

Chip Inductor ASCH Series

**Automotive
AEC-Q200**

RoHS Compliant
Halogen Free
REACH Compliant



- Noise
Suppression
- Shield
- Multilayer
- Ceramic
- High
Frequency

Part Numbering

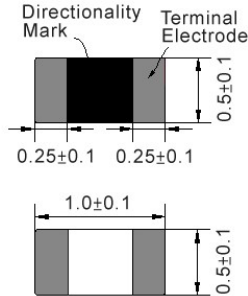
| A | SCH | 00 | 100505 | 1N0 | S | CP |
|-------|-------------|--------------|-------------------------|--------------------|-----------|---------------|
| Grade | Series Name | Control Code | Dimensions Code (mm) | Inductance (nH) | Tolerance | Internal Code |
| | | | 100505 1.0x0.5x0.5 | 1N0 1.0 | S ±0.3nH | 00 General |
| | | | 160808 1.6x0.8x0.8 | 10N 10 | J ±5% | CP Low RDC |
| | | | | R10 100 | | |

This specification applies to Wire Wound Chip Inductors for Automotive Electronics based on AEC-Q200 except for Power train and Safety.

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.

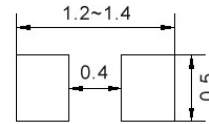
ASCH00100505_CP Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

| Part No. | Inductance | L,Q | Q | SRF | RDC | Rated Current | Tolerance |
|--------------------|------------|----------------|------|-----------|---------|---------------|-----------|
| | (nH) | Test Freq. | Min. | (MHz)Min. | (Ω)Max. | (mA)Max. | (±%) |
| ASCH001005051N0□CP | 1.0 | 100 MHz,200 mV | 8 | 10000 | 0.07 | 400 | ±0.3nH |
| ASCH001005051N1□CP | 1.1 | 100 MHz,200 mV | 8 | 10000 | 0.10 | 400 | ±0.3nH |
| ASCH001005051N2□CP | 1.2 | 100 MHz,200 mV | 8 | 10000 | 0.09 | 400 | ±0.3nH |
| ASCH001005051N3□CP | 1.3 | 100 MHz,200 mV | 8 | 9000 | 0.10 | 400 | ±0.3nH |
| ASCH001005051N5□CP | 1.5 | 100 MHz,200 mV | 8 | 9000 | 0.10 | 400 | ±0.3nH |
| ASCH001005051N6□CP | 1.6 | 100 MHz,200 mV | 8 | 8700 | 0.10 | 400 | ±0.3nH |
| ASCH001005051N8□CP | 1.8 | 100 MHz,200 mV | 8 | 8700 | 0.10 | 400 | ±0.3nH |
| ASCH001005052N0□CP | 2.0 | 100 MHz,200 mV | 8 | 8100 | 0.10 | 400 | ±0.3nH |
| ASCH001005052N2□CP | 2.2 | 100 MHz,200 mV | 8 | 8100 | 0.12 | 400 | ±0.3nH |
| ASCH001005052N4□CP | 2.4 | 100 MHz,200 mV | 8 | 7700 | 0.15 | 400 | ±0.3nH |
| ASCH001005052N7□CP | 2.7 | 100 MHz,200 mV | 8 | 7700 | 0.15 | 400 | ±0.3nH |
| ASCH001005053N0□CP | 3.0 | 100 MHz,200 mV | 8 | 6300 | 0.15 | 400 | ±0.3nH |
| ASCH001005053N3□CP | 3.3 | 100 MHz,200 mV | 8 | 6300 | 0.15 | 400 | ±0.3nH |
| ASCH001005053N6□CP | 3.6 | 100 MHz,200 mV | 8 | 6100 | 0.15 | 400 | ±0.3nH |
| ASCH001005053N9□CP | 3.9 | 100 MHz,200 mV | 8 | 6100 | 0.18 | 400 | ±0.3nH |
| ASCH001005054N3□CP | 4.3 | 100 MHz,200 mV | 8 | 6000 | 0.18 | 400 | ±0.3nH |
| ASCH001005054N7□CP | 4.7 | 100 MHz,200 mV | 8 | 6000 | 0.18 | 400 | ±0.3nH |
| ASCH001005055N1□CP | 5.1 | 100 MHz,200 mV | 8 | 5300 | 0.20 | 400 | ±0.3nH |
| ASCH001005055N6□CP | 5.6 | 100 MHz,200 mV | 8 | 5100 | 0.20 | 400 | ±0.3nH |
| ASCH001005056N2□CP | 6.2 | 100 MHz,200 mV | 8 | 4500 | 0.22 | 400 | ±0.3nH |
| ASCH001005056N8□CP | 6.8 | 100 MHz,200 mV | 8 | 4550 | 0.24 | 400 | 5 |
| ASCH001005057N5□CP | 7.5 | 100 MHz,200 mV | 8 | 4200 | 0.24 | 300 | 5 |
| ASCH001005058N2□CP | 8.2 | 100 MHz,200 mV | 8 | 4100 | 0.24 | 300 | 5 |
| ASCH001005059N1□CP | 9.1 | 100 MHz,200 mV | 8 | 3900 | 0.26 | 300 | 5 |
| ASCH0010050510N□CP | 10 | 100 MHz,200 mV | 8 | 3900 | 0.26 | 300 | 5 |
| ASCH0010050512N□CP | 12 | 100 MHz,200 mV | 8 | 3000 | 0.28 | 300 | 5 |
| ASCH0010050515N□CP | 15 | 100 MHz,200 mV | 8 | 2500 | 0.32 | 300 | 5 |
| ASCH0010050518N□CP | 18 | 100 MHz,200 mV | 8 | 2200 | 0.36 | 300 | 5 |
| ASCH0010050522N□CP | 22 | 100 MHz,200 mV | 8 | 1900 | 0.42 | 300 | 5 |
| ASCH0010050527N□CP | 27 | 100 MHz,200 mV | 8 | 1700 | 0.46 | 300 | 5 |

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

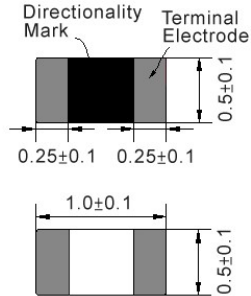
1. Operating temperature range -55°C ~ 125°C
2. Applied the current to coils, the temperature rise shall not be more than 30°C
3. Residual impedance of short chip : 0nH
4. Measure Equipment:

L & Q: Agilent E4991A+Agilent 16197A
SRF: Agilent E4991A or HP19196C
RDC: HP4338B or CHEN HWA 502

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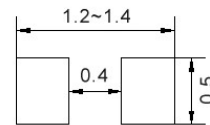
ASCH00100505_CP Type

Dimensions



unit:mm

Recommended Land Pattern



unit:mm

Electrical Characteristics

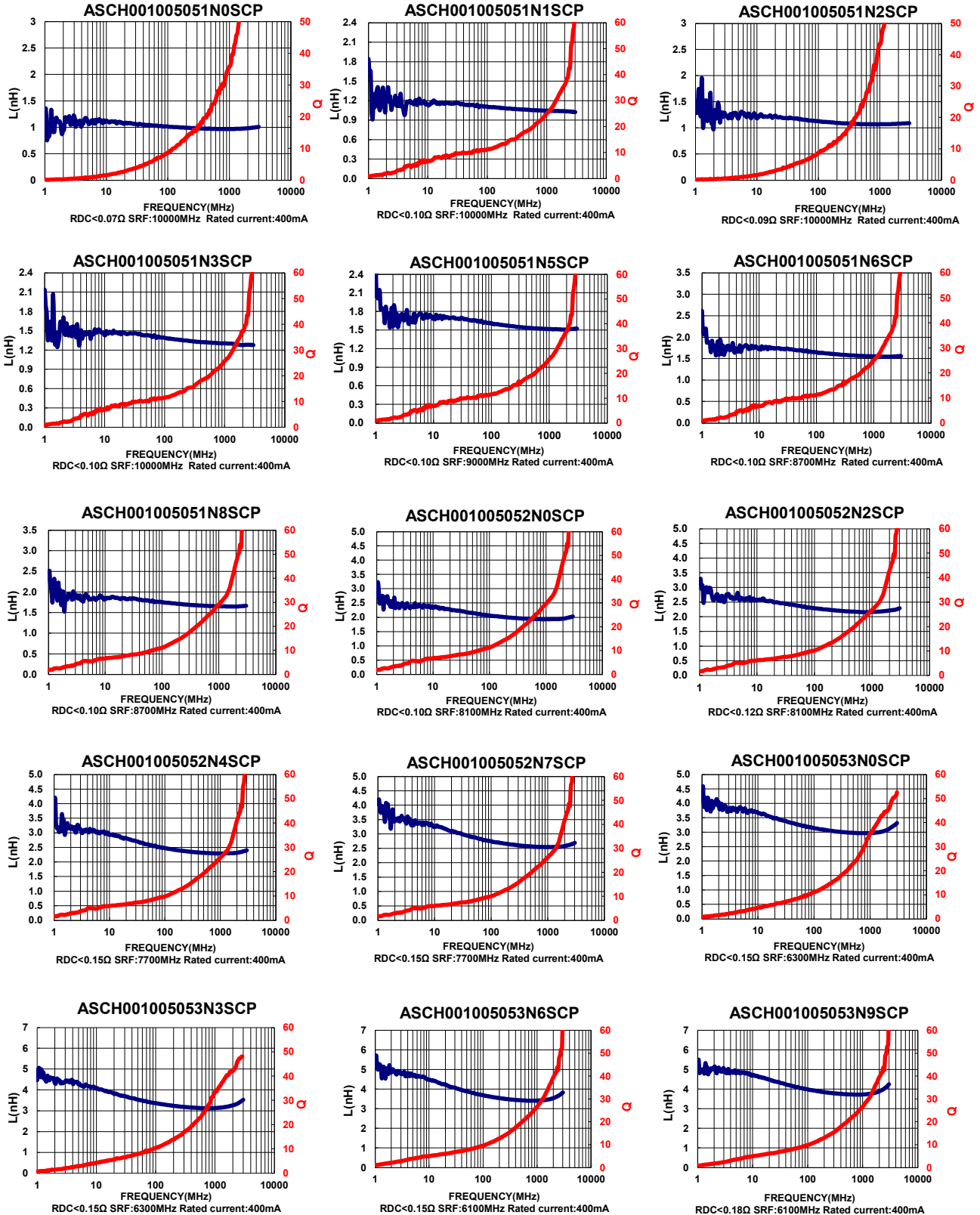
| Part No. | Inductance | L,Q | Q | SRF | RDC | Rated Current | Tolerance |
|--------------------|------------|----------------|------|-----------|---------|---------------|-----------|
| | (nH) | Test Freq. | Min. | (MHz)Min. | (Ω)Max. | (mA)Max. | (±%) |
| ASCH0010050533N□CP | 33 | 100 MHz,200 mV | 8 | 1600 | 0.58 | 200 | 5 |
| ASCH0010050539N□CP | 39 | 100 MHz,200 mV | 8 | 1200 | 0.65 | 200 | 5 |
| ASCH0010050547N□CP | 47 | 100 MHz,200 mV | 8 | 1000 | 0.72 | 200 | 5 |
| ASCH0010050556N□CP | 56 | 100 MHz,200 mV | 8 | 800 | 0.82 | 200 | 5 |
| ASCH0010050568N□CP | 68 | 100 MHz,200 mV | 8 | 800 | 0.92 | 180 | 5 |
| ASCH0010050582N□CP | 82 | 100 MHz,200 mV | 8 | 700 | 1.20 | 150 | 5 |
| ASCH00100505R10□CP | 100 | 100 MHz,200 mV | 8 | 900 | 2.00 | 100 | 5 |
| ASCH00100505R12□CP | 120 | 100 MHz,200 mV | 8 | 800 | 2.20 | 100 | 5 |
| ASCH00100505R15□CP | 150 | 100 MHz,200 mV | 8 | 700 | 3.50 | 100 | 5 |
| ASCH00100505R18□CP | 180 | 100 MHz,200 mV | 8 | 600 | 3.80 | 100 | 5 |
| ASCH00100505R22□CP | 220 | 100 MHz,200 mV | 8 | 500 | 4.20 | 100 | 5 |
| ASCH00100505R27□CP | 270 | 100 MHz,200 mV | 8 | 500 | 4.80 | 100 | 5 |

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
- 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: Agilent E4991A or HP19196C
RDC: HP4338B or CHEN HWA 502

ASCH00100505_CP Type

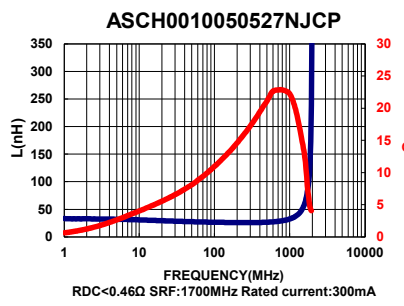
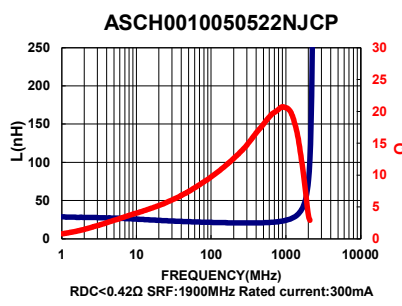
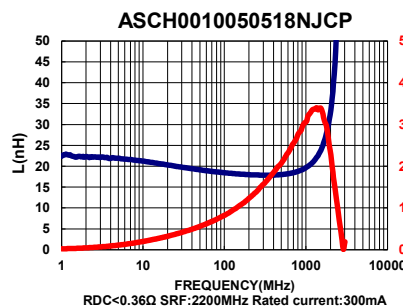
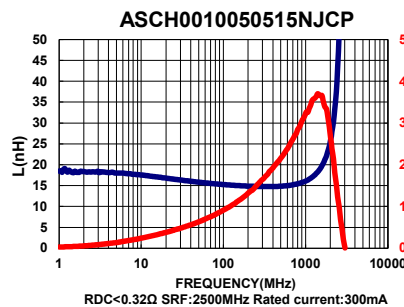
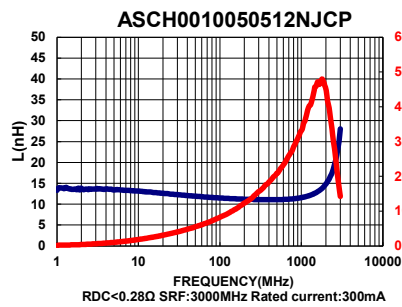
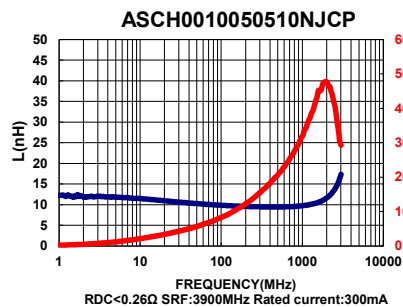
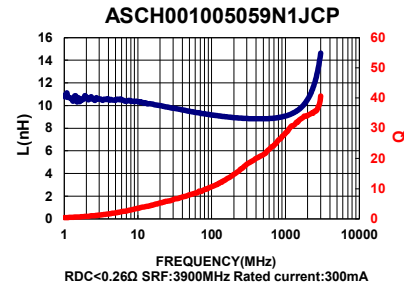
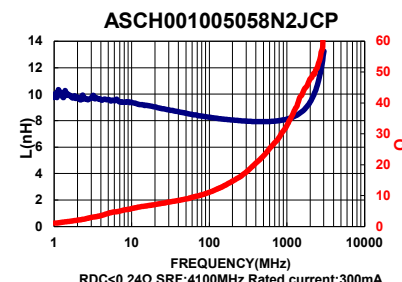
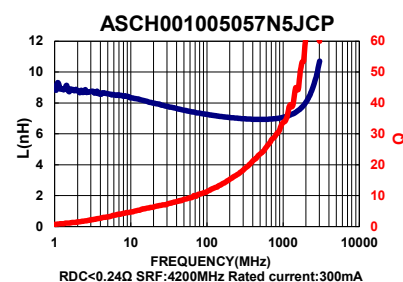
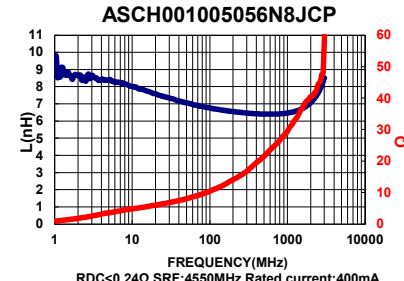
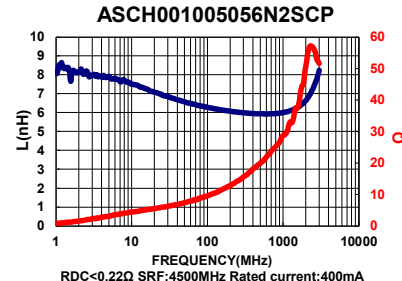
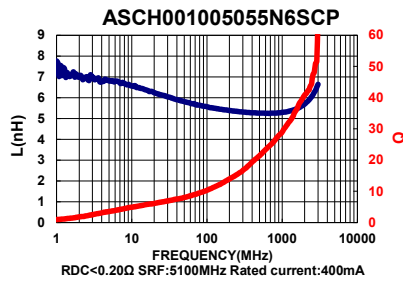
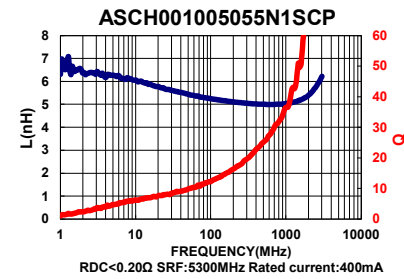
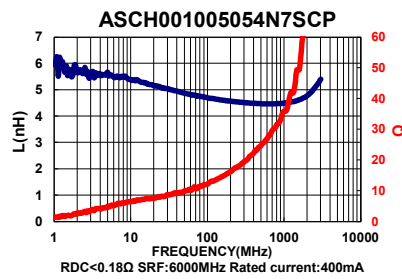
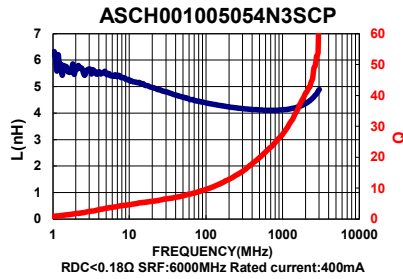
Characteristics Graph



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ASCH00100505_CP Type

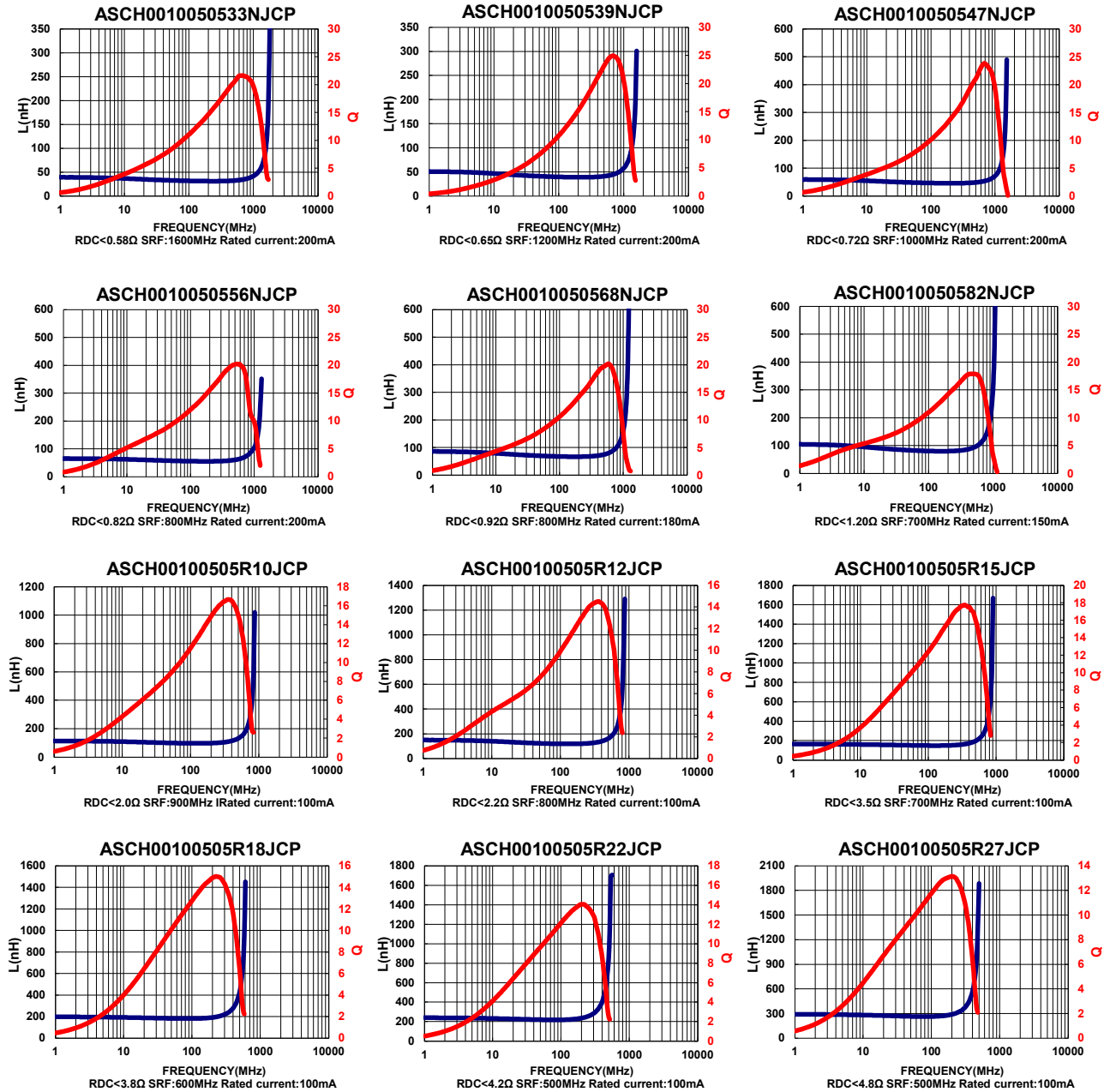
Characteristics Graph



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ASCH00100505_CP Type

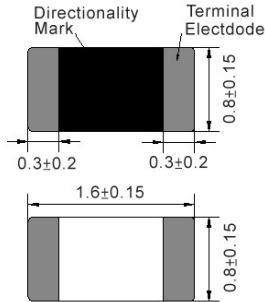
Characteristics Graph



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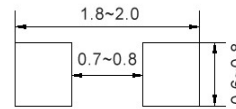
ASCH00160808 Type

Dimensions



unit:mm

Recommended Land Pattern



unit:mm

Electrical Characteristics

| Part No. | Inductance | L,Q | Q | SRF | RDC | IDC | Tolerance |
|--------------------|------------|----------------|------|-----------|---------|----------|-----------|
| | (nH) | Test Freq. | Min. | (MHz)Typ. | (Ω)Max. | (mA)Max. | (±%) |
| ASCH001608081N0□00 | 1.0 | 100 MHz,200 mV | 8 | 10000 | 0.10 | 600 | ±0.3nH |
| ASCH001608081N2□00 | 1.2 | 100 MHz,200 mV | 8 | 10000 | 0.10 | 600 | ±0.3nH |
| ASCH001608081N5□00 | 1.5 | 100 MHz,200 mV | 8 | 8000 | 0.10 | 600 | ±0.3nH |
| ASCH001608081N6□00 | 1.6 | 100 MHz,200 mV | 8 | 8000 | 0.10 | 600 | ±0.3nH |
| ASCH001608081N8□00 | 1.8 | 100 MHz,200 mV | 8 | 8000 | 0.10 | 600 | ±0.3nH |
| ASCH001608082N2□00 | 2.2 | 100 MHz,200 mV | 8 | 7200 | 0.10 | 600 | ±0.3nH |
| ASCH001608082N7□00 | 2.7 | 100 MHz,200 mV | 10 | 6200 | 0.10 | 600 | ±0.3nH |
| ASCH001608083N0□00 | 3.0 | 100 MHz,200 mV | 10 | 5200 | 0.12 | 600 | ±0.3nH |
| ASCH001608083N3□00 | 3.3 | 100 MHz,200 mV | 10 | 5200 | 0.12 | 600 | ±0.3nH |
| ASCH001608083N6□00 | 3.6 | 100 MHz,200 mV | 10 | 5000 | 0.14 | 600 | ±0.3nH |
| ASCH001608083N9□00 | 3.9 | 100 MHz,200 mV | 10 | 5000 | 0.14 | 600 | ±0.3nH |
| ASCH001608084N3□00 | 4.3 | 100 MHz,200 mV | 10 | 4750 | 0.16 | 600 | ±0.3nH |
| ASCH001608084N7□00 | 4.7 | 100 MHz,200 mV | 10 | 4750 | 0.16 | 600 | ±0.3nH |
| ASCH001608085N1□00 | 5.1 | 100 MHz,200 mV | 10 | 4100 | 0.18 | 600 | ±0.3nH |
| ASCH001608085N6□00 | 5.6 | 100 MHz,200 mV | 10 | 4100 | 0.18 | 600 | ±0.3nH |
| ASCH001608086N2□00 | 6.2 | 100 MHz,200 mV | 10 | 3750 | 0.22 | 600 | ±0.3nH |
| ASCH001608086N8□00 | 6.8 | 100 MHz,200 mV | 10 | 3750 | 0.22 | 600 | 5 |
| ASCH001608087N5□00 | 7.5 | 100 MHz,200 mV | 10 | 3300 | 0.24 | 600 | 5 |
| ASCH001608088N2□00 | 8.2 | 100 MHz,200 mV | 10 | 3300 | 0.24 | 600 | 5 |
| ASCH0016080810N□00 | 10 | 100 MHz,200 mV | 12 | 3000 | 0.26 | 600 | 5 |
| ASCH0016080812N□00 | 12 | 100 MHz,200 mV | 12 | 2600 | 0.28 | 600 | 5 |
| ASCH0016080815N□00 | 15 | 100 MHz,200 mV | 12 | 2500 | 0.32 | 600 | 5 |
| ASCH0016080816N□00 | 16 | 100 MHz,200 mV | 12 | 2400 | 0.35 | 600 | 5 |
| ASCH0016080818N□00 | 18 | 100 MHz,200 mV | 12 | 2400 | 0.35 | 600 | 5 |
| ASCH0016080822N□00 | 22 | 100 MHz,200 mV | 12 | 2000 | 0.40 | 500 | 5 |
| ASCH0016080827N□00 | 27 | 100 MHz,200 mV | 12 | 1900 | 0.45 | 500 | 5 |
| ASCH0016080833N□00 | 33 | 100 MHz,200 mV | 12 | 1600 | 0.55 | 400 | 5 |
| ASCH0016080839N□00 | 39 | 100 MHz,200 mV | 12 | 1400 | 0.60 | 400 | 5 |
| ASCH0016080847N□00 | 47 | 100 MHz,200 mV | 12 | 1300 | 0.70 | 400 | 5 |
| ASCH0016080856N□00 | 56 | 100 MHz,200 mV | 12 | 1100 | 0.75 | 400 | 5 |
| ASCH0016080862N□00 | 62 | 100 MHz,200 mV | 12 | 1050 | 0.85 | 400 | 5 |
| ASCH0016080868N□00 | 68 | 100 MHz,200 mV | 12 | 1050 | 0.85 | 400 | 5 |
| ASCH0016080875N□00 | 75 | 100 MHz,200 mV | 12 | 900 | 1.00 | 300 | 5 |
| ASCH0016080882N□00 | 82 | 100 MHz,200 mV | 12 | 900 | 1.00 | 300 | 5 |

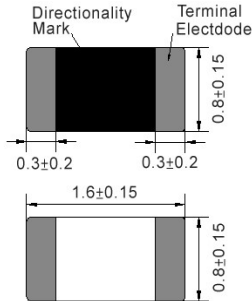
Note: When ordering, please specify tolerance code. Tolerance: S=±0.3nH / J=±5%

1. Operating temperature range -55°C ~125°C
2. Applied the current to coils, the inductance shall be less than 10% initial value
3. Residual impedance of short chip : 0nH
4. Measure Equipment:

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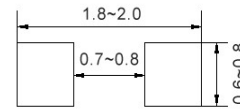
ASCH00160808 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

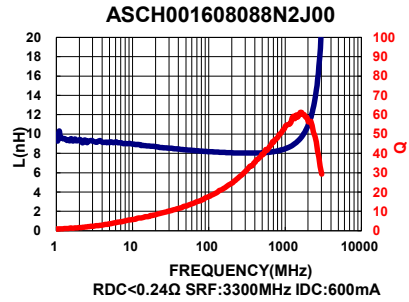
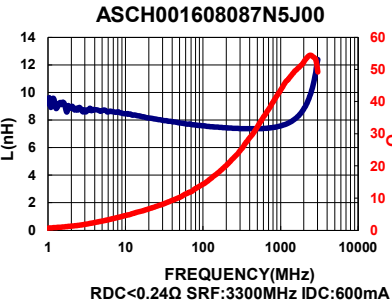
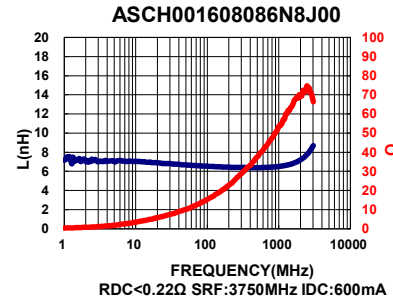
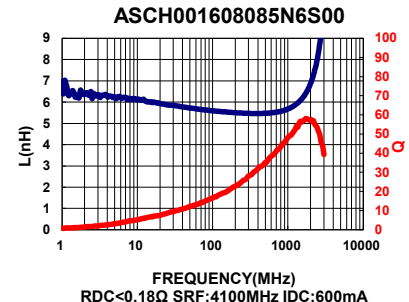
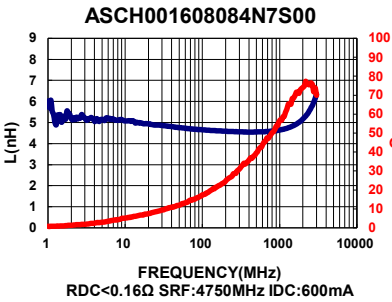
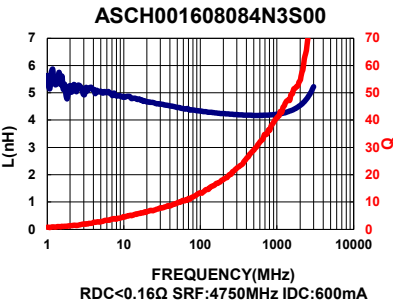
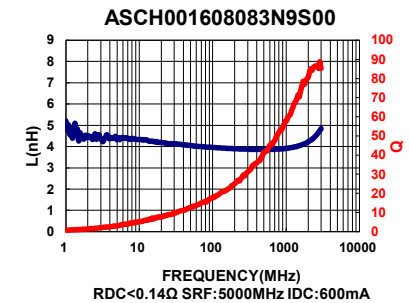
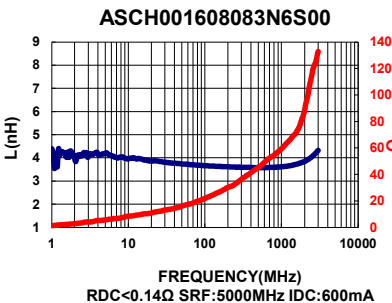
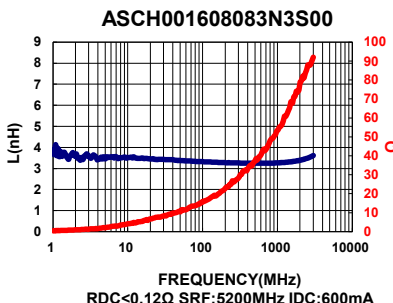
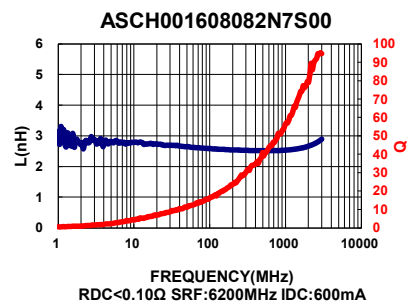
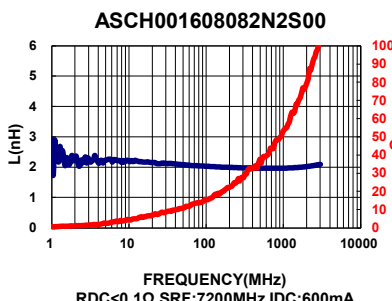
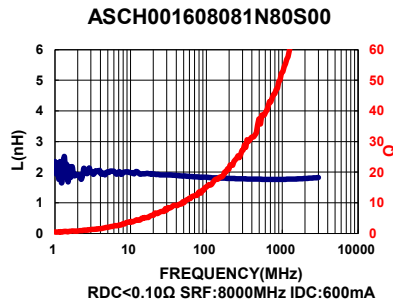
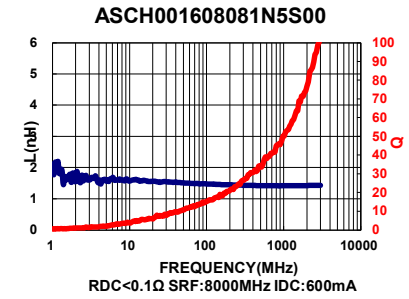
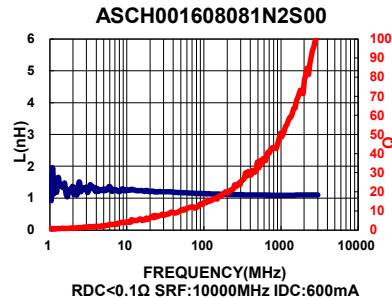
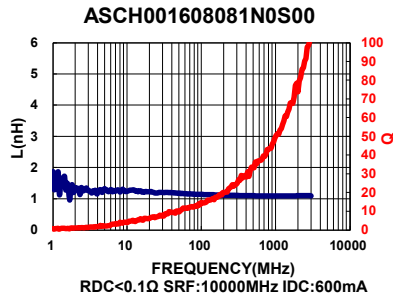
| Part No. | Inductance | L,Q | Q | SRF | RDC | IDC | Tolerance |
|--------------------|------------|----------------|------|-----------|---------|----------|-----------|
| | (nH) | Test Freq. | Min. | (MHz)Typ. | (Ω)Max. | (mA)Max. | (±%) |
| ASCH00160808R10□00 | 100 | 100 MHz,200 mV | 12 | 770 | 1.20 | 300 | 5 |
| ASCH00160808R12□00 | 120 | 50 MHz,200 mV | 8 | 650 | 1.30 | 300 | 5 |
| ASCH00160808R15□00 | 150 | 50 MHz,200 mV | 8 | 550 | 1.70 | 250 | 5 |
| ASCH00160808R18□00 | 180 | 50 MHz,200 mV | 8 | 520 | 1.90 | 250 | 5 |
| ASCH00160808R22□00 | 220 | 50 MHz,200 mV | 8 | 500 | 2.00 | 250 | 5 |
| ASCH00160808R27□00 | 270 | 50 MHz,200 mV | 8 | 470 | 2.20 | 150 | 5 |
| ASCH00160808R33□00 | 330 | 50 MHz,200 mV | 8 | 320 | 2.80 | 100 | 5 |
| ASCH00160808R39□00 | 390 | 50 MHz,200 mV | 8 | 300 | 3.00 | 100 | 5 |

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

1. Operating temperature range -55°C~125°C
2. Applied the current to coils, the inductance shall be less than 10% initial value
3. Residual impedance of short chip : 0nH
4. Measure Equipment:
L & Q: Agilent E4991A+Agilent 16197A
SRF: Agilent E4991A or HP19196C
RDC: HP4338B or CHEN HWA 502

ASCH00160808 Type

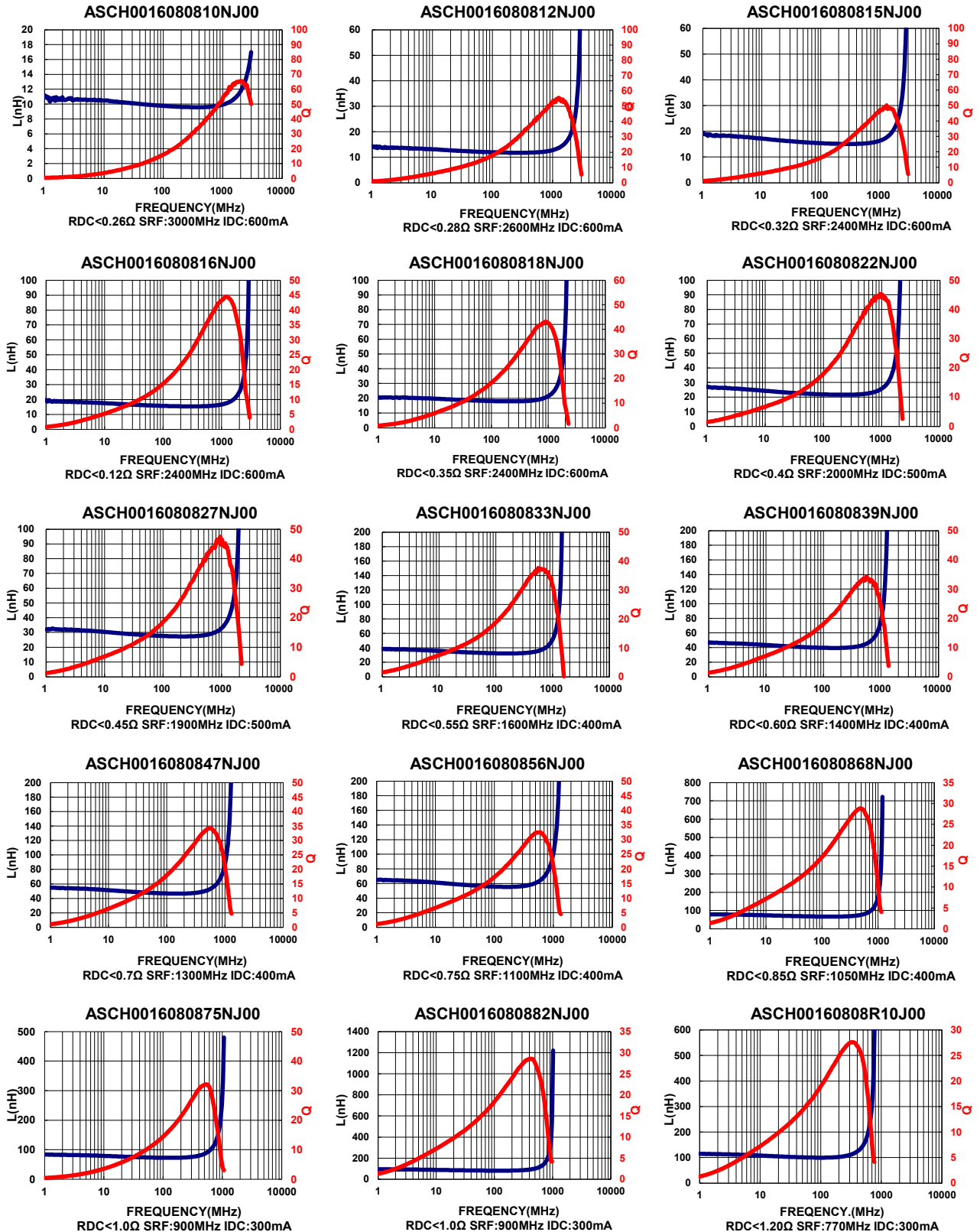
Characteristics Graph



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.

ASCH00160808 Type

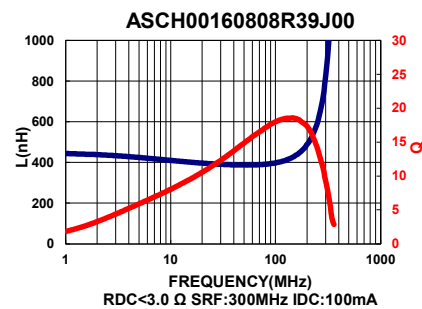
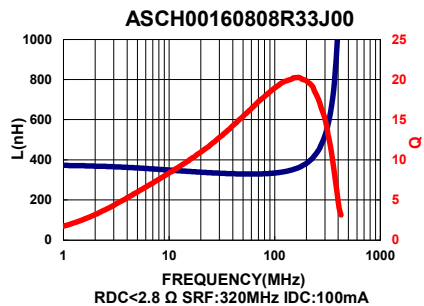
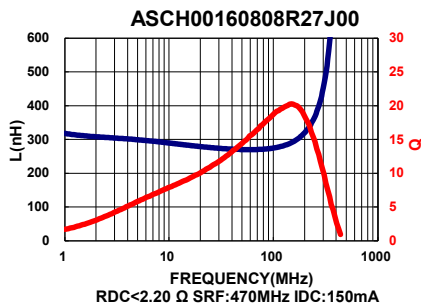
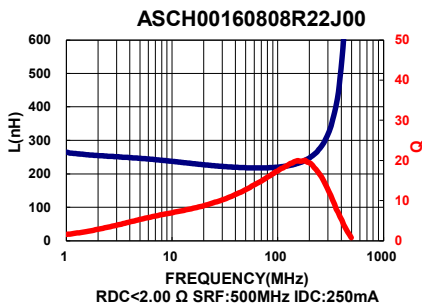
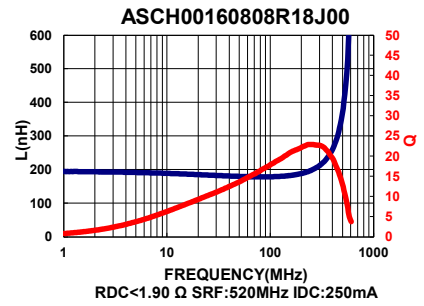
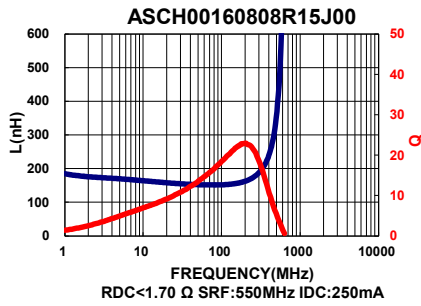
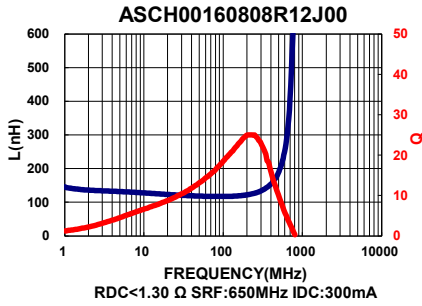
Characteristics Graph



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ASCH00160808 Type

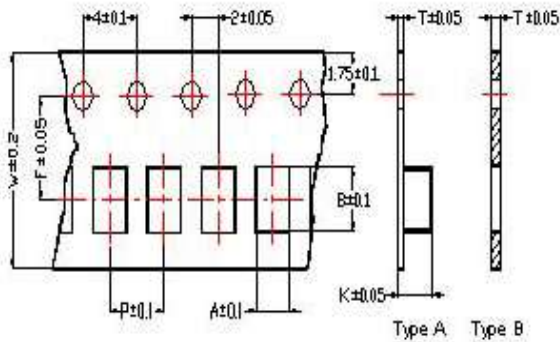
Characteristics Graph



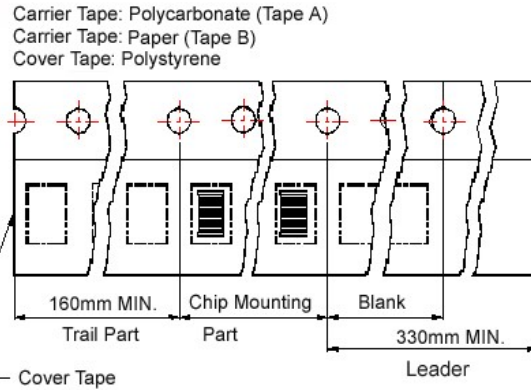
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■ Packaging

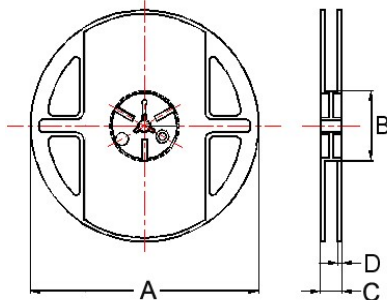
Tape Dimensions



Tape Material



Reel Dimensions



Dimensions in mm

| TYPE | Tape Dimensions | | | | | | | Reel Dimensions | | | | Quantity PCS / Reel |
|--------------|-----------------|------|------|---|---|-----|------|-----------------|----|----|-----|------------------------|
| | A | B | T | W | P | F | Tape | A | B | C | D | |
| ASCH00100505 | 0.62 | 1.12 | 0.60 | 8 | 2 | 3.5 | B | 178 | 60 | 12 | 1.5 | 10000 |
| ASCH00160808 | 1.00 | 1.80 | 0.95 | 8 | 4 | 3.5 | B | 178 | 60 | 12 | 1.5 | 4000 |

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单击下面可查看定价，库存，交付和生命周期等信息

[>>CHILISIN\(奇力新\)](#)