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

Dimensions Code (mm)	
120707	1.19x0.64x0.66
161008	1.6x1.02x0.82

Inductance (nH)	
2N2	2.2
10N	10
R10	100

Tolerance	
B	±0.1nH
C	±0.2nH
D	±0.5nH
G	±2%
H	±3%
J	±5%

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Pulse a YAGEO company

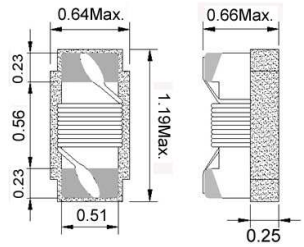
CHILISIN ELECTRONICS CORP.

Chip Inductor AWCM Series

Automotive AEC-Q200

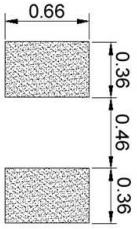
AWCM00120707 Type

■ 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.	Irms (mA)Max.	Tolerance
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℃ ~ 125℃(Including self - temperature rise)
2. Irms for a 15℃ temperature rise from 25℃ ambient.
3. L/Q Test OSC @200mV.
4. Inductance would be correct Chilisin standard piece.
5. Offset value : -0.556nH

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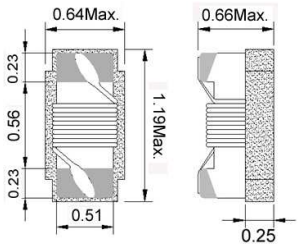
Chip Inductor AWCM Series

Automotive AEC-Q200

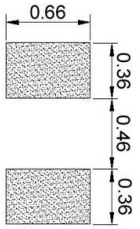
AWCM00120707 Type

■ 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.	Irms (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%

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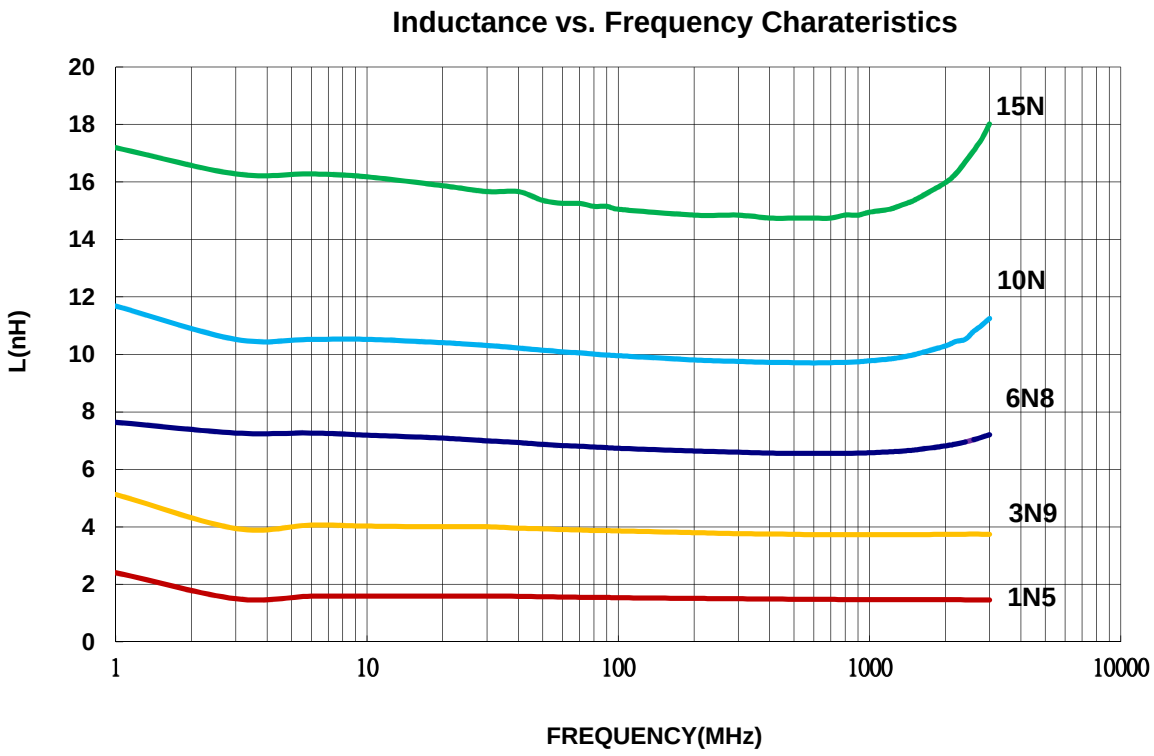
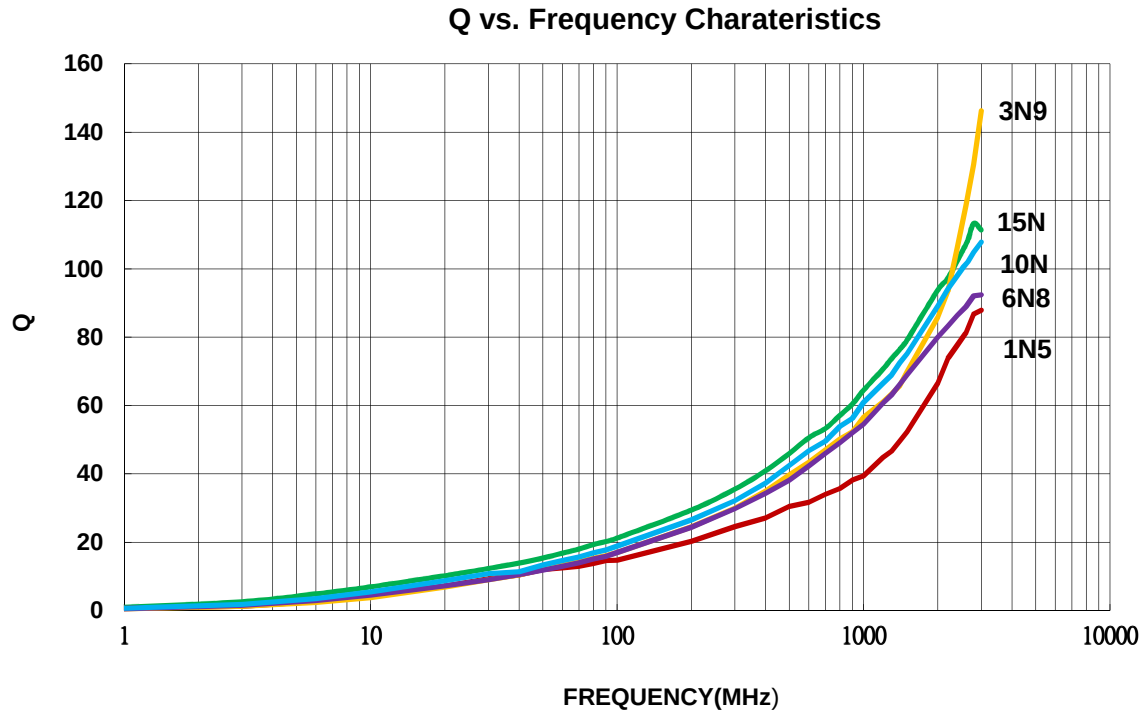
Chip Inductor AWCM Series

Automotive
AEC-Q200

AWCM00120707 Type

■ Characteristics Graph





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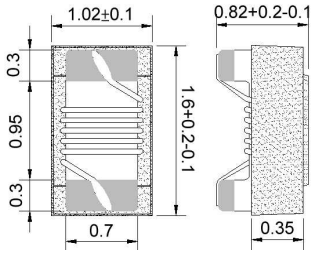
CHILISIN ELECTRONICS CORP.

Chip Inductor AWCM Series

Automotive AEC-Q200

AWCM00161008 Type

■ Dimensions



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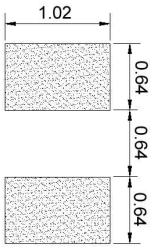
■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

Part No.	Inductance (nH)	L/Q Test Freq. (MHz)	Q Min.	SRF (MHz)Min.	RDC (Ω)Max.	Irms (mA)Max.	Tolerance
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℃ ~ 125℃(Including self - temperature rise)
2. Irms for a 15℃ temperature rise from 25℃ ambient.
3. Measure Equipment:
   L & Q: Agilent E4991A+Agilent HP16197A
   SRF: Agilent HP8753D/Agilent HP8722ES
   RDC:Chroma 16502

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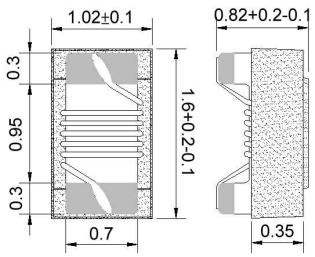
Chip Inductor AWCM Series

Automotive AEC-Q200

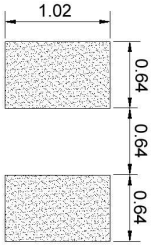
AWCM00161008 Type

■ 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.	Irms (mA)Max.	Tolerance
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

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

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2. Irms for a 15℃ temperature rise from 25℃ ambient.
3. Measure Equipment:
   L & Q: Agilent E4991A+Agilent HP16197A
   SRF: Agilent HP8753D/Agilent HP8722ES
   RDC:Chroma 16502
   Irms: HP4284A+HP42841A/HP4285A+HP42841A

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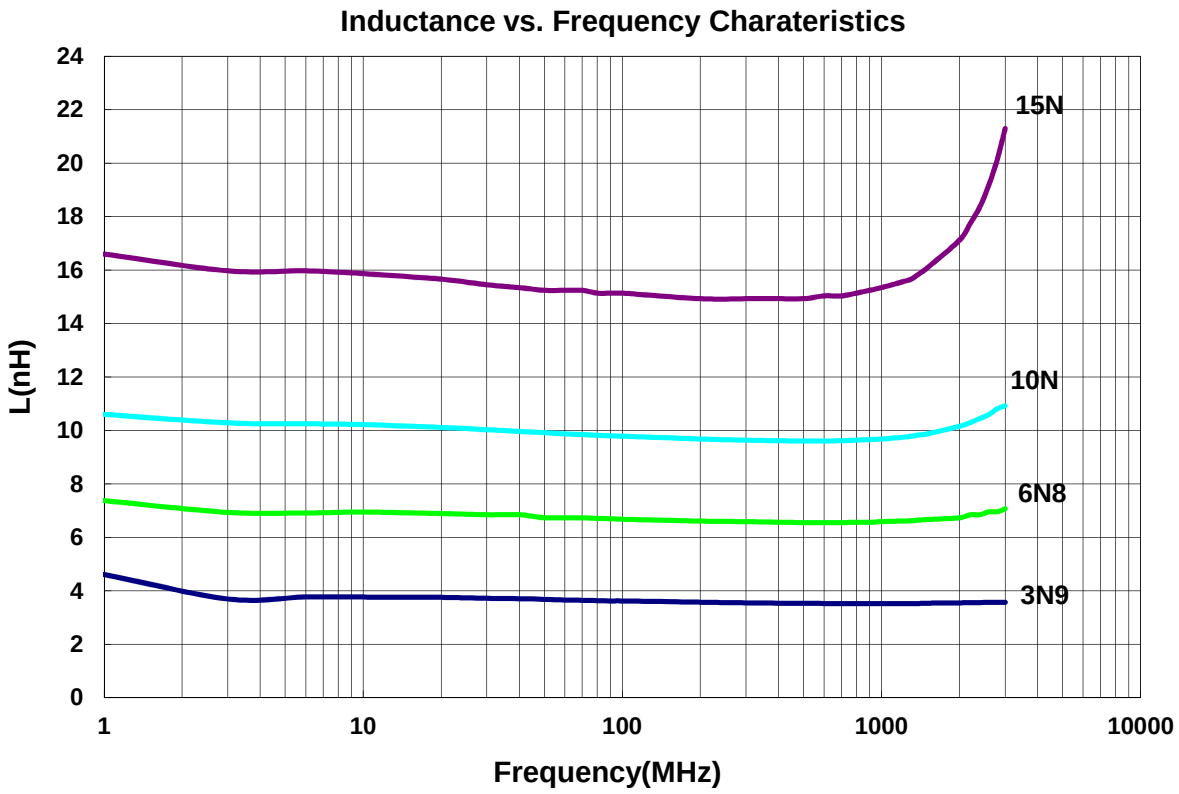
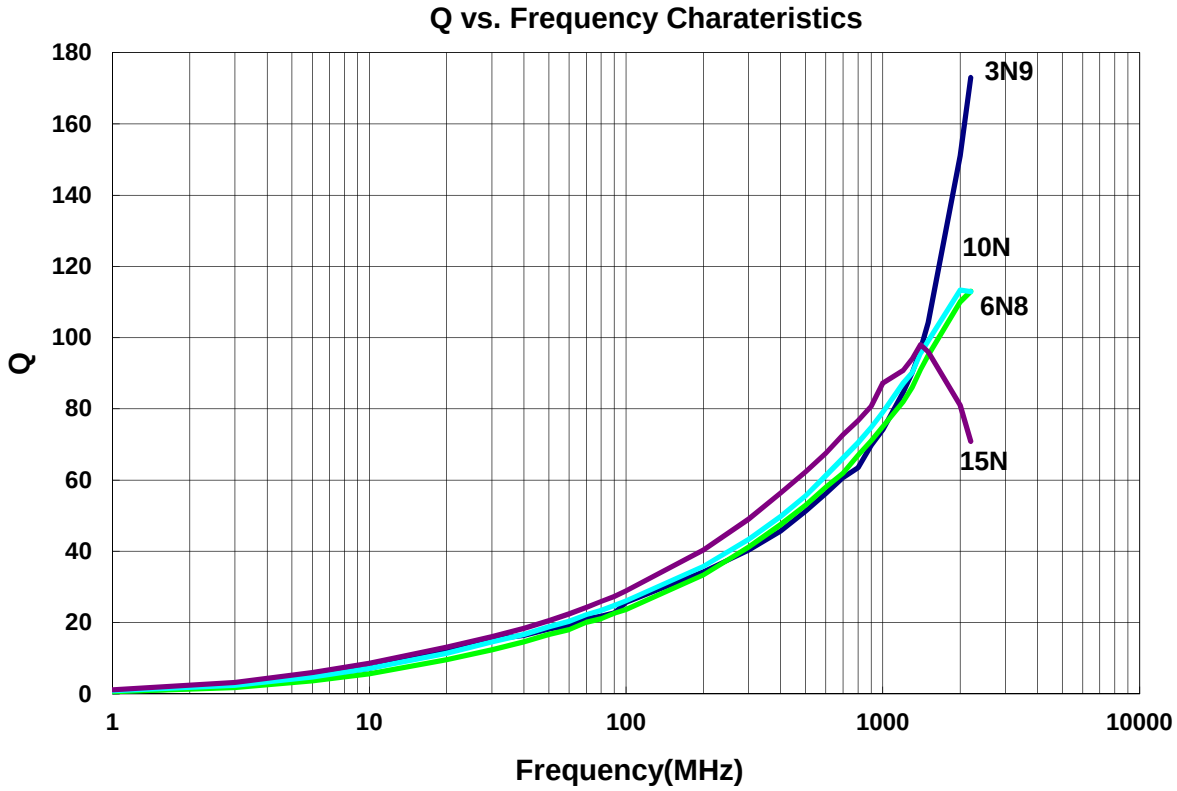
Chip Inductor AWCM Series

Automotive
AEC-Q200

AWCM00161008 Type

■ Characteristics Graph





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Chip Inductor AWCM Series

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AEC-Q200

Packaging

Tape Dimensions

Figure 1

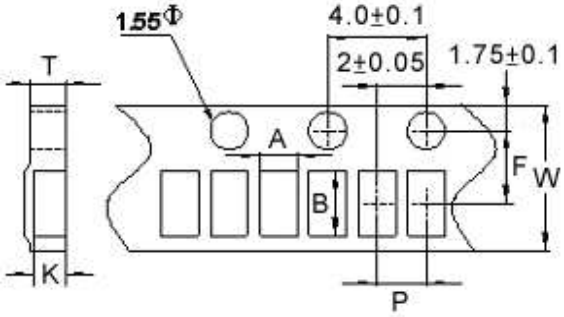
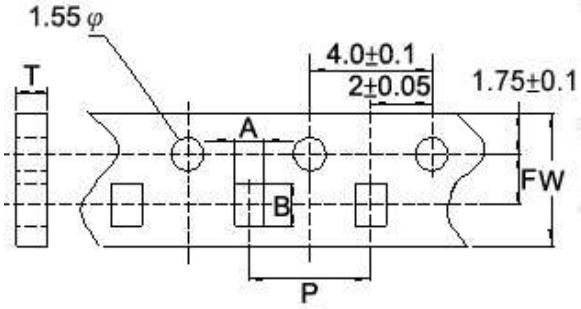
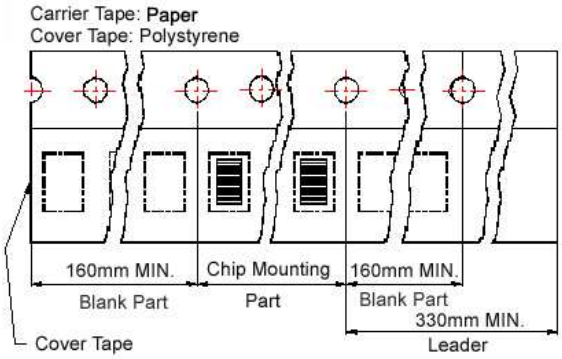


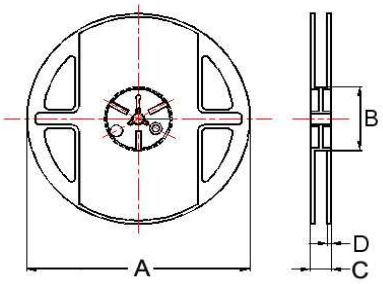
Figure 2



Tape Material



Reel Dimensions



Dimensions in mm

TYPE	Fig.	Tape Dimensions							Reel Dimensions				Quantity
		A	B	T	W	P	F	K	A	B	C	D	PCS / Reel
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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