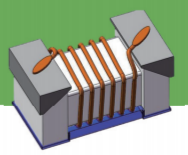
Wire Wound Chip Ceramic Inductor – AWL - C - M8X Series



Operating Temp : -40°C ~+125°C

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

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

1

Type	
AWL	Wire Wound Chip Inductor for Automotive

2

External Dimensions (L×W) (mm)	
1005 [0402]	1.0×0.5

3

Code	
C	Ceramic

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%

6

Feature Type	
S	Sn Plating Single-side Coating

7

Packing	
T	Tape & Reel

8

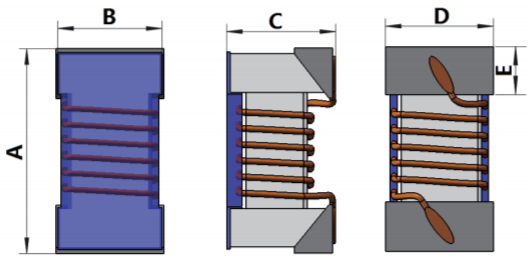
Hazardous SubstanceFree Products
F

9

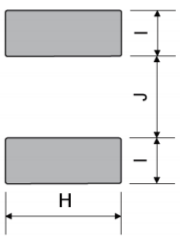
Internal Code	
M81	Low DCR & High Current

SHAPE AND DIMENSIONS

AWL-C-M



Recommended Land Pattern



Unit :mm

A	B	C	D	E	$H_{REF.}$	$I_{REF.}$	$J_{REF.}$
1.1±0.1	0.55±0.1	0.6±0.1	0.5±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
Unit	nH	-	-	MHz	Ω	mA	GHz
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	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
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	B,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	B,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

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
Unit	nH	-	-	MHz	Ω	mA	GHz
Symbol	L	-	Q	Freq.	DCR	Ir	S.R.F
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
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	G,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
AWL1005C25N ☐ STFM81	25	G,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

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
Unit	nH	-	-	MHz	Ω	mA	GHz
Symbol	L	-	Q	Freq.	DCR	Ir	S.R.F
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%).