

Chip Inductor AWCM Series

**Automotive
AEC-Q200**

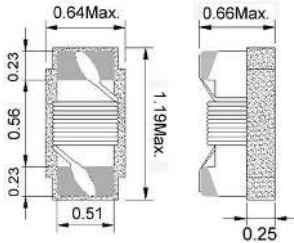
RoHS Compliant
Halogen Free
REACH Compliant



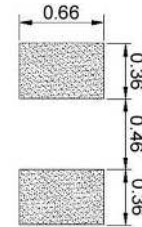
- RF
Circuit
- Unshield
- Wire
Wound
- Ceramic
- High
Q

Part Numbering

A	WCM	00	161008	10N	J	00
Grade	Series Name	Control Code	Dimensions Code (mm)	Inductance (nH)	Tolerance	Internal Code
			120707 1.19x0.64x0.66	2N2 2.2	B ±0.1nH	
			161008 1.6x1.02x0.82	10N 10	C ±0.2nH	
				R10 100	D ±0.5nH	
					G ±2%	
					H ±3%	
					J ±5%	

AWCM00120707 Type
■ Dimensions


unit:mm

■ Recommended Land Pattern


unit:mm

■ Electrical Characteristics

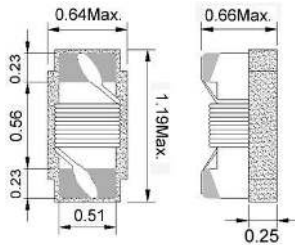
Part No.	Inductance (nH)	L/Q Test		Q Min.	SRF (MHz)Min.	RDC (Ω)Max.	I _{rms} (mA)Max.	Tolerance
		Freq. (MHz)						
AWCM001207071N5□00	1.5	100/250		10	18000	0.03	1000	±0.1nH,±0.2nH,±0.5nH
AWCM001207072N4□00	2.4	100/250		20	15000	0.05	850	±0.1nH,±0.2nH,±0.5nH
AWCM001207072N5□00	2.5	100/250		20	15000	0.05	850	±0.1nH,±0.2nH,±0.5nH
AWCM001207072N7□00	2.7	100/250		20	15000	0.05	850	±0.1nH,±0.2nH,±0.5nH
AWCM001207072N9□00	2.9	100/250		20	15000	0.07	750	±0.1nH,±0.2nH,±0.5nH
AWCM001207073N9□00	3.9	100/250		25	10000	0.07	750	3,5
AWCM001207074N1□00	4.1	100/250		25	10000	0.07	750	3,5
AWCM001207074N3□00	4.3	100/250		25	10000	0.07	750	3,5
AWCM001207074N7□00	4.7	100/250		25	8000	0.07	750	3,5
AWCM001207075N1□00	5.1	100/250		25	8000	0.12	600	3,5
AWCM001207075N8□00	5.8	100/250		25	8000	0.12	700	3,5
AWCM001207076N2□00	6.2	100/250		25	8000	0.09	700	3,5
AWCM001207076N8□00	6.8	100/250		25	6000	0.09	700	3,5
AWCM001207077N3□00	7.3	100/250		25	6000	0.13	570	3,5
AWCM001207077N5□00	7.5	100/250		25	6000	0.13	570	3,5
AWCM001207078N2□00	8.2	100/250		25	5500	0.14	540	3,5
AWCM001207078N7□00	8.7	100/250		25	5500	0.14	540	3,5
AWCM001207079N1□00	9.1	100/250		25	5500	0.14	540	3,5
AWCM001207079N5□00	10	100/250		25	5500	0.14	540	3,5
AWCM0012070710N□00	10	100/250		25	5500	0.17	500	2,3,5
AWCM0012070711N□00	11	100/250		30	5500	0.14	500	2,3,5
AWCM0012070712N□00	12	100/250		30	5500	0.14	500	2,3,5
AWCM0012070713N□00	13	100/250		25	5000	0.21	430	2,3,5
AWCM0012070715N□00	15	100/250		30	5000	0.16	460	2,3,5
AWCM0012070716N□00	16	100/250		25	4500	0.24	370	2,3,5
AWCM0012070718N□00	18	100/250		25	4500	0.27	370	2,3,5
AWCM0012070719N□00	19	100/250		25	4500	0.27	370	2,3,5
AWCM0012070720N□00	20	100/250		25	4000	0.27	370	2,3,5
AWCM0012070722N□00	22	100/250		25	4000	0.3	310	2,3,5
AWCM0012070723N□00	23	100/250		25	3800	0.3	310	2,3,5
AWCM0012070724N□00	24	100/250		25	3500	0.52	280	2,3,5
AWCM0012070727N□00	27	100/250		25	3500	0.52	280	2,3,5

Note: □-tolerance B=±0.1nH / C=±0.2nH / D=±0.5nH / H=±3% / J=±5% / G=±2%

1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
2. I_{rms} for a 15°C temperature rise from 25°C ambient.
3. L/Q Test OSC @200mV.
4. Inductance would be correct Chilisin standard piece.
5. Offset value : -0.556nH

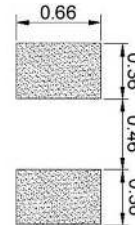
AWCM00120707 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

Part No.	Inductance (nH)	L/Q Test Freq. (MHz)	Q Min.	SRF (MHz)Min.	RDC (Ω)Max.	I _{rms} (mA)Max.	Tolerance
AWCM0012070730N□00	30	100/250	25	3300	0.58	270	2,3,5
AWCM0012070733N□00	33	100/250	25	3200	0.63	260	2,3,5
AWCM0012070736N□00	36	100/250	25	3100	0.63	260	2,3,5
AWCM0012070739N□00	39	100/250	25	3000	0.7	250	2,3,5
AWCM0012070740N□00	40	100/250	25	3000	0.7	250	2,3,5
AWCM0012070747N□00	47	100/200	25	2900	1.08	210	2,3,5
AWCM0012070751N□00	51	100/200	25	2850	1.08	210	2,3,5
AWCM0012070756N□00	56	100/200	25	2800	1.17	200	2,3,5
AWCM0012070762N□00	62	100/200	20	2600	1.82	145	2,3,5
AWCM0012070768N□00	68	100/200	20	2500	1.96	140	2,3,5
AWCM0012070772N□00	72	100/150	20	2500	2.1	135	2,5
AWCM0012070775N□00	75	100/150	20	2400	2.1	135	2,5
AWCM0012070782N□00	82	100/150	20	2300	2.24	130	2,5
AWCM0012070791N□00	91	100/150	20	2100	2.38	125	2,5
AWCM00120707R10□00	100	100/150	20	1500	2.52	120	2,5
AWCM00120707R12□00	120	100/150	20	1000	2.66	110	2,5

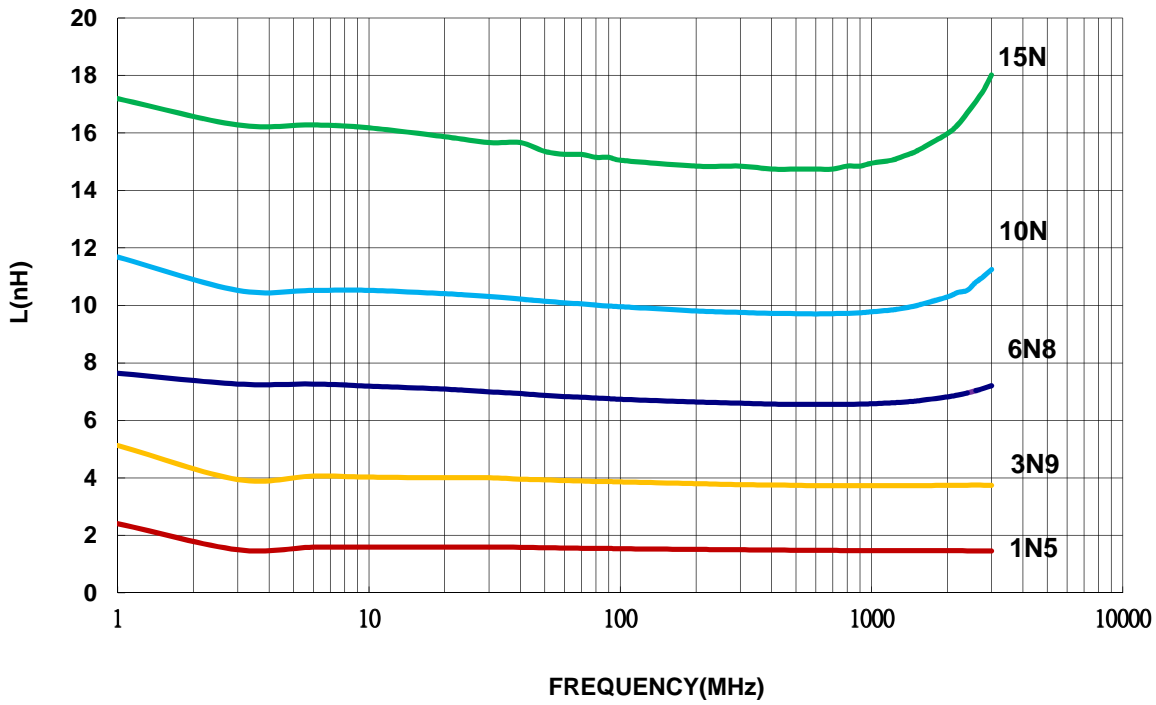
Note: □-tolerance B=±0.1nH / C=±0.2nH / D=±0.5nH / H=±3% / J=±5% / G=±2%

1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
2. I_{rms} for a 15°C temperature rise from 25°C ambient.
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4. Inductance would be correct Chilisin standard piece.
5. Offset value : -0.556nH

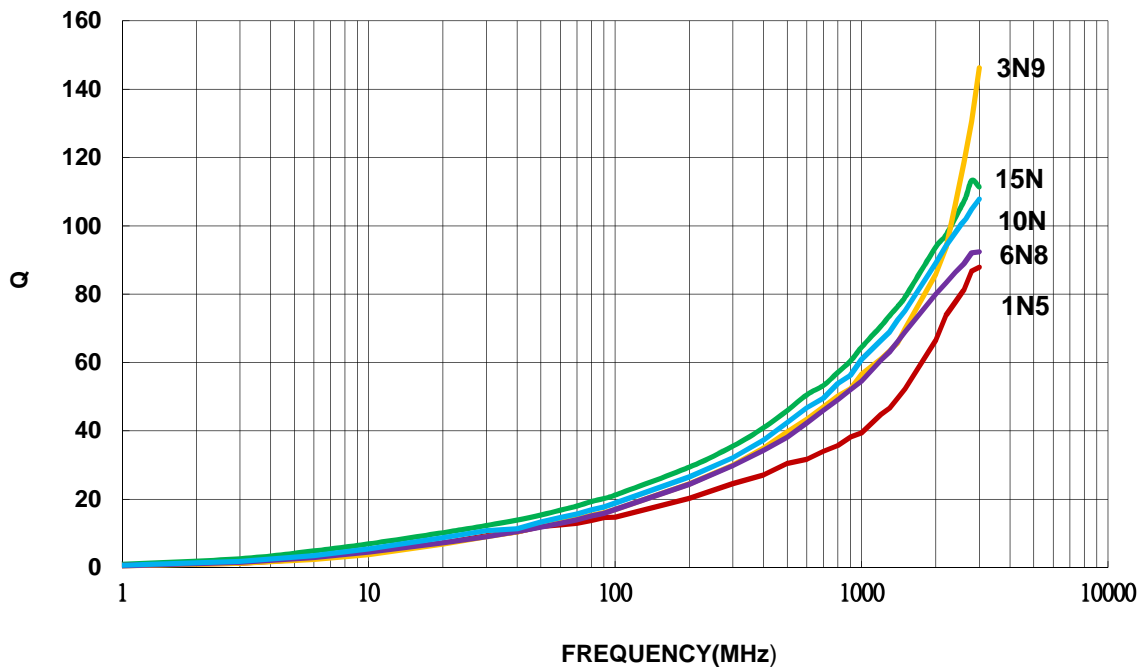
AWCM00120707 Type

Characteristics Graph

Inductance vs. Frequency Characteristics

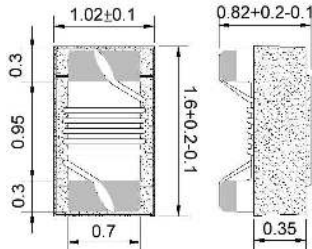


Q vs. Frequency Characteristics



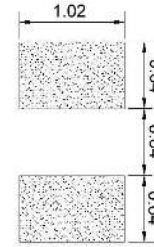
AWCM00161008 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

Part No.	Inductance (nH)	L/Q Test		Q Min.	SRF (MHz)Min.	RDC (Ω)Max.	I _{rms} (mA)Max.	Tolerance
		Freq. (MHz)						
AWCM001610082N2□00	2.2	100/250	16	6000	0.049	700	±0.1nH,±0.2nH,±0.5nH	
AWCM001610083N6□00	3.6	100/250	25	6000	0.059	850	3,5	
AWCM001610083N9□00	3.9	100/250	35	6000	0.059	850	3,5	
AWCM001610084N3□00	4.3	100/250	35	6000	0.059	850	3,5	
AWCM001610084N7□00	4.7	100/250	35	6000	0.059	850	3,5	
AWCM001610085N6□00	5.6	100/250	35	6000	0.082	750	3,5	
AWCM001610086N2□00	6.2	100/250	35	6000	0.082	750	3,5	
AWCM001610086N8□00	6.8	100/250	35	6000	0.082	750	3,5	
AWCM001610087N5□00	7.5	100/250	35	6000	0.082	750	3,5	
AWCM001610088N2□00	8.2	100/250	35	6000	0.11	650	3,5	
AWCM001610088N7□00	8.7	100/250	35	6000	0.11	650	3,5	
AWCM001610089N1□00	9.1	100/250	35	6000	0.11	650	3,5	
AWCM001610089N5□00	9.5	100/250	35	6000	0.11	650	3,5	
AWCM0016100810N□00	10	100/250	35	6000	0.11	650	2,5	
AWCM0016100811N□00	11	100/250	35	6000	0.11	650	2,5	
AWCM0016100812N□00	12	100/250	35	6000	0.13	600	2,5	
AWCM0016100813N□00	13	100/250	35	6000	0.13	600	2,5	
AWCM0016100815N□00	15	100/250	40	6000	0.13	600	2,5	
AWCM0016100816N□00	16	100/250	40	5500	0.16	550	2,5	
AWCM0016100818N□00	18	100/250	40	5500	0.16	550	2,5	
AWCM0016100820N□00	20	100/250	40	4900	0.16	550	2,5	
AWCM0016100822N□00	22	100/250	40	4600	0.17	500	2,5	
AWCM0016100824N□00	24	100/250	40	3800	0.21	500	2,5	
AWCM0016100827N□00	27	100/250	40	3700	0.21	440	2,5	
AWCM0016100830N□00	30	100/250	40	3300	0.23	420	2,5	
AWCM0016100833N□00	33	100/250	40	3200	0.23	420	2,5	
AWCM0016100836N□00	36	100/250	40	2900	0.26	400	2,5	
AWCM0016100839N□00	39	100/250	40	2800	0.26	400	2,5	
AWCM0016100843N□00	43	100/200	40	2700	0.29	380	2,5	
AWCM0016100847N□00	47	100/200	38	2600	0.29	380	2,5	
AWCM0016100851N□00	51	100/200	38	2500	0.33	370	2,5	
AWCM0016100856N□00	56	100/200	38	2400	0.35	360	2,5	

Note: When ordering, please specify tolerance code. Tolerance: B=±0.1 / C=±0.2 / D=±0.5 / G=±2% / H=±3% / J=±5%

1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)

2. I_{rms} for a 15°C temperature rise from 25°C ambient.

3. Measure Equipment:

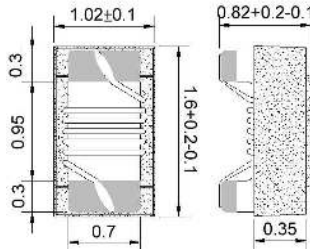
L & Q: Agilent E4991A+Agilent HP16197A

SRF: Agilent HP8753D/Agilent HP8722ES

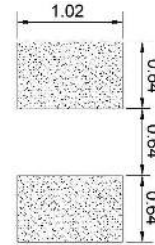
RDC: Chroma 16502

HP16221A HP16221A HP16221A HP16221A

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.

AWCM00161008 Type
■ Dimensions


unit:mm

■ Recommended Land Pattern


unit:mm

■ Electrical Characteristics

Part No.	Inductance (nH)	L/Q Test		Q Min.	SRF (MHz)Min.	RDC (Ω)Max.	I _{rms} (mA)Max.	Tolerance
		Freq. (MHz)						
AWCM0016100862N□00	62	100/200		38	2300	0.51	280	2,5
AWCM0016100868N□00	68	100/200		38	2200	0.38	340	2,5
AWCM0016100872N□00	72	100/150		34	2100	0.56	270	2,5
AWCM0016100875N□00	75	100/150		34	2050	0.56	270	2,5
AWCM0016100882N□00	82	100/150		34	2000	0.6	250	2,5
AWCM0016100891N□00	91	100/150		34	1900	0.64	230	2,5
AWCM00161008R10□00	100	100/150		34	1800	0.68	220	2,5
AWCM00161008R11□00	110	100/150		32	1700	1.2	200	2,5
AWCM00161008R12□00	120	100/150		32	1600	1.3	180	2,5
AWCM00161008R13□00	130	100/150		32	1450	1.4	170	2,5
AWCM00161008R15□00	150	100/150		32	1400	1.5	160	2,5
AWCM00161008R16□00	160	100/150		32	1350	2.1	150	2,5
AWCM00161008R18□00	180	100/100		25	1300	2.2	140	2,5
AWCM00161008R20□00	200	100/100		25	1250	2.4	120	2,5
AWCM00161008R22□00	220	100/100		25	1200	2.5	120	2,5
AWCM00161008R27□00	270	100/100		30	960	3.4	110	2,5
AWCM00161008R33□00	330	100/100		30	800	5.5	85	2,5
AWCM00161008R39□00	390	100/100		30	800	6.2	80	2,5
AWCM00161008R47□00	470	100/100		30	700	7	75	2,5

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1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)

2. I_{rms} for a 15°C temperature rise from 25°C ambient.

3. Measure Equipment:

L & Q: Agilent E4991A+Agilent HP16197A

SRF: Agilent HP8753D/Agilent HP8722ES

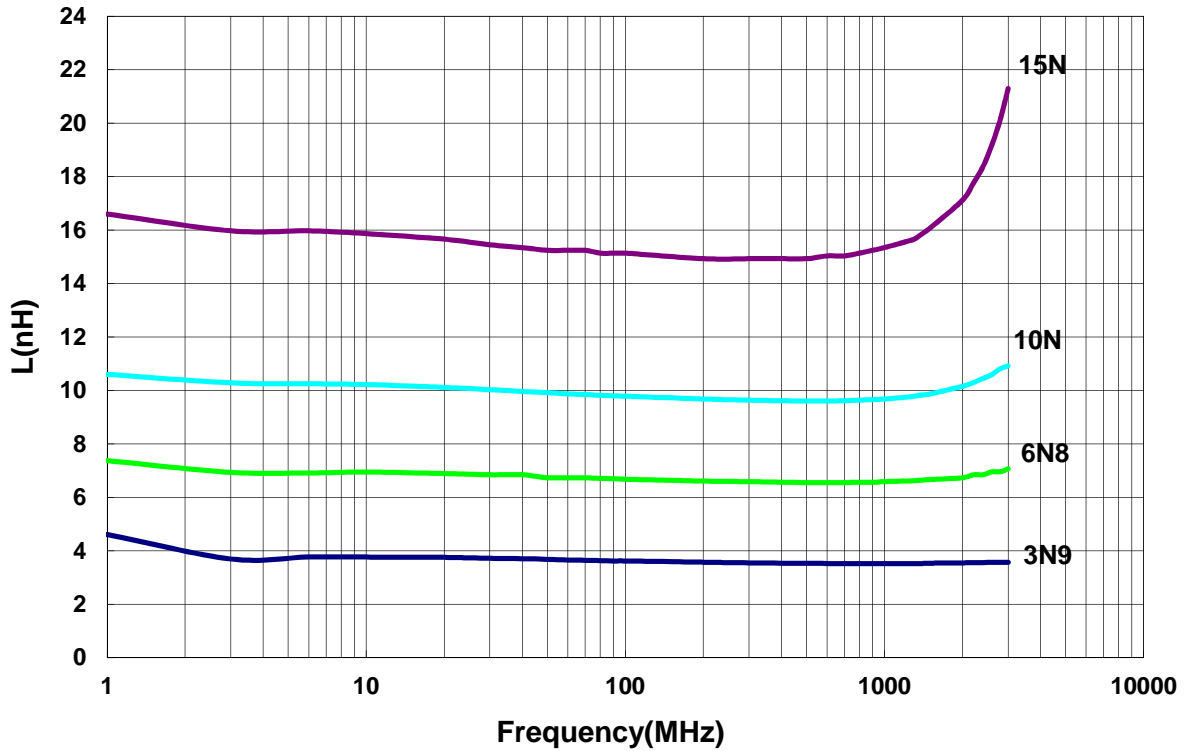
RDC:Chroma 16502

I_{rms}: HP4284A+HP42841A/HP4285A+HP42841A

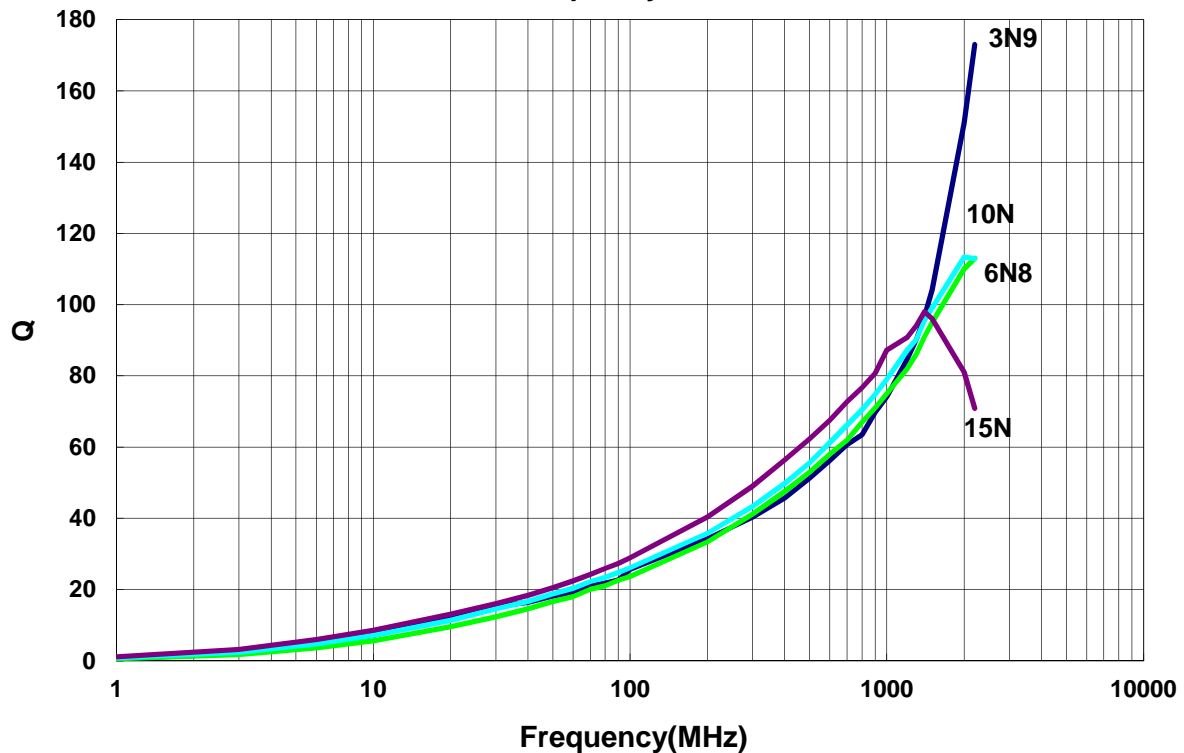
AWCM00161008 Type

Characteristics Graph

Inductance vs. Frequency Characteristics



Q vs. Frequency Characteristics

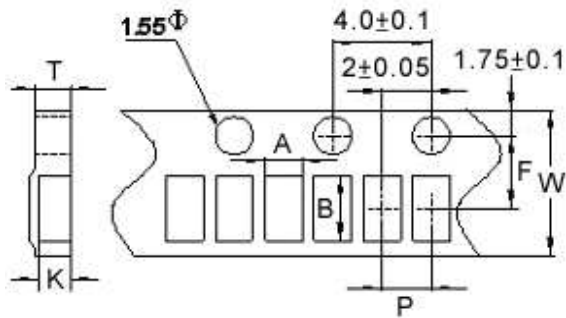


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■ Packaging

Tape Dimensions

Figure 1



Tape Material

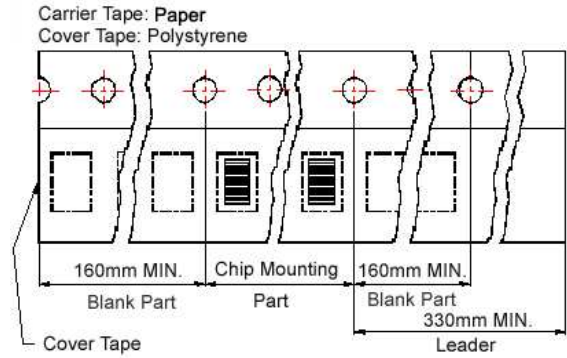
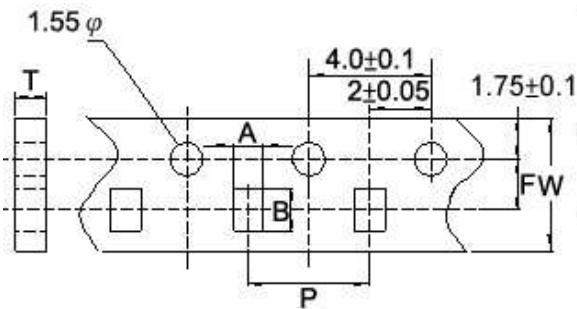
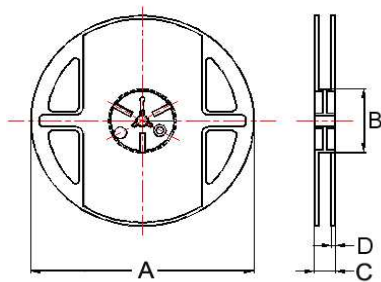


Figure 2



Reel Dimensions



Dimensions in mm

TYPE	Fig.	Tape Dimensions							Reel Dimensions				Quantity PCS / Reel
		A	B	T	W	P	F	K	A	B	C	D	
AWCM00120707	1	0.67	1.23	0.75	8	2	3.5	0.59	178±1	60±0.5	12±0.5	1.5±0.5	4000
AWCM00161008	2	1.20	1.8	1.05	8	4	3.5	-	178	60	12	1.5	4000

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