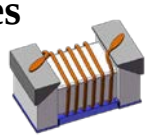
Wire Wound Chip Ceramic Inductor – AWL-C-M8X Series

Operating Temp. : -40℃~+125℃



FEATURES

- Small chip suitable for surface mounting
- High inductance tolerance and high reliability
- AEC-Q200 verified
- Higher rated current and lower DC resistance than AWL-C-M series

APPLICATIONS

- Infotainment system
- Passive keyless entry
- Tire pressure monitoring system
- ADAS
- T-Box

PRODUCT IDENTIFICATION

AWL	1005	C	10N	J	S	T	F	M81
①	②	③	④	⑤	⑥	⑦	⑧	⑨

①	Type
AWL	Wire Wound Chip Inductor for Automotive

②	External Dimensions
1005 [0402]	1.0×0.5

③	Material Code
C	Ceramic

⑥	Feature Type
S	Sn Plating One-face Coating

④	Nominal Inductance
Example	Nominal Value
10N	10nH

⑤	Inductance Tolerance
B	±0.1nH
C	±0.2nH
D	±0.5nH
G	±2%
H	±3%
J	±5%
K	±10%

⑧	Hazardous Substance Free Products
F	

⑦	Packing
T	Tape & Reel

⑨	Internal Code
M81	Low DCR & High Current

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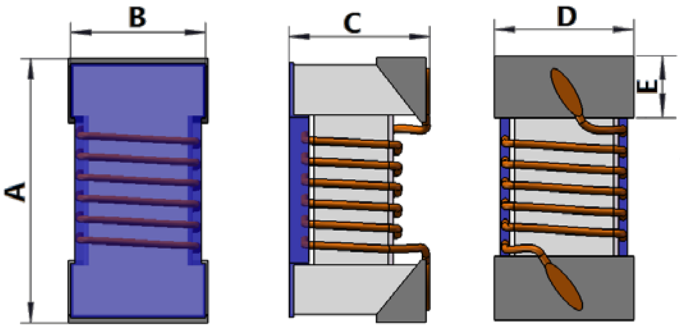
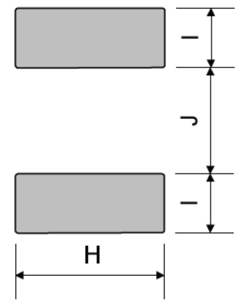
SHAPE AND DIMENSIONS

AWL-C-M8X



Recommended Land Pattern



Unit: mm

A	B	C	D	E	H REF.	I REF.	J REF.
1.1±0.1	0.5±0.1	0.6±0.1	0.6±0.1	0.2±0.1	0.65	0.35	0.50

SPECIFICATIONS

AWL1005C-M8X TYPE

Part Number	Inductance	Tolerance	Min. Quality Factor	L,Q Test Freq.	Max. DC Resistance	Max. Rated Current	Min. Self-resonant Frequency
Units	nH	-	-	MHz	Ω	mA	MHz
Symbol	L	-	Q	Freq.	DCR	Ir	S.R.F
AWL1005C1N3□STFM81	1.3	C,D	20	100/250	0.012	3150	18.0
AWL1005C1N5□STFM81	1.5	B,C,D	20	100/250	0.028	2100	18.0
AWL1005C1N6□STFM81	1.6	B,C,D	20	100/250	0.045	1450	18.0
AWL1005C1N7□STFM81	1.7	B,C,D	20	100/250	0.065	1150	18.0
AWL1005C2N2□STFM81	2.2	B,C,D	30	100/250	0.022	2530	15.5
AWL1005C2N3□STFM81	2.3	B,C,D	30	100/250	0.022	2530	15.5
AWL1005C2N4□STFM81	2.4	B,C,D	30	100/250	0.022	2530	15.5
AWL1005C2N5□STFM81	2.5	B,C,D	30	100/250	0.030	2100	15.5
AWL1005C2N6□STFM81	2.6	B,C,D	30	100/250	0.035	1950	14.5
AWL1005C2N7□STFM81	2.7	B,C,D	28	100/250	0.047	1500	14.0
AWL1005C2N8□STFM81	2.8	B,C,D	27	100/250	0.047	1500	13.5
AWL1005C2N9□STFM81	2.9	B,C,D	25	100/250	0.047	1500	12.5
AWL1005C3N0□STFM81	3.0	C,D	20	100/250	0.063	1350	12.5
AWL1005C3N3□STFM81	3.3	C,D	30	100/250	0.030	2000	14.0
AWL1005C3N4□STFM81	3.4	B,C,D	30	100/250	0.030	1950	10.0
AWL1005C3N5□STFM81	3.5	B,C,D	30	100/250	0.030	1950	10.0
AWL1005C3N6□STFM81	3.6	B,C,D	30	100/250	0.030	1950	10.0
AWL1005C3N7□STFM81	3.7	B,C,D	35	100/250	0.030	1950	10.0
AWL1005C3N8□STFM81	3.8	B,C,D	35	100/250	0.030	1950	10.0
AWL1005C3N9□STFM81	3.9	B,C,D	35	100/250	0.030	1950	10.0

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SPECIFICATIONS

AWL1005C-M8X TYPE

Part Number	Inductance	Tolerance	Min. Quality Factor	L,Q Test Freq.	Max. DC Resistance	Max. Rated Current	Min. Self-resonant Frequency
Units	nH	-	-	MHz	Ω	mA	MHz
Symbol	L	-	Q	Freq.	DCR	Ir	S.R.F
AWL1005C4N0□STFM81	4.0	B,C,D	30	100/250	0.030	1950	10.0
AWL1005C4N1□STFM81	4.1	B,C,D	30	100/250	0.044	1800	9.6
AWL1005C4N2□STFM81	4.2	B,C,D	30	100/250	0.044	1800	9.6
AWL1005C4N3□STFM81	4.3	B,C,D	32	100/250	0.044	1800	9.6
AWL1005C4N4□STFM81	4.4	B,C,D	34	100/250	0.052	1600	9.6
AWL1005C4N5□STFM81	4.5	C,D	34	100/250	0.060	1450	9.6
AWL1005C4N6□STFM81	4.6	B,C,D	32	100/250	0.060	1450	9.6
AWL1005C4N7□STFM81	4.7	B,C,D	31	100/250	0.071	1200	8.0
AWL1005C4N8□STFM81	4.8	B,C,D	30	100/250	0.071	1200	8.0
AWL1005C4N9□STFM81	4.9	C,D	27	100/250	0.071	1200	8.0
AWL1005C5N0□STFM81	5.0	B,C,D	32	100/250	0.040	1770	10.0
AWL1005C5N1□STFM81	5.1	B,C,D	35	100/250	0.040	1770	8.0
AWL1005C5N2□STFM81	5.2	B,C,D	35	100/250	0.040	1770	8.0
AWL1005C5N3□STFM81	5.3	B,C,D	35	100/250	0.040	1770	8.0
AWL1005C5N4□STFM81	5.4	B,C,D	35	100/250	0.040	1770	8.0
AWL1005C5N5□STFM81	5.5	B,C,D	35	100/250	0.040	1770	8.0
AWL1005C5N6□STFM81	5.6	B,C,D	35	100/250	0.040	1770	8.0
AWL1005C5N7□STFM81	5.7	B,C,D	30	100/250	0.040	1770	8.0
AWL1005C5N8□STFM81	5.8	B,C,D	30	100/250	0.040	1770	8.0
AWL1005C5N9□STFM81	5.9	B,C,D	30	100/250	0.040	1770	8.0
AWL1005C6N0□STFM81	6.0	B,C,D	32	100/250	0.056	1600	8.0
AWL1005C6N1□STFM81	6.1	B,C,D	32	100/250	0.056	1600	8.0
AWL1005C6N2□STFM81	6.2	B,C,D	33	100/250	0.056	1600	8.0
AWL1005C6N3□STFM81	6.3	G,H,J,K	32	100/250	0.057	1600	7.8
AWL1005C6N4□STFM81	6.4	G,H,J,K	33	100/250	0.065	1380	7.0
AWL1005C6N5□STFM81	6.5	G,H,J,K	32	100/250	0.065	1380	7.0
AWL1005C6N6□STFM81	6.6	G,H,J,K	30	100/250	0.078	1280	7.0
AWL1005C6N7□STFM81	6.7	G,H,J,K	30	100/250	0.078	1280	7.0
AWL1005C6N8□STFM81	6.8	G,H,J,K	30	100/250	0.068	1450	7.0
AWL1005C6N9□STFM81	6.9	G,H,J,K	32	100/250	0.069	1420	8.5
AWL1005C7N0□STFM81	7.0	G,H,J,K	33	100/250	0.069	1420	8.0
AWL1005C7N1□STFM81	7.1	G,H,J,K	32	100/250	0.069	1420	7.0
AWL1005C7N2□STFM81	7.2	G,H,J,K	32	100/250	0.050	1700	7.0
AWL1005C7N3□STFM81	7.3	G,H,J,K	32	100/250	0.050	1700	7.0
AWL1005C7N4□STFM81	7.4	G,H,J,K	30	100/250	0.050	1700	7.0
AWL1005C7N5□STFM81	7.5	G,H,J,K	35	100/250	0.050	1700	7.0
AWL1005C7N6□STFM81	7.6	G,H,J,K	30	100/250	0.050	1700	7.0
AWL1005C7N7□STFM81	7.7	G,H,J,K	30	100/250	0.050	1700	7.0

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SPECIFICATIONS

AWL1005C-M8X TYPE

Part Number	Inductance	Tolerance	Min. Quality Factor	L,Q Test Freq.	Max. DC Resistance	Max. Rated Current	Min. Self-resonant Frequency
Units	nH	-	-	MHz	Ω	mA	MHz
Symbol	L	-	Q	Freq.	DCR	Ir	S.R.F
AWL1005C7N8□STFM81	7.8	G,H,J,K	30	100/250	0.050	1700	7.0
AWL1005C7N9□STFM81	7.9	G,H,J,K	30	100/250	0.050	1700	7.0
AWL1005C8N0□STFM81	8.0	G,H,J,K	30	100/250	0.050	1700	7.0
AWL1005C8N1□STFM81	8.1	G,H,J,K	32	100/250	0.069	1500	6.5
AWL1005C8N2□STFM81	8.2	G,H,J,K	32	100/250	0.069	1500	6.5
AWL1005C8N3□STFM81	8.3	G,H,J,K	32	100/250	0.069	1500	6.5
AWL1005C8N4□STFM81	8.4	G,H,J,K	32	100/250	0.069	1500	6.5
AWL1005C8N5□STFM81	8.5	G,H,J,K	32	100/250	0.069	1500	6.5
AWL1005C8N6□STFM81	8.6	G,H,J,K	31	100/250	0.070	1420	6.5
AWL1005C8N7□STFM81	8.7	G,H,J,K	31	100/250	0.070	1420	6.5
AWL1005C8N8□STFM81	8.8	G,H,J,K	31	100/250	0.070	1420	6.5
AWL1005C8N9□STFM81	8.9	G,H,J,K	31	100/250	0.070	1420	6.5
AWL1005C9N0□STFM81	9.0	G,H,J,K	30	100/250	0.070	1420	6.5
AWL1005C9N1□STFM81	9.1	G,H,J,K	32	100/250	0.080	1400	6.5
AWL1005C9N2□STFM81	9.2	G,H,J,K	32	100/250	0.081	1400	6.0
AWL1005C9N3□STFM81	9.3	G,H,J,K	34	100/250	0.081	1400	6.0
AWL1005C9N4□STFM81	9.4	G,H,J,K	33	100/250	0.081	1400	6.0
AWL1005C9N5□STFM81	9.5	G,H,J,K	32	100/250	0.081	1400	6.0
AWL1005C9N6□STFM81	9.6	G,H,J,K	33	100/250	0.081	1400	6.0
AWL1005C9N7□STFM81	9.7	G,H,J,K	33	100/250	0.081	1400	6.0
AWL1005C9N8□STFM81	9.8	G,H,J,K	34	100/250	0.081	1400	6.0
AWL1005C9N9□STFM81	9.9	G,H,J,K	32	100/250	0.081	1400	6.0
AWL1005C10N□STFM81	10	G,H,J,K	31	100/250	0.081	1400	6.0
AWL1005C11N□STFM81	11	G,H,J,K	32	100/250	0.083	1400	6.2
AWL1005C12N□STFM81	12	G,H,J,K	30	100/250	0.093	1240	5.2
AWL1005C13N□STFM81	13	G,H,J,K	30	100/250	0.093	1240	5.2
AWL1005C14N□STFM81	14	G,H,J,K	31	100/250	0.111	1150	5.2
AWL1005C15N□STFM81	15	G,H,J,K	31	100/250	0.114	1150	5.5
AWL1005C16N□STFM81	16	G,H,J,K	31	100/250	0.126	1000	5.0
AWL1005C17N□STFM81	17	H,J,K	30	100/250	0.126	1000	5.0
AWL1005C18N□STFM81	18	G,H,J,K	30	100/250	0.130	1050	5.2
AWL1005C19N□STFM81	19	G,H,J,K	30	100/250	0.156	920	5.0
AWL1005C20N□STFM81	20	G,H,J,K	30	100/250	0.186	800	4.5
AWL1005C21N□STFM81	21	G,H,J,K	30	100/250	0.202	780	4.5
AWL1005C22N□STFM81	22	G,H,J,K	30	100/250	0.202	780	4.5
AWL1005C23N□STFM81	23	G,H,J,K	29	100/250	0.201	760	4.5
AWL1005C24N□STFM81	24	G,H,J,K	31	100/250	0.212	770	4.0

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SPECIFICATIONS

AWL1005C-M8X TYPE

Part Number	Inductance	Tolerance	Min. Quality Factor	L,Q Test Freq.	Max. DC Resistance	Max. Rated Current	Min. Self-resonant Frequency
Units	nH	-	-	MHz	Ω	mA	MHz
Symbol	L	-	Q	Freq.	DCR	Ir	S.R.F
AWL1005C25N□STFM81	25	H,J,K	31	100/250	0.221	750	4.1
AWL1005C26N□STFM81	26	G,H,J,K	29	100/250	0.282	720	4.1
AWL1005C27N□STFM81	27	G,H,J,K	30	100/250	0.288	680	4.0
AWL1005C30N□STFM81	30	G,H,J,K	30	100/250	0.309	660	3.8
AWL1005C33N□STFM81	33	G,H,J,K	30	100/250	0.336	620	3.6
AWL1005C36N□STFM81	36	G,H,J,K	30	100/250	0.431	540	3.5
AWL1005C39N□STFM81	39	G,H,J,K	28	100/250	0.456	530	3.4
AWL1005C43N□STFM81	43	G,H,J,K	30	100/250	0.516	515	3.4
AWL1005C47N□STFM81	47	G,H,J,K	25	100/250	0.648	440	3.2
AWL1005C51N□STFM81	51	G,H,J,K	25	100/250	0.696	415	2.9
AWL1005C53N□STFM81	53	G,H,J,K	25	100/200	0.696	415	2.9
AWL1005C56N□STFM81	56	G,H,J,K	25	100/200	0.996	340	2.9
AWL1005C68N□STFM81	68	G,H,J,K	25	100/200	1.128	320	2.5
AWL1005C75N□STFM81	75	G,H,J,K	25	100/200	1.224	320	2.4

※□: Please specify the inductance tolerance code (B=±0.1nH, C=±0.2nH, D=±0.5nH, G=±2%, H=±3%, J=±5%, K=±10%).

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