

**Chip Inductor AWCS Series**

**Automotive  
AEC-Q200**

RoHS Compliant  
Halogen Free  
REACH Compliant



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

**Part Numbering**

A	WCS	00	161008	1R0	K	00
Grade	Series Name	Control Code	Dimensions Code (mm)	Inductance (nH)	Tolerance	Internal Code
			120707 1.19x0.7x0.66	3N0 3	G ±2%	
			161008 1.6x1.02x0.82	10N 10	H ±3%	
			231715 2.35x1.73x1.52	R10 100	J ±5%	
			292821 2.92x2.79x2.1	1R0 1000	K ±10%	
			372822 3.7x2.8x2.2			

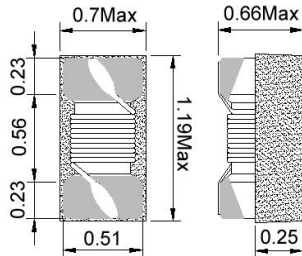
This specification applies to Wire Wound Chip Inductors for Automotive Electronics based on AEC-Q200 except for Power train and Safety.

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Automotive  
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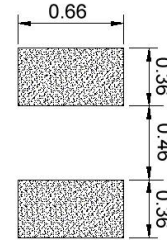
AWCS00120707 Type

■ 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 <sub>rms</sub> (mA)Max.	Tolerance
		Freq. (MHz)						
AWCS001207071N0□00	1	250/250		16	12700	0.045	1360	10,5,±0.1nH
AWCS001207071N2□00	1.2	250/250		10	10400	0.14	640	10,5,±0.1nH
AWCS001207071N3□00	1.3	250/250		10	10400	0.14	640	10,±0.1nH
AWCS001207071N9□00	1.9	250/250		16	11300	0.07	1040	10,5,±0.1nH
AWCS001207072N0□00	2	250/250		16	11100	0.07	1040	10,5,±0.1nH
AWCS001207072N2□00	2.2	250/250		19	10800	0.07	960	10,5,±0.1nH
AWCS001207072N4□00	2.4	250/250		15	10500	0.068	790	10,5,±0.1nH
AWCS001207072N5□00	2.5	250/250		13	10400	0.15	640	10,5,±0.1nH
AWCS001207072N7□00	2.7	250/250		16	10400	0.12	640	10,5,±0.1nH
AWCS001207073N3□00	3.3	250/250		19	7000	0.066	840	10,5,3
AWCS001207073N6□00	3.6	250/250		19	6800	0.066	840	10,5,3
AWCS001207073N9□00	3.9	250/250		19	6000	0.066	840	10,5,3
AWCS001207074N3□00	4.3	250/250		18	6000	0.091	700	10,5,3
AWCS001207074N7□00	4.7	250/250		15	4770	0.13	640	10,5,3
AWCS001207075N1□00	5.1	250/250		20	4800	0.083	800	10,5,3
AWCS001207075N6□00	5.6	250/250		20	4800	0.083	760	10,5,3
AWCS001207075N8□00	5.8	250/250		20	4800	0.083	760	10,5,3
AWCS001207076N2□00	6.2	250/250		20	4800	0.083	760	10,5,3
AWCS001207076N8□00	6.8	250/250		20	4800	0.083	680	10,5,3
AWCS001207077N3□00	7.3	250/250		20	4800	0.12	680	10,5,3
AWCS001207077N5□00	7.5	250/250		22	4800	0.1	680	10,5,3
AWCS001207078N2□00	8.2	250/250		22	4400	0.1	680	10,5,3
AWCS001207078N7□00	8.7	250/250		18	4100	0.2	480	10,5,3
AWCS001207079N0□00	9	250/250		22	4160	0.1	680	10,5,3
AWCS001207079N1□00	9.1	250/250		22	4160	0.1	680	10,5,3
AWCS001207079N5□00	9.5	250/250		18	4000	0.2	480	10,5,3
AWCS0012070710N□00	10	250/250		21	3900	0.2	480	10,5,3,2
AWCS0012070711N□00	11	250/250		24	3680	0.12	640	10,5,3,2
AWCS0012070712N□00	12	250/250		24	3600	0.12	640	10,5,3,2
AWCS0012070713N□00	13	250/250		24	3450	0.21	440	10,5,3,2
AWCS0012070715N□00	15	250/250		24	3280	0.17	560	10,5,3,2
AWCS0012070716N□00	16	250/250		24	3100	0.22	560	10,5,3,2

Note: When ordering, please specify tolerance code. Tolerance: B=±0.1 / G=±2% / H=±3% / J=±5% / K=±10%

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- I<sub>rms</sub> for a 15°C temperature rise from 25°C ambient.
- Measure Equipment:

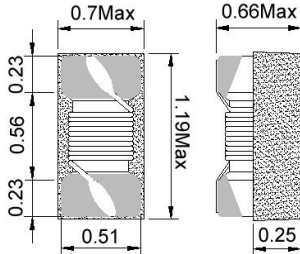
L & Q: Agilent E4991A+Agilent HP16197A  
 SRF: Agilent HP8753D/Agilent E4991A  
 RDC: HP4287A  
 I<sub>rms</sub>: HP4284A+HP42841A/HP4285A+HP42841A

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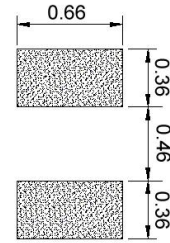
AWCS00161008 Type

■ 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 <sub>rms</sub> (mA)Max.	Tolerance
		Freq. (MHz)						
AWCS0012070718N□00	18	250/250		25	3100	0.23	420	10,5,3,2
AWCS0012070719N□00	19	250/250		24	3040	0.2	480	10,5,3,2
AWCS0012070720N□00	20	250/250		25	3000	0.25	420	10,5,3,2
AWCS0012070722N□00	22	250/250		25	2800	0.3	400	10,5,3,2
AWCS0012070723N□00	23	250/250		22	2720	0.3	400	10,5,3,2
AWCS0012070724N□00	24	250/250		25	2700	0.3	400	10,5,3,2
AWCS0012070727N□00	27	250/250		24	2480	0.3	400	10,5,3,2
AWCS0012070730N□00	30	250/250		25	2350	0.35	400	10,5,3,2
AWCS0012070733N□00	33	250/250		24	2350	0.4	400	10,5,3,2
AWCS0012070736N□00	36	250/250		24	2320	0.44	320	10,5,3,2
AWCS0012070739N□00	39	250/250		25	2100	0.55	200	10,5,3,2
AWCS0012070740N□00	40	250/250		24	2240	0.65	320	10,5,3,2
AWCS0012070743N□00	43	250/250		25	2030	0.81	100	10,5,3,2
AWCS0012070747N□00	47	250/250		20	2100	0.83	150	10,5,3,2
AWCS0012070751N□00	51	250/250		25	1750	0.82	100	10,5,3,2
AWCS0012070756N□00	56	250/250		22	1760	0.97	100	10,5,3,2
AWCS0012070768N□00	68	250/250		22	1620	1.12	100	10,5,3,2
AWCS0012070772N□00	72	250/250		20	1260	2	30	10,5,3,2
AWCS0012070782N□00	82	250/250		20	1260	1.55	50	10,5,3,2
AWCS00120707R10□00	100	250/250		20	1160	2	30	10,5,3,2
AWCS00120707R18□00	180	100/100		8	700	2.7	50	10,5,3,2
AWCS00120707R22□00	220	100/100		8	700	4	50	10,5,3,2

Note: When ordering, please specify tolerance code. Tolerance: B=±0.1 / G=±2% / H=±3% / J=±5% / K=±10%

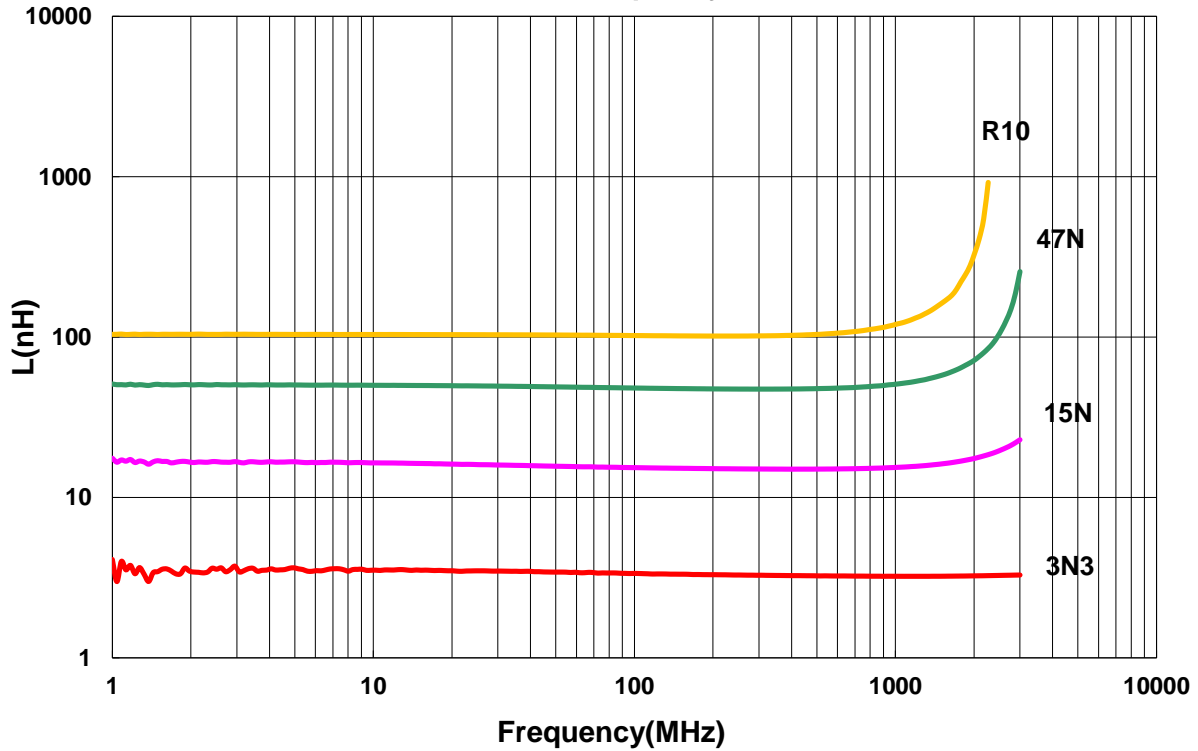
1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
2. I<sub>rms</sub> for a 15°C temperature rise from 25°C ambient.
3. Measure Equipment:

L & Q: Agilent E4991A+Agilent HP16197A  
 SRF: Agilent HP8753D/Agilent E4991A  
 RDC: HP4287A  
 I<sub>rms</sub>: HP4284A+HP42841A/HP4285A+HP42841A

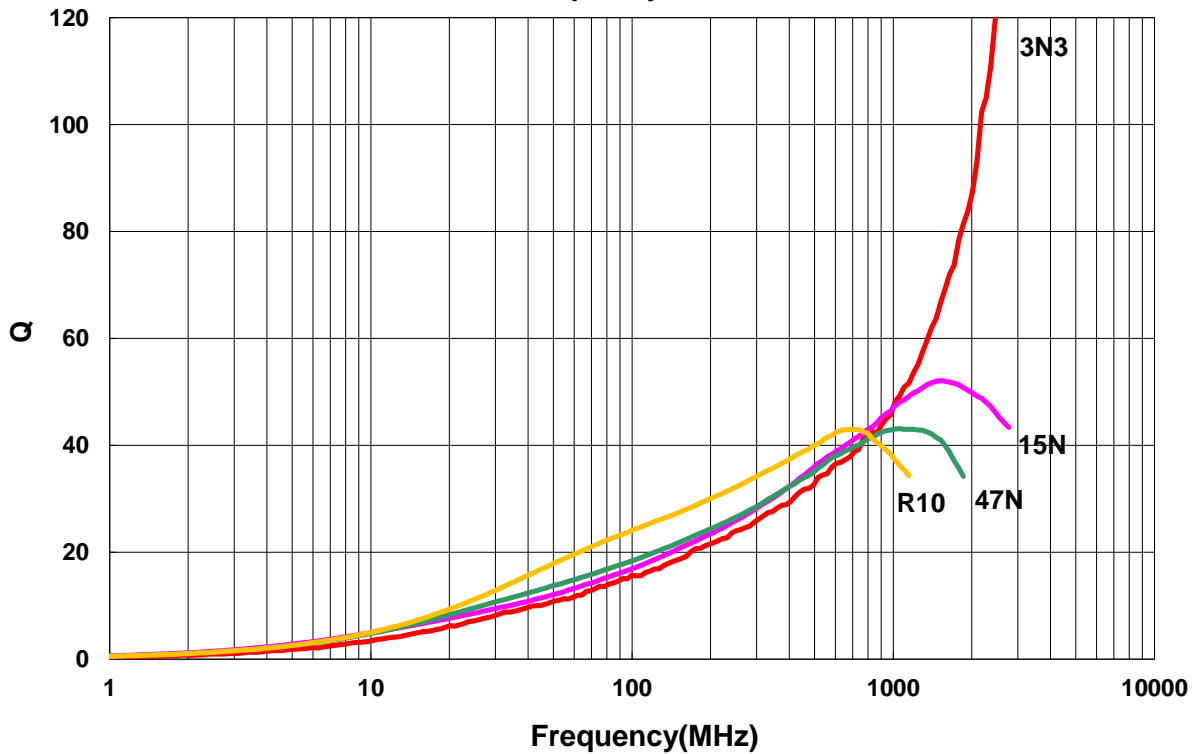
AWCS00120707 Type

■ Characteristics Graph

Inductance vs. Frequency Characteristics



Q vs. Frequency Characteristics

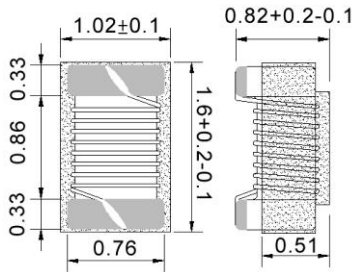


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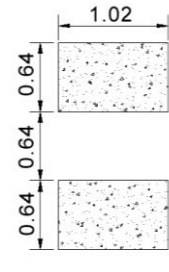
AWCS00161008 Type

■ 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 <sub>rms</sub> (mA)Max.	Tolerance
		Freq. (MHz)						
AWCS001610081N6□00	1.6	250/250		24	12500	0.03	700	10,5,±0.1nH
AWCS001610081N8□00	1.8	250/250		16	12500	0.045	700	10,5,±0.1nH
AWCS001610082N2□00	2.2	250/250		13	12500	0.25	700	10,5,±0.1nH
AWCS001610083N3□00	3.3	250/250		35	5900	0.045	700	10,5,3
AWCS001610083N6□00	3.6	250/250		22	5900	0.063	700	10,5,3,2
AWCS001610083N9□00	3.9	250/250		22	6900	0.08	700	10,5,3,2
AWCS001610084N3□00	4.3	250/250		22	5900	0.063	700	10,5,3,2
AWCS001610084N7□00	4.7	250/250		20	5800	0.116	700	10,5,3,2
AWCS001610085N1□00	5.1	250/250		20	5700	0.14	700	10,5,3,2
AWCS001610085N6□00	5.6	250/250		20	5800	0.17	700	10,5,3,2
AWCS001610086N3□00	6.3	250/250		20	5700	0.14	700	10,5,3,2
AWCS001610086N8□00	6.8	250/250		27	5800	0.11	700	10,5,3,2
AWCS001610087N5□00	7.5	250/250		28	4800	0.106	700	10,5,3,2
AWCS001610088N2□00	8.2	250/250		28	4700	0.109	700	10,5,3,2
AWCS001610088N7□00	8.7	250/250		28	4600	0.109	700	10,5,3,2
AWCS001610089N1□00	9.1	250/250		28	4800	0.12	700	10,5,3,2
AWCS001610089N5□00	9.5	250/250		28	5400	0.135	700	10,5,3,2
AWCS0016100810N□00	10	250/250		31	4800	0.13	700	10,5,3,2
AWCS0016100811N□00	11	250/250		33	4000	0.086	700	10,5,3,2
AWCS0016100812N□00	12	250/250		35	4000	0.13	700	10,5,3,2
AWCS0016100813N□00	13	250/250		30	4000	0.16	700	10,5,3,2
AWCS0016100815N□00	15	250/250		35	4000	0.17	700	10,5,3,2
AWCS0016100816N□00	16	250/250		34	3300	0.104	700	10,5,3,2
AWCS0016100818N□00	18	250/250		35	3100	0.17	700	10,5,3,2
AWCS0016100820N□00	20	250/250		38	3000	0.19	700	10,5,3,2
AWCS0016100822N□00	22	250/250		38	3000	0.19	700	10,5,3,2
AWCS0016100823N□00	23	250/250		38	2850	0.19	700	10,5,3,2
AWCS0016100824N□00	24	250/250		37	2650	0.135	700	10,5,3,2
AWCS0016100827N□00	27	250/250		40	2800	0.22	600	10,5,3,2
AWCS0016100830N□00	30	250/250		37	2250	0.144	600	10,5,3,2
AWCS0016100833N□00	33	250/250		40	2300	0.22	600	10,5,3,2
AWCS0016100836N□00	36	250/250		38	2080	0.25	600	10,5,3,2

Note: When ordering, please specify tolerance code. Tolerance: B=±0.1 / G=±2% / H=±3% / J=±5% / K=±10%

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- I<sub>rms</sub> for a 15°C temperature rise from 25°C ambient.
- Measure Equipment:

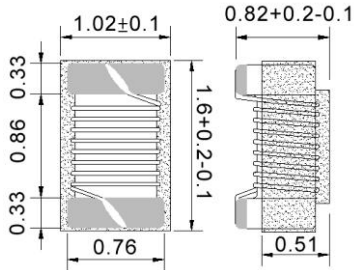
- L & Q: Agilent E4991A+Agilent HP16197A
- SRF: Agilent HP8753D/Agilent E4991A
- RDC: Chroma 16502
- I<sub>rms</sub>: HP4284A+HP42841A/HP4285A+HP42841A

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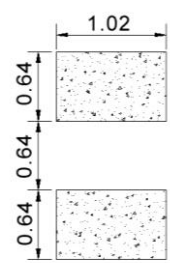
AWCS00161008 Type

■ 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
AWCS0016100839N□00	39	250/250	40	2200	0.25	600	10,5,3,2
AWCS0016100843N□00	43	250/250	39	2000	0.28	600	10,5,3,2
AWCS0016100847N□00	47	200/200	38	2000	0.28	600	10,5,3,2
AWCS0016100851N□00	51	200/200	38	1900	0.31	600	10,5,3,2
AWCS0016100856N□00	56	200/200	38	1900	0.31	600	10,5,3,2
AWCS0016100868N□00	68	200/200	37	1700	0.34	600	10,5,3,2
AWCS0016100872N□00	72	150/150	34	1700	0.49	400	10,5,3,2
AWCS0016100882N□00	82	150/150	34	1700	0.54	400	10,5,3,2
AWCS0016100891N□00	91	150/150	34	1400	0.58	400	10,5,3,2
AWCS00161008R10□00	100	150/150	34	1400	0.58	400	10,5,3,2
AWCS00161008R11□00	110	150/150	32	1350	0.61	300	10,5,3,2
AWCS00161008R12□00	120	150/150	32	1300	0.75	300	10,5,3,2
AWCS00161008R15□00	150	150/150	28	990	0.92	280	10,5,3,2
AWCS00161008R16□00	160	100/100	25	990	1.25	240	10,5,3,2
AWCS00161008R18□00	180	100/100	25	990	1.25	240	10,5,3,2
AWCS00161008R20□00	200	100/100	25	900	2.1	200	10,5,3,2
AWCS00161008R21□00	210	100/100	27	895	2.06	200	10,5,3,2
AWCS00161008R22□00	220	100/100	25	900	2.1	200	10,5,3,2
AWCS00161008R24□00	240	100/100	25	900	2.2	200	10,5,3,2
AWCS00161008R25□00	250	100/100	25	822	3.55	120	10,5,3,2
AWCS00161008R27□00	270	100/100	24	900	2.8	170	10,5,3,2
AWCS00161008R33□00	330	100/100	25	900	3.89	100	10,5,3,2
AWCS00161008R39□00	390	100/100	25	900	4.35	100	10,5,3,2
AWCS00161008R47□00	470	100/100	25	500	4.5	100	10,5,3,2
AWCS00161008R56□00	560	100/100	23	460	4.7	90	10,5,3,2

Note: When ordering, please specify tolerance code. Tolerance: B=±0.1 / G=±2% / H=±3% / J=±5% / K=±10%

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Irms for a 15°C temperature rise from 25°C ambient.
- Measure Equipment:

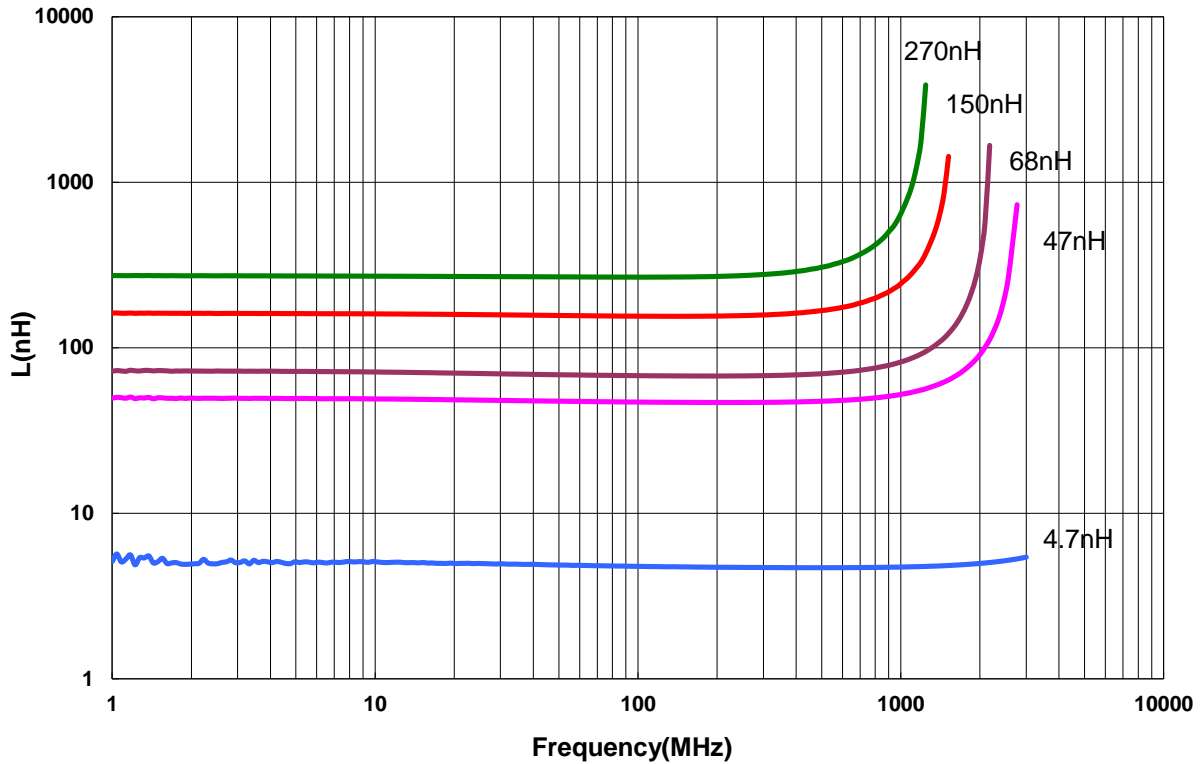
L & Q: Agilent E4991A+Agilent HP16197A  
 SRF: Agilent HP8753D/Agilent E4991A  
 RDC: Chroma 16502  
 Irms: HP4284A+HP42841A/HP4285A+HP42841A



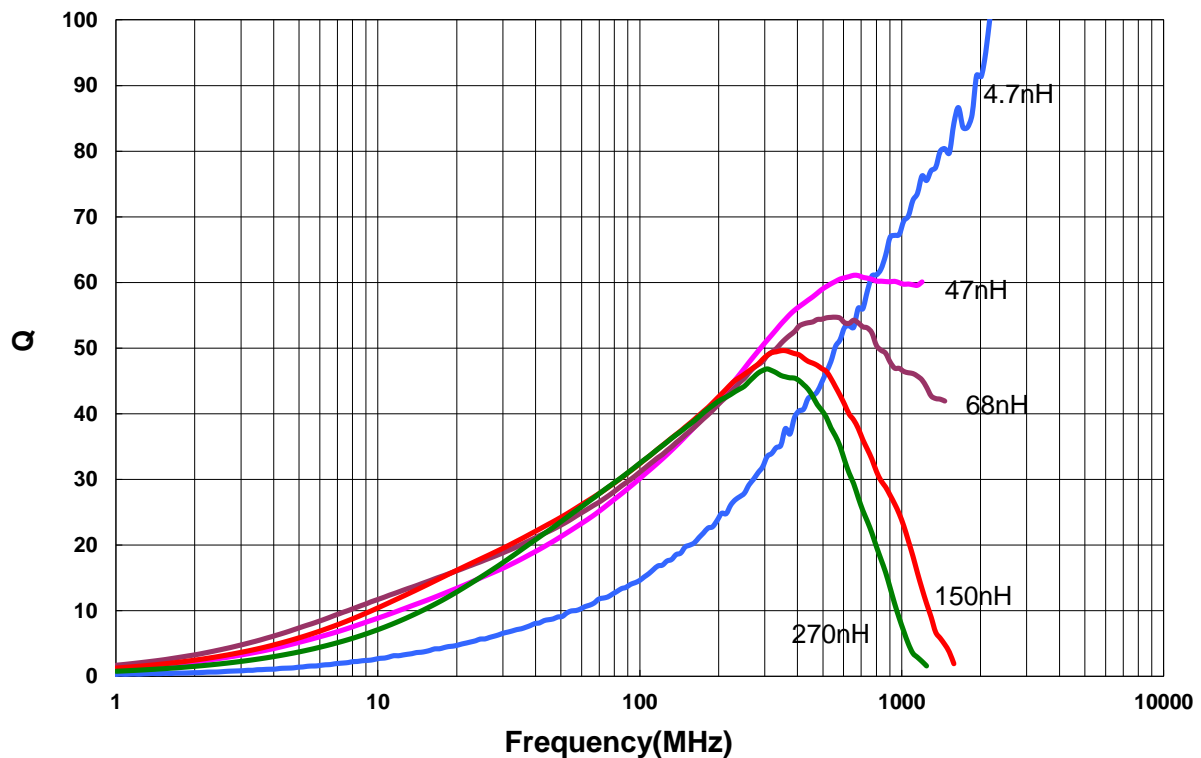
AWCS00161008 Type

■ Characteristics Graph

Inductance vs. Frequency Charateristics



Q vs. Frequency Charateristics

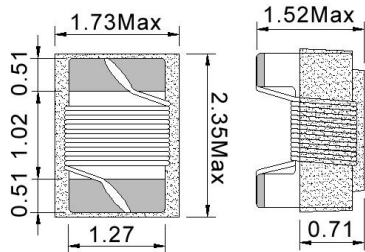


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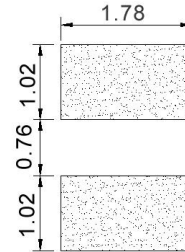
AWCS00231715 Type

■ 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 <sub>rms</sub> (mA)Max.	Tolerance
		Freq. (MHz)						
AWCS002317152N7□00	2.7	250/1500		50	7900	0.06	800	10,5,2
AWCS002317152N8□00	2.8	250/1500		80	7900	0.06	800	10,5,2
AWCS002317153N0□00	3.0	250/1500		65	7900	0.06	800	10,5,2
AWCS002317153N3□00	3.3	250/1500		50	7900	0.08	600	10,5,2
AWCS002317155N6□00	5.6	250/1000		65	5500	0.08	600	10,5,2
AWCS002317156N8□00	6.8	250/1000		50	5500	0.11	600	10,5,2
AWCS002317157N5□00	7.5	250/1000		50	4500	0.14	600	10,5,2
AWCS002317158N2□00	8.2	250/1000		50	4700	0.12	600	10,5,2
AWCS0023171510N□00	10	250/500		60	4200	0.10	600	10,5,2
AWCS0023171512N□00	12	250/500		50	4000	0.15	600	10,5,2
AWCS0023171515N□00	15	250/500		50	3400	0.17	600	10,5,2
AWCS0023171518N□00	18	250/500		50	3300	0.20	600	10,5,2
AWCS0023171522N□00	22	250/500		55	2600	0.22	500	10,5,2
AWCS0023171524N□00	24	250/500		50	2000	0.22	500	10,5,2
AWCS0023171527N□00	27	250/500		55	2500	0.25	500	10,5,2
AWCS0023171533N□00	33	250/500		60	2050	0.27	500	10,5,2
AWCS0023171536N□00	36	250/500		55	1700	0.27	500	10,5,2
AWCS0023171539N□00	39	250/500		60	2000	0.29	500	10,5,2
AWCS0023171543N□00	43	200/500		60	1650	0.34	500	10,5,2
AWCS0023171547N□00	47	200/500		60	1650	0.31	500	10,5,2
AWCS0023171556N□00	56	200/500		60	1550	0.34	500	10,5,2
AWCS0023171568N□00	68	200/500		60	1450	0.38	500	10,5,2
AWCS0023171582N□00	82	150/500		65	1300	0.42	400	10,5,2
AWCS0023171591N□00	91	150/500		65	1200	0.48	400	10,5,2
AWCS00231715R10□00	100	150/500		65	1200	0.46	400	10,5,2
AWCS00231715R11□00	110	150/250		50	1000	0.48	400	10,5,2
AWCS00231715R12□00	120	150/250		50	1100	0.51	400	10,5,2
AWCS00231715R15□00	150	100/250		50	920	0.56	400	10,5,2
AWCS00231715R18□00	180	100/250		50	870	0.64	400	10,5,2
AWCS00231715R20□00	200	100/250		50	860	0.68	400	10,5,2
AWCS00231715R22□00	220	100/250		50	850	0.70	400	10,5,2
AWCS00231715R24□00	240	100/250		44	690	1.00	350	10,5,2

Note: When ordering, please specify tolerance code. Tolerance: G=±2% / J=±5% / K=±10%

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- I<sub>rms</sub> for a 15°C temperature rise from 25°C ambient.
- Measure Equipment:

L & Q: Agilent E4991A+Agilent HP16197A  
 SRF: Agilent HP8753D/Agilent E4991A  
 RDC: Chroma 16502  
 I<sub>rms</sub>: HP4284A+HP42841A/HP4285A+HP42841A

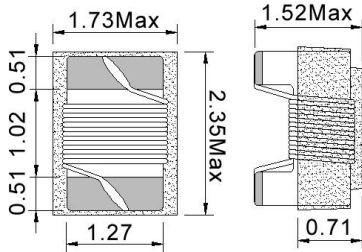


**Chip Inductor AWCS Series**

**Automotive  
AEC-Q200**

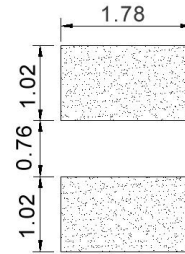
**AWCS00231715 Type**

**■ 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 <sub>rms</sub> (mA)Max.	Tolerance
		Freq. (MHz)						
AWCS00231715R25□00	250	100/250		45	660	1.2	350	10,5,2
AWCS00231715R27□00	270	100/250		48	650	1	350	10,5,2
AWCS00231715R30□00	300	100/250		25	450	1.4	310	10,5,2
AWCS00231715R33□00	330	100/250		48	600	1.4	310	10,5,2
AWCS00231715R39□00	390	100/250		48	560	1.5	290	10,5,2
AWCS00231715R47□00	470	50/100		33	450	1.76	250	10,5,2
AWCS00231715R51□00	510	25/50		23	340	1.9	230	10,5,2
AWCS00231715R56□00	560	25/50		23	340	1.9	230	10,5,2
AWCS00231715R62□00	620	25/50		23	220	2.2	210	10,5,2
AWCS00231715R68□00	680	25/50		23	188	2.2	190	10,5,2
AWCS00231715R30□00	820	25/50		23	215	2.35	180	10,5,2
AWCS002317151R0□00	1000	25/50		20	100	2.5	170	10,5,2
AWCS002317151R2□00	1200	7.9/25		18	100	2.5	170	10,5
AWCS002317151R8□00	1800	7.9/7.9		16	80	2.5	170	10,5,2
AWCS002317152R2□00	2200	7.9/7.9		16	65	3.9	140	10,5,2
AWCS002317153R3□00	3300	7.9/7.9		15	40	4.4	90	10,5,2
AWCS002317154R7□00	4700	7.9/7.9		15	40	6.4	90	10,5,2

**Note: When ordering, please specify tolerance code. Tolerance: G=±2% / J=±5% / K=±10%**

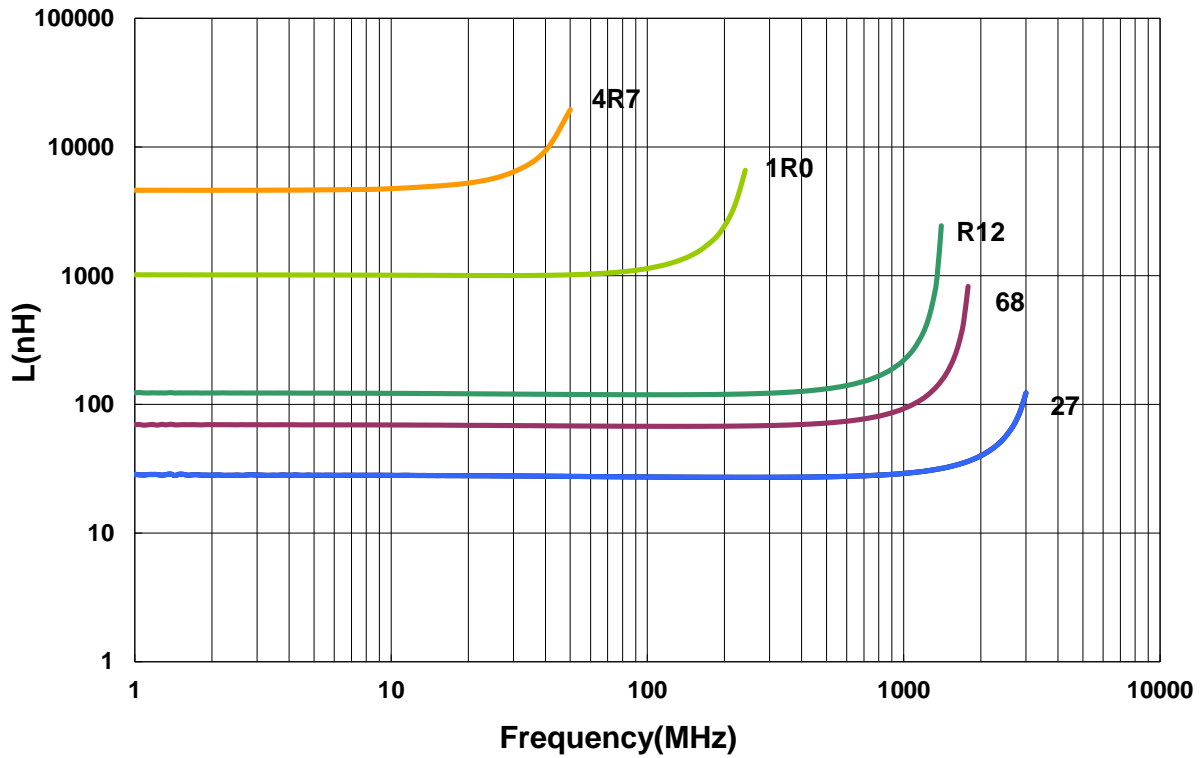
- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- I<sub>rms</sub> for a 15°C temperature rise from 25°C ambient.
- Measure Equipment:

L & Q: Agilent E4991A+Agilent HP16197A  
 SRF: Agilent HP8753D/Agilent E4991A  
 RDC:Chroma 16502  
 I<sub>rms</sub>: HP4284A+HP42841A/HP4285A+HP42841A

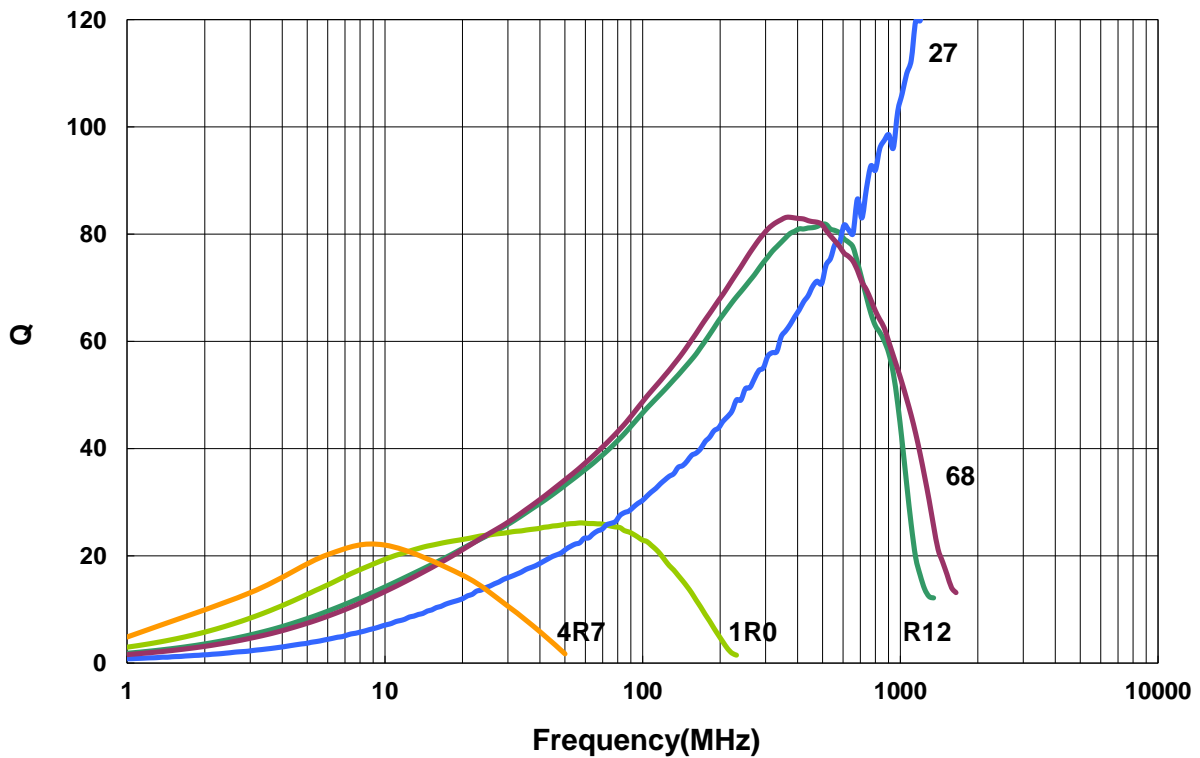
AWCS00231715 Type

■ Characteristics Graph

Inductance vs. Frequency Charateristics



Q vs. Frequency Charateristics

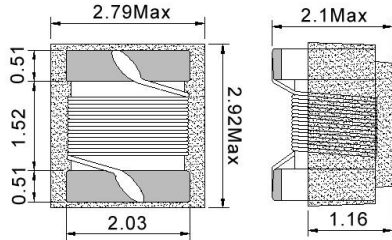


Chip Inductor AWCS Series

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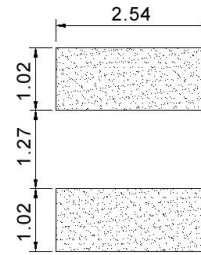
AWCS00292821 Type

■ 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 <sub>rms</sub> (mA)Max.	Tolerance
		Freq. (MHz)						
AWCS00292821-10N□00	10	50/500		50	4100	0.08	1000	10,5,2
AWCS00292821-12N□00	12	50/500		50	3300	0.09	1000	10,5,2
AWCS00292821-15N□00	15	50/500		50	2500	0.1	1000	10,5,2
AWCS00292821-18N□00	18	50/350		50	2500	0.11	1000	10,5,2
AWCS00292821-22N□00	22	50/350		55	2400	0.12	1000	10,5,2
AWCS00292821-27N□00	27	50/350		55	1600	0.13	1000	10,5,2
AWCS00292821-33N□00	33	50/350		60	1600	0.14	1000	10,5,2
AWCS00292821-39N□00	39	50/350		60	1500	0.15	1000	10,5,2
AWCS00292821-47N□00	47	50/350		65	1500	0.16	1000	10,5,2
AWCS00292821-56N□00	56	50/350		65	1300	0.18	1000	10,5,2
AWCS00292821-68N□00	68	50/350		65	1300	0.2	1000	10,5,2
AWCS00292821-82N□00	82	50/350		60	1000	0.22	1000	10,5,2
AWCS00292821-R10□00	100	25/350		60	1000	0.56	650	10,5,2
AWCS00292821-R12□00	120	25/350		60	950	0.63	650	10,5,2
AWCS00292821-R15□00	150	25/100		45	850	0.7	580	10,5,2
AWCS00292821-R18□00	180	25/100		45	750	0.77	620	10,5,3,2
AWCS00292821-R20□00	200	25/100		45	700	0.84	500	10,5,2
AWCS00292821-R22□00	220	25/100		45	700	0.84	500	10,5,2
AWCS00292821-R27□00	270	25/100		45	600	0.91	500	10,5,2
AWCS00292821-R33□00	330	25/100		45	570	1.05	450	10,5,2
AWCS00292821-R39□00	390	25/100		45	500	1.12	470	10,5,2
AWCS00292821-R47□00	470	25/100		45	450	1.19	470	10,5,2
AWCS00292821-R56□00	560	25/100		45	415	1.33	400	10,5,2
AWCS00292821-R62□00	620	25/100		45	375	1.4	300	10,5,2
AWCS00292821-R68□00	680	25/100		45	375	1.47	400	10,5,2
AWCS00292821-R75□00	750	25/100		45	360	1.54	360	10,5,2
AWCS00292821-R82□00	820	25/100		45	350	1.61	400	10,5,2
AWCS00292821-R91□00	910	25/50		35	320	1.68	380	10,5,2

Note: When ordering, please specify tolerance code. Tolerance: G=±2% / H=±3% / J=±5% / K=±10%

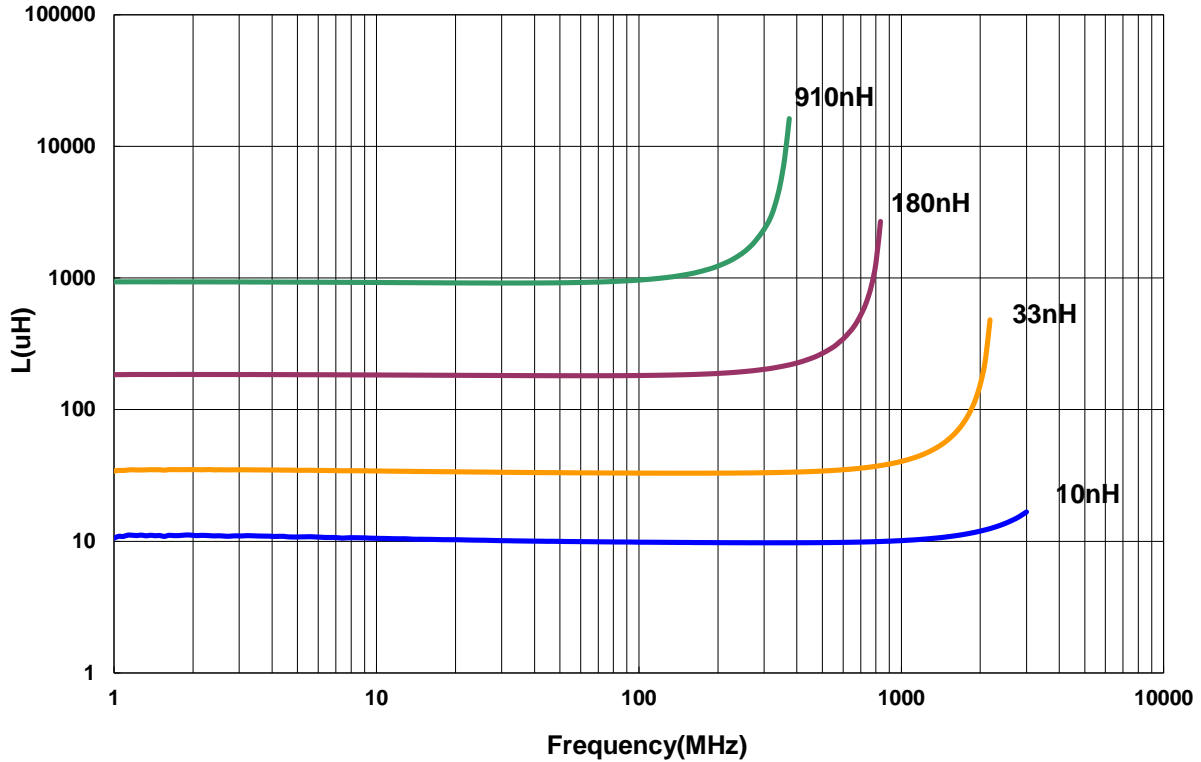
1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
2. I<sub>rms</sub> for a 15°C temperature rise from 25°C ambient.
3. Measure Equipment:

L & Q: Agilent E4991A+Agilent HP16197A  
 SRF: Agilent HP8753D/Agilent E4991A  
 RDC: Chroma 16502  
 I<sub>rms</sub>: HP4284A+HP42841A/HP4285A+HP42841A

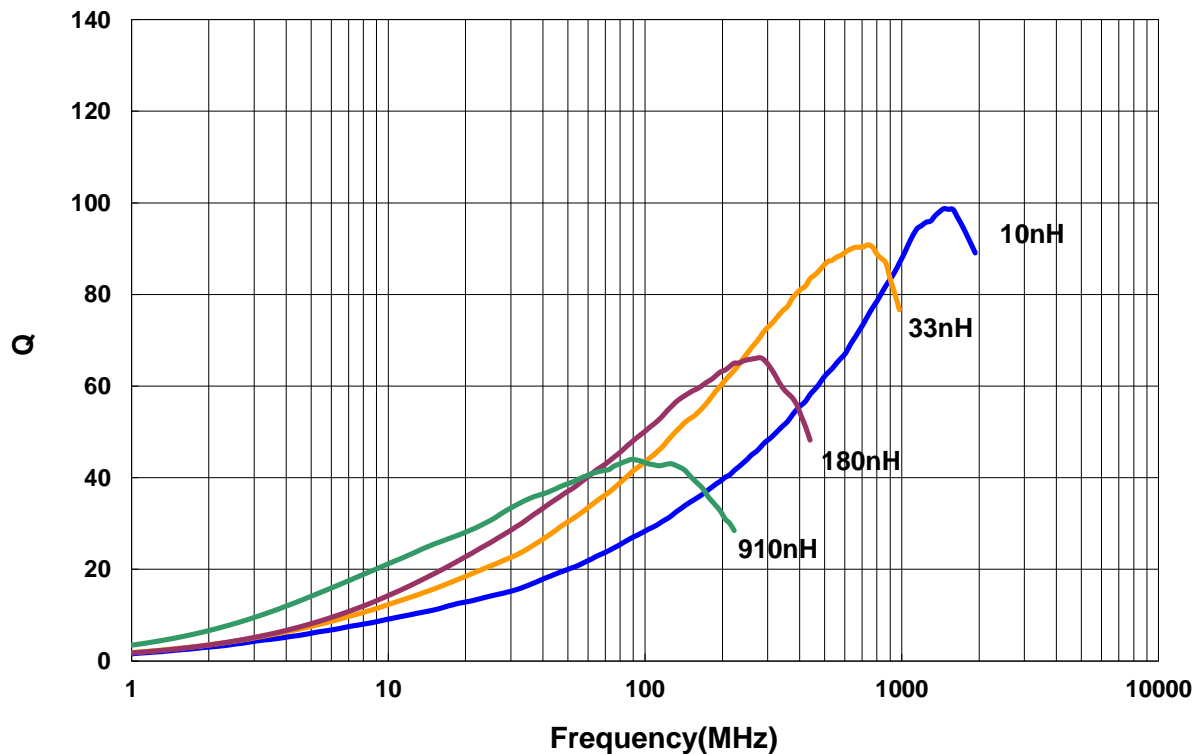
AWCS00292821 Type

■ Characteristics Graph

Inductance vs. Frequency Charateristics



Q vs. Frequency Charateristics

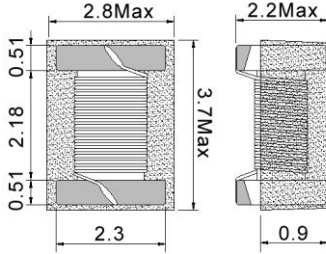


**Chip Inductor AWCS Series**

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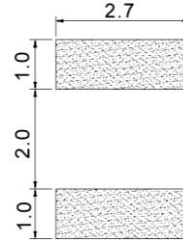
**AWCS00372822 Type**

**■ 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 <sub>rms</sub> (mA)Max.	Tolerance
		Freq. (MHz)						
AWCS003728223N□00	3.3	100/300		30	6200	0.05	1000	10,5
AWCS003728226N8□00	6.8	100/300		30	5500	0.07	1000	10,5
AWCS0037282210N□00	10	100/300		40	4000	0.08	1000	10,5,2
AWCS0037282212N□00	12	100/300		40	3200	0.08	1000	10,5,2
AWCS0037282215N□00	15	100/300		40	3200	0.1	1000	10,5,2
AWCS0037282218N□00	18	100/300		50	2800	0.1	1000	10,5,2
AWCS0037282222N□00	22	100/300		50	2200	0.1	1000	10,5,2
AWCS0037282227N□00	27	100/300		50	1800	0.11	1000	10,5,2
AWCS0037282233N□00	33	100/300		55	1800	0.11	1000	10,5,2
AWCS0037282239N□00	39	100/300		55	1800	0.12	1000	10,5,2
AWCS0037282247N□00	47	100/300		55	1500	0.13	1000	10,5,2
AWCS0037282256N□00	56	100/300		55	1450	0.14	1000	10,5,2
AWCS0037282268N□00	68	100/300		55	1200	0.26	900	10,5,2
AWCS0037282282N□00	82	100/300		55	1200	0.21	900	10,5,2
AWCS00372822R10□00	100	100/300		55	1100	0.26	850	10,5,2
AWCS00372822R12□00	120	100/300		60	1100	0.26	800	10,5,2
AWCS00372822R15□00	150	100/300		60	950	0.31	750	10,5,2
AWCS00372822R18□00	180	50/300		60	900	0.43	700	10,5,2
AWCS00372822R22□00	220	50/300		60	760	0.5	670	10,5,2
AWCS00372822R27□00	270	50/300		55	730	0.56	630	10,5,2
AWCS00372822R33□00	330	50/150		45	650	0.62	590	10,5,2
AWCS00372822R39□00	390	50/150		45	600	0.75	530	10,5,2
AWCS00372822R47□00	470	50/150		45	550	1.3	490	10,5,2
AWCS00372822R56□00	560	35/150		45	470	1.34	460	10,5,2
AWCS00372822R62□00	620	35/150		45	470	1.58	460	10,5,2
AWCS00372822R68□00	680	35/150		45	450	1.58	430	10,5,2
AWCS00372822R75□00	750	35/150		45	440	2.25	320	10,5,2
AWCS00372822R82□00	820	35/150		45	420	1.82	400	10,5,2
AWCS00372822R91□00	910	35/150		45	410	2.95	310	10,5,2
AWCS003728221R0□00	1000	35/150		45	400	2.8	320	10,5,2
AWCS003728221R2□00	1200	35/150		45	380	3.2	300	10,5,2

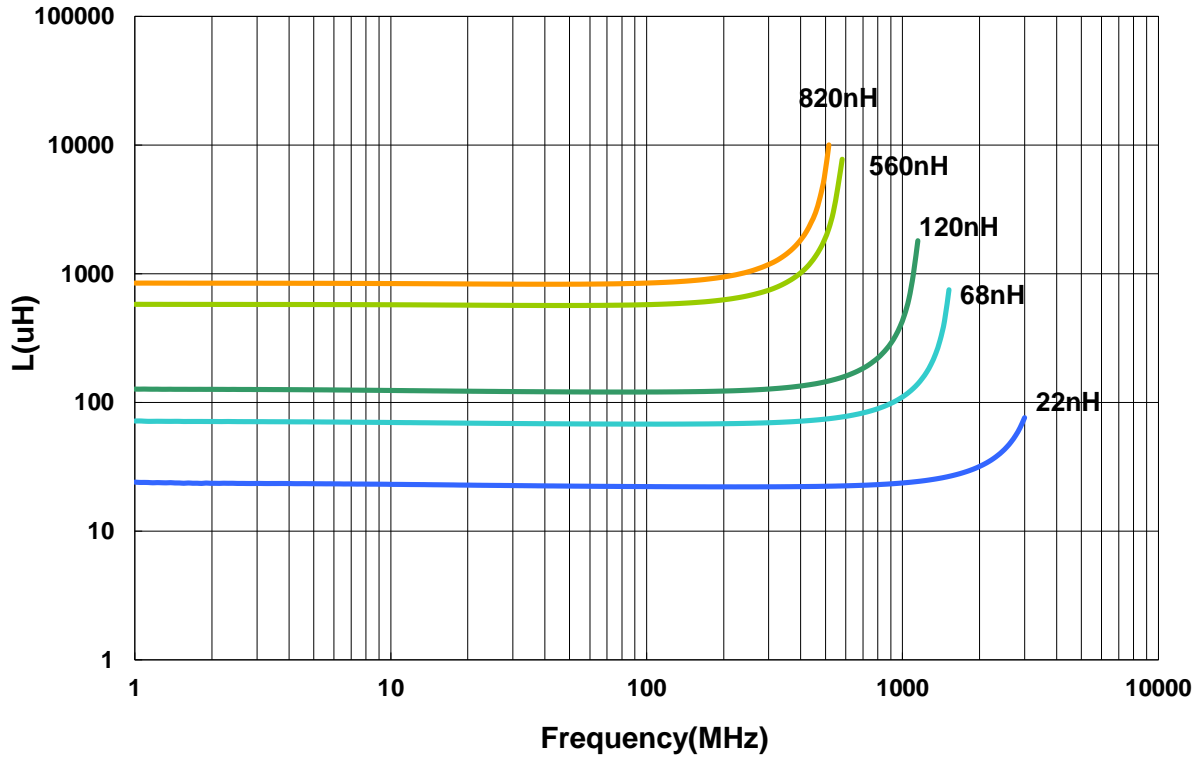
**Note: When ordering, please specify tolerance code. Tolerance: G=±2% / J=±5% / K=±10%**

1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
2. I<sub>rms</sub> for a 15°C temperature rise from 25°C ambient.
3. Measure Equipment:  
 L & Q: Agilent E4991A/HP4286A/HP4287A  
 SRF: Agilent HP8753D/Agilent E4991A  
 RDC: Chroma 16502  
 I<sub>rms</sub>: HP4284A+HP42841A/HP4285A+HP42841A

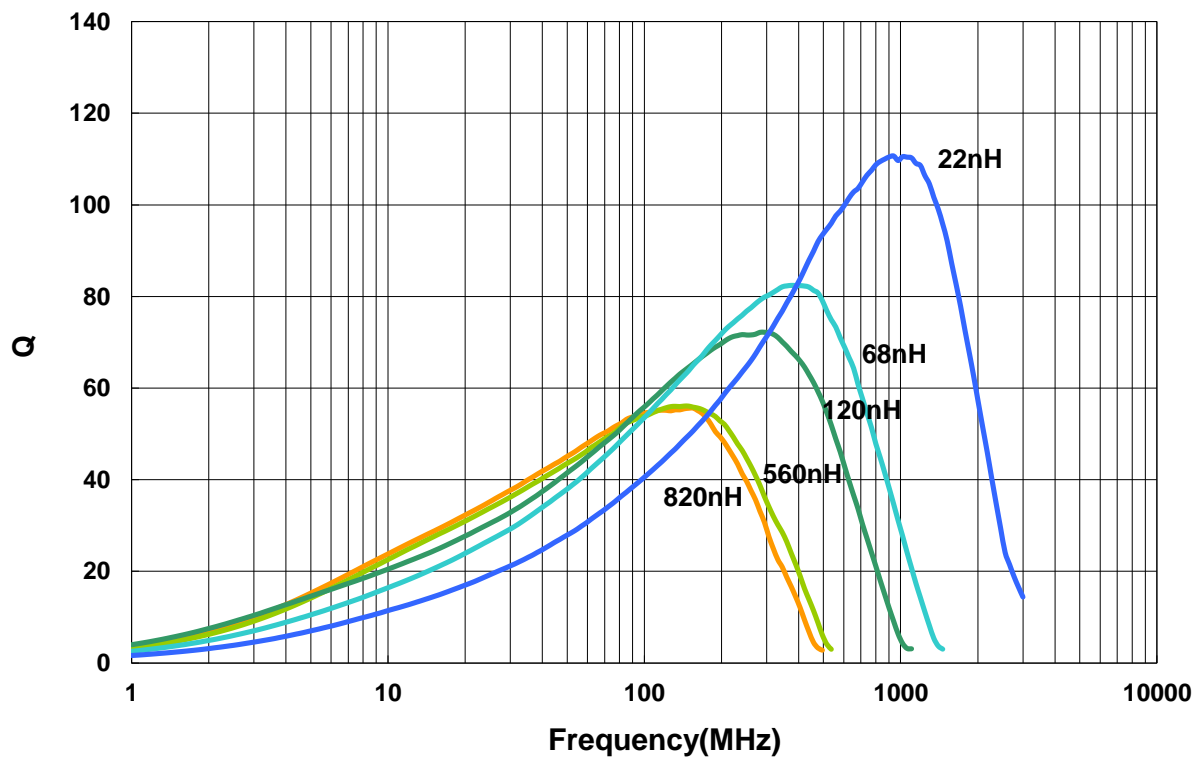
AWCS00372822 Type

■ Characteristics Graph

Inductance vs. Frequency Characteristics



Q vs. Frequency Characteristics





**Chip Inductor AWCS Series**

**Automotive  
AEC-Q200**

**■ Packaging**

**Tape Dimensions**

Figure 1

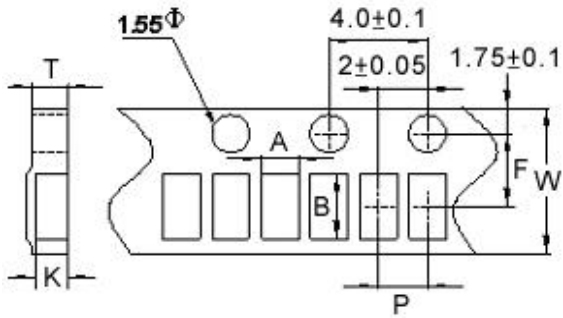


Figure 2

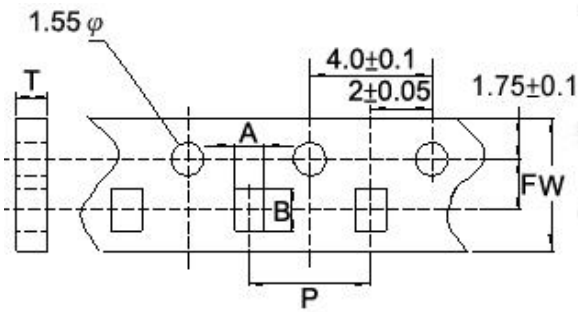
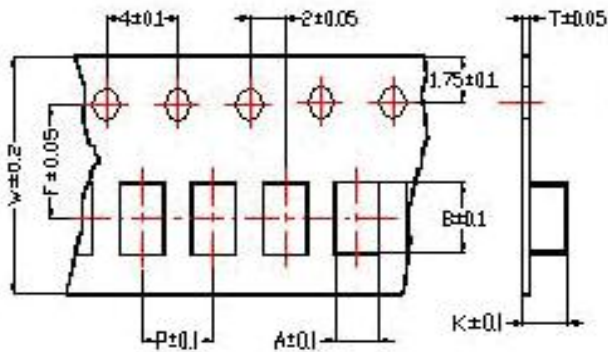
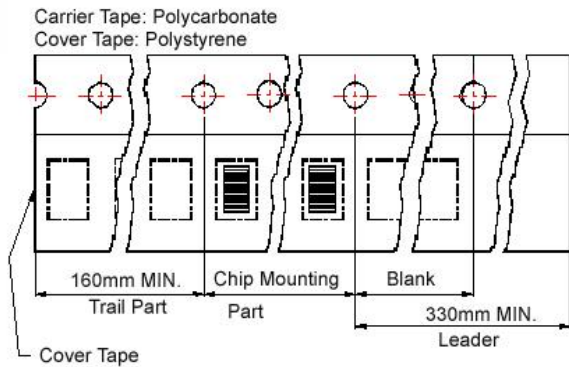
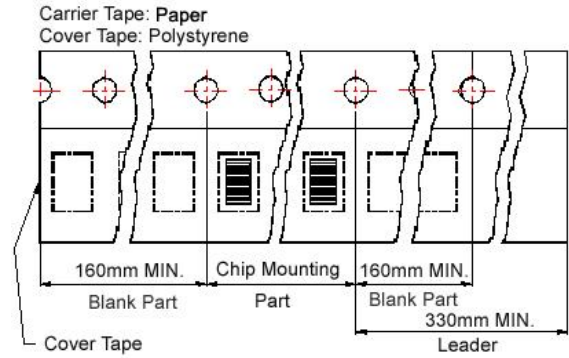


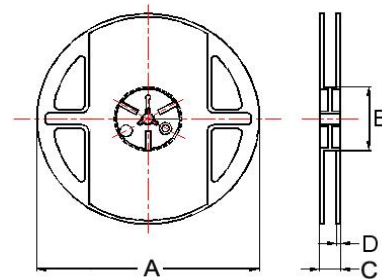
Figure 3



**Tape Material**



**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	
AWCS00120707	1	0.67	1.2	0.75	8	2	3.5	0.59	178	60	12	1.5	4000
AWCS00161008	2	1.25	1.90	1.05	8	4	3.5	-	178	60	12	1.5	4000
AWCS00231715	3	1.85	2.45	0.23	8	4	3.5	1.7	178	60	12	1.5	2000
AWCS00292821	3	2.80	2.95	0.23	8	4	3.5	2.2	178	60	12	1.5	2000
AWCS00372822	3	2.85	3.58	0.26	12	4	5.5	2.55	178	60	16	1.4	2000