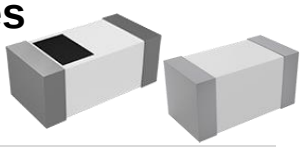
Multilayer Chip Ceramic Inductor – ASDCL-D Series

Operating Temp. : -55°C~+125°C



FEATURES

- Monolithic structure for high reliability
- High self-resonant frequency
- Excellent solderability and high heat resistance
- AEC-Q200 verified

APPLICATIONS

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

PRODUCT IDENTIFICATION

ASDCL	1608	C	10N	J	T	D	F
①	②	③	④	⑤	⑥	⑦	⑧

①

Type	
ASDCL	Chip Ceramic Inductor for Automotive

②

External Dimensions (L×W) (mm)	
1005 [0402]	1.0×0.5
1608 [0603]	1.6×0.8

③

Material Code
C

④

Nominal Inductance	
Example	Nominal Value
3N9	3.9nH
10N	10nH
R10	100nH
※ R= Decimal Point，N=nH	

⑤

Inductance Tolerance	
B	±0.1nH
C	±0.2nH
S	±0.3nH
H	±3%
J	±5%
K	±10%

⑥

Packing	
T	Tape & Reel

⑦

Internal Code
D

⑧

Hazardous Substance Free Products
F

SHAPE AND DIMENSIONS

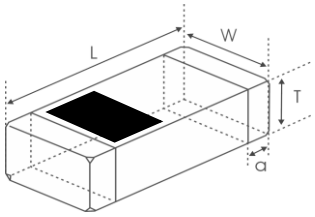


Fig.1

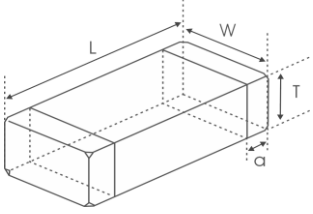


Fig.2

Unit: mm [inch]

Type	L	W	T	a	
ASDCL1005 [0402]	1.0±0.15 [.039±.006]	0.5±0.15 [.020±.006]	0.5±0.15 [.020±.006]	0.25±0.1 [.010±.004]	Fig.1
ASDCL1608 [0603]	1.6±0.15 [.063±.006]	0.8±0.15 [.031±.006]	0.8±0.15 [.031±.006]	0.3±0.2 [.012±.008]	Fig.2
	1.65±0.15 [.065±.006]				

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SPECIFICATIONS

ASDCL1005-D TYPE

Part Number	Inductance	Min. Quality Factor	L/Q Test Freq.	Typical Q @ Freq. (MHz)			Min. Self-resonant Frequency	Max. DC Resistance	Max. Rated Current
				100	800	1000			
Units	nH	-	MHz	-			MHz	Ω	mA
Symbol	L	Q	Freq.	Q			S.R.F	DCR	Ir
ASDCL1005C1N0□TDF	1.0	8	100	11	34	36	10000	0.10	400
ASDCL1005C1N1□TDF	1.1	8	100	11	34	36	10000	0.10	400
ASDCL1005C1N2□TDF	1.2	8	100	11	34	36	10000	0.10	400
ASDCL1005C1N3□TDF	1.3	8	100	11	34	36	10000	0.10	400
ASDCL1005C1N5□TDF	1.5	8	100	11	34	36	6000	0.10	300
ASDCL1005C1N6□TDF	1.6	8	100	11	32	35	6000	0.10	300
ASDCL1005C1N8□TDF	1.8	8	100	11	30	34	6000	0.10	300
ASDCL1005C2N0□TDF	2.0	8	100	10	29	33	6000	0.20	300
ASDCL1005C2N2□TDF	2.2	8	100	10	29	33	6000	0.20	300
ASDCL1005C2N4□TDF	2.4	8	100	10	29	32	6000	0.20	300
ASDCL1005C2N7□TDF	2.7	8	100	10	29	32	6000	0.20	300
ASDCL1005C3N0□TDF	3.0	8	100	10	29	32	6000	0.20	300
ASDCL1005C3N3□TDF	3.3	8	100	10	29	32	6000	0.20	300
ASDCL1005C3N6□TDF	3.6	8	100	10	28	31	4000	0.20	300
ASDCL1005C3N9□TDF	3.9	8	100	10	28	31	4000	0.20	300
ASDCL1005C4N3□TDF	4.3	8	100	10	28	31	4000	0.20	300
ASDCL1005C4N7□TDF	4.7	8	100	10	28	31	4000	0.20	300
ASDCL1005C5N1□TDF	5.1	8	100	10	28	30	4000	0.30	300
ASDCL1005C5N6□TDF	5.6	8	100	10	28	30	4000	0.30	300
ASDCL1005C6N2□TDF	6.2	8	100	10	27	30	3900	0.30	300
ASDCL1005C6N8□TDF	6.8	8	100	10	27	30	3900	0.30	300
ASDCL1005C7N5□TDF	7.5	8	100	10	27	30	3700	0.40	300
ASDCL1005C8N2□TDF	8.2	8	100	10	27	30	3600	0.40	300
ASDCL1005C9N1□TDF	9.1	8	100	10	27	30	3400	0.40	300
ASDCL1005C10N□TDF	10	8	100	10	27	30	3200	0.40	300
ASDCL1005C12N□TDF	12	8	100	10	26	29	2700	0.50	300
ASDCL1005C15N□TDF	15	8	100	10	26	28	2300	0.50	300
ASDCL1005C18N□TDF	18	8	100	10	25	27	2100	0.60	300
ASDCL1005C20N□TDF	20	8	100	10	25	26	2000	0.60	300
ASDCL1005C22N□TDF	22	8	100	10	25	25	1900	0.60	300
ASDCL1005C27N□TDF	27	8	100	10	25	23	1600	0.70	300
ASDCL1005C33N□TDF	33	8	100	10	22	22	1300	0.80	200
ASDCL1005C39N□TDF	39	8	100	10	22	19	1200	1.00	200
ASDCL1005C43N□TDF	43	8	100	10	21	16	1100	1.10	200
ASDCL1005C47N□TDF	47	8	100	10	21	16	1000	1.10	200
ASDCL1005C56N□TDF	56	8	100	10	18	13	750	1.20	200
ASDCL1005C68N□TDF	68	8	100	10	18	9	750	1.40	180
ASDCL1005C82N□TDF	82	8	100	10	13	-	750	2.40	150
ASDCL1005CR10□TDF	100	8	100	10	12	-	700	2.60	150
ASDCL1005CR12□TDF	120	8	100	10	-	-	600	2.80	150
ASDCL1005CR15□TDF	150	8	100	10	-	-	550	3.20	100
ASDCL1005CR18□TDF	180	8	100	10	-	-	500	3.70	100
ASDCL1005CR22□TDF	220	8	100	12	-	-	450	4.00	100
ASDCL1005CR27□TDF	270	8	100	12	-	-	400	4.50	100
ASDCL1005CR30□TDF	300	8	100	12	-	-	400	4.50	100
ASDCL1005CR33□TDF	330	6	50	8	-	-	350	7.00	50
ASDCL1005CR36□TDF	360	6	50	8	-	-	300	7.50	50

※□: 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%.

※:Please refer to the RF inductance test specification.

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SPECIFICATIONS

ASDCL1608-D TYPE

Part Number	Inductance	Min. Quality Factor	L/Q Test Freq.	Typical Q @ Freq. (MHz)			Min. Self-resonant Frequency	Max. DC Resistance	Max. Rated Current
				100	800	1000			
Units	nH	-	MHz	-			MHz	Ω	mA
Symbol	L	Q	Freq.	Q			S.R.F	DCR	Ir
ASDCL1608C1N0□TDF	1.0	8	100	13	70	80	10000	0.05	500
ASDCL1608C1N2□TDF	1.2	8	100	13	60	70	10000	0.05	500
ASDCL1608C1N5□TDF	1.5	8	100	13	47	68	6000	0.10	500
ASDCL1608C1N8□TDF	1.8	8	100	13	45	61	6000	0.10	500
ASDCL1608C2N2□TDF	2.2	8	100	13	45	60	6000	0.10	500
ASDCL1608C2N7□TDF	2.7	10	100	13	44	55	6000	0.12	500
ASDCL1608C3N3□TDF	3.3	10	100	13	43	50	6000	0.15	500
ASDCL1608C3N9□TDF	3.9	10	100	13	43	50	6000	0.16	500
ASDCL1608C4N7□TDF	4.7	10	100	13	43	50	6000	0.20	500
ASDCL1608C5N6□TDF	5.6	10	100	14	42	48	5000	0.25	500
ASDCL1608C6N8□TDF	6.8	10	100	14	43	50	5000	0.30	500
ASDCL1608C8N2□TDF	8.2	10	100	14	43	48	4500	0.35	500
ASDCL1608C10N□TDF	10	12	100	15	45	50	3500	0.40	300
ASDCL1608C12N□TDF	12	12	100	18	48	50	3000	0.45	300
ASDCL1608C15N□TDF	15	12	100	18	48	50	2300	0.50	300
ASDCL1608C18N□TDF	18	12	100	16	48	51	2200	0.55	300
ASDCL1608C22N□TDF	22	12	100	16	45	48	2000	0.60	300
ASDCL1608C27N□TDF	27	12	100	16	45	45	1700	0.65	300
ASDCL1608C33N□TDF	33	12	100	16	45	41	1500	0.70	300
ASDCL1608C39N□TDF	39	12	100	17	40	48	1400	0.70	300
ASDCL1608C47N□TDF	47	12	100	17	35	35	1200	0.70	300
ASDCL1608C56N□TDF	56	12	100	17	35	30	1100	0.75	300
ASDCL1608C68N□TDF	68	12	100	17	30	20	900	0.85	300
ASDCL1608C82N□TDF	82	8	100	15	22	-	800	1.00	300
ASDCL1608CR10□TDF	100	8	100	15	16	-	700	1.20	300
ASDCL1608CR12□TDF*	120	8	50	15	-	-	600	1.40	200
ASDCL1608CR15□TDF*	150	8	50	15	-	-	500	1.60	200
ASDCL1608CR18□TDF*	180	8	50	15	-	-	400	1.90	200
ASDCL1608CR22□TDF*	220	8	50	15	-	-	350	2.40	200
ASDCL1608CR27□TDF*	270	8	50	16	-	-	350	2.60	150
ASDCL1608CR33□TDF*	330	8	50	16	-	-	350	2.80	150
ASDCL1608CR39□TDF*	390	8	50	16	-	-	300	3.20	150
ASDCL1608CR43□TDF*	430	8	50	16	-	-	280	3.40	150
ASDCL1608CR47□TDF*	470	8	50	15	-	-	250	3.60	150
ASDCL1608CR56□TDF*	560	8	50	15	-	-	250	4.00	100
ASDCL1608CR68□TDF*	680	8	50	15	-	-	250	4.50	100

※□: Please specify the inductance tolerance code (J=±5%, K=±10%). The product with tolerance less than ±5%, ±10% is also available. Please contact your local sales.

※*: The length: 1.65±0.15mm, for others: 1.60±0.15mm.

※: Please refer to the RF inductance test specification.

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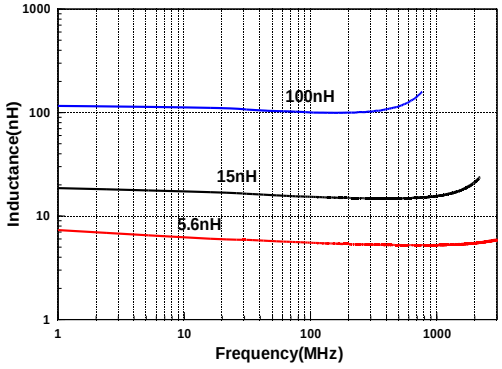
TYPICAL ELECTRICAL CHARACTERISTICS

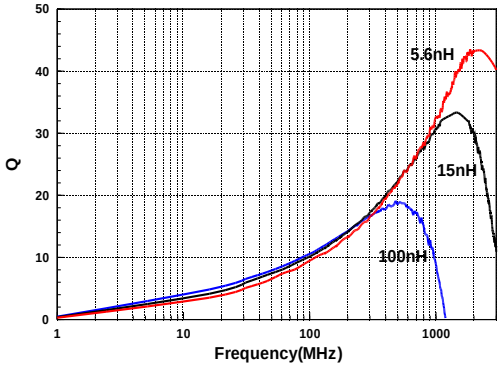
Inductance vs. Frequency Characteristics

ASDCL1005-D TYPE



Q vs. Frequency Characteristics

ASDCL1005-D TYPE



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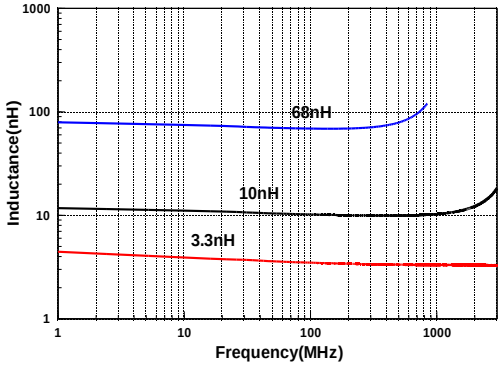

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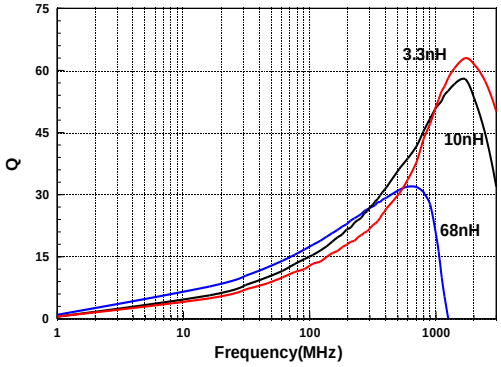

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