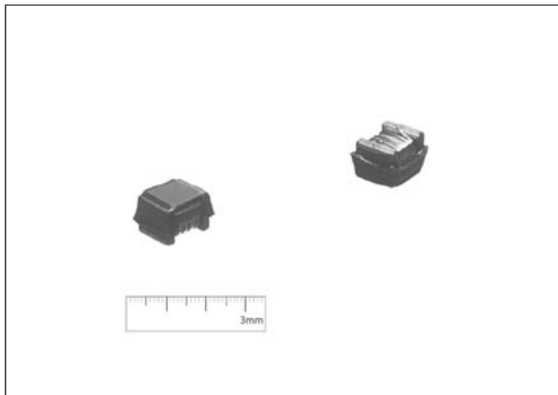


MINIATURE OPEN-TYPE CERAMIC CHIP INDUCTORS (CD SERIES)

trio



● PART NUMBERING

CD- □□□ □ □□ □ □□
(1) (2) (3) (4) (5) (6)

- (1) Series
- (2) Inductance
- (3) Tolerance
- (4) Dimension
- (5) Material
- (6) Internal Serial No.

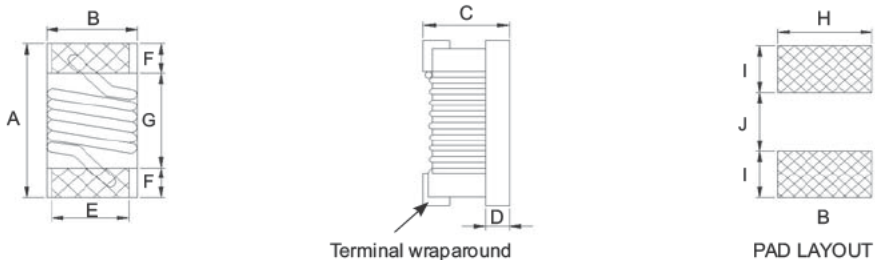
● FEATURES

- Ceramic core wire wound construction.
- High reliability due to ceramic wire wound construction.
- No batch to batch variations in inductance, SRF, and Q that are present in ferrite inductors.
- High frequency application.
- Small footprint in miniature size.

● APPLICATIONS

- Cordless phones
- High frequency communication products

● CONFIGURATIONS & DIMENSIONS



Unit : mm

SERIES	A	B	C	D	E	F	G	H	I	J
CD 011	1.19 max.	0.70 max.	0.66 max.	0.25	0.51	0.23	0.56	0.66	0.36	0.46
CD 021	1.6+0.2/ 0.1	1.02±0.1	1.02 max.	0.38	0.76	0.33	0.86	1.02	0.64	0.64
CD 031	2.29 max.	1.73 max.	1.52 max.	0.51	1.27	0.51	1.02	1.78	1.02	0.76
CD 051	2.92 max.	2.79 max.	2.03 max.	0.51	2.03	0.51	1.52	2.54	1.02	1.27

- For packaging information, please refer to page P.199.
- Tested at : 25°C
- Temperature rise : 15°C at rated current
- Operating temperature range : 40°C to +125°C

CD
01

MINIATURE OPEN-TYPE CERAMIC CHIP INDUCTORS (CD SERIES)

trio

● ELECTRICAL CHARACTERISTICS

New Part No.	Old Part No.	L (nH)	Q (Min.)	FREQ. (MHz)	900MHz		1.7GHz		SRF (GHz, Min.)	DCR (Ω , Max.)	I _{rms} (mA, Max.)
					L (nH, Typ.)	Q (Typ.)	L (nH, Typ.)	Q (Typ.)			
CD 10D□011□□	CCMG0402 1N0□	1.0	16	250	1.02	77	1.02	69	12.70	0.045	1360
CD 19D□011□□	CCMG0402 1N9□	1.9	16	250	1.72	68	1.74	82	11.30	0.070	1040
CD 20D□011□□	CCMG0402 2N0□	2.0	16	250	1.93	54	1.93	75	11.10	0.070	1040
CD 22D□011□□	CCMG0402 2N2□	2.2	19	250	2.19	59	2.23	100	10.80	0.070	960
CD 24D□011□□	CCMG0402 2N4□	2.4	15	250	2.24	51	2.27	68	10.50	0.068	790
CD 27D□011□□	CCMG0402 2N7□	2.7	16	250	2.58	42	2.60	61	10.40	0.120	640
CD 33D□011□□	CCMG0402 3N3□	3.3	19	250	3.10	65	3.12	87	7.00	0.066	840
CD 36D□011□□	CCMG0402 3N6□	3.6	19	250	3.56	45	3.62	71	6.80	0.066	840
CD 39D□011□□	CCMG0402 3N9□	3.9	19	250	3.89	50	4.00	75	6.00	0.066	840
CD 43D□011□□	CCMG0402 4N3□	4.3	18	250	4.19	47	4.30	71	6.00	0.091	700
CD 47D□011□□	CCMG0402 4N7□	4.7	15	250	4.55	48	4.68	68	4.77	0.130	640
CD 51D□011□□	CCMG0402 5N1□	5.1	20	250	5.15	56	5.25	82	4.80	0.083	800
CD 56D□011□□	CCMG0402 5N6□	5.6	20	250	5.16	54	5.28	81	4.80	0.083	760
CD 62D□011□□	CCMG0402 6N2□	6.2	20	250	6.16	52	6.37	76	4.80	0.083	760
CD 68D□011□□	CCMG0402 6N8□	6.8	20	250	6.56	63	6.93	78	4.80	0.083	680
CD 75D□011□□	CCMG0402 7N5□	7.5	22	250	7.91	60	8.22	88	4.80	0.10	680
CD 82D□011□□	CCMG0402 8N2□	8.2	22	250	8.50	57	8.85	84	4.40	0.10	680
CD 87D□011□□	CCMG0402 8N7□	8.7	18	250	8.78	54	9.21	73	4.10	0.20	480
CD 90D□011□□	CCMG0402 9N0□	9.0	22	250	9.07	62	9.53	78	4.16	0.10	680
CD 95D□011□□	CCMG0402 9N5□	9.5	18	250	9.42	54	9.98	69	4.00	0.20	480
CD 10C□011□□	CCMG0402 10N□	10	21	250	9.80	50	10.10	67	3.90	0.20	480
CD 11C□011□□	CCMG0402 11N□	11	24	250	10.7	52	11.20	78	3.68	0.12	640
CD 12C□011□□	CCMG0402 12N□	12	24	250	11.9	53	12.70	71	3.60	0.12	640
CD 13C□011□□	CCMG0402 13N□	13	24	250	13.4	51	14.63	57	3.45	0.21	440
CD 15C□011□□	CCMG0402 15N□	15	24	250	14.6	55	15.50	77	3.28	0.17	560
CD 16C□011□□	CCMG0402 16N□	16	24	250	16.6	46	18.86	47	3.10	0.22	560
CD 18C□011□□	CCMG0402 18N□	18	25	250	18.3	57	20.28	62	3.10	0.23	420
CD 19C□011□□	CCMG0402 19N□	19	24	250	19.1	50	21.10	67	3.04	0.20	480
CD 20C□011□□	CCMG0402 20N□	20	25	250	20.7	52	23.66	53	3.00	0.25	420
CD 22C□011□□	CCMG0402 22N□	22	25	250	23.2	53	26.75	53	2.80	0.30	400
CD 23C□011□□	CCMG0402 23N□	23	22	250	23.8	49	26.90	64	2.72	0.30	400
CD 24C□011□□	CCMG0402 24N□	24	25	250	25.1	51	29.50	50	2.70	0.30	400
CD 27C□011□□	CCMG0402 27N□	27	24	250	28.7	49	33.50	63	2.48	0.30	400
CD 30C□011□□	CCMG0402 30N□	30	25	250	31.1	46	38.50	39	2.35	0.35	400
CD 33C□011□□	CCMG0402 33N□	33	24	250	34.9	31	41.74	32	2.35	0.40	400
CD 36C□011□□	CCMG0402 36N□	36	24	250	39.5	44	48.40	53	2.32	0.44	320
CD 39C□011□□	CCMG0402 39N□	39	25	250	41.7	47	50.23	45	2.10	0.55	200
CD 40C□011□□	CCMG0402 40N□	40	24	250	39.0	44	47.40	33	2.24	0.44	320
CD 43C□011□□	CCMG0402 43N□	43	25	250	45.8	46	61.55	34	2.03	0.81	100
CD 47C□011□□	CCMG0402 47N□	47	20	250	50.0	38			2.10	0.83	150
CD 51C□011□□	CCMG0402 51N□	51	25	250	56.6	40			1.75	0.82	100
CD 56C□011□□	CCMG0402 56N□	56	22	250	62.8	42			1.76	0.97	100
CD 68C□011□□	CCMG0402 68N□	68	22	250	78.2	36			1.62	1.12	100
CD 82C□011□□	CCMG0402 82N□	82	20	250					1.26	1.55	50
CD 10B□011□□	CCMG0402 R10□	100	20	250					1.16	2.00	30

- Tested at : 25°C
- Temperature rise : 15°C at rated current
- Operating temperature range : 40°C to +125°C

CD
02

MINIATURE OPEN-TYPE CERAMIC CHIP INDUCTORS (CD SERIES)

trio

● ELECTRICAL CHARACTERISTICS

New Part No.	Old Part No	L (nH)	Q (Min.)	FREQ. (MHz)	900MHz		1.7GHz		SRF (MHz, Min.)	DCR (Ω, Max.)	I _{rms} (mA, Max.)
					L (nH, Typ.)	Q (Typ.)	L (nH, Typ.)	Q (Typ.)			
CD 16D□021□□	CCMG0603 1N6□	1.6	24	250	1.67	49	1.65	63	12500	0.030	700
CD 18D□021□□	CCMG0603 1N8□	1.8	16	250	1.63	35	1.66	50	12500	0.045	700
CD 36D□021□□	CCMG0603 3N6□	3.6	22	250	3.72	53	3.71	65	5900	0.063	700
CD 39D□021□□	CCMG0603 3N9□	3.9	22	250	3.95	49	3.96	67	6900	0.080	700
CD 43D□021□□	CCMG0603 4N3□	4.3	22	250	4.32	50	4.33	70	5900	0.063	700
CD 47D□021□□	CCMG0603 4N7□	4.7	20	250	4.72	47	4.75	57	5800	0.116	700
CD 51D□021□□	CCMG0603 5N1□	5.1	20	250	4.93	47	4.95	56	5700	0.140	700
CD 56D□021□□	CCMG0603 5N6□	5.6	20	250	5.53	56	5.86	77	5800	0.170	700
CD 63D□021□□	CCMG0603 6N3□	6.3	20	250	5.50	47	6.10	60	5700	0.140	700
CD 68D□021□□	CCMG0603 6N8□	6.8	27	250	6.75	60	7.10	81	5800	0.110	700
CD 75D□021□□	CCMG0603 7N5□	7.5	28	250	7.70	60	7.82	65	4800	0.106	700
CD 82D□021□□	CCMG0603 8N2□	8.2	28	250	8.30	60	8.50	60	4700	0.109	700
CD 87D□021□□	CCMG0603 8N7□	8.7	28	250	8.86	62	9.32	58	4600	0.109	700
CD 95D□021□□	CCMG0603 9N5□	9.5	28	250	9.70	59	9.92	61	5400	0.135	700
CD 10C□021□□	CCMG0603 10N□	10	31	250	10.0	66	10.6	83	4800	0.130	700
CD 11C□021□□	CCMG0603 11N□	11	33	250	11.0	53	11.5	56	4000	0.086	700
CD 12C□021□□	CCMG0603 12N□	12	35	250	12.3	72	13.5	83	4000	0.130	700
CD 15C□021□□	CCMG0603 15N□	15	35	250	15.4	64	16.8	89	4000	0.170	700
CD 16C□021□□	CCMG0603 16N□	16	34	250	16.2	55	17.3	52	3300	0.104	700
CD 18C□021□□	CCMG0603 18N□	18	35	250	18.7	70	21.4	69	3100	0.170	700
CD 22C□021□□	CCMG0603 22N□	22	38	250	22.8	73	26.1	71	3000	0.190	700
CD 24C□021□□	CCMG0603 24N□	24	37	250	24.5	45	28.7	39	2650	0.135	700
CD 27C□021□□	CCMG0603 27N□	27	40	250	29.2	74	34.6	65	2800	0.220	600
CD 30C□021□□	CCMG0603 30N□	30	37	250	31.4	47	39.9	28	2250	0.144	600
CD 33C□021□□	CCMG0603 33N□	33	40	250	36.0	67	49.5	42	2300	0.220	600
CD 36C□021□□	CCMG0603 36N□	36	38	250	39.4	47	52.7	24	2080	0.250	600
CD 39C□021□□	CCMG0603 39N□	39	40	250	42.7	60	60.2	40	2200	0.250	600
CD 43C□021□□	CCMG0603 43N□	43	39	250	47.0	44	64.9	21	2000	0.280	600
CD 47C□021□□	CCMG0603 47N□	47	38	250	52.2	62	77.2	35	2000	0.280	600
CD 56C□021□□	CCMG0603 56N□	56	38	250	62.5	56	97.0	26	1900	0.310	600
CD 68C□021□□	CCMG0603 68N□	68	37	250	80.5	54	168	21	1700	0.340	600
CD 72C□021□□	CCMG0603 72N□	72	34	250	82.0	53	135	20	1700	0.490	400
CD 82C□021□□	CCMG0603 82N□	82	34	250	96.2	54	177	21	1700	0.540	400
CD 10B□021□□	CCMG0603 R10□	100	34	250	124	49			1400	0.580	400
CD 11B□021□□	CCMG0603 R11□	110	32	250	138	43			1350	0.610	300
CD 12B□021□□	CCMG0603 R12□	120	32	250	166	39			1300	0.750	300
CD 15B□021□□	CCMG0603 R15□	150	28	250	250	25			990	0.920	280
CD 18B□021□□	CCMG0603 R18□	180	25	250	305	22			990	1.250	240
CD 22B□021□□	CCMG0603 R22□	220	25	250					900	2.100	200
CD 27B□021□□	CCMG0603 R27□	270	24	250					900	2.300	170
CD 33B□021□□	CCMG0603 R33□	330	25	250					900	3.890	100
CD 39B□021□□	CCMG0603 R39□	390	25	250					700	4.350	100

- Tested at : 25°C
- Temperature rise : 15°C at rated current
- Operating temperature range : 40°C to +125°C

CD
03

MINIATURE OPEN-TYPE CERAMIC CHIP INDUCTORS (CD SERIES)

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● ELECTRICAL CHARACTERISTICS

New Part No.	Old Part No.	L (nH)	Q (Min.)	SRF (MHz, Min.)	DCR (Ω,Max.)	I _{rms} (mA, Max.)
CD 28D□031□□	CCMG0805 2N8□	2.8@250MHz	80@1500MHz	7900	0.06	800
CD 30D□031□□	CCMG0805 3N0□	3.0@250MHz	65@1500MHz	7900	0.06	800
CD 33D□031□□	CCMG0805 3N3□	3.3@250MHz	50@1500MHz	7900	0.08	600
CD 56D□031□□	CCMG0805 5N6□	5.6@250MHz	65@1000MHz	5500	0.08	600
CD 68D□031□□	CCMG0805 6N8□	6.8@250MHz	50@1000MHz	5500	0.11	600
CD 75D□031□□	CCMG0805 7N5□	7.5@250MHz	50@1000MHz	4500	0.14	600
CD 82D□031□□	CCMG0805 8N2□	8.2@250MHz	50@1000MHz	4700	0.12	600
CD 10C□031□□	CCMG0805 10N□	10@250MHz	60@500MHz	4200	0.10	600
CD 12C□031□□	CCMG0805 12N□	12@250MHz	50@500MHz	4000	0.15	600
CD 15C□031□□	CCMG0805 15N□	15@250MHz	50@500MHz	3400	0.17	600
CD 18C□031□□	CCMG0805 18N□	18@250MHz	50@500MHz	3300	0.20	600
CD 22C□031□□	CCMG0805 22N□	22@250MHz	55@500MHz	2600	0.22	500
CD 24C□031□□	CCMG0805 24N□	24@250MHz	50@500MHz	2000	0.22	500
CD 27C□031□□	CCMG0805 27N□	27@250MHz	55@500MHz	2500	0.25	500
CD 33C□031□□	CCMG0805 33N□	33@250MHz	60@500MHz	2050	0.27	500
CD 36C□031□□	CCMG0805 36N□	36@250MHz	55@500MHz	1700	0.27	500
CD 39C□031□□	CCMG0805 39N□	39@250MHz	60@500MHz	2000	0.29	500
CD 43C□031□□	CCMG0805 43N□	43@200MHz	60@500MHz	1650	0.34	500
CD 47C□031□□	CCMG0805 47N□	47@200MHz	60@500MHz	1650	0.31	500
CD 56C□031□□	CCMG0805 56N□	56@200MHz	60@500MHz	1550	0.34	500
CD 68C□031□□	CCMG0805 68N□	68@200MHz	60@500MHz	1450	0.38	500
CD 82C□031□□	CCMG0805 82N□	82@150MHz	65@500MHz	1300	0.42	400
CD 91C□031□□	CCMG0805 91N□	91@150MHz	65@500MHz	1200	0.48	400
CD 10B□031□□	CCMG0805 R10□	100@150MHz	65@500MHz	1200	0.46	400
CD 11B□031□□	CCMG0805 R11□	110@150MHz	50@250MHz	1000	0.48	400
CD 12B□031□□	CCMG0805 R12□	120@150MHz	50@250MHz	1100	0.51	400
CD 15B□031□□	CCMG0805 R15□	150@100MHz	50@250MHz	920	0.56	400
CD 18B□031□□	CCMG0805 R18□	180@100MHz	50@250MHz	870	0.64	400
CD 20B□031□□	CCMG0805 R20□	200@100MHz	50@250MHz	860	0.68	400
CD 22B□031□□	CCMG0805 R22□	220@100MHz	50@250MHz	850	0.70	400
CD 24B□031□□	CCMG0805 R24□	240@100MHz	44@250MHz	690	1.00	350
CD 25B□031□□	CCMG0805 R25□	250@100MHz	45@250MHz	660	1.20	350
CD 27B□031□□	CCMG0805 R27□	270@100MHz	48@250MHz	650	1.00	350
CD 33B□031□□	CCMG0805 R33□	330@100MHz	48@250MHz	600	1.40	310
CD 39B□031□□	CCMG0805 R39□	390@100MHz	48@250MHz	560	1.50	290
CD 47B□031□□	CCMG0805 R47□	470@ 50MHz	33@50MHz	375	1.76	250
CD 56B□031□□	CCMG0805 R56□	560@ 25MHz	23@50MHz	340	1.90	230
CD 62B□031□□	CCMG0805 R62□	620@ 25MHz	23@50MHz	220	2.20	210
CD 68B□031□□	CCMG0805 R68□	680@ 25MHz	23@50MHz	188	2.20	190
CD 82B□031□□	CCMG0805 R82□	820@ 25MHz	23@50MHz	215	2.35	180
CD 10A□031□□	CCMG0805 1R0□	1000@ 25MHz	20@50MHz	100	2.50	170

- Tested at : 25°C
- Temperature rise : 15°C at rated current
- Operating temperature range : 40°C to +125°C

CD
04

MINIATURE OPEN-TYPE CERAMIC CHIP INDUCTORS (CD SERIES)

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● ELECTRICAL CHARACTERISTICS

New Part No.	Old Part No.	L (nH)	Q (Min.)	SRF (MHz, Min.)	DCR (Ω , Max.)	I _{rms} (mA, Max.)
CD 10C□051□□	CCMG1008 10N□	10@50MHz	50@500MHz	4100	0.08	1000
CD 12C□051□□	CCMG1008 12N□	12@50MHz	50@500MHz	3300	0.09	1000
CD 15C□051□□	CCMG1008 15N□	15@50MHz	50@500MHz	2500	0.10	1000
CD 18C□051□□	CCMG1008 18N□	18@50MHz	50@350MHz	2500	0.11	1000
CD 22C□051□□	CCMG1008 22N□	22@50MHz	55@350MHz	2400	0.12	1000
CD 27C□051□□	CCMG1008 27N□	27@50MHz	55@350MHz	1600	0.13	1000
CD 33C□051□□	CCMG1008 33N□	33@50MHz	60@350MHz	1600	0.14	1000
CD 39C□051□□	CCMG1008 39N□	39@50MHz	60@350MHz	1500	0.15	1000
CD 47C□051□□	CCMG1008 47N□	47@50MHz	65@350MHz	1500	0.16	1000
CD 56C□051□□	CCMG1008 56N□	56@50MHz	65@350MHz	1300	0.18	1000
CD 68C□051□□	CCMG1008 68N□	68@50MHz	65@350MHz	1300	0.20	1000
CD 82C□051□□	CCMG1008 82N□	82@50MHz	60@350MHz	1000	0.22	1000
CD 10B□051□□	CCMG1008 R10□	100@25MHz	60@350MHz	1000	0.56	650
CD 12B□051□□	CCMG1008 R12□	120@25MHz	60@350MHz	950	0.63	650
CD 15B□051□□	CCMG1008 R15□	150@25MHz	45@100MHz	850	0.70	580
CD 18B□051□□	CCMG1008 R18□	180@25MHz	45@100MHz	750	0.77	620
CD 22B□051□□	CCMG1008 R22□	220@25MHz	45@100MHz	700	0.84	500
CD 27B□051□□	CCMG1008 R27□	270@25MHz	45@100MHz	600	0.91	500
CD 33B□051□□	CCMG1008 R33□	330@25MHz	45@100MHz	570	1.05	450
CD 39B□051□□	CCMG1008 R39□	390@25MHz	45@100MHz	500	1.12	470
CD 47B□051□□	CCMG1008 R47□	470@25MHz	45@100MHz	450	1.19	470
CD 56B□051□□	CCMG1008 R56□	560@25MHz	45@100MHz	415	1.33	400
CD 62B□051□□	CCMG1008 R62□	620@25MHz	45@100MHz	375	1.40	300
CD 68B□051□□	CCMG1008 R68□	680@25MHz	45@100MHz	375	1.47	400
CD 75B□051□□	CCMG1008 R75□	750@25MHz	45@100MHz	360	1.54	360
CD 82B□051□□	CCMG1008 R82□	820@25MHz	45@100MHz	350	1.61	400
CD 91B□051□□	CCMG1008 R91□	910@25MHz	35@50MHz	320	1.68	380
CD 10A□051□□	CCMG1008 1R0□	1000@25MHz	35@50MHz	290	1.75	370
CD 12A□051□□	CCMG1008 1R2□	1200@7.9MHz	35@50MHz	250	2.00	310
CD 15A□051□□	CCMG1008 1R5□	1500@7.9MHz	28@50MHz	200	2.30	330
CD 18A□051□□	CCMG1008 1R8□	1800@7.9MHz	28@50MHz	160	2.60	300
CD 22A□051□□	CCMG1008 2R2□	2200@7.9MHz	28@50MHz	160	2.80	280
CD 27A□051□□	CCMG1008 2R7□	2700@7.9MHz	22@25MHz	140	3.20	290
CD 33A□051□□	CCMG1008 3R3□	3300@7.9MHz	22@25MHz	110	3.40	290
CD 39A□051□□	CCMG1008 3R9□	3900@7.9MHz	20@25MHz	100	3.60	260
CD 47A□051□□	CCMG1008 4R7□	4700@7.9MHz	20@25MHz	90	4.00	260
CD 56A□051□□	CCMG1008 5R6□	5600@7.9MHz	18@7.9MHz	45	4.00	240
CD 68A□051□□	CCMG1008 6R8□	6800@7.9MHz	18@7.9MHz	40	4.90	200
CD 82A□051□□	CCMG1008 8R2□	8200@7.9MHz	18@7.9MHz	25	6.00	170
CD 100□051□□	CCMG1008 100□	10000@2.52MHz	18@7.9MHz	25	8.00	150

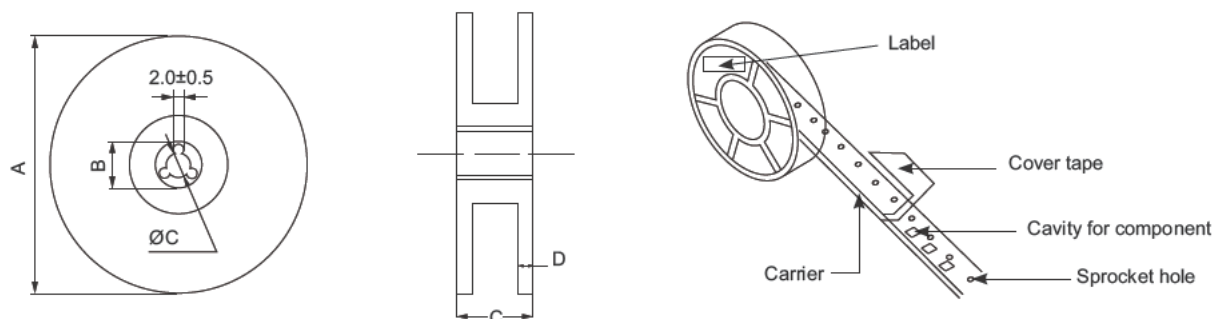
- Tested at : 25°C
- Temperature rise : 15°C at rated current
- Operating temperature range : 40°C to +125°C

CD
05

MINIATURE OPEN-TYPE CERAMIC CHIP INDUCTORS (CD SERIES)

trio

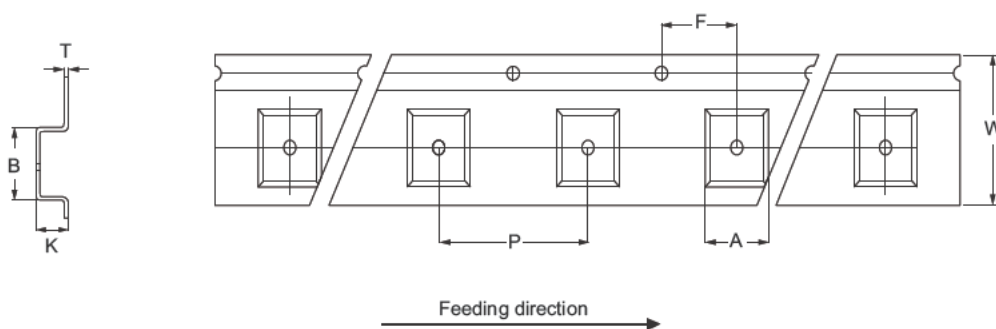
● PACKAGING INFORMATION



● REEL Dimensions

Unit : mm

SERIES	A	B	C	D	PCS/REEL
CD 011	178	60	12	1.5	4,000
CD 021	178	60	12	1.5	4,000
CD 031	178	60	12	1.5	2,000
CD 051	178	60	12	1.5	2,000



● TAPE Dimensions

Unit : mm

SERIES	A	B	T	W	P	F	K
CD 011	0.70 ± 0.1	1.20 ± 0.1	0.23 ± 0.05	8.00 ± 0.2	4.00 ± 0.1	2.0 ± 0.05	0.62 ± 0.05
CD 021	1.15 ± 0.1	1.83 ± 0.1	0.23 ± 0.05	8.00 ± 0.2	4.00 ± 0.1	2.0 ± 0.05	0.95 ± 0.05
CD 031	1.85 ± 0.1	2.45 ± 0.1	0.23 ± 0.05	8.00 ± 0.2	4.00 ± 0.1	2.0 ± 0.05	1.45 ± 0.05
CD 051	2.80 ± 0.1	2.95 ± 0.1	0.23 ± 0.05	8.00 ± 0.2	4.00 ± 0.1	2.0 ± 0.05	2.20 ± 0.05

CD
06