THE DATASHEET OF

ASCH0010050515NJCP

Chip Inductor

ASCH Series - ISO9001 | ISO14001 | IATF16949

Pulse
a YAGEO company

Noise Suppression | Shield | Multilayer | Ceramic | High Frequency

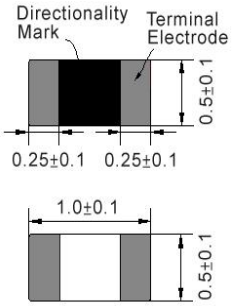
Part Numbering

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.

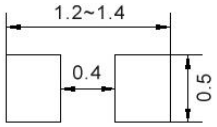
ASCH00100505_CP Type

Dimensions



unit:mm

Recommended Land Pattern



unit:mm

Electrical Characteristics

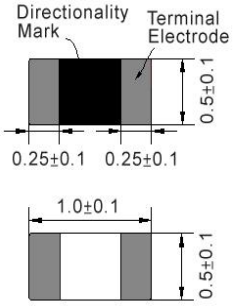
Part No.	Inductance (nH)	L,Q Test Freq.	Q Min.	SRF (MHz)Min.	RDC (Ω)Max.	Rated Current (mA)Max.	Tolerance (±%)
ASCH001005051N0□CP	1.0	100 MHz,200 mV	8	10000	0.07	400	±0.3nH
ASCH001005051N1□CP	1.1	100 MHz,200 mV	8	10000	0.10	400	±0.3nH
ASCH001005051N2□CP	1.2	100 MHz,200 mV	8	10000	0.09	400	±0.3nH
ASCH001005051N3□CP	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℃ ~ 125℃
2. Applied the current to coils, the temperature rise shall not be more than 30℃
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

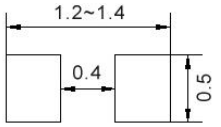
ASCH00100505_CP Type

Dimensions



unit:mm

Recommended Land Pattern



unit:mm

Electrical Characteristics

Part No.	Inductance (nH)	L,Q Test Freq.	Q Min.	SRF (MHz)Min.	RDC (Ω)Max.	Rated Current (mA)Max.	Tolerance (±%)
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

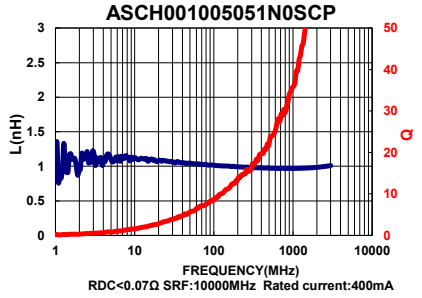
Note: When ordering, please specify tolerance code. Tolerance: C=±0.2nH / S=±0.3nH / J=±5% / K=±10%

1. Operating temperature range - 55℃ ~ 125℃
2. Applied the current to coils, the temperature rise shall not be more than 30℃
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

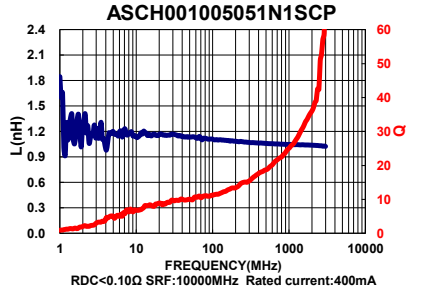
Characteristics Graph

ASCH001005051N0SCP



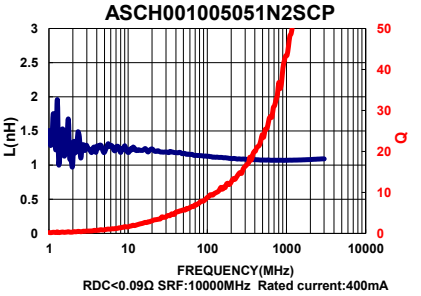
RDC<0.07Ω SRF:10000MHz Rated current:400mA

ASCH001005051N1SCP



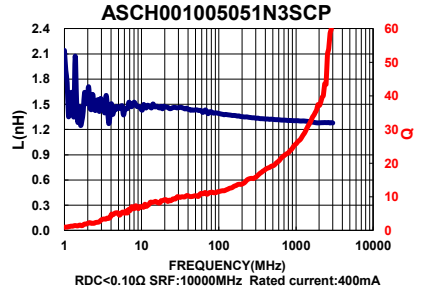
RDC<0.10Ω SRF:10000MHz Rated current:400mA

ASCH001005051N2SCP



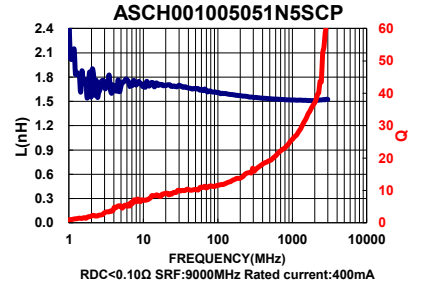
RDC<0.09Ω SRF:10000MHz Rated current:400mA

ASCH001005051N3SCP



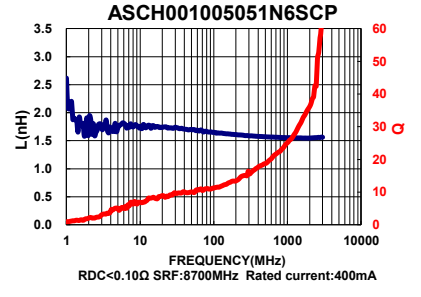
RDC<0.10Ω SRF:10000MHz Rated current:400mA

ASCH001005051N5SCP



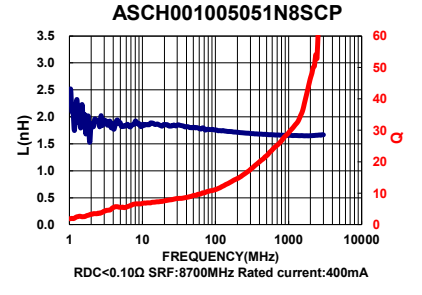
RDC<0.10Ω SRF:9000MHz Rated current:400mA

ASCH001005051N6SCP



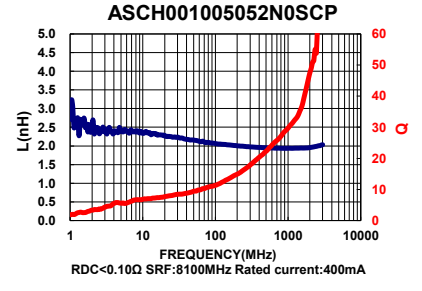
RDC<0.10Ω SRF:8700MHz Rated current:400mA

ASCH001005051N8SCP



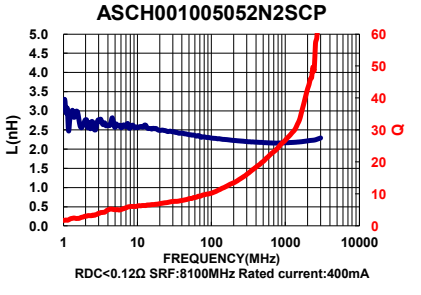
RDC<0.10Ω SRF:8700MHz Rated current:400mA

ASCH001005052N0SCP



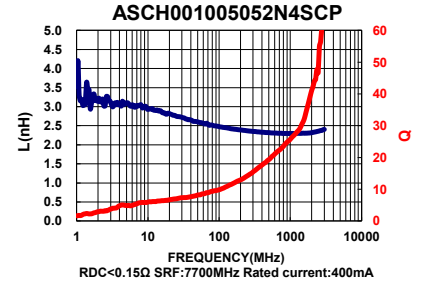
RDC<0.10Ω SRF:8100MHz Rated current:400mA

ASCH001005052N2SCP



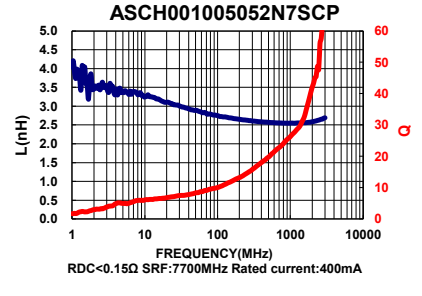
RDC<0.12Ω SRF:8100MHz Rated current:400mA

ASCH001005052N4SCP



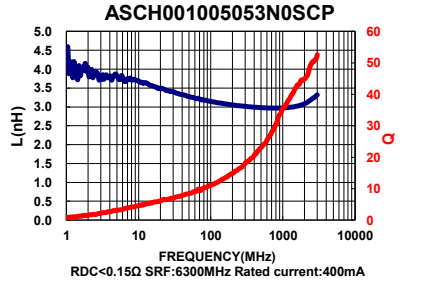
RDC<0.15Ω SRF:7700MHz Rated current:400mA

ASCH001005052N7SCP



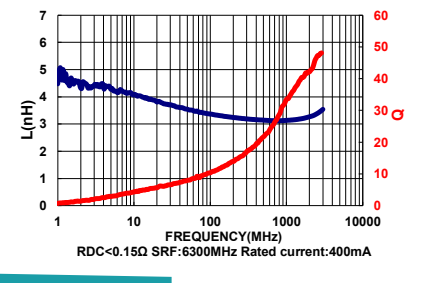
RDC<0.15Ω SRF:7700MHz Rated current:400mA

ASCH001005053N0SCP



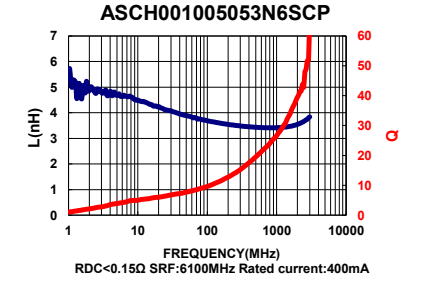
RDC<0.15Ω SRF:6300MHz Rated current:400mA

ASCH001005053N3SCP



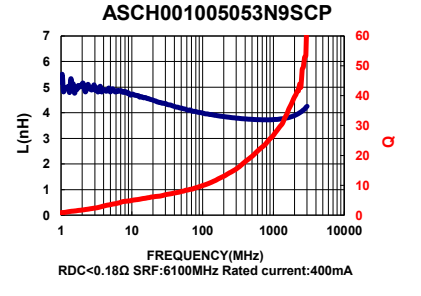
RDC<0.15Ω SRF:6300MHz Rated current:400mA

ASCH001005053N6SCP



RDC<0.15Ω SRF:6100MHz Rated current:400mA

ASCH001005053N9SCP

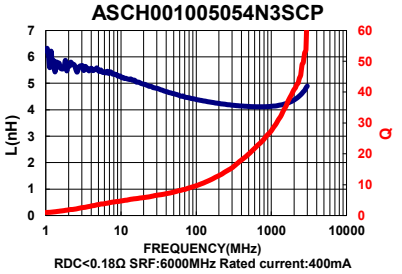


RDC<0.18Ω SRF:6100MHz Rated current:400mA

ASCH00100505_CP Type

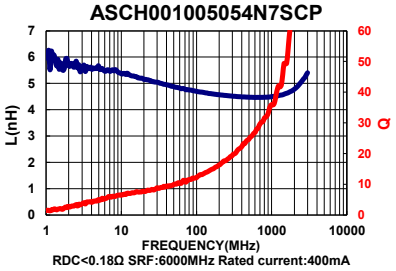
Characteristics Graph

ASCH001005054N3SCP



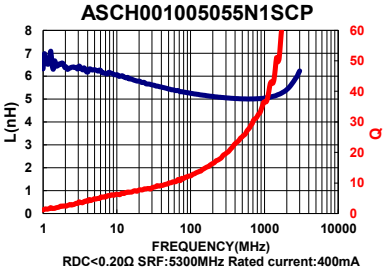
RDC<0.18Ω SRF:6000MHz Rated current:400mA

ASCH001005054N7SCP



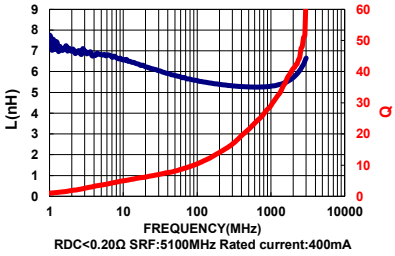
RDC<0.18Ω SRF:6000MHz Rated current:400mA

ASCH001005055N1SCP



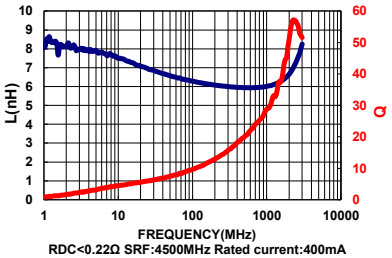
RDC<0.20Ω SRF:5300MHz Rated current:400mA

ASCH001005055N6SCP



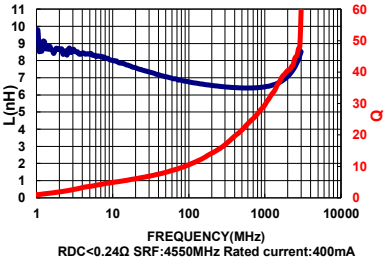
RDC<0.20Ω SRF:5100MHz Rated current:400mA

ASCH001005056N2SCP



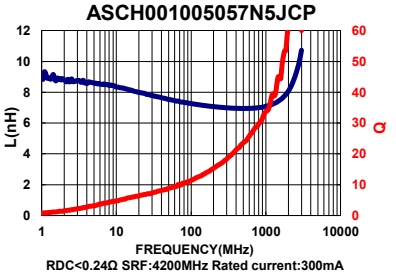
RDC<0.22Ω SRF:4500MHz Rated current:400mA

ASCH001005056N8JCP



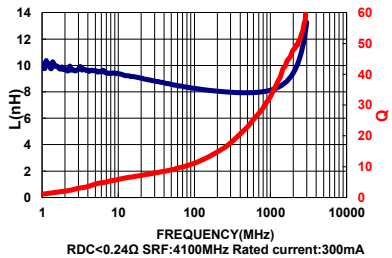
RDC<0.24Ω SRF:4550MHz Rated current:400mA

ASCH001005057N5JCP



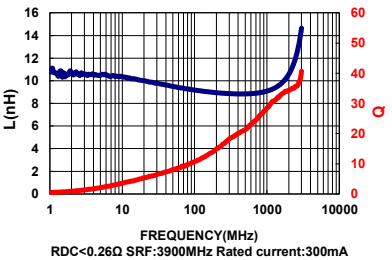
RDC<0.24Ω SRF:4200MHz Rated current:300mA

ASCH001005058N2JCP



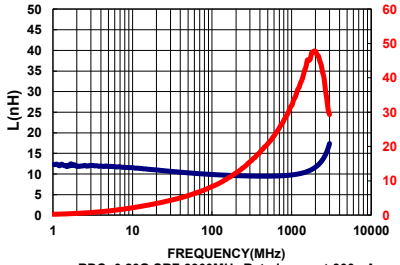
RDC<0.24Ω SRF:4100MHz Rated current:300mA

ASCH001005059N1JCP



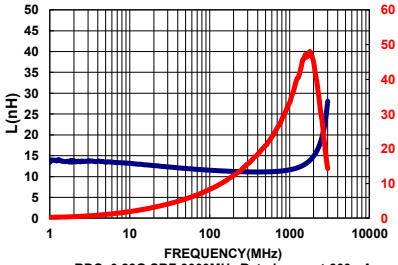
RDC<0.26Ω SRF:3900MHz Rated current:300mA

ASCH0010050510NJCP



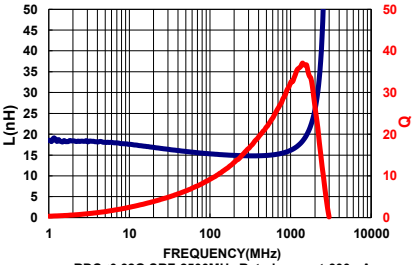
RDC<0.26Ω SRF:3900MHz Rated current:300mA

ASCH0010050512NJCP



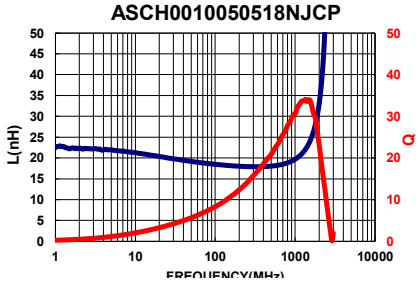
RDC<0.28Ω SRF:3000MHz Rated current:300mA

ASCH0010050515NJCP



RDC<0.32Ω SRF:2500MHz Rated current:300mA

ASCH0010050518NJCP



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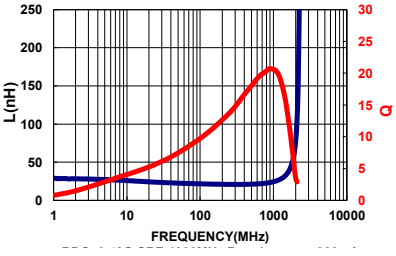

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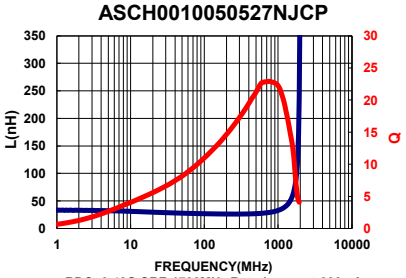
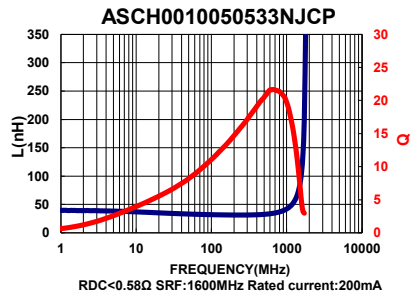
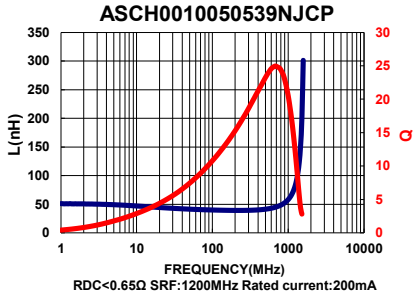
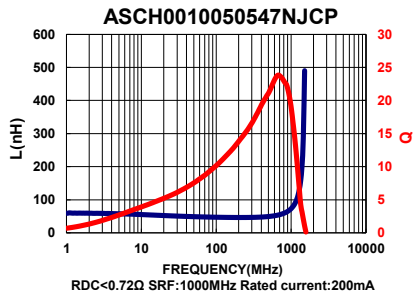


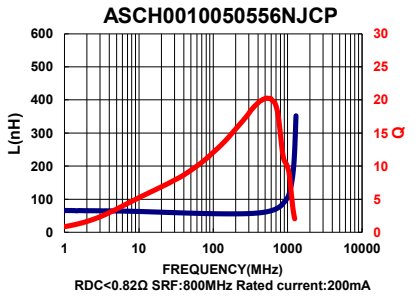
ASCH00100505_CP Type

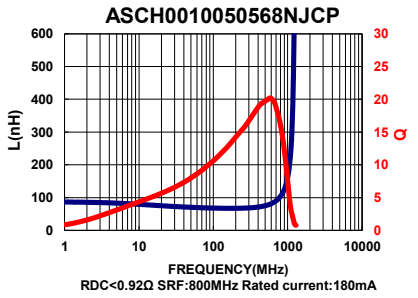
Characteristics Graph

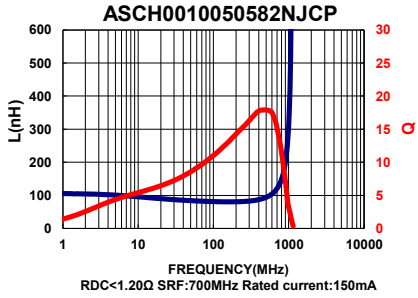


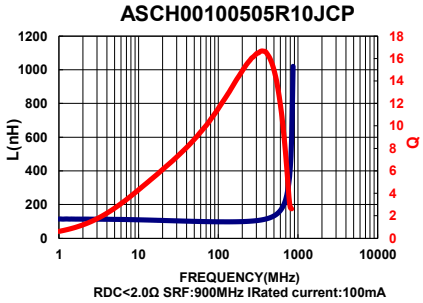


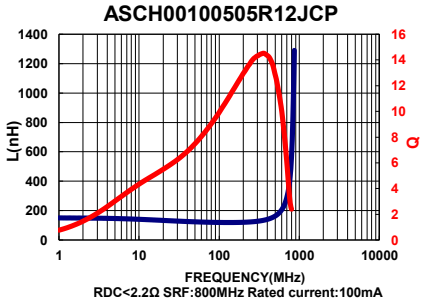


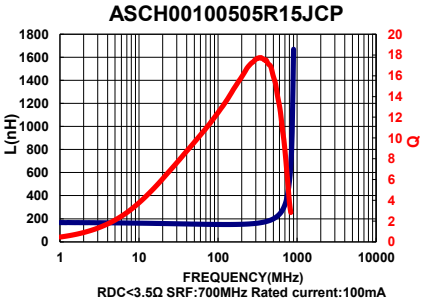


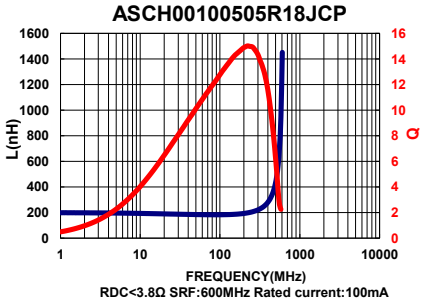


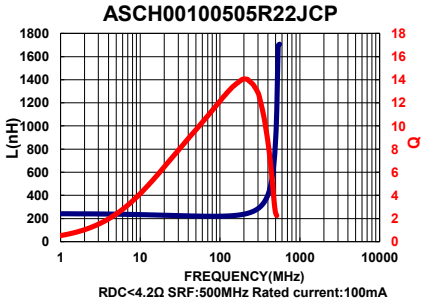


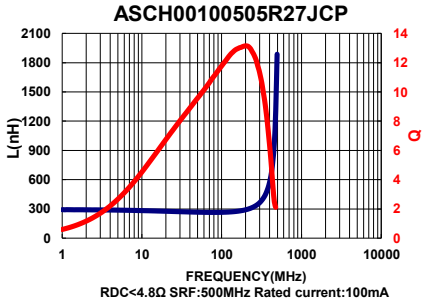






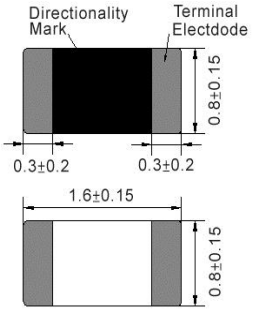






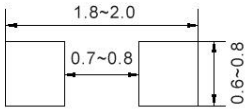
ASCH00160808 Type

Dimensions



unit:mm

Recommended Land Pattern



unit:mm

Electrical Characteristics

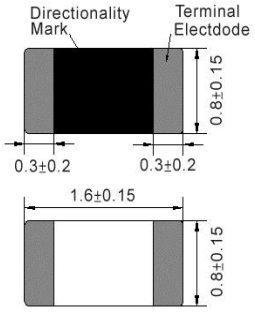
Part No.	Inductance (nH)	L,Q Test Freq.	Q Min.	SRF (MHz)Typ.	RDC (Ω)Max.	IDC (mA)Max.	Tolerance (±%)
ASCH001608081N0□00	1.0	100 MHz,200 mV	8	10000	0.10	600	±0.3nH
ASCH001608081N2□00	1.2	100 MHz,200 mV	8	10000	0.10	600	±0.3nH
ASCH001608081N5□00	1.5	100 MHz,200 mV	8	8000	0.10	600	±0.3nH
ASCH001608081N6□00	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℃ ~ 125℃
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:

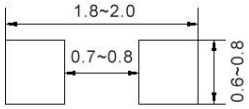
ASCH00160808 Type

Dimensions



unit:mm

Recommended Land Pattern



unit:mm

Electrical Characteristics

Part No.	Inductance (nH)	L,Q Test Freq.	Q Min.	SRF (MHz)Typ.	RDC (Ω)Max.	IDC (mA)Max.	Tolerance (±%)
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

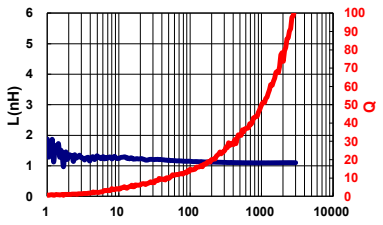
Note: When ordering, please specify tolerance code. Tolerance: S=±0.3nH / J=±5%

1. Operating temperature range - 55℃ ~ 125℃
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

ASCH001608081N0S00



RDC<0.1Ω SRF:10000MHz IDC:600mA

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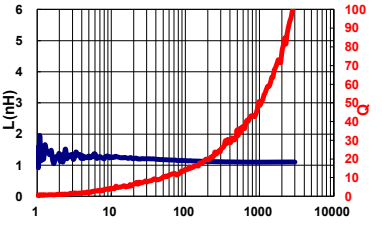

RDC<0.1Ω SRF:10000MHz IDC:600mA

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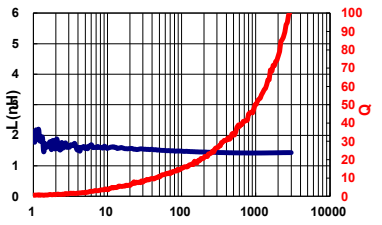

RDC<0.1Ω SRF:8000MHz IDC:600mA

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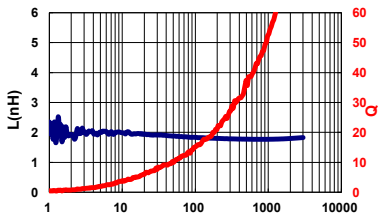

RDC<0.10Ω SRF:8000MHz IDC:600mA

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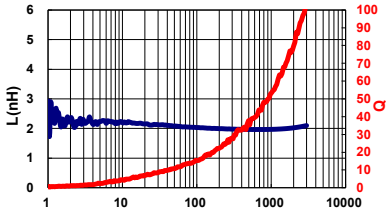
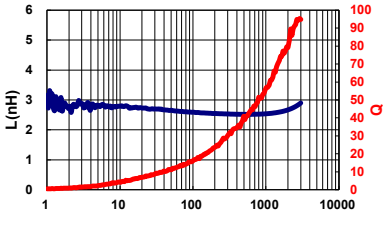


RDC<0.1Ω SRF:7200MHz IDC:600mA

ASCH001608082N7S00



RDC<0.10Ω SRF:6200MHz IDC:600mA

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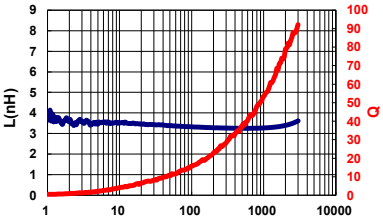

RDC<0.12Ω SRF:5200MHz IDC:600mA

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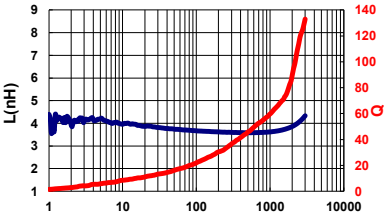

RDC<0.14Ω SRF:5000MHz IDC:600mA

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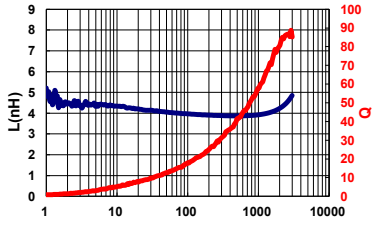

RDC<0.14Ω SRF:5000MHz IDC:600mA

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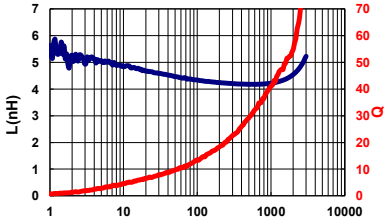

RDC<0.16Ω SRF:4750MHz IDC:600mA

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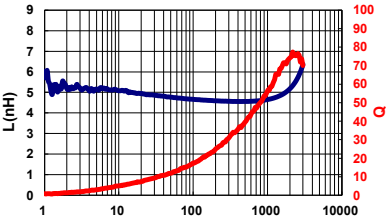

RDC<0.16Ω SRF:4750MHz IDC:600mA

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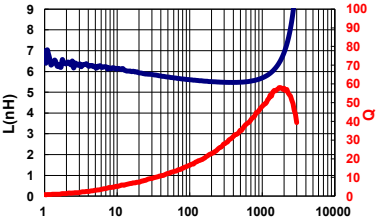

RDC<0.18Ω SRF:4100MHz IDC:600mA

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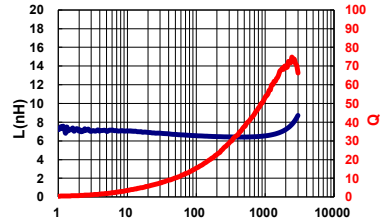

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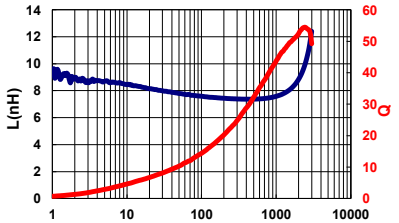
ASCH001608087N5J00



RDC<0.24Ω SRF:3300MHz IDC:600mA

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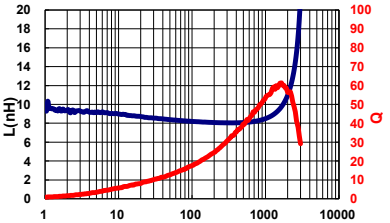
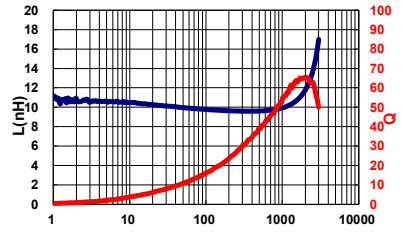


RDC<0.24Ω SRF:3300MHz IDC:600mA

ASCH00160808 Type

Characteristics Graph

ASCH0016080810NJ00



RDC<0.26Ω SRF:3000MHz IDC:600mA

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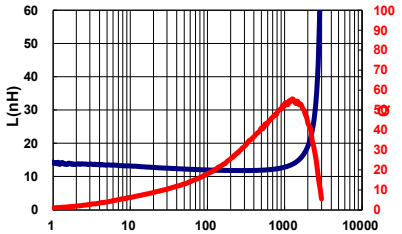

RDC<0.28Ω SRF:2600MHz IDC:600mA

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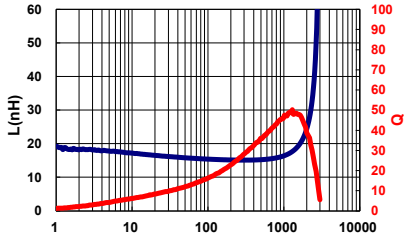

RDC<0.32Ω SRF:2400MHz IDC:600mA

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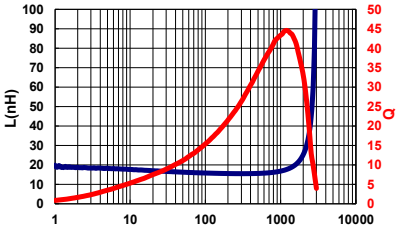

RDC<0.12Ω SRF:2400MHz IDC:600mA

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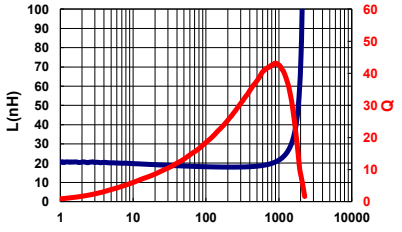

RDC<0.35Ω SRF:2400MHz IDC:600mA

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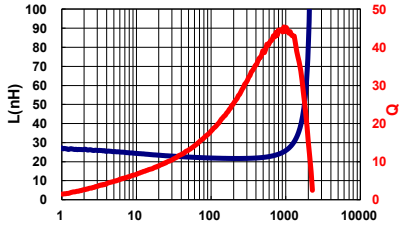

RDC<0.4Ω SRF:2000MHz IDC:500mA

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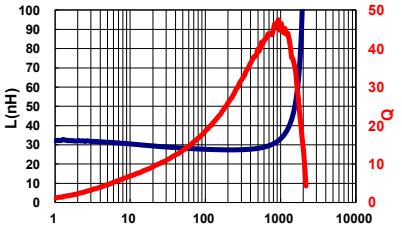

RDC<0.45Ω SRF:1900MHz IDC:500mA

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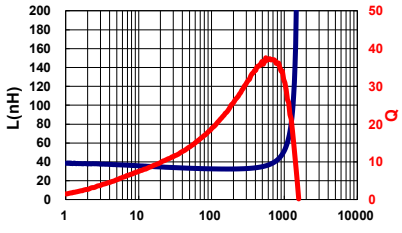

RDC<0.55Ω SRF:1600MHz IDC:400mA

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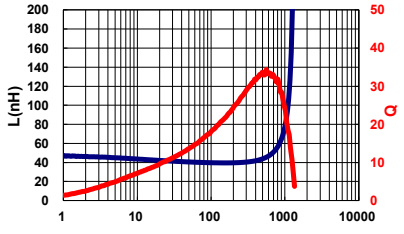

RDC<0.60Ω SRF:1400MHz IDC:400mA

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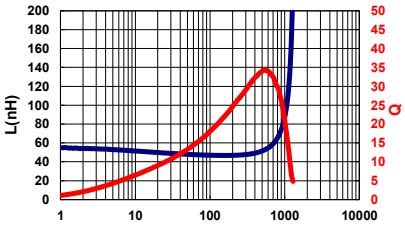

RDC<0.7Ω SRF:1300MHz IDC:400mA

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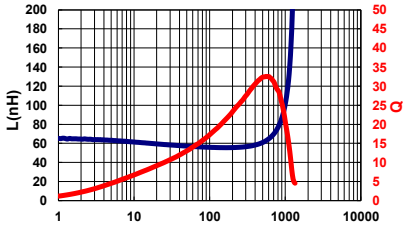

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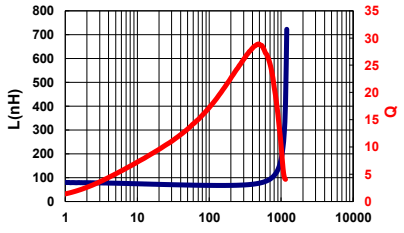

RDC<0.85Ω SRF:1050MHz IDC:400mA

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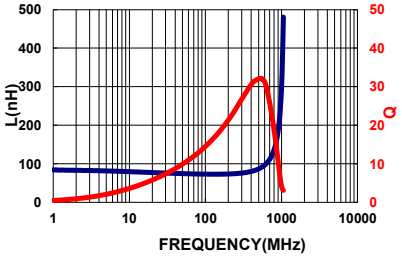

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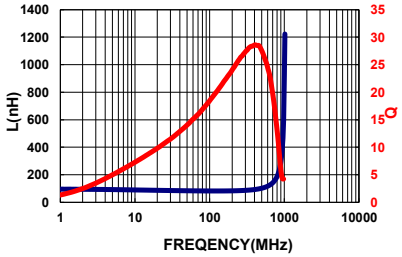

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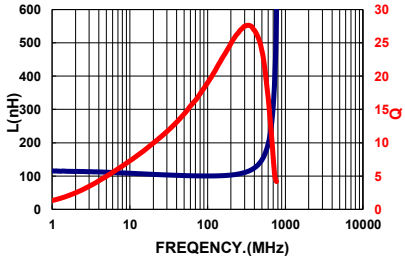
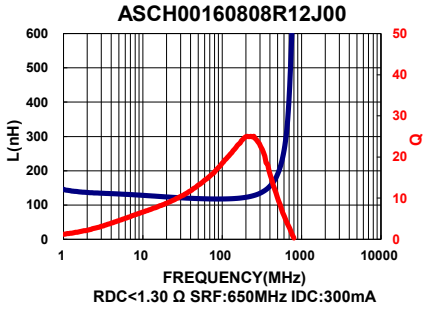
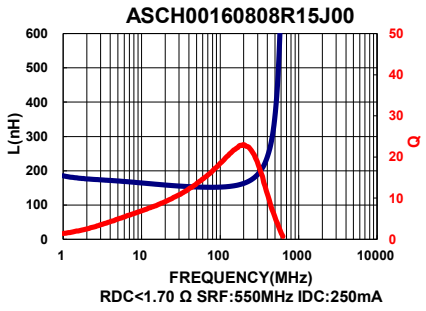
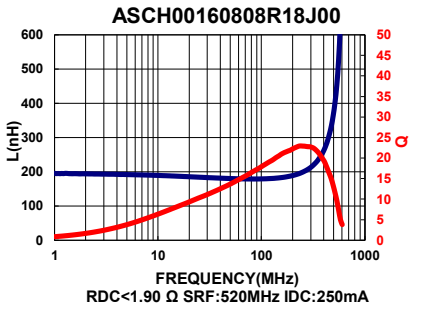


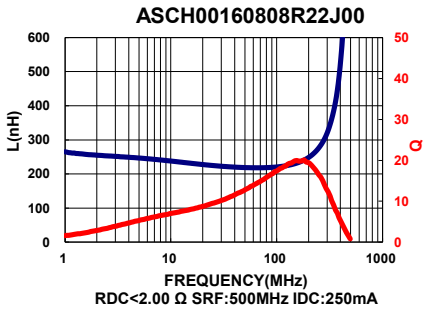
ASCH00160808 Type

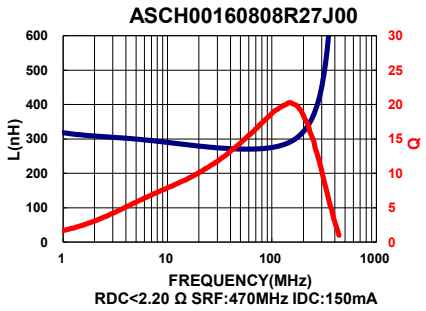
Characteristics Graph

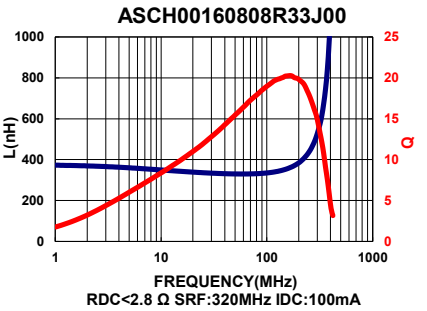


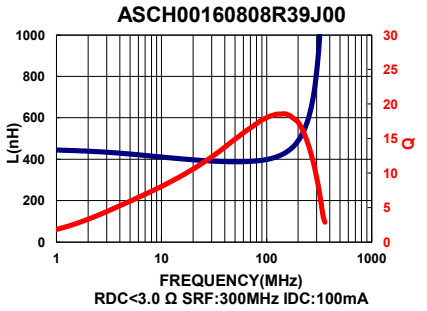






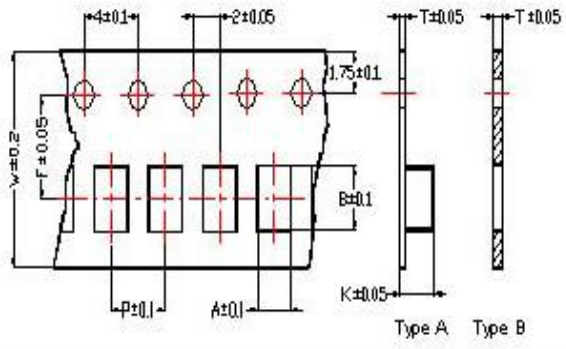




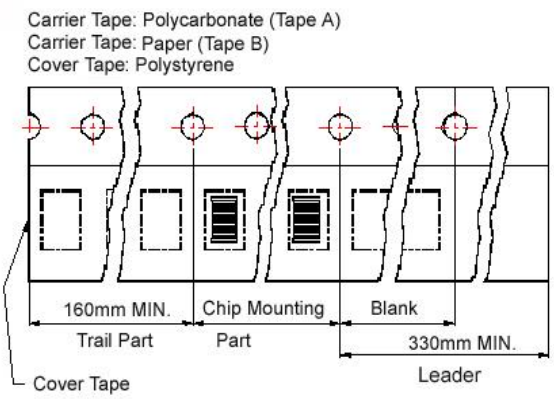


Packaging

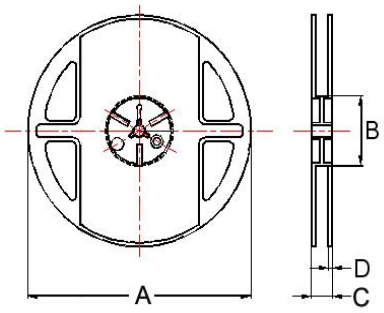
Tape Dimensions



Tape Material



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

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