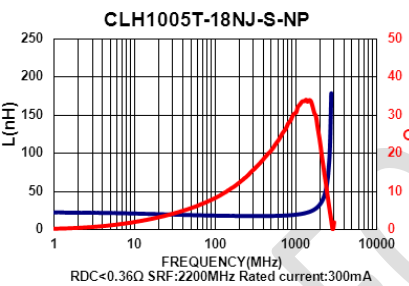
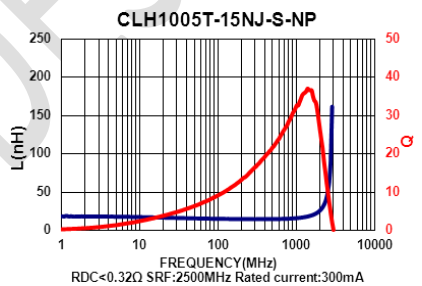
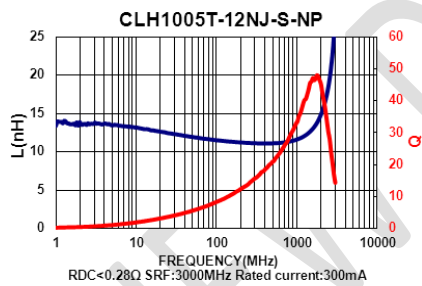
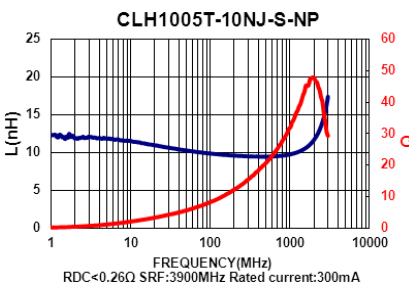
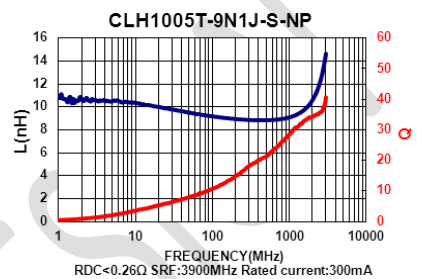
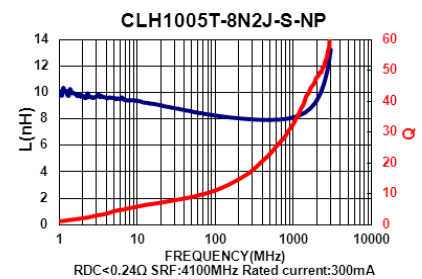
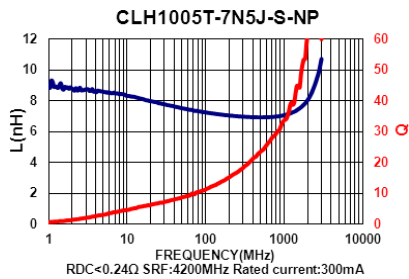
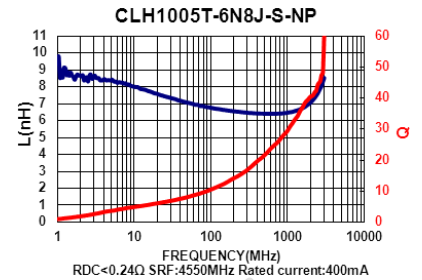
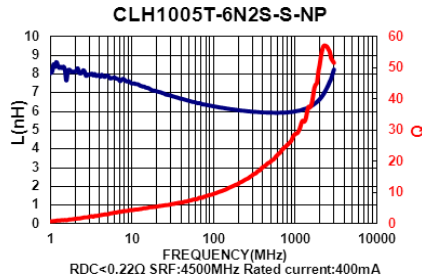
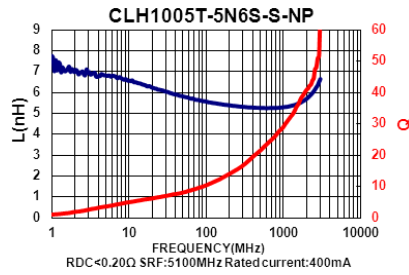
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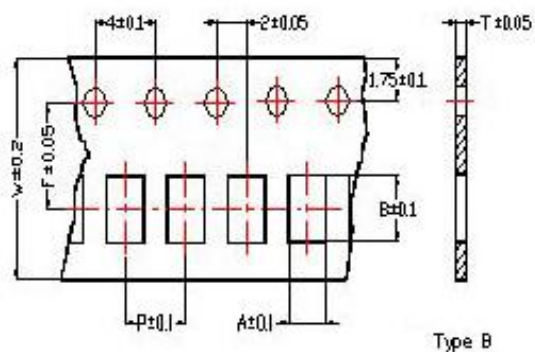
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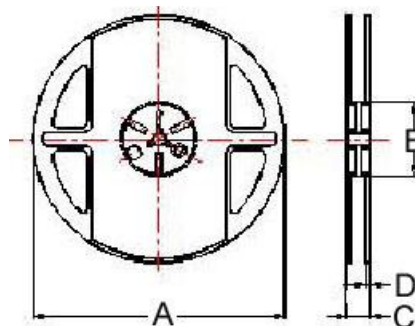


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## Packaging Specifications



## Reel Dimensions



## Dimensions in mm

TYPE	Tape Dimensions							Reel Dimensions				Recommended Pattern			Quantity PCS / Reel
	A	B	T	W	P	F	Tape	A	B	C	D	A	B	C	
CLH1005-S-NP	0.65	1.15	0.60	8	2	3.5	B	178	60	12	1.5	0.4	1.2 ~ 1.4	0.4	10000

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