

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.

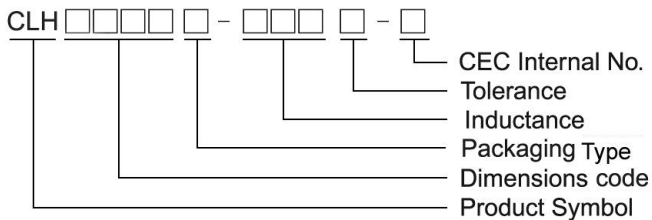
Features

- 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:

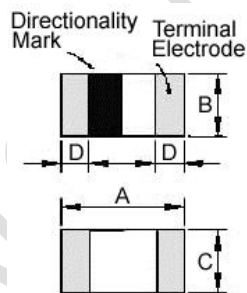
CLH0603-F: Top side half mark.

CLH1005-S: Top side full mark.

CLH1608-S: Top side full mark.

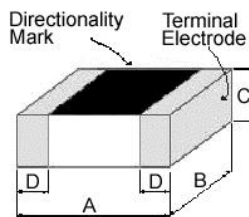
Shape and Dimensions

CLH0603-F Series

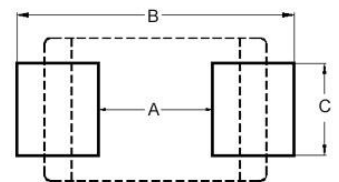


CLH1005-S Series

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 Ceramic Multilayer Chip Inductors – CLH Series

Electrical Characteristics

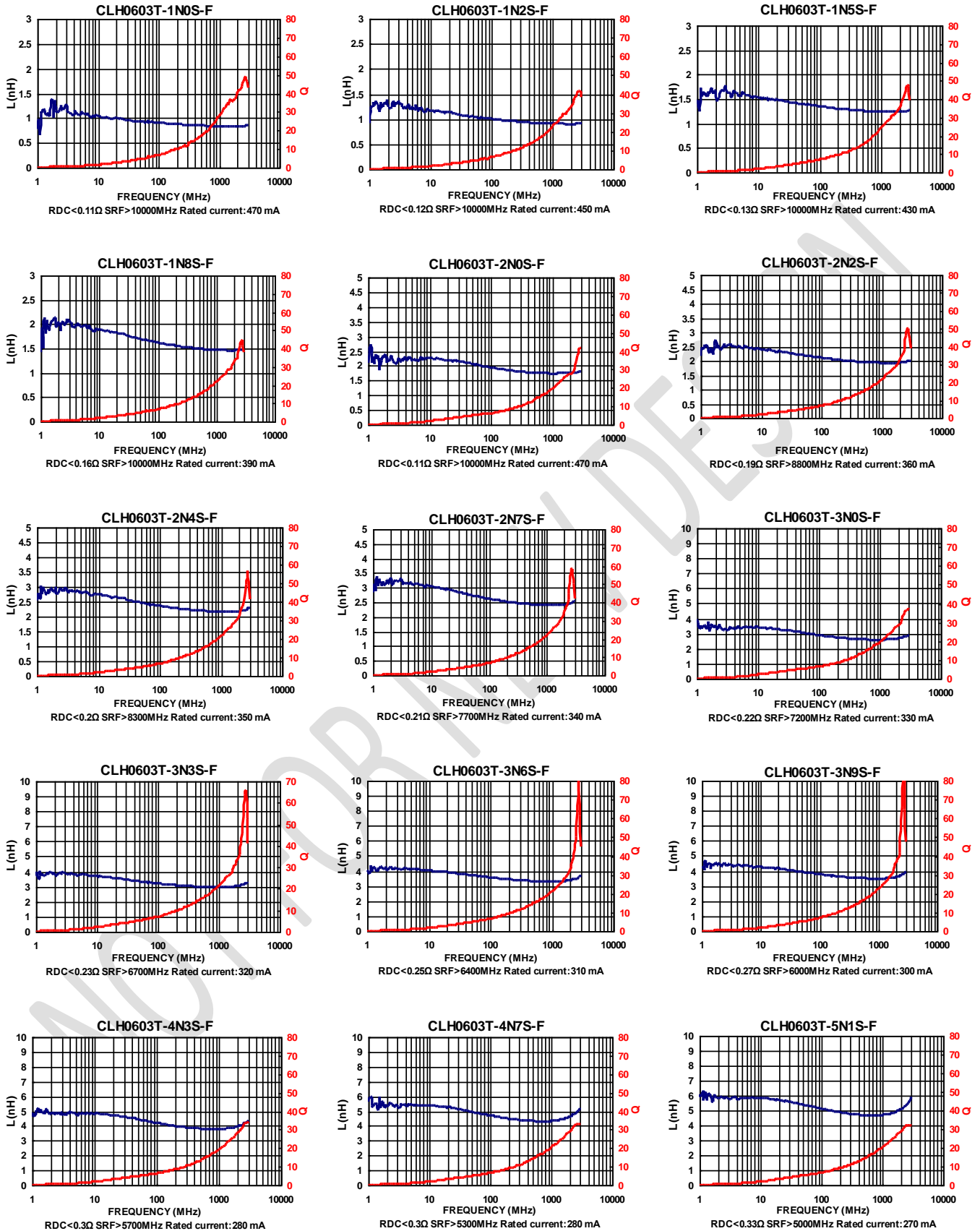
| Part Number | Inductance (nH) | Tolerance (±%) | Test Frequency (MHz) | Q Min | SRF (MHz) Min | RDC (Ω) Max | Rated Current (mA) Max |
|-----------------|-----------------|----------------|----------------------|-------|---------------|-------------|------------------------|
| CLH0603T-1N0□-F | 1.0 | ±0.3nH | 100 | 4 | >10000 | 0.11 | 470 |
| CLH0603T-1N2□-F | 1.2 | ±0.3nH | 100 | 4 | >10000 | 0.12 | 450 |
| CLH0603T-1N5□-F | 1.5 | ±0.3nH | 100 | 4 | >10000 | 0.13 | 430 |
| CLH0603T-1N8□-F | 1.8 | ±0.3nH | 100 | 4 | >10000 | 0.16 | 390 |
| CLH0603T-2N0□-F | 2.0 | ±0.3nH | 100 | 4 | >10000 | 0.17 | 380 |
| CLH0603T-2N2□-F | 2.2 | ±0.3nH | 100 | 4 | 8800 | 0.19 | 360 |
| CLH0603T-2N4□-F | 2.4 | ±0.3nH | 100 | 4 | 8300 | 0.20 | 350 |
| CLH0603T-2N7□-F | 2.7 | ±0.3nH | 100 | 4 | 7700 | 0.21 | 340 |
| CLH0603T-3N0□-F | 3.0 | ±0.3nH | 100 | 4 | 7200 | 0.22 | 330 |
| CLH0603T-3N3□-F | 3.3 | ±0.3nH | 100 | 4 | 6700 | 0.23 | 320 |
| CLH0603T-3N6□-F | 3.6 | ±0.3nH | 100 | 4 | 6400 | 0.25 | 310 |
| CLH0603T-3N9□-F | 3.9 | ±0.3nH | 100 | 4 | 6000 | 0.27 | 300 |
| CLH0603T-4N3□-F | 4.3 | ±0.3nH | 100 | 4 | 5700 | 0.30 | 280 |
| CLH0603T-4N7□-F | 4.7 | ±0.3nH | 100 | 4 | 5300 | 0.30 | 280 |
| CLH0603T-5N1□-F | 5.1 | ±0.3nH | 100 | 4 | 5000 | 0.33 | 270 |
| CLH0603T-5N6□-F | 5.6 | ±0.3nH | 100 | 4 | 4600 | 0.36 | 260 |
| CLH0603T-6N2□-F | 6.2 | ±0.3nH | 100 | 4 | 4200 | 0.38 | 250 |
| CLH0603T-6N8□-F | 6.8 | 5 | 100 | 4 | 3900 | 0.39 | 250 |
| CLH0603T-7N5□-F | 7.5 | 5 | 100 | 4 | 3600 | 0.41 | 240 |
| CLH0603T-8N2□-F | 8.2 | 5 | 100 | 4 | 3400 | 0.45 | 230 |
| CLH0603T-9N1□-F | 9.1 | 5 | 100 | 4 | 3200 | 0.48 | 220 |
| CLH0603T-10N□-F | 10 | 5 | 100 | 4 | 2900 | 0.51 | 220 |
| CLH0603T-12N□-F | 12 | 5 | 100 | 4 | 2700 | 0.68 | 190 |
| CLH0603T-15N□-F | 15 | 5 | 100 | 4 | 2300 | 0.71 | 180 |
| CLH0603T-18N□-F | 18 | 5 | 100 | 4 | 2100 | 0.81 | 170 |
| CLH0603T-22N□-F | 22 | 5 | 100 | 4 | 1800 | 1.00 | 150 |
| CLH0603T-27N□-F | 27 | 5 | 100 | 4 | 1800 | 1.35 | 120 |
| CLH0603T-33N□-F | 33 | 5 | 100 | 4 | 1700 | 1.47 | 110 |
| CLH0603T-39N□-F | 39 | 5 | 100 | 4 | 1500 | 1.72 | 100 |
| CLH0603T-47N□-F | 47 | 5 | 100 | 4 | 1300 | 1.90 | 100 |
| CLH0603T-56N□-F | 56 | 5 | 100 | 4 | 1100 | 2.27 | 80 |
| CLH0603T-68N□-F | 68 | 5 | 100 | 4 | 1100 | 2.66 | 80 |
| CLH0603T-82N□-F | 82 | 5 | 100 | 4 | 1000 | 3.37 | 70 |
| CLH0603T-R10□-F | 100 | 5 | 100 | 4 | 900 | 3.74 | 60 |

Note: When ordering, please specify tolerance code. Tolerance : S=±0.3nH , J=±5%

- 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 : 0.19nH
- Measure Equipment :
L & Q : Agilent E4991A+Agilent 16197A
SRF : Agilent E4991A or HP19196C
RDC : HP4338B or CHEN HWA 502

SMD Ceramic Multilayer Chip Inductors – CLH Series

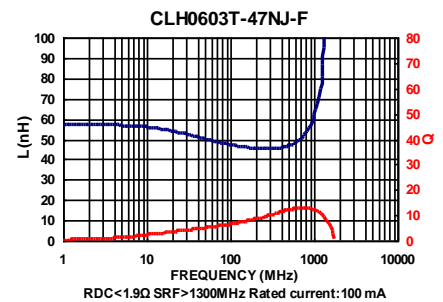
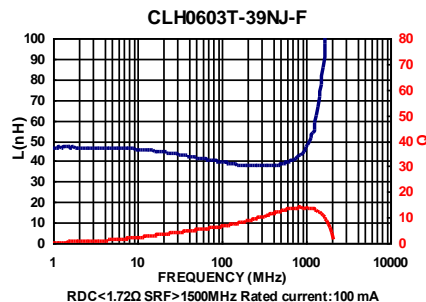
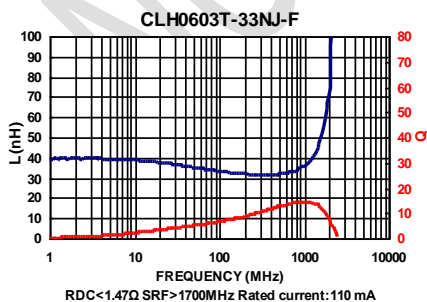
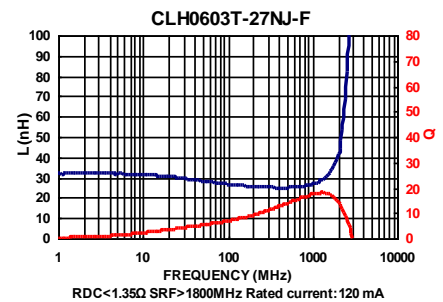
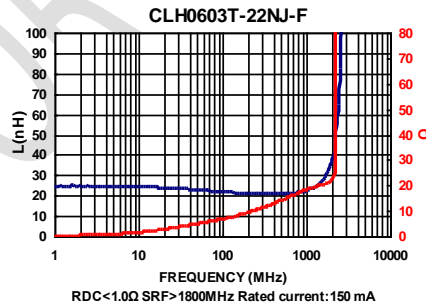
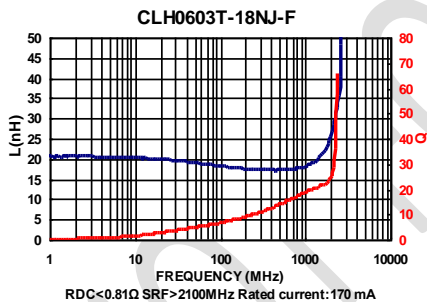
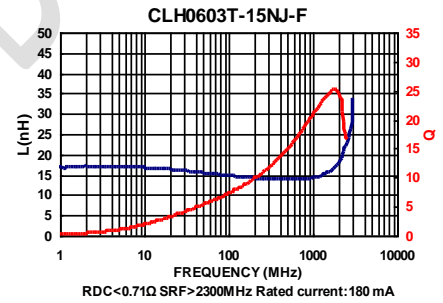
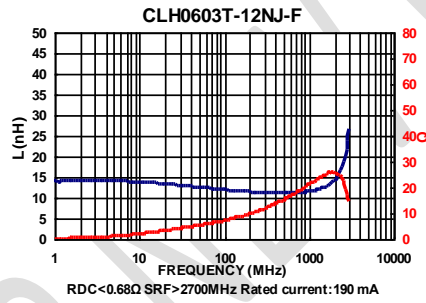
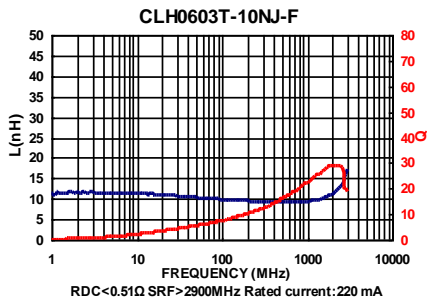
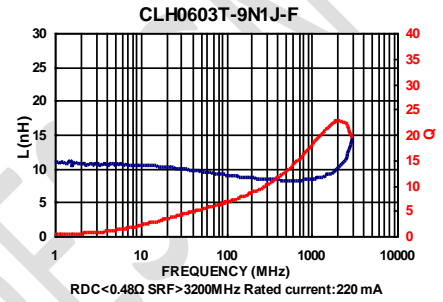
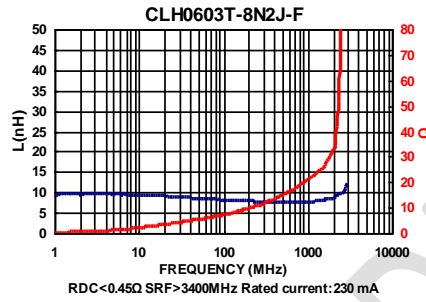
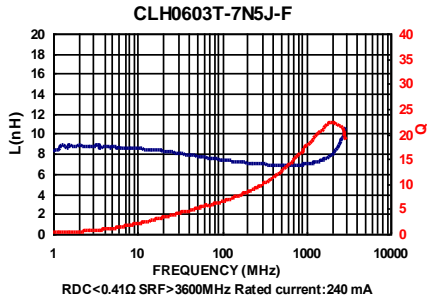
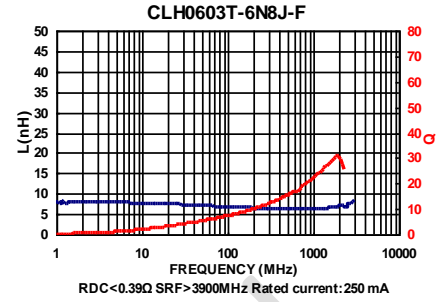
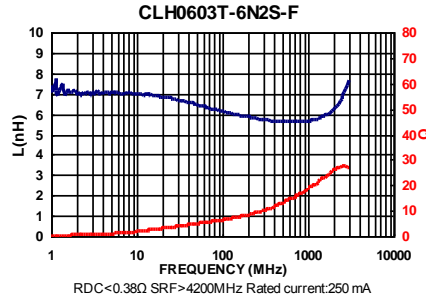
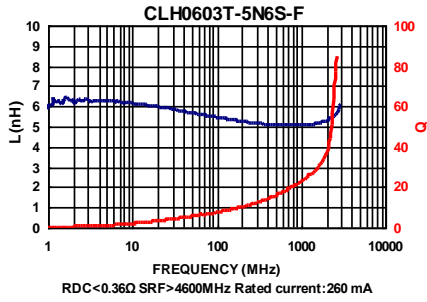
Test Instruments : Agilent E4991A Material/Impedance Analyzer



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SMD Ceramic Multilayer Chip Inductors – CLH Series

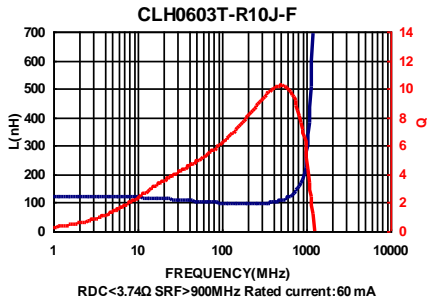
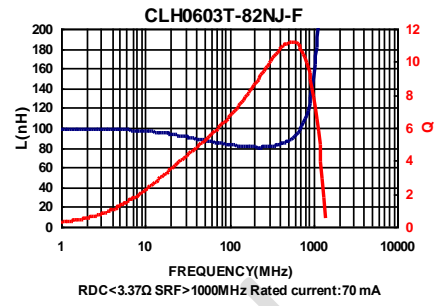
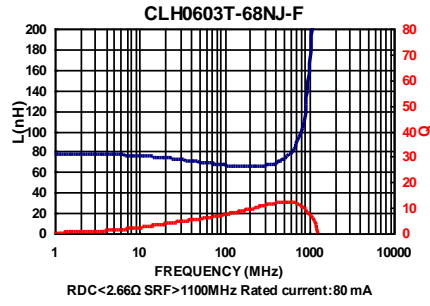
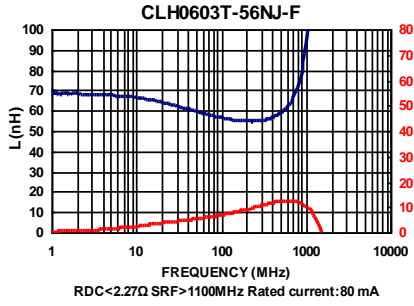
Test Instruments : Agilent E4991A Material/Impedance Analyzer



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SMD Ceramic Multilayer Chip Inductors – CLH Series

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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 | IDC (mA) Max |
|-----------------|-----------------|----------------|----------------------|-------|----------------|-------------|--------------|
| CLH1005T-1N0□-S | 1.0 | ±0.3nH | 100 | 8 | 10000 | 0.07 | 400 |
| CLH1005T-1N1□-S | 1.1 | ±0.3nH | 100 | 8 | 10000 | 0.10 | 400 |
| CLH1005T-1N2□-S | 1.2 | ±0.3nH | 100 | 8 | 10000 | 0.09 | 400 |
| CLH1005T-1N3□-S | 1.3 | ±0.3nH | 100 | 8 | 9000 | 0.10 | 400 |
| CLH1005T-1N5□-S | 1.5 | ±0.3nH | 100 | 8 | 9000 | 0.10 | 400 |
| CLH1005T-1N6□-S | 1.6 | ±0.3nH | 100 | 8 | 8700 | 0.10 | 400 |
| CLH1005T-1N8□-S | 1.8 | ±0.3nH | 100 | 8 | 8700 | 0.10 | 400 |
| CLH1005T-2N0□-S | 2.0 | ±0.3nH | 100 | 8 | 8100 | 0.10 | 400 |
| CLH1005T-2N2□-S | 2.2 | ±0.3nH | 100 | 8 | 8100 | 0.12 | 400 |
| CLH1005T-2N4□-S | 2.4 | ±0.3nH | 100 | 8 | 7700 | 0.15 | 400 |
| CLH1005T-2N7□-S | 2.7 | ±0.3nH | 100 | 8 | 7700 | 0.15 | 400 |
| CLH1005T-3N0□-S | 3.0 | ±0.3nH | 100 | 8 | 6300 | 0.15 | 400 |
| CLH1005T-3N3□-S | 3.3 | ±0.3nH/10 | 100 | 8 | 6300 | 0.15 | 400 |
| CLH1005T-3N6□-S | 3.6 | ±0.3nH/10 | 100 | 8 | 6100 | 0.15 | 400 |
| CLH1005T-3N9□-S | 3.9 | ±0.3nH/10 | 100 | 8 | 6100 | 0.18 | 400 |
| CLH1005T-4N3□-S | 4.3 | ±0.3nH/10 | 100 | 8 | 6000 | 0.18 | 400 |
| CLH1005T-4N7□-S | 4.7 | ±0.3nH/10 | 100 | 8 | 6000 | 0.18 | 400 |
| CLH1005T-5N0□-S | 5.0 | ±0.3nH/10 | 100 | 8 | 5100 | 0.20 | 400 |
| CLH1005T-5N1□-S | 5.1 | ±0.3nH/10 | 100 | 8 | 5300 | 0.20 | 400 |
| CLH1005T-5N6□-S | 5.6 | ±0.3nH/10 | 100 | 8 | 5100 | 0.20 | 400 |
| CLH1005T-6N8□-S | 6.8 | 5 / 10 | 100 | 8 | 4550 | 0.24 | 400 |
| CLH1005T-8N0□-S | 8.0 | 5 / 10 | 100 | 8 | 4100 | 0.30 | 300 |
| CLH1005T-8N2□-S | 8.2 | 5 / 10 | 100 | 8 | 4100 | 0.24 | 300 |
| CLH1005T-9N1□-S | 9.1 | 5 / 10 | 100 | 8 | 3900 | 0.26 | 300 |
| CLH1005T-10N□-S | 10 | 5 / 10 | 100 | 8 | 3900 | 0.26 | 300 |
| CLH1005T-12N□-S | 12 | 5 / 10 | 100 | 8 | 3000 | 0.40 | 300 |
| CLH1005T-15N□-S | 15 | 5 / 10 | 100 | 8 | 2800 | 0.50 | 300 |
| CLH1005T-18N□-S | 18 | 5 / 10 | 100 | 8 | 2500 | 0.55 | 300 |
| CLH1005T-22N□-S | 22 | 5 / 10 | 100 | 8 | 2200 | 0.70 | 300 |
| CLH1005T-24N□-S | 24 | 5 / 10 | 100 | 8 | 2100 | 0.70 | 300 |
| CLH1005T-27N□-S | 27 | 5 / 10 | 100 | 8 | 2000 | 0.80 | 300 |
| CLH1005T-33N□-S | 33 | 5 / 10 | 100 | 8 | 1800 | 0.9 | 200 |
| CLH1005T-39N□-S | 39 | 5 / 10 | 100 | 8 | 1600 | 1.0 | 150 |
| CLH1005T-47N□-S | 47 | 5 / 10 | 100 | 8 | 1400 | 1.2 | 150 |
| CLH1005T-56N□-S | 56 | 5 / 10 | 100 | 8 | 1300 | 1.3 | 150 |
| CLH1005T-68N□-S | 68 | 5 / 10 | 100 | 8 | 1100 | 1.5 | 100 |

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

- Operating temperature range - 55°C ~ 125°C(Including self - temperature rise)
- IDC : Applied the current to coils, the inductance shall be less than 10% initial value
- Residual impedance of short chip : 0nH
- Measure Equipment :
L & Q : Agilent E4991A+Agilent 16197A
SRF : HP8753D
RDC : HP4338B or CHEN HWA 502

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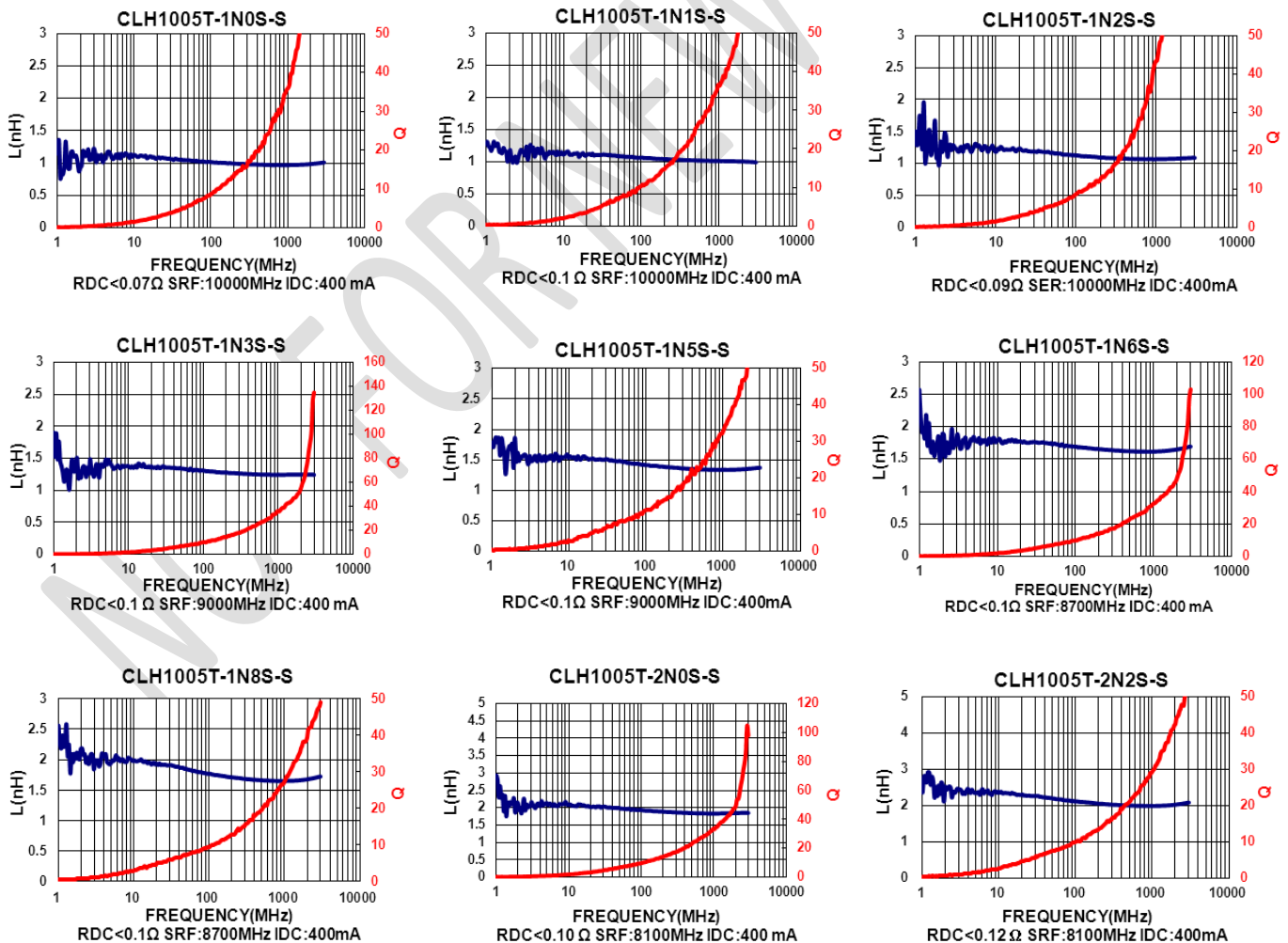
Electrical Characteristics

| Part Number | Inductance (nH) | Tolerance (±%) | Test Frequency (MHz) | Q Min | SRF (MHz) Typ. | RDC (Ω) Max | IDC (mA) Max |
|-----------------|-----------------|----------------|----------------------|-------|----------------|-------------|--------------|
| CLH1005T-75N□-S | 75 | 5 / 10 | 100 | 8 | 1080 | 1.5 | 100 |
| CLH1005T-82N□-S | 82 | 5 / 10 | 100 | 8 | 1000 | 1.6 | 100 |
| CLH1005T-R10□-S | 100 | 5 / 10 | 100 | 8 | 900 | 2.0 | 100 |
| CLH1005T-R12□-S | 120 | 5 / 10 | 100 | 8 | 800 | 2.2 | 100 |
| CLH1005T-R15□-S | 150 | 5 / 10 | 100 | 8 | 700 | 3.5 | 100 |
| CLH1005T-R18□-S | 180 | 5 / 10 | 100 | 8 | 600 | 3.8 | 100 |
| CLH1005T-R22□-S | 220 | 5 / 10 | 100 | 8 | 500 | 4.2 | 100 |
| CLH1005T-R27□-S | 270 | 5 / 10 | 100 | 8 | 500 | 4.8 | 100 |

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

- Operating temperature range - 55°C ~ 125°C(Including self - temperature rise)
- IDC : Applied the current to coils, the inductance shall be less than 10% initial value
- Residual impedance of short chip : 0nH
- Measure Equipment :
L & Q : Agilent E4991A+Agilent 16197A
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RDC : HP4338B or CHEN HWA 502

Test Instruments : Agilent E4991A Material/Impedance Analyzer



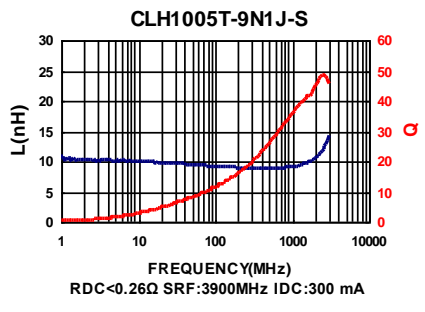
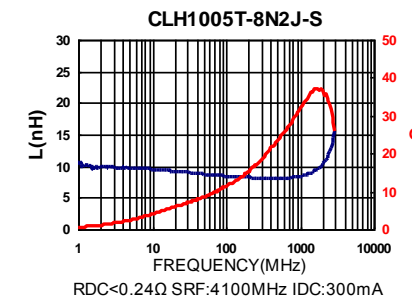
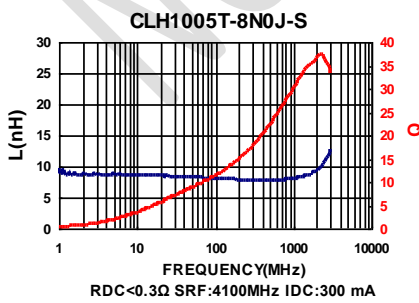
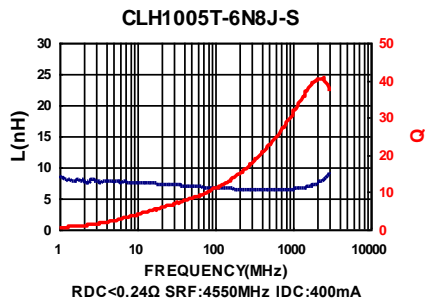
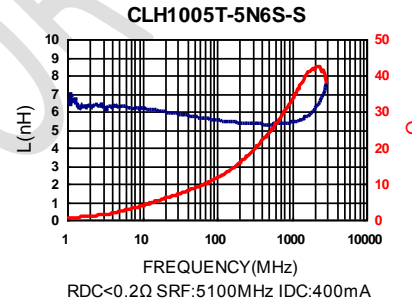
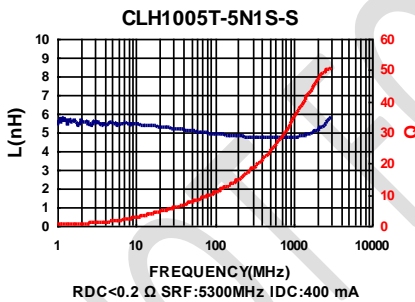
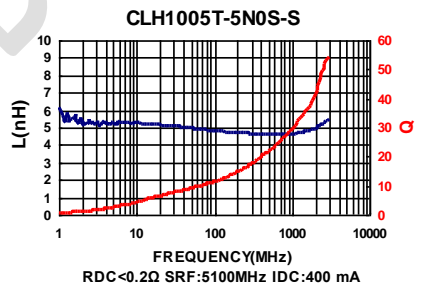
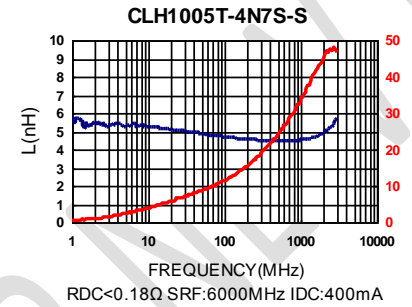
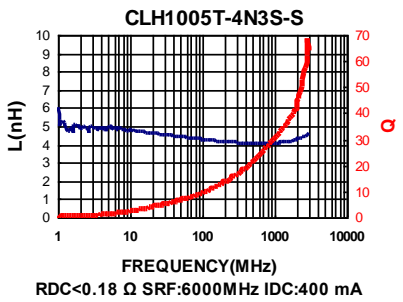
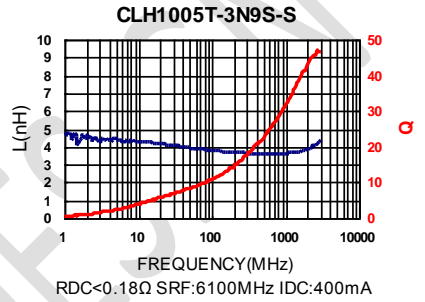
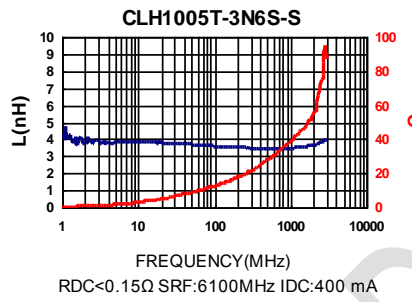
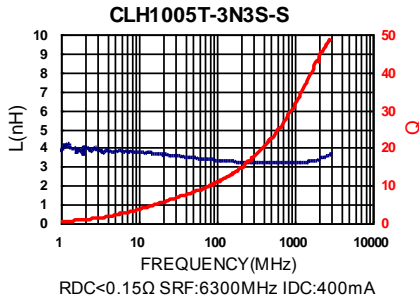
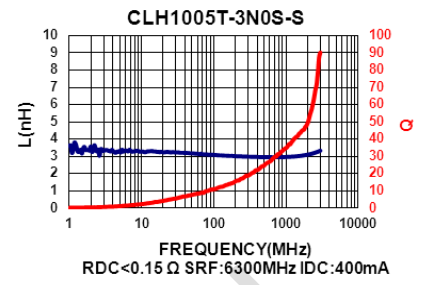
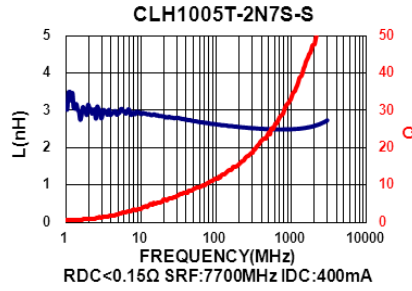
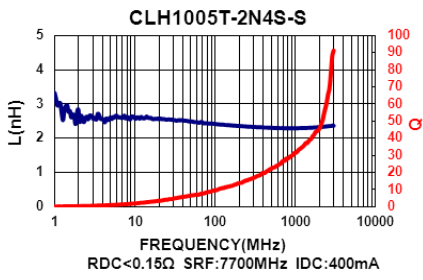
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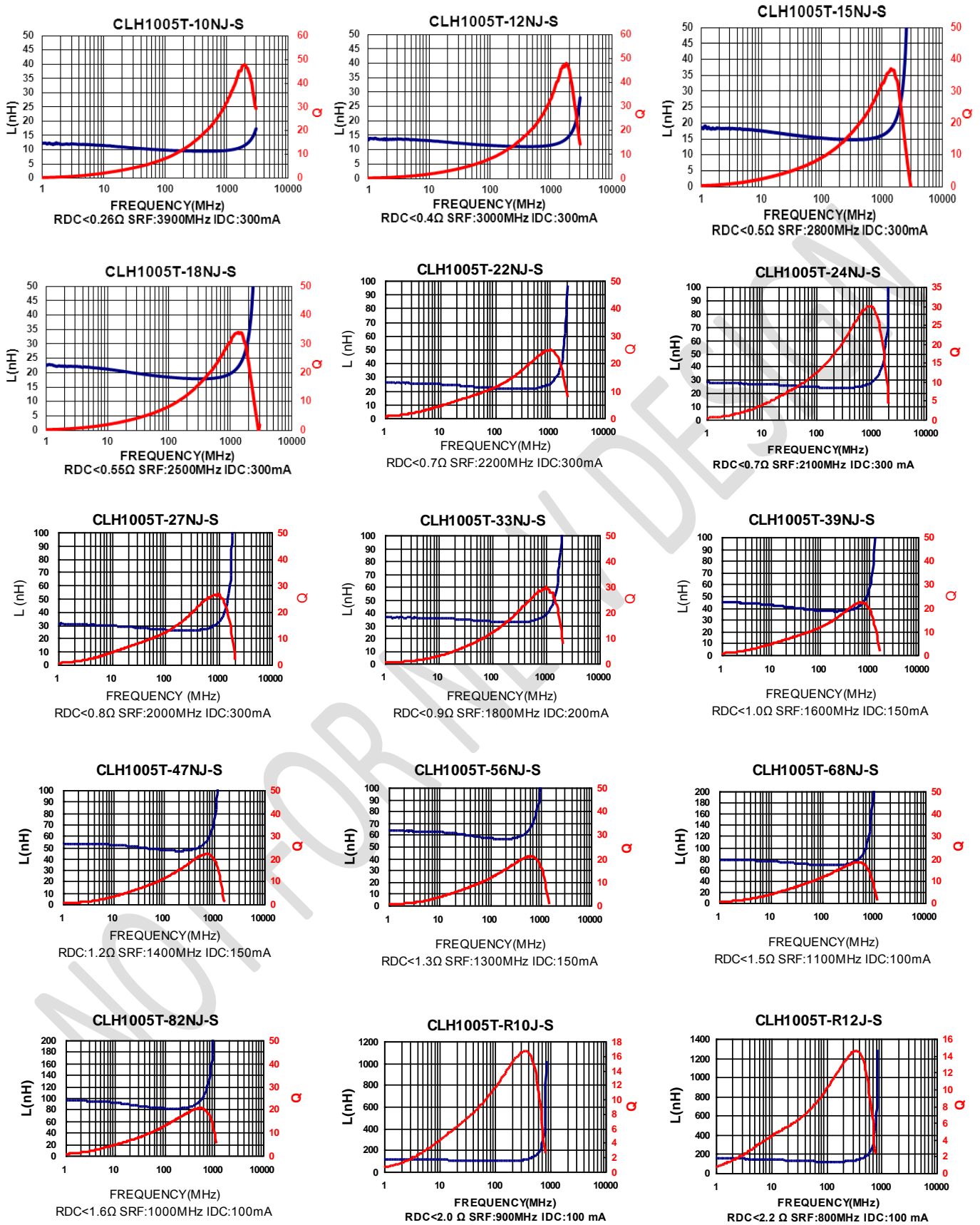
Test Instruments : Agilent E4991A Material/Impedance Analyzer



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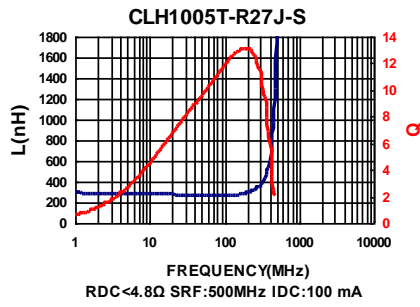
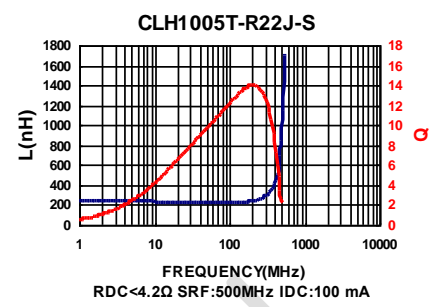
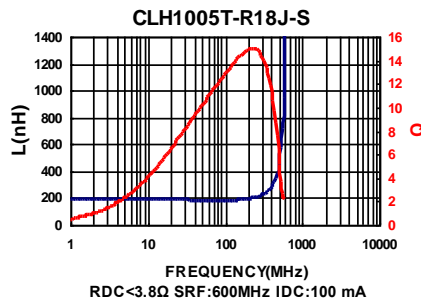
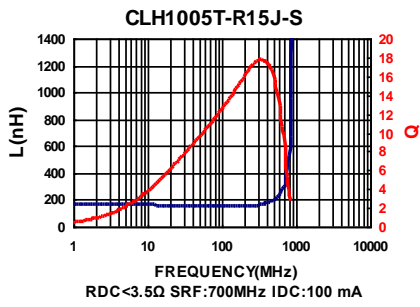
SMD Multilayer Ceramic Chip Inductors – CLH Series

Test Instruments : Agilent E4991A Material/Impedance Analyzer



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Test Instruments : Agilent E4991A Material/Impedance Analyzer



NOT FOR NEW DESIGN

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SMD Multilayer Ceramic Chip Inductors - CLH Series

Electrical Characteristics

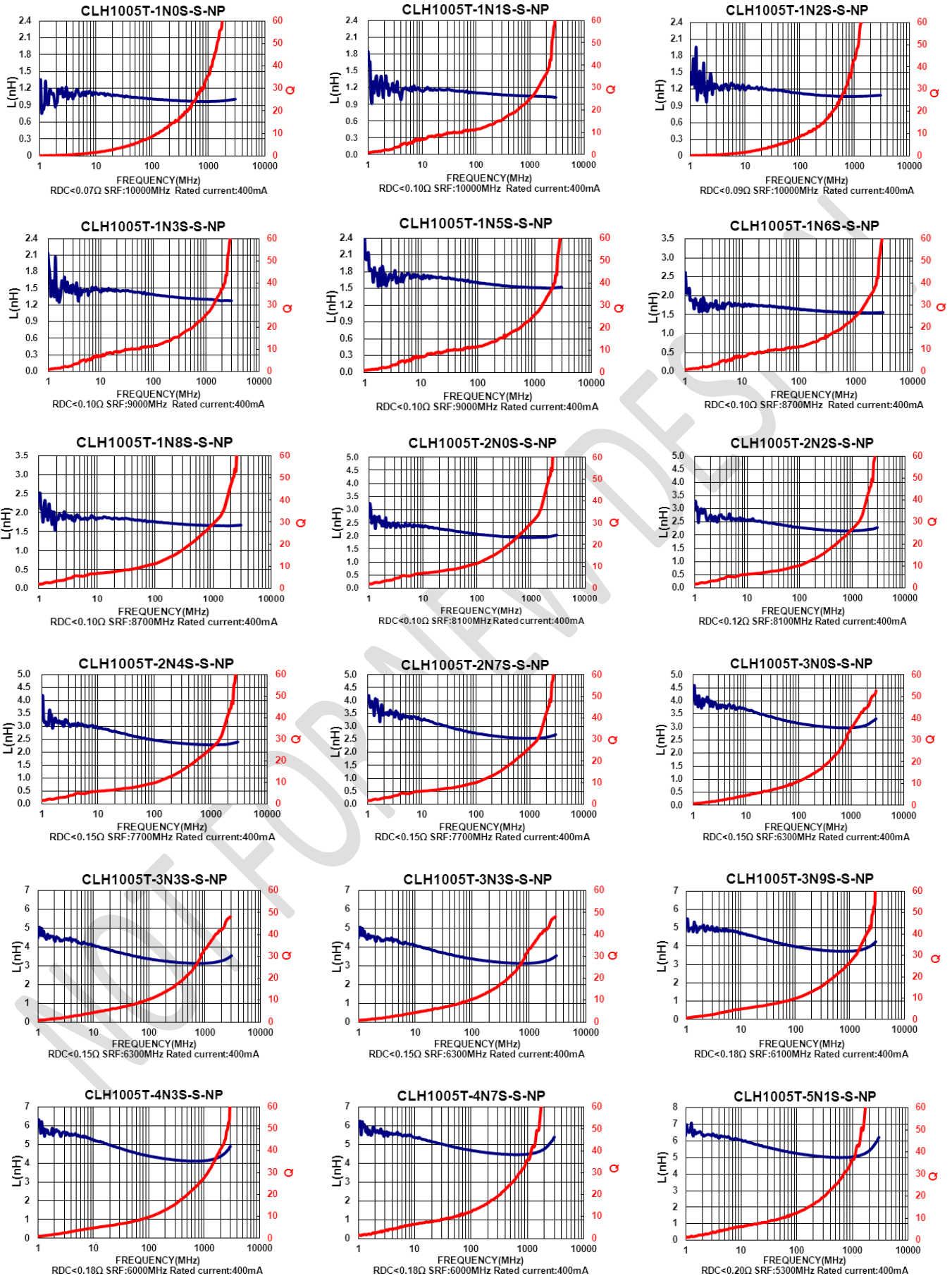
| Part Number | Inductance (nH) | Tolerance (±%) | Test Frequency (MHz) | Q Min | SRF (MHz) Typ. | RDC (Ω) Max | Rated Current (mA) Max |
|--------------------|-----------------|----------------|----------------------|-------|----------------|-------------|------------------------|
| CLH1005T-1N0□-S-NP | 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

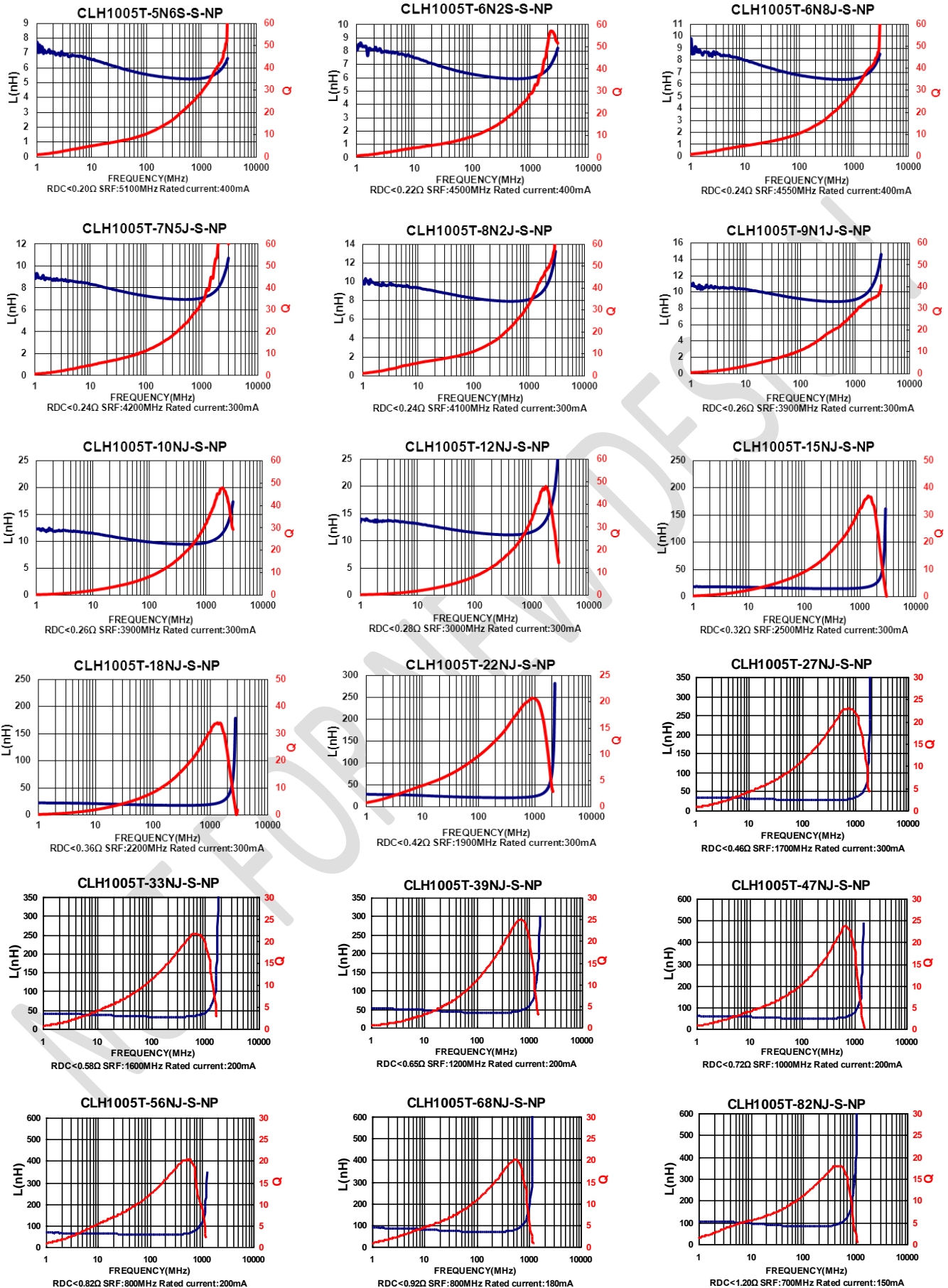
Test Instruments : Agilent E4991A Material/Impedance Analyzer



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SMD Multilayer Ceramic Chip Inductors - CLH Series

Test Instruments : Agilent E4991A Material/Impedance Analyzer



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SMD Multilayer Ceramic Chip Inductors – CLH Series

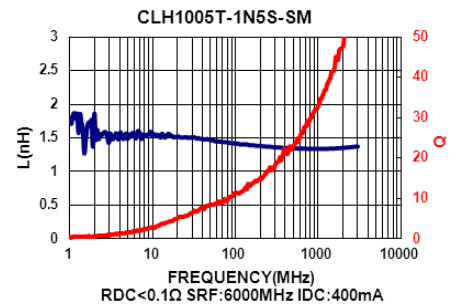
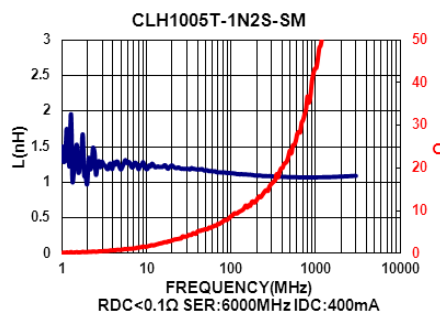
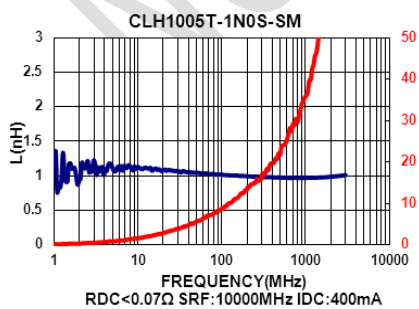
Electrical Characteristics

| Part Number | Inductance (nH) | Tolerance (±%) | Test Frequency (MHz) | Q Min | SRF (MHz) Typ. | RDC (Ω) Max | IDC (mA) Max |
|------------------|-----------------|----------------|----------------------|-------|----------------|-------------|--------------|
| CLH1005T-1N0□-SM | 1.0 | ±0.3nH | 100 | 8 | 10000 | 0.07 | 400 |
| CLH1005T-1N2□-SM | 1.2 | ±0.3nH | 100 | 8 | 6000 | 0.10 | 400 |
| CLH1005T-1N5□-SM | 1.5 | ±0.3nH | 100 | 8 | 6000 | 0.10 | 400 |
| CLH1005T-1N6□-SM | 1.6 | ±0.3nH | 100 | 8 | 6000 | 0.10 | 400 |
| CLH1005T-1N8□-SM | 1.8 | ±0.3nH | 100 | 8 | 6000 | 0.10 | 400 |
| CLH1005T-2N0□-SM | 2.0 | ±0.3nH | 100 | 8 | 6000 | 0.12 | 400 |
| CLH1005T-2N2□-SM | 2.2 | ±0.3nH | 100 | 8 | 6000 | 0.15 | 400 |
| CLH1005T-2N4□-SM | 2.4 | ±0.3nH | 100 | 8 | 6000 | 0.15 | 400 |
| CLH1005T-2N7□-SM | 2.7 | ±0.3nH | 100 | 8 | 6000 | 0.15 | 400 |
| CLH1005T-3N0□-SM | 3.0 | ±0.3nH | 100 | 8 | 6000 | 0.15 | 400 |
| CLH1005T-3N3□-SM | 3.3 | ±0.3nH | 100 | 8 | 6000 | 0.15 | 400 |
| CLH1005T-3N6□-SM | 3.6 | ±0.3nH | 100 | 8 | 6000 | 0.15 | 400 |
| CLH1005T-3N9□-SM | 3.9 | ±0.3nH | 100 | 8 | 6000 | 0.19 | 400 |
| CLH1005T-4N3□-SM | 4.3 | ±0.3nH | 100 | 8 | 6000 | 0.20 | 400 |
| CLH1005T-4N7□-SM | 4.7 | ±0.3nH | 100 | 8 | 6000 | 0.20 | 400 |
| CLH1005T-5N1□-SM | 5.1 | ±0.3nH | 100 | 8 | 6000 | 0.20 | 400 |
| CLH1005T-5N6□-SM | 5.6 | ±0.3nH | 100 | 8 | 5300 | 0.20 | 400 |
| CLH1005T-6N2□-SM | 6.2 | 5 | 100 | 8 | 4300 | 0.25 | 400 |
| CLH1005T-6N8□-SM | 6.8 | 5 | 100 | 8 | 4200 | 0.25 | 400 |
| CLH1005T-7N5□-SM | 7.5 | 5 | 100 | 8 | 3900 | 0.25 | 400 |
| CLH1005T-8N2□-SM | 8.2 | 5 | 100 | 8 | 3600 | 0.30 | 300 |
| CLH1005T-9N1□-SM | 9.1 | 5 | 100 | 8 | 3400 | 0.34 | 300 |
| CLH1005T-10N□-SM | 10 | 5 | 100 | 8 | 3200 | 0.35 | 300 |
| CLH1005T-12N□-SM | 12 | 5 | 100 | 8 | 2800 | 0.35 | 300 |
| CLH1005T-15N□-SM | 15 | 5 | 100 | 8 | 2300 | 0.46 | 300 |

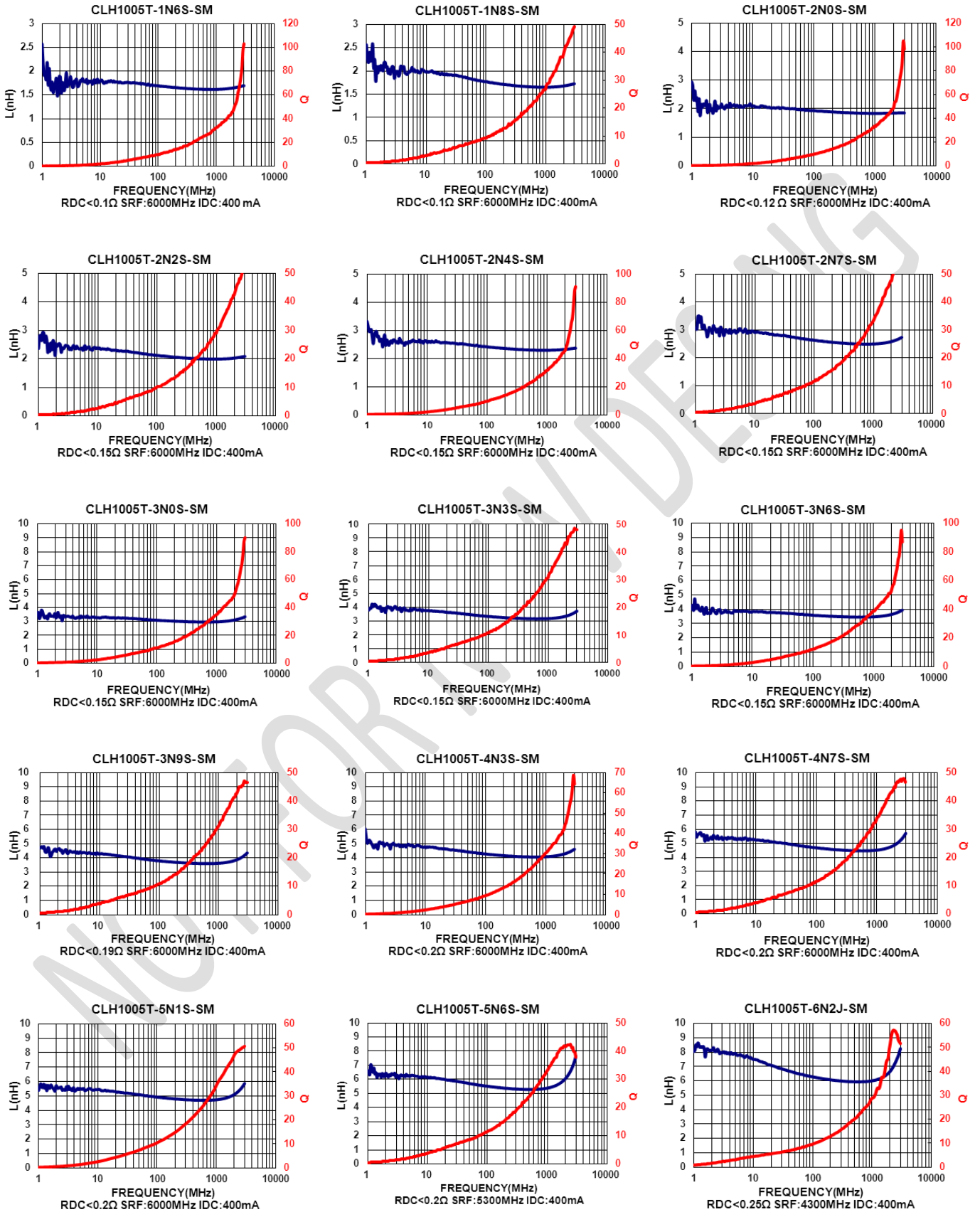
Note: When ordering, please specify tolerance code. Tolerance : S=±0.3nH , J=±5%

- Operating temperature range - 55°C ~ 125°C(Including self - temperature rise)
- IDC : Applied the current to coils, the inductance shall be less than 10% initial value
- Residual impedance of short chip : 0.55nH
- Measure Equipment :
L & Q : Agilent E4991A+Agilent 16197A
SRF : HP8753D
RDC : HP4338B or CHEN HWA 502

Test Instruments : Agilent E4991A Material/Impedance Analyzer

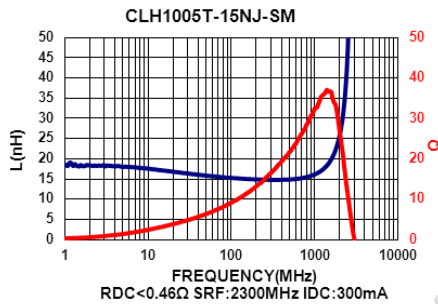
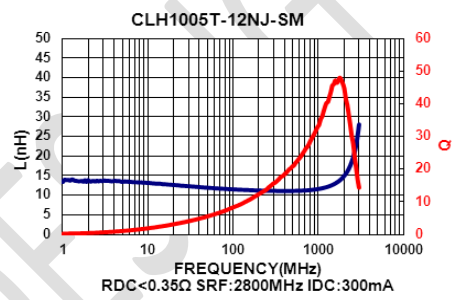
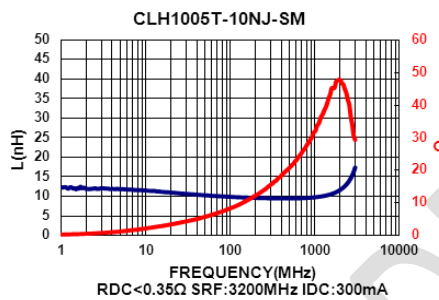
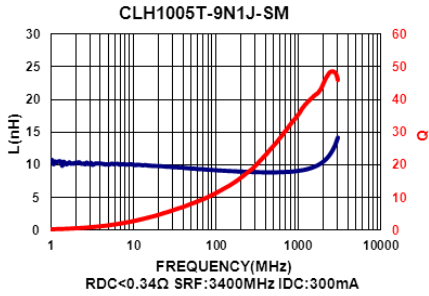
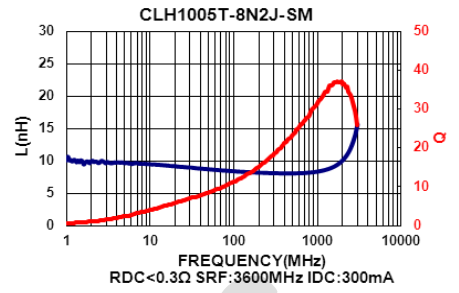
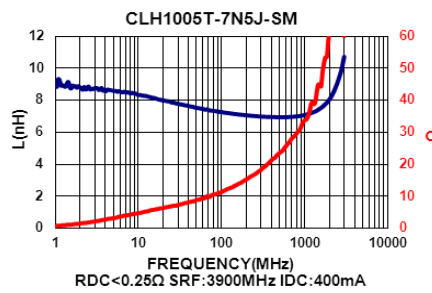
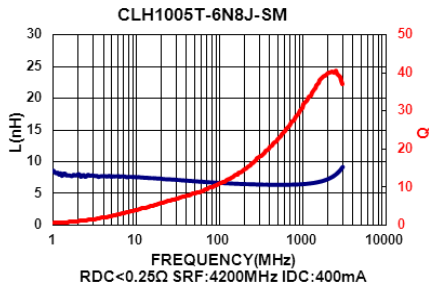


Test Instruments : Agilent E4991A Material/Impedance Analyzer



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SMD Multilayer Ceramic Chip Inductors – CLH Series

Electrical Characteristics

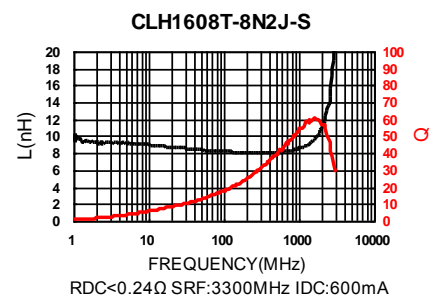
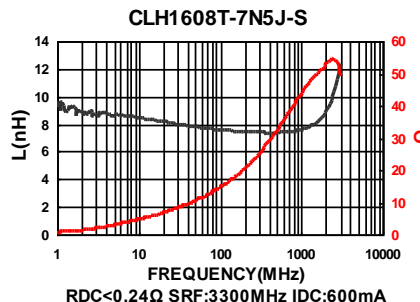
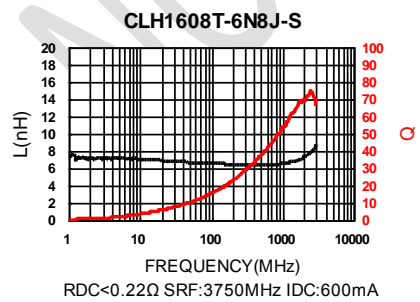
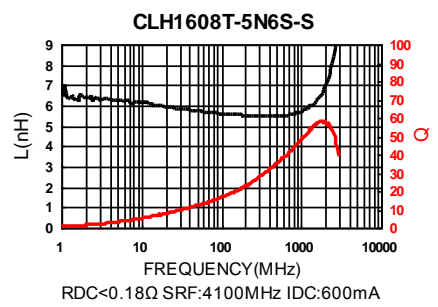
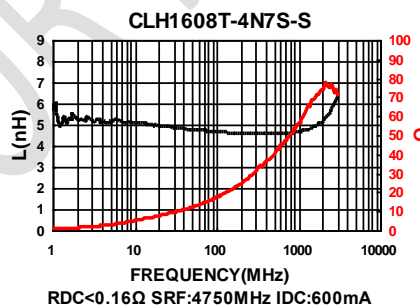
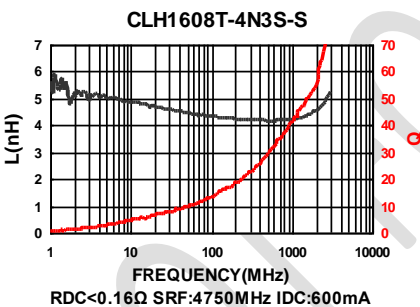
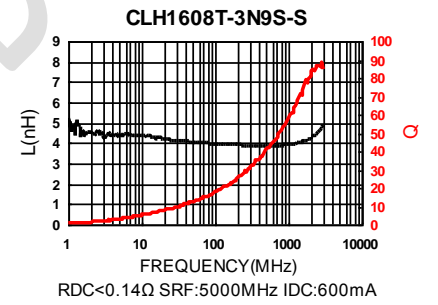
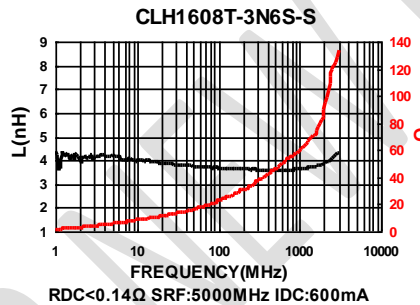
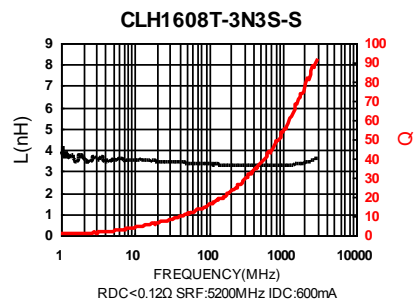
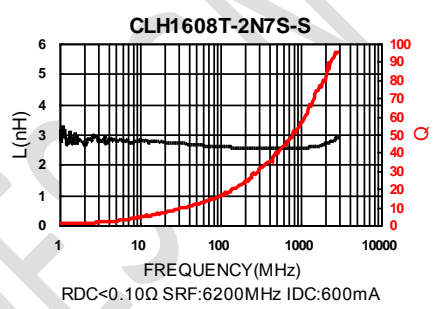
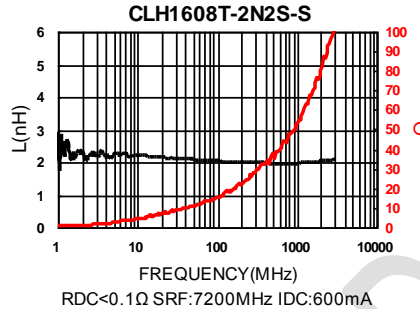
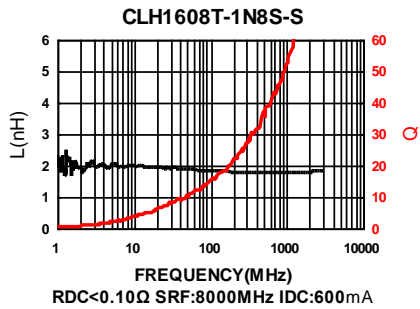
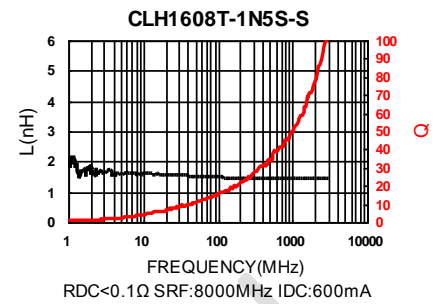
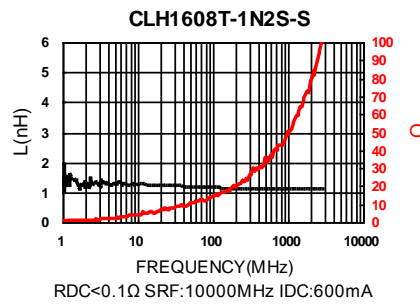
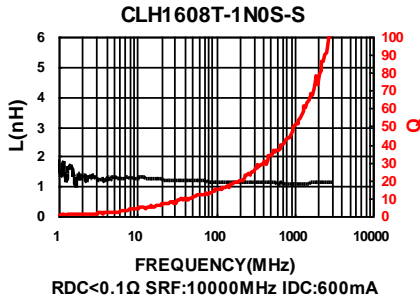
| Part Number | Inductance (nH) | Tolerance (±%) | Test Frequency (MHz) | Q Min | SRF (MHz) Typ. | RDC (Ω) Max | IDC (mA) Max |
|-----------------|-----------------|----------------|----------------------|-------|----------------|-------------|--------------|
| CLH1608T-1N0S-S | 1.0 | ±0.3nH | 100 | 8 | 10000 | 0.10 | 600 |
| CLH1608T-1N2S-S | 1.2 | ±0.3nH | 100 | 8 | 10000 | 0.10 | 600 |
| CLH1608T-1N5S-S | 1.5 | ±0.3nH | 100 | 8 | 8000 | 0.10 | 600 |
| CLH1608T-1N6S-S | 1.6 | ±0.3nH | 100 | 8 | 8000 | 0.10 | 600 |
| CLH1608T-1N8S-S | 1.8 | ±0.3nH | 100 | 8 | 8000 | 0.10 | 600 |
| CLH1608T-2N2S-S | 2.2 | ±0.3nH | 100 | 8 | 7200 | 0.10 | 600 |
| CLH1608T-2N7S-S | 2.7 | ±0.3nH | 100 | 10 | 6200 | 0.10 | 600 |
| CLH1608T-3N0S-S | 3.0 | ±0.3nH | 100 | 10 | 5200 | 0.12 | 600 |
| CLH1608T-3N3□-S | 3.3 | ±0.3nH/10 | 100 | 10 | 5200 | 0.12 | 600 |
| CLH1608T-3N6S-S | 3.6 | ±0.3nH | 100 | 10 | 5000 | 0.14 | 600 |
| CLH1608T-3N9□-S | 3.9 | ±0.3nH/10 | 100 | 10 | 5000 | 0.14 | 600 |
| CLH1608T-4N3□-S | 4.3 | ±0.3nH/10 | 100 | 10 | 4750 | 0.16 | 600 |
| CLH1608T-4N7□-S | 4.7 | ±0.3nH /10 | 100 | 10 | 4750 | 0.16 | 600 |
| CLH1608T-5N1□-S | 5.1 | ±0.3nH /10 | 100 | 10 | 4100 | 0.18 | 600 |
| CLH1608T-5N6□-S | 5.6 | ±0.3nH/10 | 100 | 10 | 4100 | 0.18 | 600 |
| CLH1608T-6N2□-S | 6.2 | 5 / 10 | 100 | 10 | 3750 | 0.22 | 600 |
| CLH1608T-6N8□-S | 6.8 | 5 / 10 | 100 | 10 | 3750 | 0.22 | 600 |
| CLH1608T-7N5□-S | 7.5 | 5 / 10 | 100 | 10 | 3300 | 0.24 | 600 |
| CLH1608T-8N2□-S | 8.2 | 5 / 10 | 100 | 10 | 3300 | 0.24 | 600 |
| CLH1608T-10N□-S | 10 | 5 / 10 | 100 | 12 | 3000 | 0.26 | 600 |
| CLH1608T-12N□-S | 12 | 5 / 10 | 100 | 12 | 2600 | 0.28 | 600 |
| CLH1608T-15N□-S | 15 | 5 / 10 | 100 | 12 | 2500 | 0.32 | 600 |
| CLH1608T-16N□-S | 16 | 5 / 10 | 100 | 12 | 2400 | 0.35 | 600 |
| CLH1608T-18N□-S | 18 | 5 / 10 | 100 | 12 | 2400 | 0.35 | 600 |
| CLH1608T-22N□-S | 22 | 5 / 10 | 100 | 12 | 2000 | 0.40 | 500 |
| CLH1608T-27N□-S | 27 | 5 / 10 | 100 | 12 | 1900 | 0.45 | 500 |
| CLH1608T-33N□-S | 33 | 5 / 10 | 100 | 12 | 1600 | 0.55 | 400 |
| CLH1608T-39N□-S | 39 | 5 / 10 | 100 | 12 | 1400 | 0.60 | 400 |
| CLH1608T-47N□-S | 47 | 5 / 10 | 100 | 12 | 1300 | 0.70 | 400 |
| CLH1608T-56N□-S | 56 | 5 / 10 | 100 | 12 | 1100 | 0.75 | 400 |
| CLH1608T-62N□-S | 62 | 5 / 10 | 100 | 12 | 1050 | 0.85 | 400 |
| CLH1608T-68N□-S | 68 | 5 / 10 | 100 | 12 | 1050 | 0.85 | 400 |
| CLH1608T-75N□-S | 75 | 5 / 10 | 100 | 12 | 900 | 1.00 | 300 |
| CLH1608T-82N□-S | 82 | 5 / 10 | 100 | 12 | 900 | 1.00 | 300 |
| CLH1608T-R10□-S | 100 | 5 / 10 | 100 | 12 | 770 | 1.20 | 300 |
| CLH1608T-R12□-S | 120 | 5 / 10 | 50 | 8 | 650 | 1.30 | 300 |
| CLH1608T-R15□-S | 150 | 5 / 10 | 50 | 8 | 550 | 1.70 | 250 |
| CLH1608T-R18□-S | 180 | 5 / 10 | 50 | 8 | 520 | 1.90 | 250 |
| CLH1608T-R22□-S | 220 | 5 / 10 | 50 | 8 | 500 | 2.00 | 250 |
| CLH1608T-R27□-S | 270 | 5 / 10 | 50 | 8 | 470 | 2.20 | 150 |
| CLH1608T-R33□-S | 330 | 5 / 10 | 50 | 8 | 320 | 2.80 | 100 |
| CLH1608T-R39□-S | 390 | 5 / 10 | 50 | 8 | 300 | 3.00 | 100 |

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

- Operating temperature range - 55°C ~ 125°C(Including self - temperature rise)
- IDC : Applied the current to coils, the inductance shall be less than 10% initial value
- 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

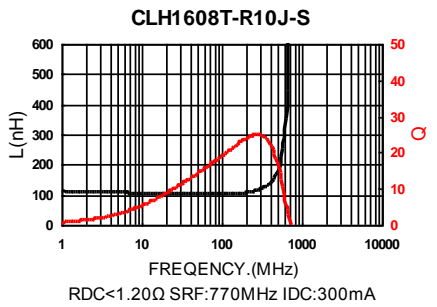
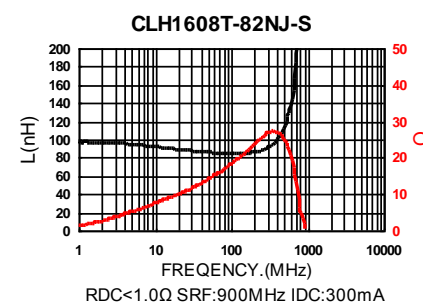
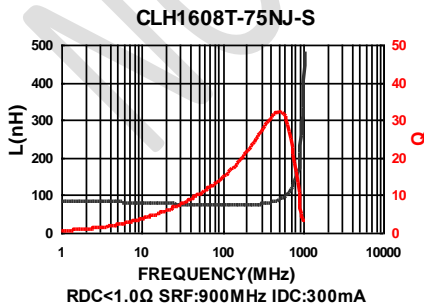
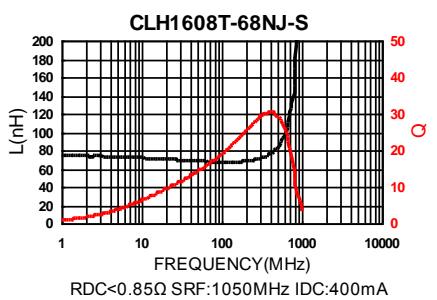
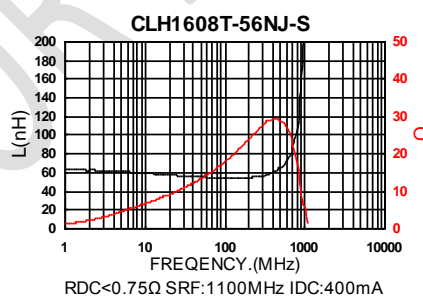
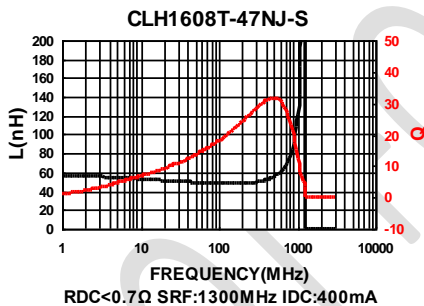
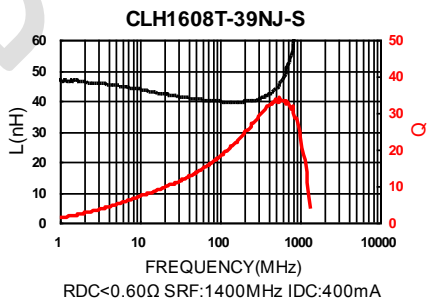
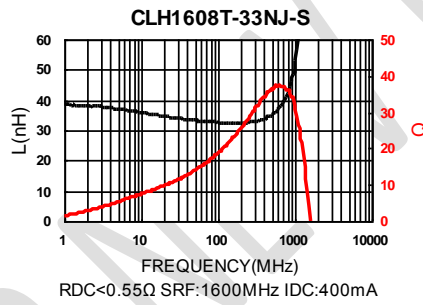
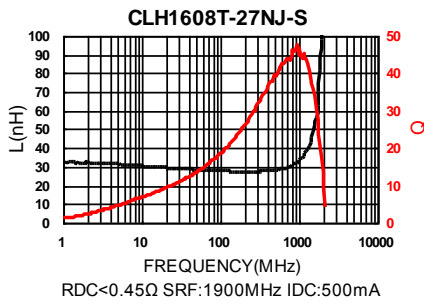
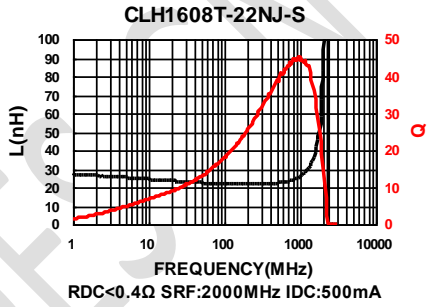
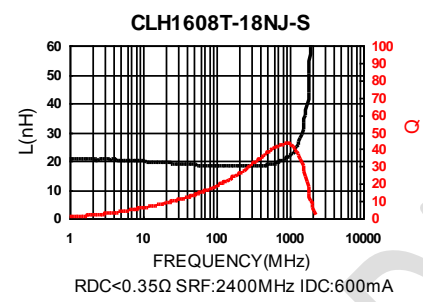
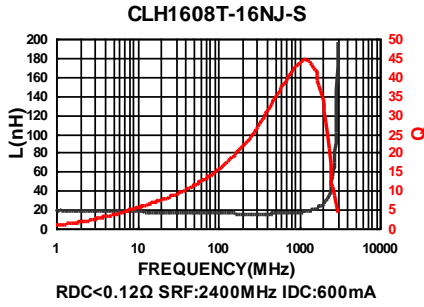
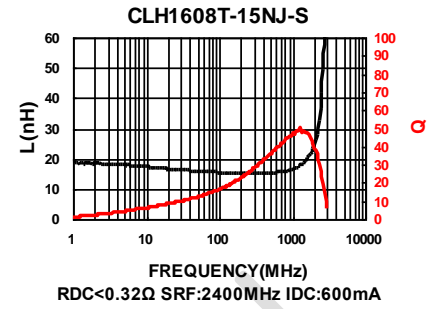
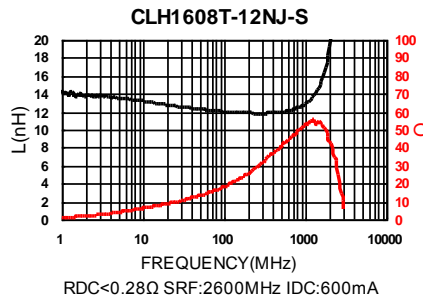
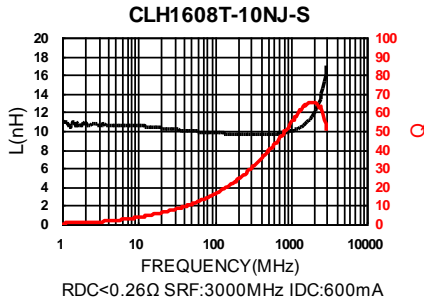
Test Instruments : Agilent E4991A Material/Impedance Analyzer



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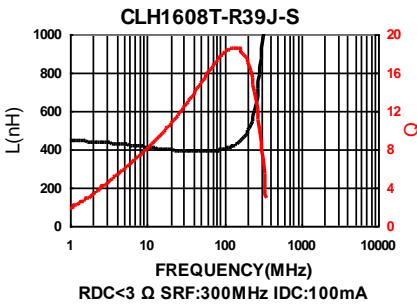
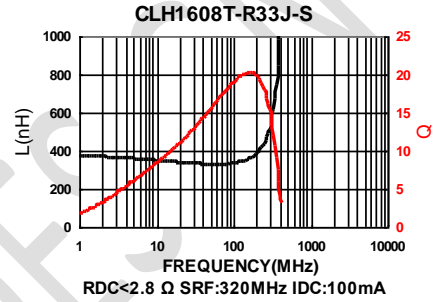
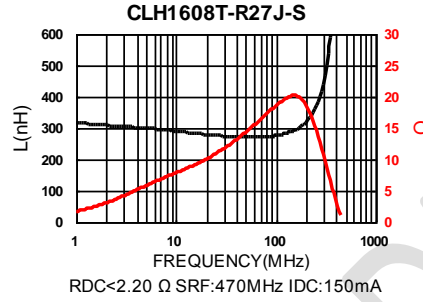
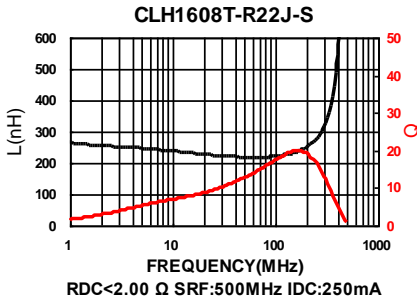
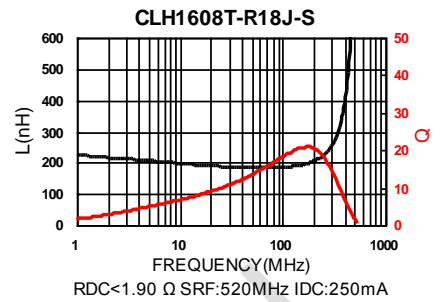
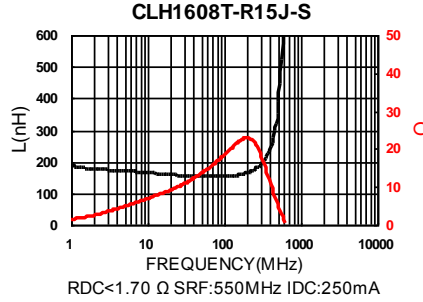
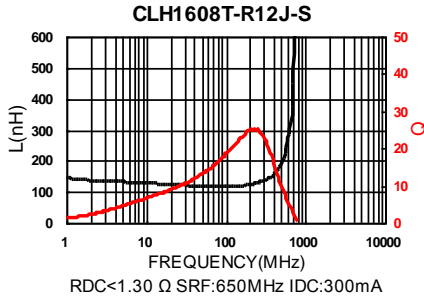
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Test Instruments : Agilent E4991A Material/Impedance Analyzer



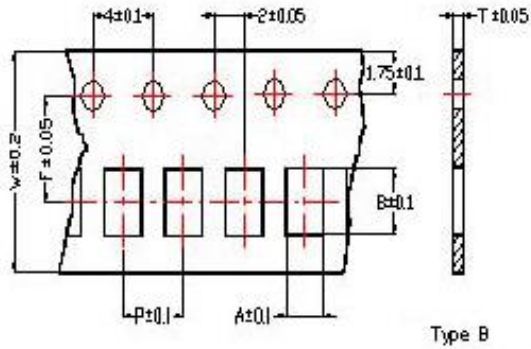
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Packaging Specifications

Tape Dimensions

Figure A



Tape Material

Figure A

Carrier Tape: Polycarbonate (Tape A)
 Carrier Tape: Paper (Tape B)
 Cover Tape: Polystyrene

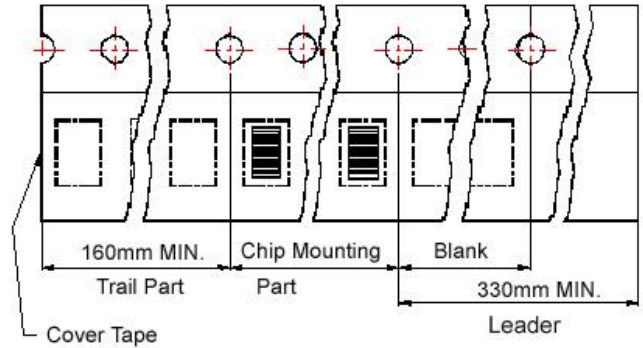
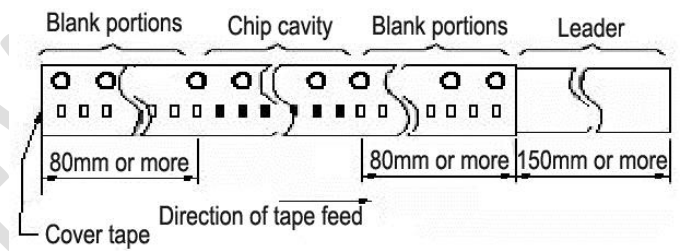
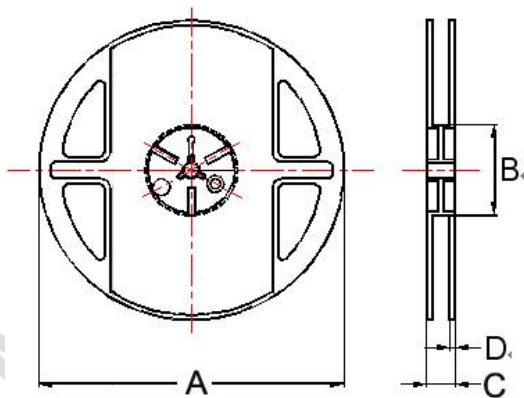


Figure B

Carrier tape : Paper
 Cover tape : Polyethylene



Reel Dimensions



Dimensions in mm

| TYPE | Tape Dimensions | | | | | | | Tape Material | Reel Dimensions | | | | Quantity PCS / Reel |
|---------|-----------------|------|------|---|---|-----|---|---------------|-----------------|----|----|-----|---------------------|
| | A | B | T | W | P | F | A | | B | C | D | | |
| CLH0603 | 0.37 | 0.67 | 0.42 | 8 | 2 | 3.5 | A | B | 180 | 60 | 13 | 1.5 | 15000 |
| CLH1005 | 0.62 | 1.12 | 0.60 | 8 | 2 | 3.5 | A | A | 178 | 60 | 12 | 1.5 | 10000 |
| CLH1608 | 1.00 | 1.80 | 0.95 | 8 | 4 | 3.5 | A | A | 178 | 60 | 12 | 1.5 | 4000 |

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