Multilayer Chip Ceramic Inductor – ASDCL1005 -A01 Series

Operating Temp : -55°C ~+125°C

FEATURES

- Monolithic structure for high reliability
- High self-resonant frequency
- Excellent solderability and high heat resistance
- AEC-Q200D verified

APPLICATIONS

- Infotainment system
- Passive keyless entry
- Tire pressure monitoring system

PRODUCT IDENTIFICATION

1	2	3	4	5	6	7	8	9	10
A	SDCL	1005	C	XXX	□	T	D	F	A01

1 Feature Code

A	Automotive Electronics

2 Type

SDCL	Chip Ceramic Inductor

3 External Dimensions (L×W) (mm)

1005 [0402]	1.0×0.5

4 Characteristics Code

Q	Characteristics Code

5 Nominal Inductance

Example	Nominal Value
3N9	3.9nH
10N	10nH
R12	120nH

6 Inductance Tolerance

B	±0.1nH
C	±0.2nH
S	±0.3nH
H	±3%
J	±5%

7 Packing

T	Tape & Reel

8 Internal Code

D	Internal Code

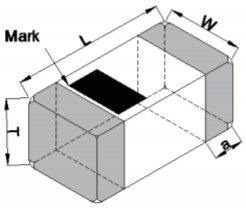
9 HFS Products

F	HFS Products

10 Design Code

A01	Internal Code

SHAPE AND DIMENSIONS



Unit: mm [inch]

Type	L	W	T	a
ASDCL1005 [0402]	1.0±0.05 [.039±.006]	0.5±0.05 [.020±.006]	0.5±0.05 [.020±.006]	0.25±0.1 [.010±.004]

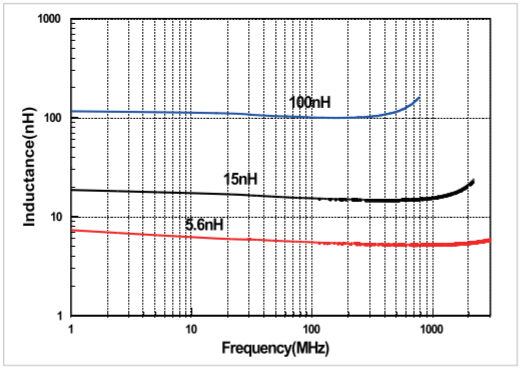
SPECIFICATIONS ASDCL1005-A01 TYPE

Part Number	L	Q	L, Q Test. Freq	Q (Typ.) Freq. (MHz)			S.R.F	DC Resistance	Rated Current	Thickness
				100	800	1000	800 (Min.)	1000 (Max.)	(Max.)	
Units	nH	(Min.)	MHz	/			MHz	Ω	mA	(mm) [inch]
Symbol	L	Q	/	/			S.R.F	DCR	Ir	T
ASDCL1005C0N6 ☐ TDFA01	0.6	4	100	6	35	41	10000	0.10	800	0.5±0.05 [.020±.002]
ASDCL1005C1N0 ☐ TDFA01	1.0	8	100	11	34	36	10000	0.10	400	
ASDCL1005C1N1 ☐ TDFA01	1.1	8	100	11	34	36	10000	0.10	400	
ASDCL1005C1N2 ☐ TDFA01	1.2	8	100	11	34	36	10000	0.10	400	
ASDCL1005C1N3 ☐ TDFA01	1.3	8	100	11	34	36	10000	0.10	400	
ASDCL1005C1N5 ☐ TDFA01	1.5	8	100	11	34	36	6000	0.10	300	
ASDCL1005C1N6 ☐ TDFA01	1.6	8	100	11	32	35	6000	0.10	300	
ASDCL1005C1N8 ☐ TDFA01	1.8	8	100	11	30	34	6000	0.10	300	
ASDCL1005C2N0 ☐ TDFA01	2.0	8	100	10	29	33	6000	0.20	300	
ASDCL1005C2N2 ☐ TDFA01	2.2	8	100	10	29	33	6000	0.20	300	
ASDCL1005C2N4 ☐ TDFA01	2.4	8	100	10	29	32	6000	0.20	300	
ASDCL1005C2N7 ☐ TDFA01	2.7	8	100	10	29	32	6000	0.20	300	
ASDCL1005C3N0 ☐ TDFA01	3.0	8	100	10	29	32	6000	0.20	300	
ASDCL1005C3N3 ☐ TDFA01	3.3	8	100	10	29	32	6000	0.20	300	
ASDCL1005C3N6 ☐ TDFA01	3.6	8	100	10	28	31	4000	0.20	300	
ASDCL1005C3N9 ☐ TDFA01	3.9	8	100	10	28	31	4000	0.20	300	
ASDCL1005C4N3 ☐ TDFA01	4.3	8	100	10	28	31	4000	0.20	300	
ASDCL1005C4N7 ☐ TDFA01	4.7	8	100	10	28	31	4000	0.20	300	
ASDCL1005C5N1 ☐ TDFA01	5.1	8	100	10	28	30	4000	0.30	300	
ASDCL1005C5N6 ☐ TDFA01	5.6	8	100	10	28	30	4000	0.30	300	
ASDCL1005C6N2 ☐ TDFA01	6.2	8	100	10	27	30	3900	0.30	300	
ASDCL1005C6N8 ☐ TDFA01	6.8	8	100	10	27	30	3900	0.30	300	
ASDCL1005C7N5 ☐ TDFA01	7.5	8	100	10	27	30	3700	0.40	300	
ASDCL1005C8N2 ☐ TDFA01	8.2	8	100	10	27	30	3600	0.40	300	
ASDCL1005C9N1 ☐ TDFA01	9.1	8	100	10	27	30	3400	0.40	300	
ASDCL1005C10N ☐ TDFA01	10	8	100	10	27	30	3200	0.40	300	
ASDCL1005C12N ☐ TDFA01	12	8	100	10	26	29	2700	0.50	300	
ASDCL1005C15N ☐ TDFA01	15	8	100	10	26	28	2300	0.50	300	
ASDCL1005C18N ☐ TDFA01	18	8	100	10	25	27	2100	0.60	300	
ASDCL1005C20N ☐ TDFA01	20	8	100	10	25	26	2000	0.60	300	
ASDCL1005C22N ☐ TDFA01	22	8	100	10	25	25	1900	0.60	300	
ASDCL1005C27N ☐ TDFA01	27	8	100	10	25	23	1600	0.70	300	
ASDCL1005C33N ☐ TDFA01	33	8	100	10	22	22	1300	0.80	200	
ASDCL1005C39N ☐ TDFA01	39	8	100	10	22	19	1200	1.00	200	
ASDCL1005C43N ☐ TDFA01	43	8	100	10	21	16	1100	1.10	200	
ASDCL1005C47N ☐ TDFA01	47	8	100	10	21	16	1000	1.10	200	
ASDCL1005C56N ☐ TDFA01	56	8	100	10	18	13	750	1.20	200	
ASDCL1005C68N ☐ TDFA01	68	8	100	10	18	9	750	1.40	180	
ASDCL1005C82N ☐ TDFA01	82	8	100	10	13	-	750	2.40	150	
ASDCL1005CR10 ☐ TDFA01	100	8	100	10	12	-	700	2.60	150	
ASDCL1005CR12 ☐ TDFA01	120	8	100	10	-	-	600	2.80	150	
ASDCL1005CR15 ☐ TDFA01	150	8	100	10	-	-	550	3.20	100	
ASDCL1005CR18 ☐ TDFA01	180	8	100	10	-	-	500	3.70	100	

※ ☐ : Please specify the inductance tolerance. For L≤6.2nH, choose B=±0.1nH, C=±0.2nH or S=±0.3nH;For L>6.2nH, choose H=±3%, J=±5% or K=±10%.
(1)Operating and storage temperature range (individual chip without packing): -55°C ~ +125°C ,
(2)Storage temperature range (packaging conditions): -10°C ~+40°C and RH 70% (Max.)

TYPICAL ELECTRICAL CHARACTERISTICS

Inductance vs. Frequency Characteristics
ASDCL1005-A01 TYPE



Q vs. Frequency Characteristics
ASDCL1005-A01 TYPE