

Chip Inductor

ASCH Series - ISO9001 | ISO14001 | IATF16949



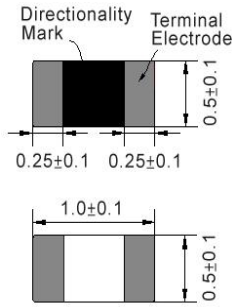
Part Numbering

| 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.

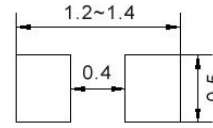
ASCH00100505_CP Type

■ 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 |

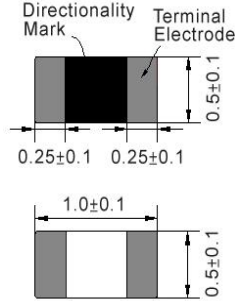
Note: When ordering, please specify tolerance code. Tolerance: C=±0.2nH / S=±0.3nH / J=±5% / K=±10%

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

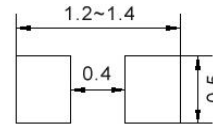
ASCH00100505_CP Type

Dimensions



unit:mm

Recommended Land Pattern



unit:mm

Electrical Characteristics

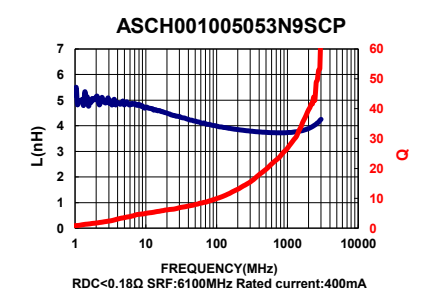
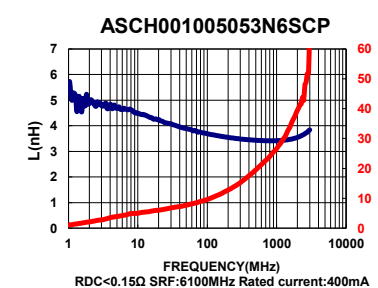
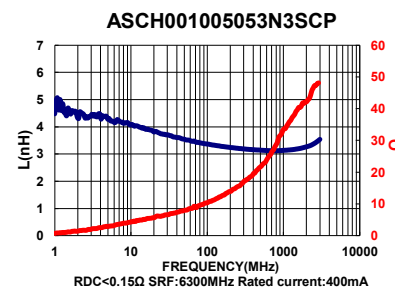
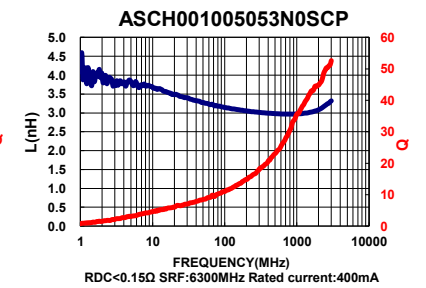
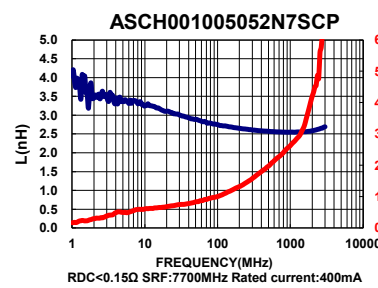
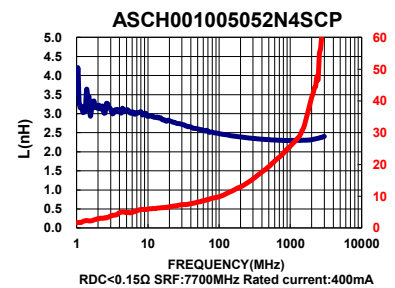
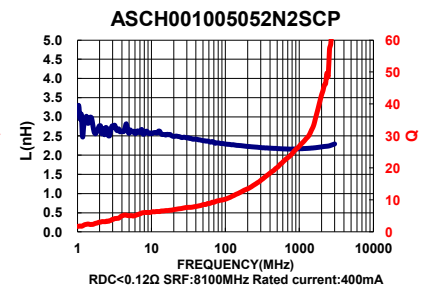
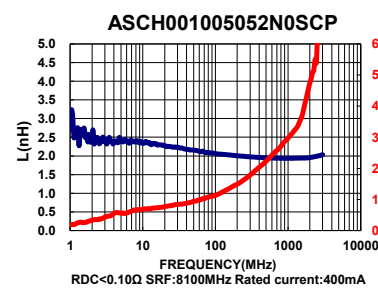
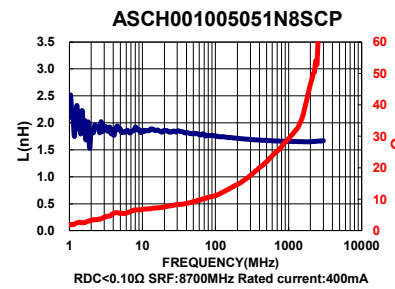
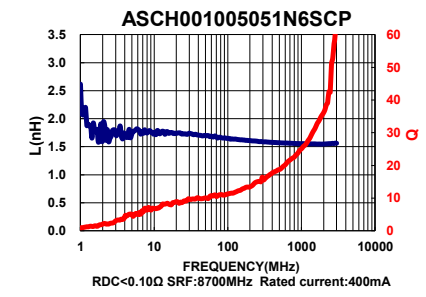
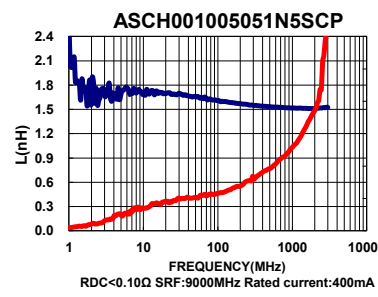
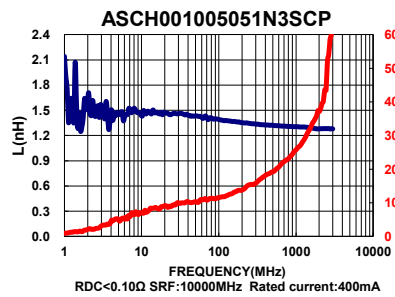
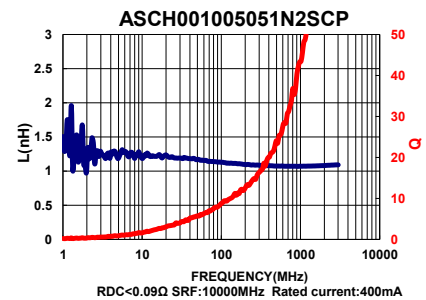
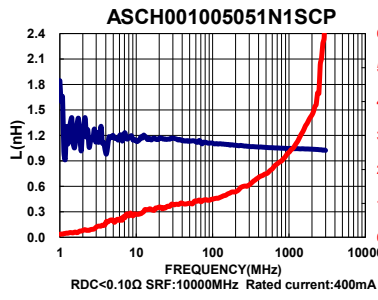
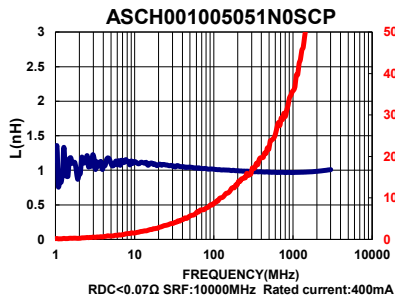
| Part No. | Inductance | L,Q | Q | SRF | RDC | Rated Current | Tolerance |
|--------------------|------------|----------------|------|-----------|---------|---------------|-----------|
| | (nH) | Test Freq. | Min. | (MHz)Min. | (Ω)Max. | (mA)Max. | (±%) |
| ASCH0010050533N□CP | 33 | 100 MHz,200 mV | 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%

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

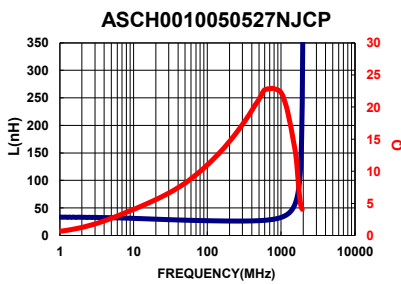
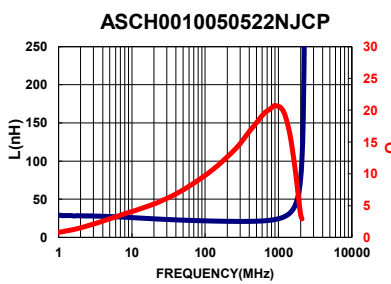
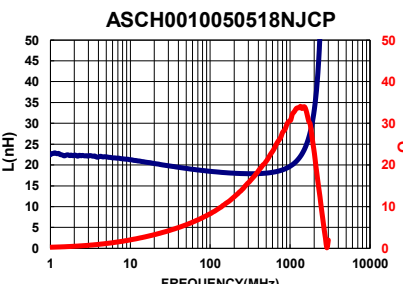
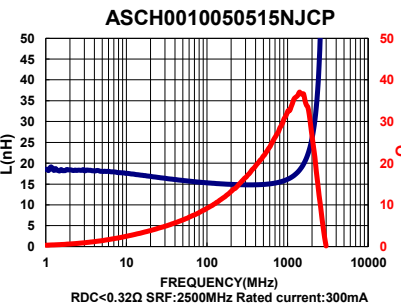
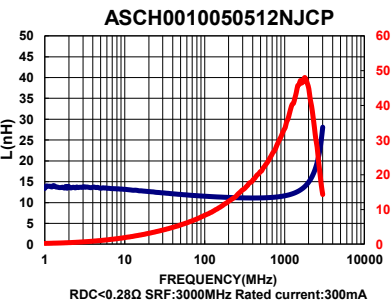
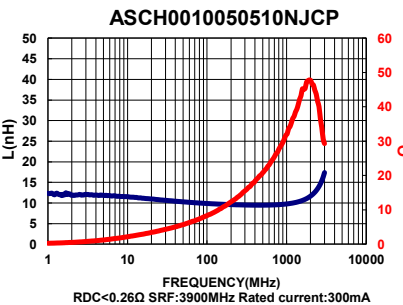
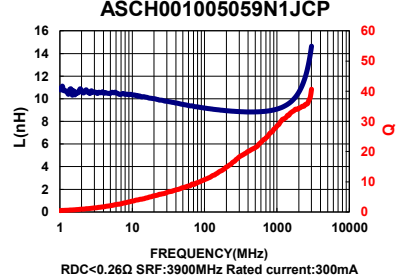
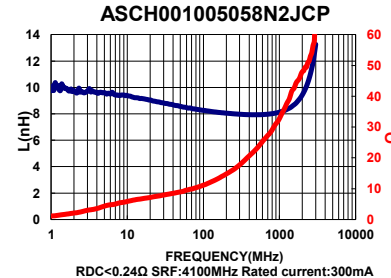
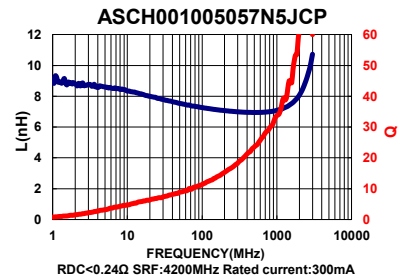
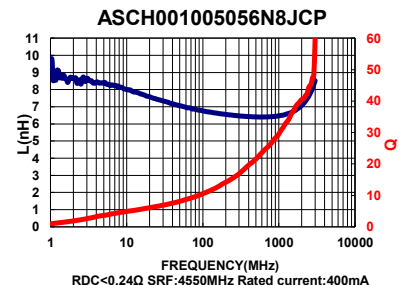
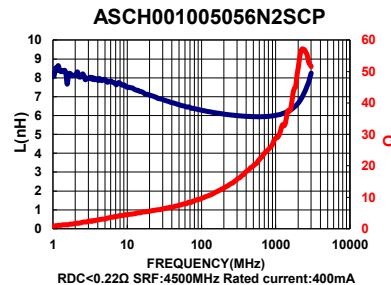
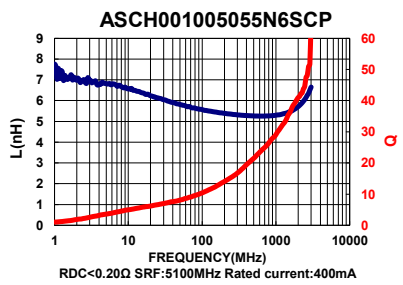
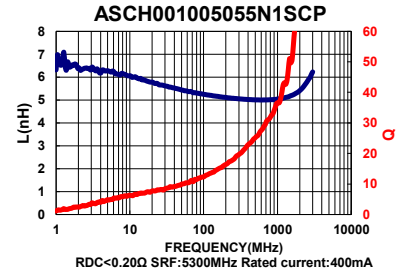
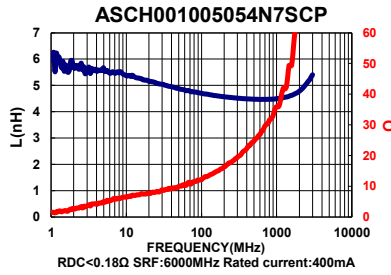
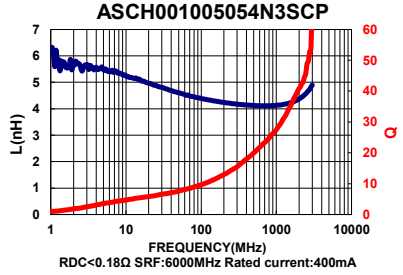
ASCH00100505_CP Type

Characteristics Graph



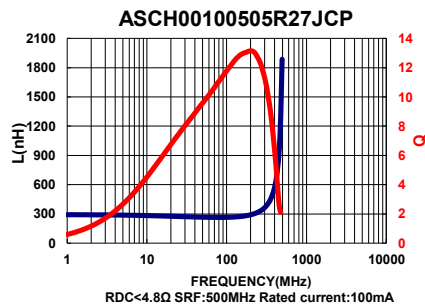
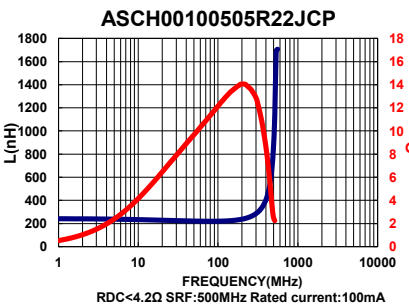
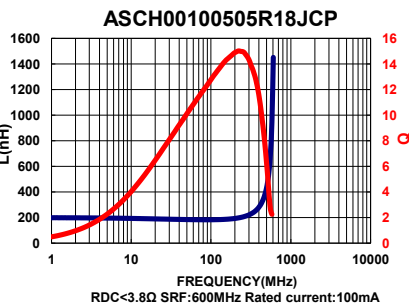
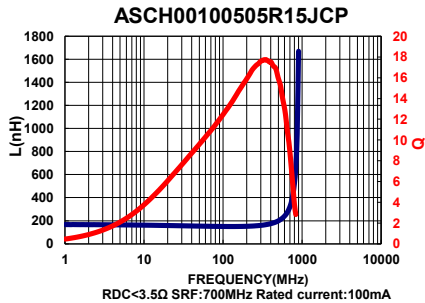
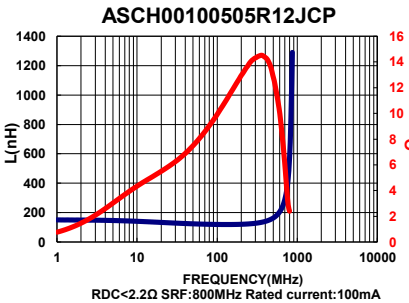
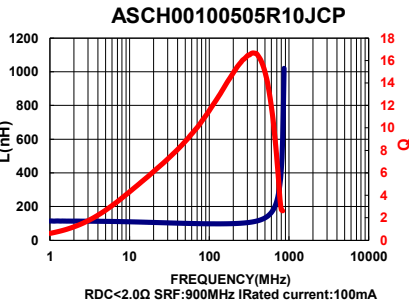
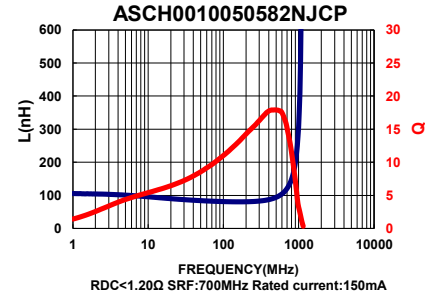
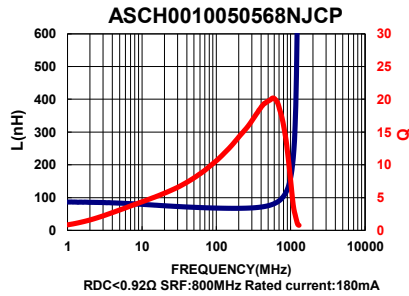
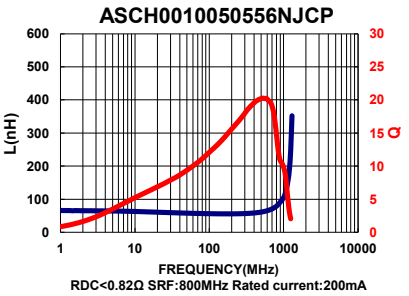
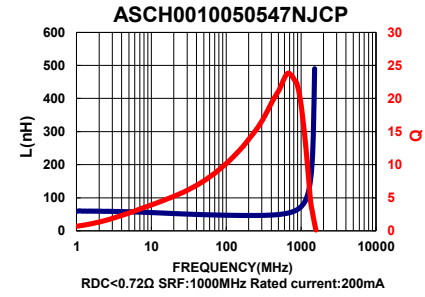
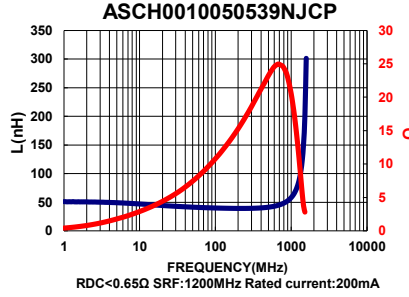
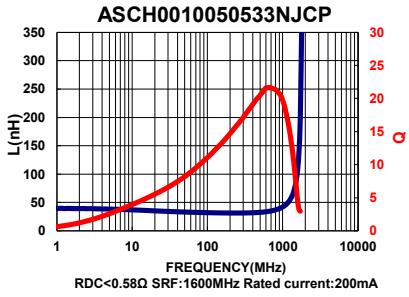
ASCH00100505_CP Type

Characteristics Graph



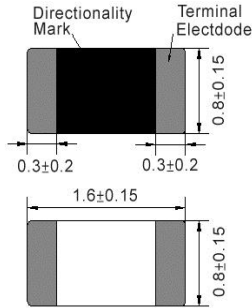
ASCH00100505_CP Type

Characteristics Graph



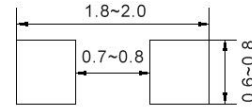
ASCH00160808 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

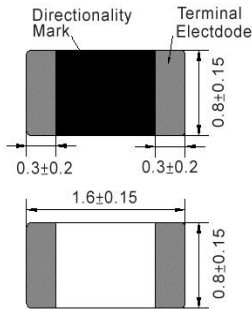
| Part No. | Inductance | L,Q | Q | SRF | RDC | IDC | Tolerance |
|--------------------|------------|----------------|------|-----------|---------|----------|-----------|
| | (nH) | Test Freq. | Min. | (MHz)Typ. | (Ω)Max. | (mA)Max. | (±%) |
| ASCH001608081N0□00 | 1.0 | 100 MHz,200 mV | 8 | 10000 | 0.10 | 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:

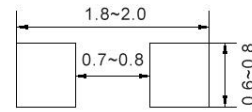
ASCH00160808 Type

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. | (±%) |
| BSCH00160808R10□00 | 100 | 100 MHz,200 mV | 12 | 770 | 1.20 | 300 | 5 |
| BSCH00160808R12□00 | 120 | 50 MHz,200 mV | 8 | 650 | 1.30 | 300 | 5 |
| BSCH00160808R15□00 | 150 | 50 MHz,200 mV | 8 | 550 | 1.70 | 250 | 5 |
| BSCH00160808R18□00 | 180 | 50 MHz,200 mV | 8 | 520 | 1.90 | 250 | 5 |
| BSCH00160808R22□00 | 220 | 50 MHz,200 mV | 8 | 500 | 2.00 | 250 | 5 |
| BSCH00160808R27□00 | 270 | 50 MHz,200 mV | 8 | 470 | 2.20 | 150 | 5 |
| BSCH00160808R33□00 | 330 | 50 MHz,200 mV | 8 | 320 | 2.80 | 100 | 5 |
| BSCH00160808R39□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:

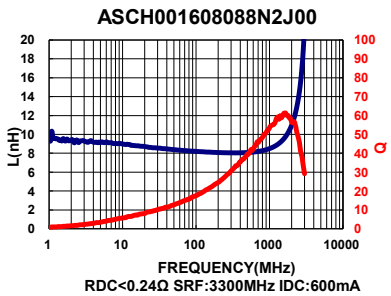
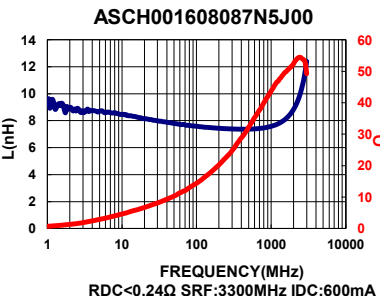
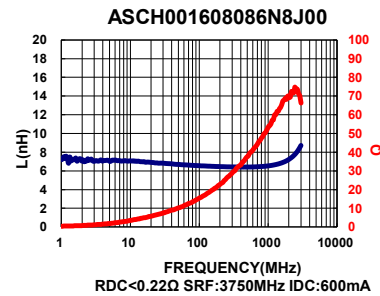
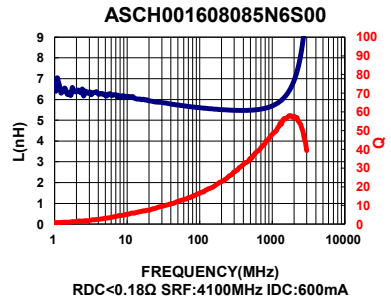
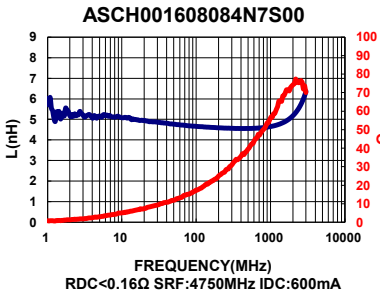
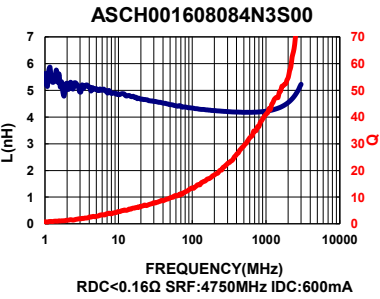
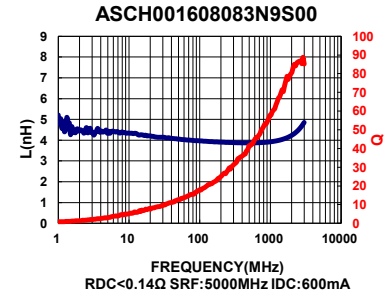
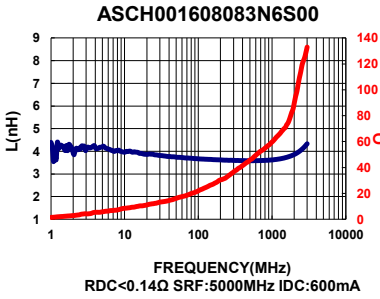
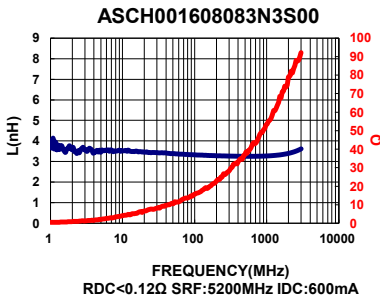
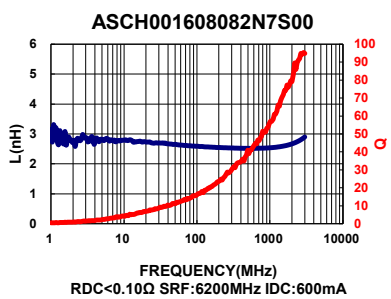
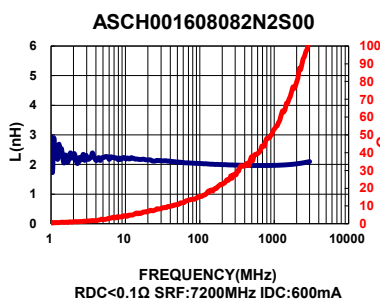
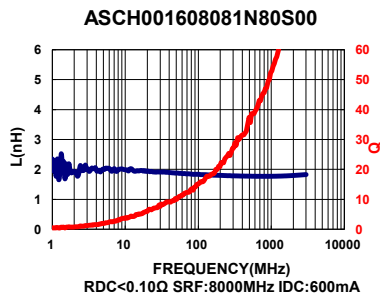
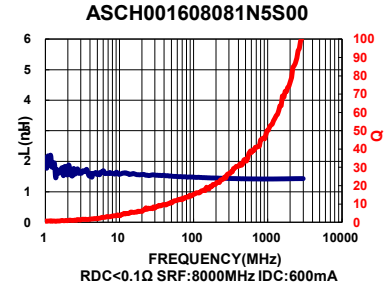
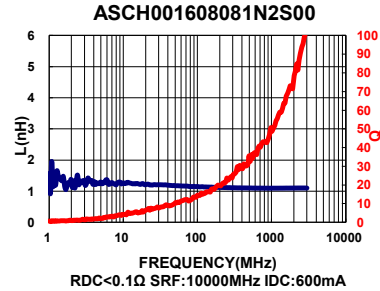
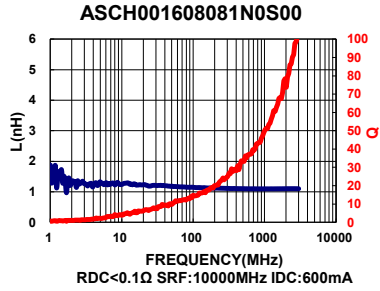
L & Q: Agilent E4991A+Agilent 16197A

SRF: Agilent E4991A or HP19196C

RDC: HP4338B or CHEN HWA 502

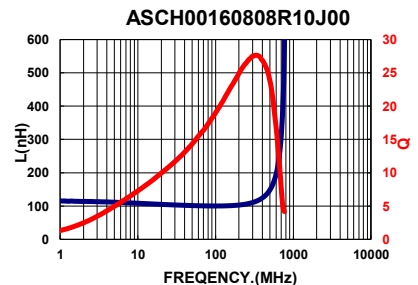
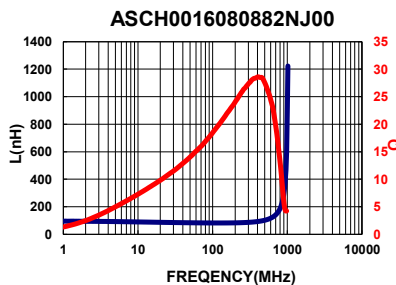
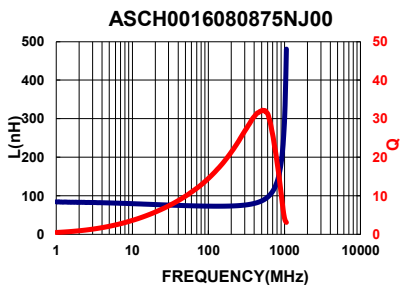
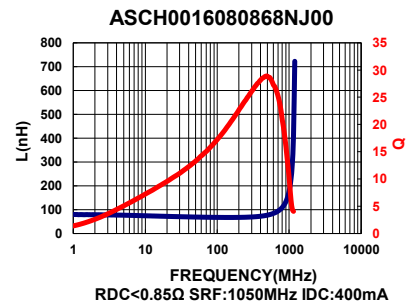
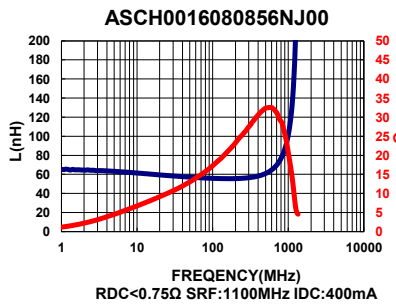
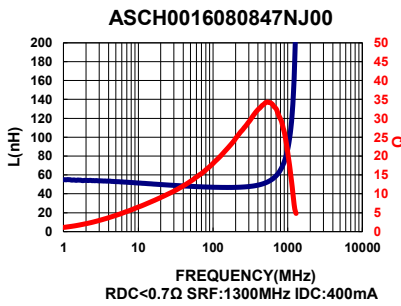
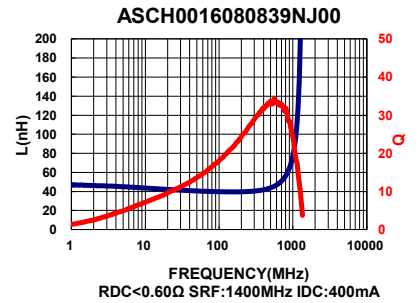
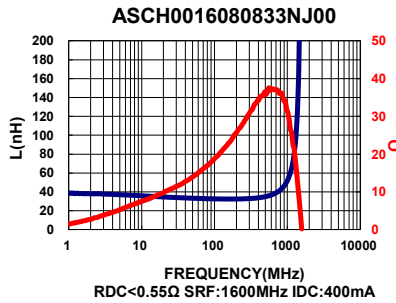
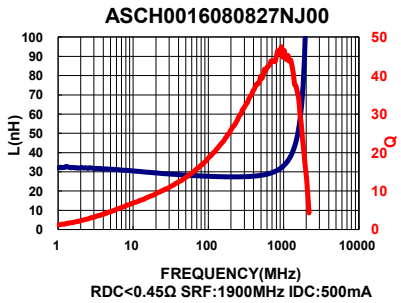
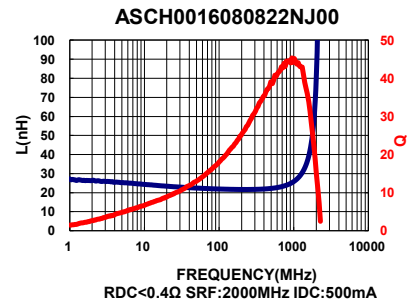
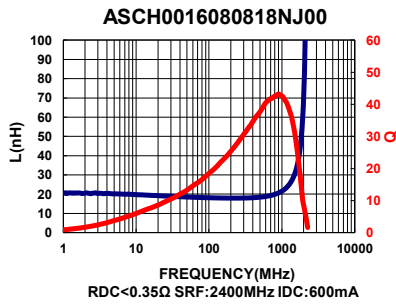
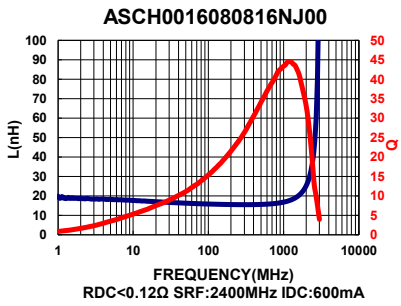
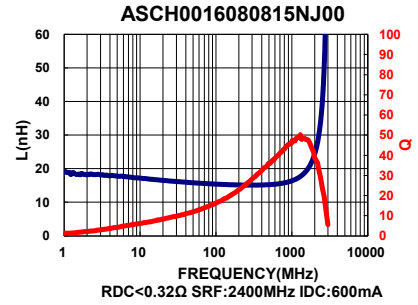
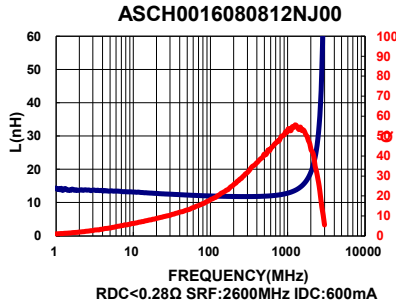
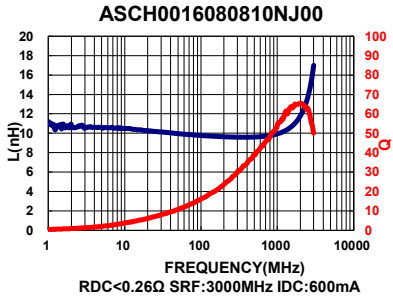
ASCH00160808 Type

Characteristics Graph



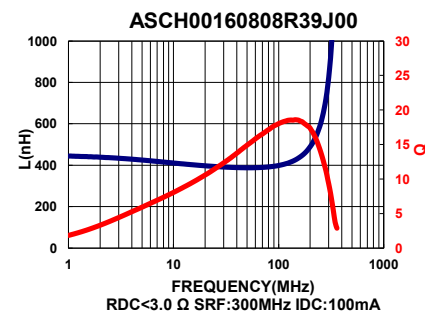
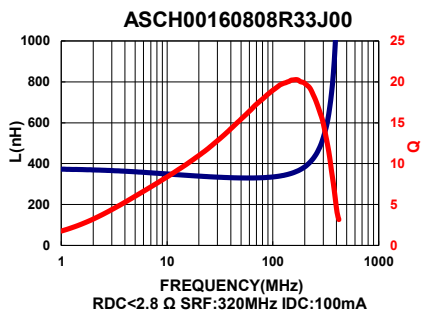
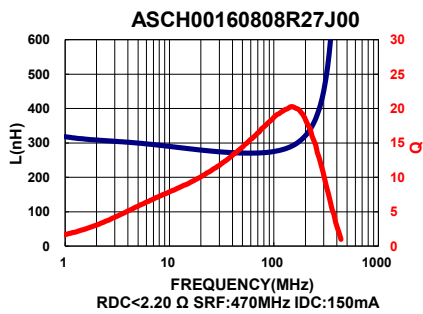
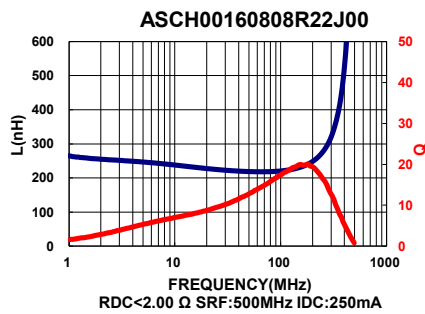
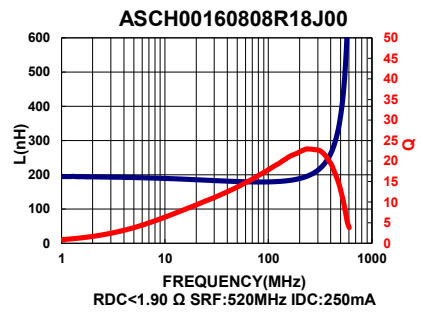
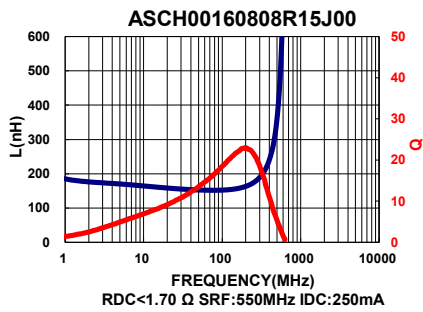
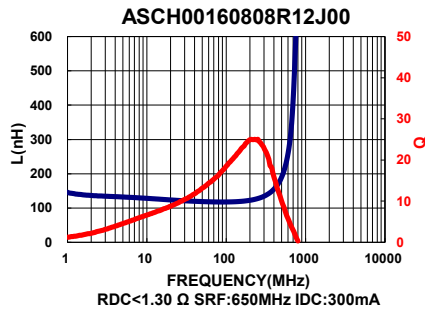
ASCH00160808 Type

Characteristics Graph



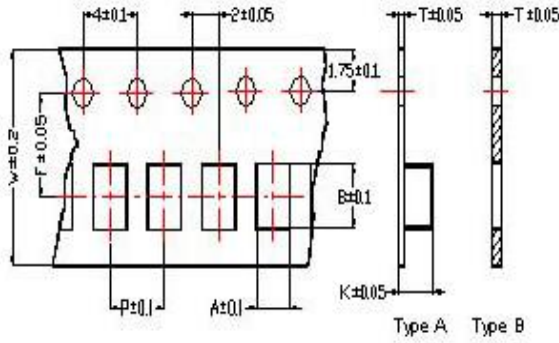
ASCH00160808 Type

Characteristics Graph



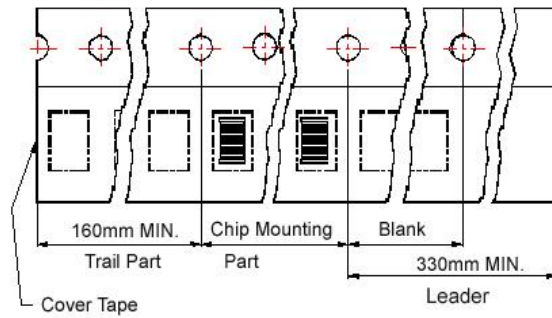
■ Packaging

Tape Dimensions

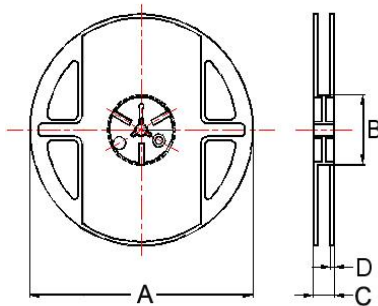


Tape Material

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



Reel Dimensions



Dimensions in mm

| TYPE | Tape Dimensions | | | | | | | Reel Dimensions | | | | Quantity |
|--------------|-----------------|------|------|---|---|-----|------|-----------------|----|----|-----|------------|
| | A | B | T | W | P | F | Tape | A | B | C | D | PCS / Reel |
| 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 |

For More Information:

Americas - prodinfo_power_americas@yageo.com | Europe - prodinfo_power_emea@yageo.com | Asia - prodinfo_power_asia@yageo.com

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