

Specification of Cjiang products

Customer	
Product Name	Wire Wound SMD Power Inductors
Customer P/N:	
Cjiang P/N:	FCD Series

[New Released, Revised]

SPEC No:

REMARK:		
Customer Approval Feedback		

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Version change history

Rev	Date	Description	APPROVED	CHECKED	DRAWN
1.0	2024/7/15	Document formulation	BOND	Charles	Roy

Caution :

All products listed in this specification are developed, designed and intended for use in general electronics equipment. The products are not designed or Warranted to meet the requirements of the applications listed below, whose performance and/or quality require especially high reliability, or whose failure, malfunction or trouble might directly cause damage to society, person, or property. Please understand that we are not responsible for any damage or liability caused by use of the products in any of the applications below. Please contact us for more details if you intend to use our products in the following applications.

1. Aircraft equipment.
2. Aerospace equipment.
3. Undersea equipment.
4. nuclear control equipment.
5. military equipment.
6. Power plant equipment.
7. Medical equipment.
8. Transportation equipment (automobiles, trains, ships,etc.)
9. Traffic signal equipment.
10. Disaster prevention / crime prevention equipment.
11. Data-processing equipment.
12. Applications of similar complexity or with reliability requirements comparable to the applications listed in the above.

Feature

- RoHS, Halogen Free and REACH Compliance.
- Unshielded power inductor.
- Various package size and wide inductance range.

Applications

- Laptops and PCs
- Switch and servers
- Base stations
- DC/DC converters
- Battery powered devices

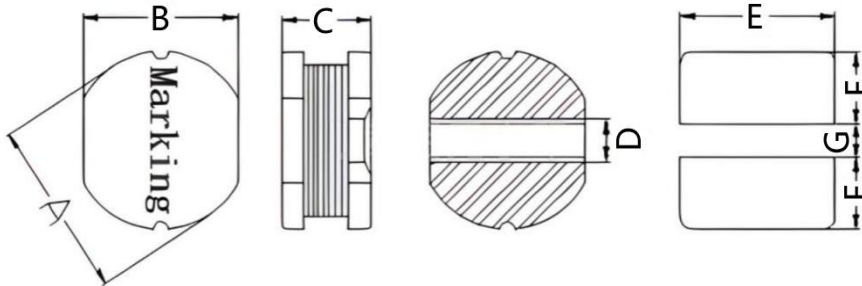


Product Identification

FCD 105 -2R2 - M
① ② ③ ④

- ① FCD ----- Series name
- ② 105 ----- Dimension
- ③ 2R2 ----- Inductance Value (2R2 = 2.2 μ H)
- ④ M ----- Inductance Tolerance (N=±30% M= ± 20% K= ± 10%)

Dimensions (unit:mm)



series	A	B	C	D	E	F	G
FCD32	3.5±0.3	3.0±0.3	2.1±0.3	1.0 Ref	3.2 Ref	1.3 Ref	1.0 Ref
FCD43	4.5±0.3	4.0±0.3	3.2±0.3	1.4 Ref	4.5 Ref	1.8 Ref	1.5 Ref
FCD52	5.8±0.3	5.2±0.3	3.0±0.3	1.6 Ref	5.8 Ref	2.2 Ref	1.6 Ref
FCD53	5.8±0.3	5.2±0.3	3.5±0.3	1.6 Ref	5.8 Ref	2.2 Ref	1.6 Ref
FCD54	5.8±0.3	5.2±0.3	4.5±0.3	1.6 Ref	5.8 Ref	2.2 Ref	1.6 Ref
FCD64	6.8±0.3	6.2±0.3	4.8±0.3	1.8 Ref	6.8 Ref	3.0 Ref	1.8 Ref
FCD75	7.8±0.3	7.0±0.3	5.0±0.3	2.4 Ref	7.5 Ref	3.0 Ref	2.4 Ref
FCD77	7.8±0.3	7.0±0.3	7.0±0.3	2.4 Ref	7.5 Ref	3.0 Ref	2.4 Ref
FCD105	10.0±0.3	9.0±0.3	5.4±0.3	2.45 Ref	9.5 Ref	3.75 Ref	2.45 Ref
FCD106	10.0±0.3	9.0±0.3	6.5±0.4	2.45 Ref	9.5 Ref	3.75 Ref	2.45 Ref
FCD108	10.0±0.3	9.0±0.3	8.4±0.4	2.45 Ref	9.5 Ref	3.75 Ref	2.45 Ref

Electrical Characteristics

FCD32 Series (3.5*3.0*2.1mm)

Part Number	Inductance	Tolerance	DC Resistance	Saturation	Marking
	@100kHz, 0.25V		Max.	Max.	
Units	uH	-	Ω	A	
Symbol	L	-	DCR	Isat	-
FCD32-R56□	0.56	N	0.023	3.50	R56
FCD32-1R0□	1.0	N	0.040	2.80	1R0
FCD32-1R5□	1.5	M	0.052	2.50	1R5
FCD32-2R2□	2.2	M	0.080	2.20	2R2
FCD32-2R7□	2.7	M	0.085	1.80	2R7
FCD32-3R3□	3.3	M	0.090	1.60	3R3
FCD32-3R9□	3.9	M	0.148	1.40	3R9
FCD32-4R7□	4.7	M	0.170	1.30	4R7
FCD32-5R6□	5.6	M	0.192	0.95	5R6
FCD32-6R8□	6.8	M	0.230	0.90	6R8
FCD32-8R2□	8.2	M	0.250	0.85	8R2
FCD32-100□	10	M	0.270	0.73	100
FCD32-120□	12	M	0.325	0.70	120
FCD32-150□	15	K, M	0.468	0.65	150
FCD32-180□	18	K, M	0.546	0.60	180
FCD32-220□	22	K, M	0.580	0.55	220
FCD32-270□	27	K, M	0.680	0.50	270
FCD32-330□	33	K, M	0.920	0.45	330
FCD32-390□	39	K, M	1.150	0.42	390
FCD32-420□	42	K, M	1.200	0.42	420
FCD32-470□	47	K, M	1.500	0.40	470
FCD32-560□	56	K, M	1.530	0.29	560
FCD32-680□	68	K, M	1.730	0.27	680
FCD32-820□	82	K, M	2.400	0.20	820
FCD32-101□	100	K, M	2.800	0.18	101
FCD32-121□	120	K, M	3.250	0.17	121
FCD32-151□	150	K, M	3.500	0.16	151
FCD32-181□	180	K, M	4.100	0.15	181
FCD32-221□	220	K, M	4.200	0.14	221
FCD32-271□	270	K, M	4.300	0.13	271
FCD32-331□	330	K, M	5.940	0.11	331

Ink
(black)

FCD43 Series (4.5*4.0*3.2mm)

Part Number	Inductance	Tolerance	DC Resistance	Saturation	Marking
	@100kHz, 0.25V		Max.	Max.	
Units	uH	-	Ω	A	
Symbol	L	-	DCR	Isat	-
FCD43-1R0□	1.0	M	0.020	5.20	1R0
FCD43-1R5□	1.5	M	0.038	3.50	1R5
FCD43-2R2□	2.2	M	0.045	2.80	2R2
FCD43-2R7□	2.7	M	0.050	2.60	2R7
FCD43-3R3□	3.3	M	0.058	2.50	3R3
FCD43-3R9□	3.9	M	0.073	2.10	3R9
FCD43-4R7□	4.7	M	0.080	1.90	4R7
FCD43-5R6□	5.6	M	0.083	1.70	5R6
FCD43-6R8□	6.8	M	0.100	1.50	6R8
FCD43-8R2□	8.2	M	0.120	1.40	8R2
FCD43-100□	10	K, M	0.140	1.20	100
FCD43-120□	12	K, M	0.160	1.00	120
FCD43-150□	15	K, M	0.230	0.90	150
FCD43-180□	18	K, M	0.260	0.80	180
FCD43-220□	22	K, M	0.378	0.70	220
FCD43-270□	27	K, M	0.500	0.65	270
FCD43-330□	33	K, M	0.540	0.60	330
FCD43-390□	39	K, M	0.700	0.58	390
FCD43-470□	47	K, M	0.900	0.55	470
FCD43-560□	56	K, M	0.950	0.50	560
FCD43-680□	68	K, M	0.980	0.45	680
FCD43-820□	82	K, M	1.03	0.40	820
FCD43-101□	100	K, M	1.20	0.35	101
FCD43-121□	120	K, M	1.60	0.30	121
FCD43-151□	150	K, M	1.66	0.28	151
FCD43-181□	180	K, M	2.40	0.25	181
FCD43-221□	220	K, M	3.00	0.22	221
FCD43-271□	270	K, M	3.55	0.20	271
FCD43-331□	330	K, M	4.60	0.18	331
FCD43-391□	390	K, M	5.20	0.17	391
FCD43-471□	470	K, M	6.50	0.16	471
FCD43-511□	510	K, M	7.00	0.15	511
FCD43-561□	560	K, M	7.50	0.15	561
FCD43-681□	680	K, M	8.00	0.13	681
FCD43-102□	1000	K, M	14.0	0.11	102
FCD43-122□	1200	K, M	17.0	0.11	122
FCD43-132□	1300	K, M	18.0	0.11	132
FCD43-152□	1500	K, M	20.0	0.10	152
FCD43-182□	1800	K, M	22.0	0.10	182
FCD43-202□	2000	K, M	28.5	0.09	202
FCD43-222□	2200	K, M	30.0	0.09	222

Ink
(black)

FCD52 Series (5.8*5.2*3.0mm)

Part Number	Inductance	Tolerance	DC Resistance	Saturation	Marking
	@100kHz, 0.25V		Max.	Max.	
Units	uH	-	Ω	A	
Symbol	L	-	DCR	Isat	-
FCD52-1R0□	1.0	M	0.015	4.50	1R0
FCD52-1R5□	1.5	M	0.018	4.00	1R5
FCD52-2R2□	2.2	M	0.025	3.60	2R2
FCD52-3R3□	3.3	M	0.034	2.50	3R3
FCD52-4R7□	4.7	M	0.058	2.20	4R7
FCD52-6R8□	6.8	M	0.090	2.00	6R8
FCD52-100□	10	M	0.100	1.60	100
FCD52-150□	15	K, M	0.150	1.50	150
FCD52-180□	18	K, M	0.220	1.40	180
FCD52-220□	22	K, M	0.220	1.35	220
FCD52-270□	27	K, M	0.300	1.10	270
FCD52-330□	33	K, M	0.380	1.00	330
FCD52-390□	39	K, M	0.400	0.90	390
FCD52-470□	47	K, M	0.480	0.80	470
FCD52-560□	56	K, M	0.650	0.72	560
FCD52-680□	68	K, M	0.700	0.70	680
FCD52-820□	82	K, M	0.850	0.65	820
FCD52-101□	100	K, M	0.900	0.55	101
FCD52-151□	150	K, M	1.44	0.43	151
FCD52-221□	220	K, M	2.00	0.34	221
FCD52-331□	330	K, M	3.20	0.32	331
FCD52-471□	470	K, M	5.50	0.30	471
FCD52-501□	500	K, M	8.90	0.25	501
FCD52-102□	1000	K, M	11.0	0.21	102
FCD52-152□	1500	K, M	16.0	0.18	152
FCD52-182□	1800	K, M	20.5	0.16	182
FCD52-222□	2200	K, M	21.0	0.15	222
FCD52-302□	3000	K, M	25.5	0.11	302
FCD52-332□	3300	K, M	29.0	0.10	332
FCD52-502□	5000	K, M	48.0	0.08	502
FCD52-562□	5600	K, M	64.0	0.07	562
FCD52-822□	8200	K, M	98.5	0.03	822

Ink
(black)

FCD53 Series (5.8*5.2*3.5mm)

Part Number	Inductance	Tolerance	DC Resistance	Saturation	Marking
	@100kHz, 0.25V		Max.	Max.	
Units	uH	-	Ω	A	
Symbol	L	-	DCR	Isat	-
FCD53-1R0□	1.0	M	0.015	4.5	1R0
FCD53-2R2□	2.2	M	0.023	3.0	2R2
FCD53-3R3□	3.3	M	0.040	2.5	3R3
FCD53-3R9□	3.9	M	0.045	2.3	3R9
FCD53-4R7□	4.7	M	0.050	2.1	4R7
FCD53-6R8□	6.8	M	0.059	1.9	6R8
FCD53-100□	10	M	0.150	1.8	100
FCD53-220□	22	K, M	0.220	1.3	220
FCD53-330□	33	K, M	0.300	1.0	330
FCD53-470□	47	K, M	0.410	0.90	470
FCD53-560□	56	K, M	0.580	0.80	560
FCD53-680□	68	K, M	0.620	0.70	680
FCD53-101□	100	K, M	0.990	0.60	101
FCD53-151□	150	K, M	1.500	0.48	151
FCD53-391□	390	K, M	3.700	0.36	391
FCD53-132□	1300	K, M	13.20	0.18	132
FCD53-152□	1500	K, M	14.40	0.16	152
FCD53-182□	1800	K, M	21.50	0.12	182
FCD53-202□	2000	K, M	23.00	0.10	202
FCD53-222□	2200	K, M	23.70	0.09	222

Ink
(black)

FCD54 Series (5.8*5.2*4.5mm)

Part Number	Inductance	Tolerance	DC Resistance	Saturation	Marking
	@100kHz, 0.25V		Max.	Max.	
Units	uH	-	Ω	A	
Symbol	L	-	DCR	Isat	-
FCD54-R56□	0.56	N	0.010	7.2	R56
FCD54-1R0□	1.0	N	0.012	6.8	1R0
FCD54-1R5□	1.5	M	0.025	4.9	1R5
FCD54-2R2□	2.2	M	0.030	4.1	2R2
FCD54-3R3□	3.3	M	0.035	3.9	3R3
FCD54-3R9□	3.9	M	0.040	3.3	3R9
FCD54-4R7□	4.7	M	0.055	3.1	4R7
FCD54-6R8□	6.8	M	0.080	2.5	6R8
FCD54-8R2□	8.2	M	0.090	2.1	8R2
FCD54-100□	10	K, M	0.100	1.6	100
FCD54-120□	12	K, M	0.120	1.4	120
FCD54-150□	15	K, M	0.140	1.30	150

Ink
(black)

FCD54-180□	18	K, M	0.160	1.20	180	Ink (black)
FCD54-220□	22	K, M	0.190	1.10	220	
FCD54-270□	27	K, M	0.210	0.98	270	
FCD54-330□	33	K, M	0.230	0.88	330	
FCD54-470□	47	K, M	0.370	0.75	470	
FCD54-560□	56	K, M	0.420	0.68	560	
FCD54-680□	68	K, M	0.450	0.65	680	
FCD54-820□	82	K, M	0.510	0.55	820	
FCD54-101□	100	K, M	0.700	0.53	101	
FCD54-121□	120	K, M	0.750	0.50	121	
FCD54-151□	150	K, M	1.10	0.45	151	
FCD54-181□	180	K, M	1.38	0.38	181	
FCD54-221□	220	K, M	1.57	0.34	221	
FCD54-271□	270	K, M	1.75	0.31	271	
FCD54-331□	330	K, M	1.85	0.29	331	
FCD54-391□	390	K, M	2.35	0.29	391	
FCD54-471□	470	K, M	2.50	0.28	471	
FCD54-501□	500	K, M	2.80	0.28	501	
FCD54-561□	560	K, M	3.10	0.27	561	
FCD54-681□	680	K, M	4.20	0.26	681	
FCD54-801□	800	K, M	4.50	0.23	801	
FCD54-821□	820	K, M	5.56	0.22	821	
FCD54-102□	1000	K, M	6.50	0.21	H102	Laser
FCD54-122□	1200	K, M	8.60	0.20	H122	
FCD54-132□	1300	K, M	9.00	0.19	H132	
FCD54-152□	1500	K, M	13.00	0.19	H152	
FCD54-172□	1700	K, M	13.40	0.16	H172	
FCD54-182□	1800	K, M	13.50	0.15	H182	
FCD54-202□	2000	K, M	14.00	0.14	H202	
FCD54-222□	2200	K, M	15.00	0.14	H222	
FCD54-252□	2500	K, M	17.00	0.13	H252	
FCD54-272□	2700	K, M	18.00	0.13	H272	
FCD54-302□	3000	K, M	23.00	0.11	H302	
FCD54-332□	3300	K, M	23.50	0.11	H332	
FCD54-352□	3500	K, M	24.00	0.11	H352	
FCD54-402□	4000	K, M	25.50	0.10	H402	
FCD54-452□	4500	K, M	26.00	0.10	H452	
FCD54-472□	4700	K, M	38.50	0.09	H472	
FCD54-502□	5000	K, M	39.00	0.08	H502	
FCD54-562□	5600	K, M	45.00	0.08	H562	
FCD54-652□	6500	K, M	47.00	0.07	H652	
FCD54-682□	6800	K, M	50.00	0.06	H682	
FCD54-822□	8200	K, M	55.00	0.06	H822	
FCD54-103□	10000	K, M	63.00	0.04	H103	

FCD64 Series (6.8*6.2*4.8mm)

Part Number	Inductance	Tolerance	DC Resistance	Saturation	Marking
	@100kHz, 0.25V		Max.	Max.	
Units	uH	-	Ω	A	
Symbol	L	-	DCR	Isat	-
FCD64-102□	1000	K, M	5.80	0.34	H102
FCD64-122□	1200	K, M	7.90	0.30	H122
FCD64-132□	1300	K, M	8.20	0.29	H132
FCD64-152□	1500	K, M	10.2	0.28	H152
FCD64-182□	1800	K, M	11.5	0.25	H182
FCD64-202□	2000	K, M	12.3	0.23	H202
FCD64-222□	2200	K, M	15.5	0.22	H222
FCD64-252□	2500	K, M	17.6	0.20	H252
FCD64-272□	2700	K, M	18.6	0.20	H272
FCD64-302□	3000	K, M	19.5	0.20	H302
FCD64-332□	3300	K, M	25.5	0.20	H332
FCD64-352□	3500	K, M	25.5	0.17	H352
FCD64-402□	4000	K, M	26.2	0.16	H402
FCD64-472□	4700	K, M	29.0	0.15	H472
FCD64-502□	5000	K, M	30.1	0.15	H502
FCD64-552□	5500	K, M	33.0	0.15	H552
FCD64-602□	6000	K, M	36.0	0.14	H602
FCD64-632□	6300	K, M	38.0	0.11	H632

Laser

FCD75 Series (7.8*7.0*5.0mm)

Part Number	Inductance	Tolerance	DC Resistance	Saturation	Marking
	@100kHz, 0.25V		Max.	Max.	
Units	uH	-	Ω	A	
Symbol	L	-	DCR	Isat	-
FCD75-1R0□	1.0	N	0.012	7.5	H1R0
FCD75-1R2□	1.2	M	0.013	7.0	H1R2
FCD75-1R5□	1.5	M	0.018	6.8	H1R5
FCD75-2R2□	2.2	M	0.020	6.0	H2R2
FCD75-3R3□	3.3	M	0.022	5.5	H3R3
FCD75-4R7□	4.7	M	0.030	4.2	H4R7
FCD75-5R6□	5.6	M	0.040	3.5	H5R6
FCD75-6R8□	6.8	M	0.055	3.0	H6R8
FCD75-100□	10	K, M	0.060	2.7	H100
FCD75-150□	15	K, M	0.075	2.5	H150
FCD75-220□	22	K, M	0.110	2.2	H220
FCD75-250□	25	K, M	0.125	2.0	H250
FCD75-270□	27	K, M	0.128	1.9	H270
FCD75-300□	30	K, M	0.130	1.8	H300
FCD75-330□	33	K, M	0.160	1.8	H330
FCD75-390□	39	K, M	0.180	1.7	H390
FCD75-470□	47	K, M	0.217	1.6	H470
FCD75-560□	56	K, M	0.280	1.5	H560
FCD75-680□	68	K, M	0.330	1.3	H680
FCD75-820□	82	K, M	0.370	1.2	H820
FCD75-101□	100	K, M	0.455	1.0	H101
FCD75-121□	120	K, M	0.550	0.9	H121
FCD75-141□	140	K, M	0.580	0.9	H141
FCD75-151□	150	K, M	0.650	0.8	H151
FCD75-171□	170	K, M	0.750	0.75	H171
FCD75-221□	220	K, M	1.10	0.70	H221
FCD75-251□	250	K, M	1.20	0.68	H251
FCD75-271□	270	K, M	1.30	0.68	H271
FCD75-331□	330	K, M	1.40	0.65	H331
FCD75-361□	360	K, M	1.50	0.60	H361
FCD75-391□	390	K, M	1.65	0.60	H391
FCD75-401□	400	K, M	1.80	0.58	H401
FCD75-471□	470	K, M	2.00	0.52	H471
FCD75-501□	500	K, M	2.10	0.50	H501
FCD75-561□	560	K, M	2.20	0.45	H561
FCD75-601□	600	K, M	2.50	0.45	H601
FCD75-681□	680	K, M	2.80	0.42	H681
FCD75-701□	700	K, M	3.20	0.40	H701
FCD75-751□	750	K, M	3.30	0.38	H751

Ink
(black)

FCD75-801□	800	K, M	3.50	0.36	H801	Ink (black)
FCD75-821□	820	K, M	3.60	0.35	H821	
FCD75-851□	850	K, M	3.90	0.34	H851	
FCD75-901□	900	K, M	4.20	0.33	H901	
FCD75-102□	1000	K, M	4.50	0.32	H102	
FCD75-122□	1200	K, M	5.72	0.31	H122	
FCD75-132□	1300	K, M	5.80	0.31	H132	
FCD75-152□	1500	K, M	7.20	0.30	H152	
FCD75-182□	1800	K, M	8.20	0.28	H182	
FCD75-202□	2000	K, M	8.60	0.25	H202	
FCD75-222□	2200	K, M	9.20	0.24	H222	
FCD75-242□	2400	K, M	10.2	0.22	H242	
FCD75-252□	2500	K, M	12.0	0.22	H252	
FCD75-282□	2800	K, M	13.0	0.21	H282	
FCD75-302□	3000	K, M	14.2	0.21	H302	
FCD75-332□	3300	K, M	16.5	0.19	H332	
FCD75-352□	3500	K, M	16.9	0.19	H352	
FCD75-402□	4000	K, M	17.0	0.17	H402	
FCD75-472□	4700	K, M	26.0	0.14	H472	
FCD75-502□	5000	K, M	26.5	0.14	H502	
FCD75-562□	5600	K, M	26.8	0.13	H562	
FCD75-602□	6000	K, M	27.0	0.13	H602	
FCD75-652□	6500	K, M	29.0	0.12	H652	
FCD75-682□	6800	K, M	30.0	0.12	H682	
FCD75-702□	7000	K, M	32.0	0.12	H702	
FCD75-802□	8000	K, M	40.0	0.09	H802	
FCD75-822□	8200	K, M	43.0	0.09	H822	
FCD75-103□	10000	K, M	48.0	0.08	H103	

FCD77 Series (7.8*7.0*7.0mm)

Part Number	Inductance	Tolerance	DC Resistance	Saturation	Marking
	@100kHz, 0.25V		Max.	Max.	
Units	uH	-	Ω	A	
Symbol	L	-	DCR	Isat	-
FCD77-220□	22	K, M	0.087	3.20	220
FCD77-470□	47	K, M	0.170	2.00	470
FCD77-680□	68	K, M	0.245	1.80	680
FCD77-101□	100	K, M	0.320	1.50	101
FCD77-131□	130	K, M	0.520	1.30	131
FCD77-201□	200	K, M	0.900	1.00	201
FCD77-221□	220	K, M	1.00	0.80	221
FCD77-251□	250	K, M	1.10	0.80	251
FCD77-301□	300	K, M	1.20	0.80	301
FCD77-401□	400	K, M	1.40	0.72	401
FCD77-471□	470	K, M	1.67	0.70	471
FCD77-501□	500	K, M	2.00	0.67	501
FCD77-601□	600	K, M	2.30	0.58	601
FCD77-681□	680	K, M	2.50	0.54	681
FCD77-701□	700	K, M	2.80	0.50	701
FCD77-751□	750	K, M	2.90	0.46	751
FCD77-801□	800	K, M	2.95	0.45	801
FCD77-901□	900	K, M	3.00	0.45	901
FCD77-102□	1000	K, M	4.00	0.45	H102
FCD77-122□	1200	K, M	5.00	0.43	H122
FCD77-152□	1500	K, M	5.50	0.40	H152
FCD77-182□	1800	K, M	7.00	0.34	H182
FCD77-202□	2000	K, M	7.20	0.33	H202
FCD77-222□	2200	K, M	7.50	0.31	H222
FCD77-252□	2500	K, M	9.00	0.27	H252
FCD77-262□	2600	K, M	9.50	0.27	H262
FCD77-272□	2700	K, M	10.2	0.27	H272
FCD77-302□	3000	K, M	10.5	0.26	H302
FCD77-332□	3300	K, M	12.5	0.24	H332
FCD77-382□	3800	K, M	13.0	0.22	H382
FCD77-402□	4000	K, M	14.5	0.20	H402
FCD77-452□	4500	K, M	16.0	0.19	H452
FCD77-472□	4700	K, M	19.0	0.18	H472
FCD77-552□	5500	K, M	19.5	0.17	H552
FCD77-602□	6000	K, M	22.8	0.16	H602
FCD77-652□	6500	K, M	25.2	0.16	H652
FCD77-702□	7000	K, M	26.4	0.15	H702
FCD77-752□	7500	K, M	29.2	0.13	H752
FCD77-103□	10000	K, M	33.0	0.11	H103

Ink
(black)

Laser

FCD105 Series (10*9.0*5.4mm)

Part Number	Inductance	Tolerance	DC Resistance	Saturation	Marking
	@100kHz, 0.25V		Max.	Max.	
Units	uH	-	Ω	A	
Symbol	L	-	DCR	Isat	-
FCD105-1R0□	1.0	N	0.0085	7.8	1R0
FCD105-2R2□	2.2	M	0.020	6.5	2R2
FCD105-3R3□	3.3	M	0.025	5.5	3R3
FCD105-4R7□	4.7	M	0.035	5.0	4R7
FCD105-6R8□	6.8	M	0.042	4.5	6R8
FCD105-100□	10	K, M	0.045	4.0	100
FCD105-120□	12	K, M	0.080	3.8	120
FCD105-150□	15	K, M	0.090	3.5	150
FCD105-180□	18	K, M	0.110	3.0	180
FCD105-220□	22	K, M	0.140	2.8	220
FCD105-270□	27	K, M	0.160	2.8	270
FCD105-330□	33	K, M	0.180	2.5	330
FCD105-470□	47	K, M	0.200	2.4	470
FCD105-560□	56	K, M	0.230	2.3	560
FCD105-680□	68	K, M	0.255	2.2	680
FCD105-820□	82	K, M	0.320	2.0	820
FCD105-101□	100	K, M	0.380	1.7	101
FCD105-111□	110	K, M	0.450	1.2	111
FCD105-121□	120	K, M	0.500	1.1	121
FCD105-151□	150	K, M	0.550	1.1	151
FCD105-181□	180	K, M	0.650	1.0	181
FCD105-201□	200	K, M	0.700	1.0	201
FCD105-221□	220	K, M	0.750	1.0	221
FCD105-271□	270	K, M	0.780	0.95	271
FCD105-301□	300	K, M	0.850	0.95	301
FCD105-331□	330	K, M	0.950	0.94	331
FCD105-451□	450	K, M	1.20	0.92	451
FCD105-471□	470	K, M	1.60	0.87	471
FCD105-561□	560	K, M	1.80	0.83	561
FCD105-601□	600	K, M	2.00	0.82	601
FCD105-681□	680	K, M	2.20	0.80	681
FCD105-701□	700	K, M	2.50	0.78	701
FCD105-821□	820	K, M	2.95	0.75	821
FCD105-102□	1000	K, M	3.60	0.70	102
FCD105-152□	1500	K, M	4.20	0.65	152
FCD105-182□	1800	K, M	7.60	0.55	182
FCD105-202□	2000	K, M	8.30	0.46	202
FCD105-222□	2200	K, M	9.60	0.42	222
FCD105-242□	2400	K, M	11.0	0.36	242
FCD105-282□	2800	K, M	12.0	0.30	282
FCD105-302□	3000	K, M	12.5	0.20	302
FCD105-352□	3500	K, M	13.5	0.18	352
FCD105-402□	4000	K, M	15.0	0.17	402
FCD105-452□	4500	K, M	16.0	0.15	452
FCD105-472□	4700	K, M	18.0	0.12	472
FCD105-333□	33000	K, M	88.5	0.08	333
FCD105-473□	47000	K, M	110	0.06	473

Ink
(black)

FCD106 Series (10*9.0*6.5mm)

Part Number	Inductance	Tolerance	DC Resistance	Saturation	Marking
	@100kHz, 0.25V		Max.	Max.	
Units	uH	-	Ω	A	
Symbol	L	-	DCR	Isat	-
FCD106-100□	10	M	0.035	4.50	100
FCD106-220□	22	K, M	0.085	4.00	220
FCD106-330□	33	K, M	0.115	3.00	330
FCD106-470□	47	K, M	0.150	2.70	470
FCD106-680□	68	K, M	0.200	1.75	680
FCD106-101□	100	K, M	0.260	1.60	101
FCD106-151□	150	K, M	0.470	1.00	151
FCD106-391□	390	K, M	1.11	0.90	391
FCD106-471□	470	K, M	1.80	0.75	471
FCD106-501□	500	K, M	1.90	0.72	501
FCD106-581□	580	K, M	2.00	0.68	581
FCD106-601□	600	K, M	2.10	0.65	601
FCD106-701□	700	K, M	2.20	0.63	701
FCD106-821□	820	K, M	2.40	0.60	821
FCD106-102□	1000	K, M	2.50	0.55	102
FCD106-122□	1200	K, M	3.00	0.43	122
FCD106-152□	1500	K, M	4.30	0.42	152
FCD106-172□	1700	K, M	4.50	0.35	172
FCD106-202□	2000	K, M	6.00	0.32	202
FCD106-332□	3300	K, M	8.30	0.26	332
FCD106-402□	4000	K, M	10.7	0.24	402
FCD106-472□	4700	K, M	15.0	0.20	472
FCD106-103□	10000	K, M	25.0	0.13	103

Ink
(black)

FCD108 Series (10*9.0*8.0mm)

Part Number	Inductance	Tolerance	DC Resistance	Saturation	Marking
	@100kHz, 0.25V		Max.	Max.	
Units	uH	-	Ω	A	
Symbol	L	-	DCR	Isat	-
FCD108-150□	15	K, M	0.045	3.60	150
FCD108-220□	22	K, M	0.055	2.70	220
FCD108-330□	33	K, M	0.093	2.50	330
FCD108-470□	47	K, M	0.120	2.50	470
FCD108-680□	68	K, M	0.165	2.00	680
FCD108-101□	100	K, M	0.220	1.50	101
FCD108-121□	120	K, M	0.242	1.40	121
FCD108-181□	180	K, M	0.350	1.35	181
FCD108-221□	220	K, M	0.360	1.30	221
FCD108-471□	470	K, M	1.00	0.65	471
FCD108-601□	600	K, M	1.50	0.62	601
FCD108-681□	680	K, M	1.50	0.55	681
FCD108-701□	700	K, M	1.60	0.54	701
FCD108-821□	820	K, M	1.80	0.53	821
FCD108-102□	1000	K, M	2.00	0.43	102
FCD108-152□	1500	K, M	3.10	0.38	152
FCD108-202□	2000	K, M	4.30	0.31	202
FCD108-302□	3000	K, M	7.00	0.30	302
FCD108-472□	4700	K, M	9.50	0.20	472
FCD108-602□	6000	K, M	10.10	0.18	602

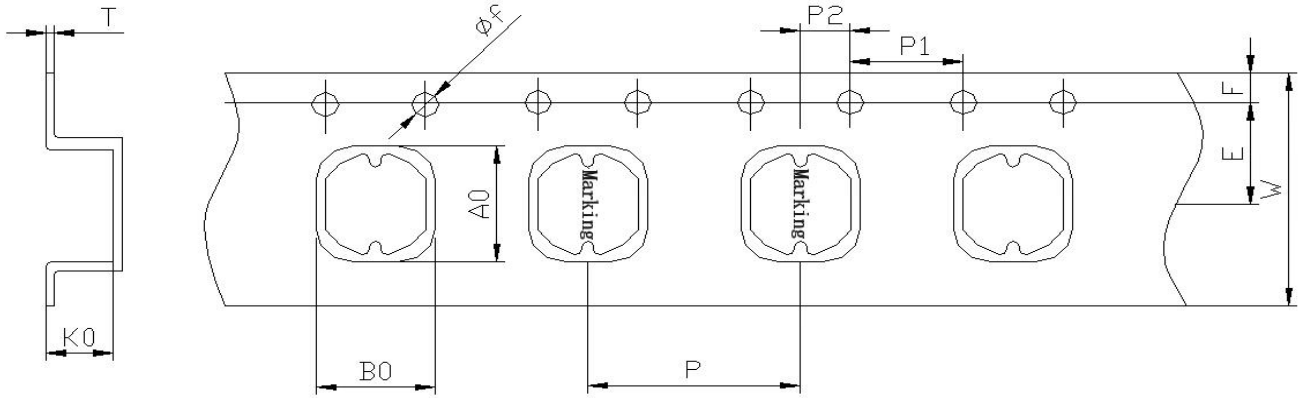
Ink
(black)

Notes:

1. All test data is referenced to 25±5°C ambient.
2. Saturation Rated Current that will cause initial inductance value approximately 10% rolloff.

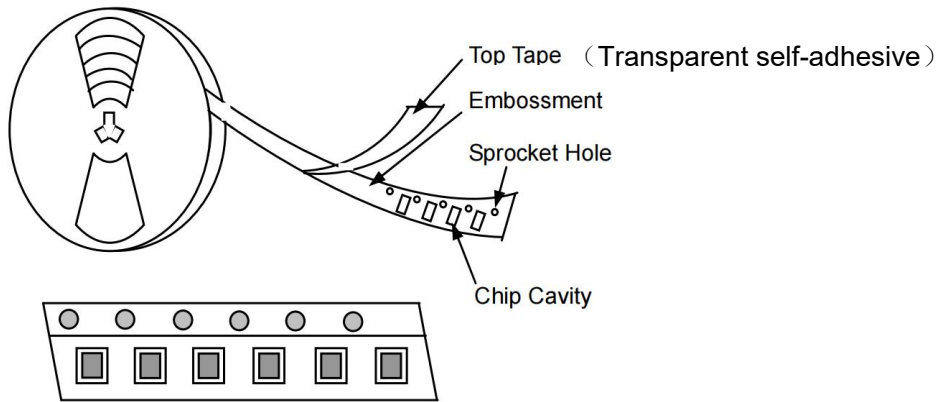
Packaging Information

(1) Tape Packaging Dimensions (Unit: mm)

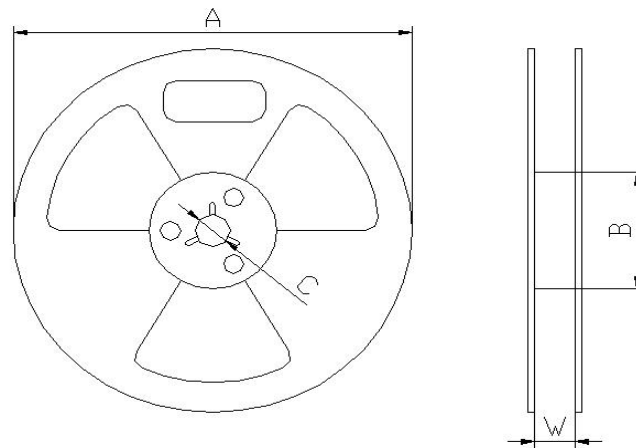


TYPE	Tape dimensions (mm)										
	A0 ±0.1	B0 ±0.1	W ±0.3	E ±0.1	F ±0.1	Φf ±0.1	P ±0.1	P1 ±0.1	P2 ±0.1	K0 ±0.1	T ±0.1
FCD32	3.9	3.3	12.0	5.5	1.75	1.5	8.0	4.0	2.0	2.3	0.35
FCD43	4.9	4.3	12.0	5.5	1.75	1.5	8.0	4.0	2.0	3.6	0.35
FCD52	5.9	5.4	12.0	5.5	1.75	1.5	8.0	4.0	2.0	3.3	0.35
FCD53	5.9	5.4	12.0	5.5	1.75	1.5	8.0	4.0	2.0	3.5	0.35
FCD54	5.9	5.4	12.0	5.5	1.75	1.5	8.0	4.0	2.0	5.0	0.40
FCD64	6.9	6.4	16.0	7.5	1.75	1.5	12.0	4.0	2.0	5.0	0.35
FCD75	8.2	7.5	16.0	7.5	1.75	1.5	12.0	4.0	2.0	5.4	0.40
FCD77	8.2	7.5	16.0	7.5	1.75	1.5	12.0	4.0	2.0	7.4	0.40
FCD105	8.2	7.5	24.0	7.5	1.75	1.5	12.0	4.0	2.0	5.4	0.40
FCD106	8.2	7.5	24.0	7.5	1.75	1.5	12.0	4.0	2.0	6.8	0.40
FCD108	8.2	7.5	24.0	7.5	1.75	1.5	16.0	4.0	2.0	8.5	0.40

Taping Drawings (UNIT:mm)



(2) Reel Dimensions (Unit: mm)



Type	A	B	C	W
FCD32、43、52、53、54	330±0.5	100±0.5	13.5±0.5	12.5±0.5
FCD64、75、77	330±0.5	100±0.5	13.5±0.5	16.5±0.5
FCD105、106、108	330±0.5	100±0.5	13.5±0.5	24.5±0.5

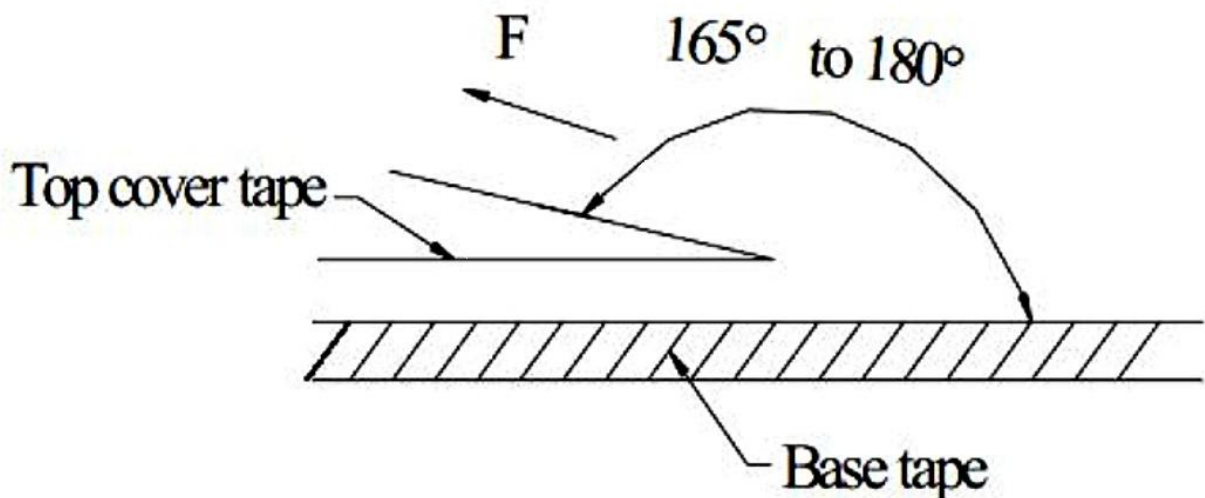
(3) Packaging Quantity(PCS)

TYPE	Standard Quantity		
	Reel	Inner box	Carton box
FCD32	3000	12000	36000
FCD43	2000	8000	24000
FCD52	2000	8000	24000
FCD53	2000	8000	24000
FCD54	1500	-	19500
FCD64	1000	-	10000
FCD75	1000	-	10000
FCD77	800	-	8000
FCD105	1000	2000	4000
FCD106	800	1600	3600
FCD108	500	1000	2000

(4) Peel force of top cover tape

The peel speed shall be about 300mm/minute

The peel force of top cover tape shall be between 0.1 to 1.3 N



RECOMMENDED REFLOW PROFILE

Figure 1. Re-flow Soldering

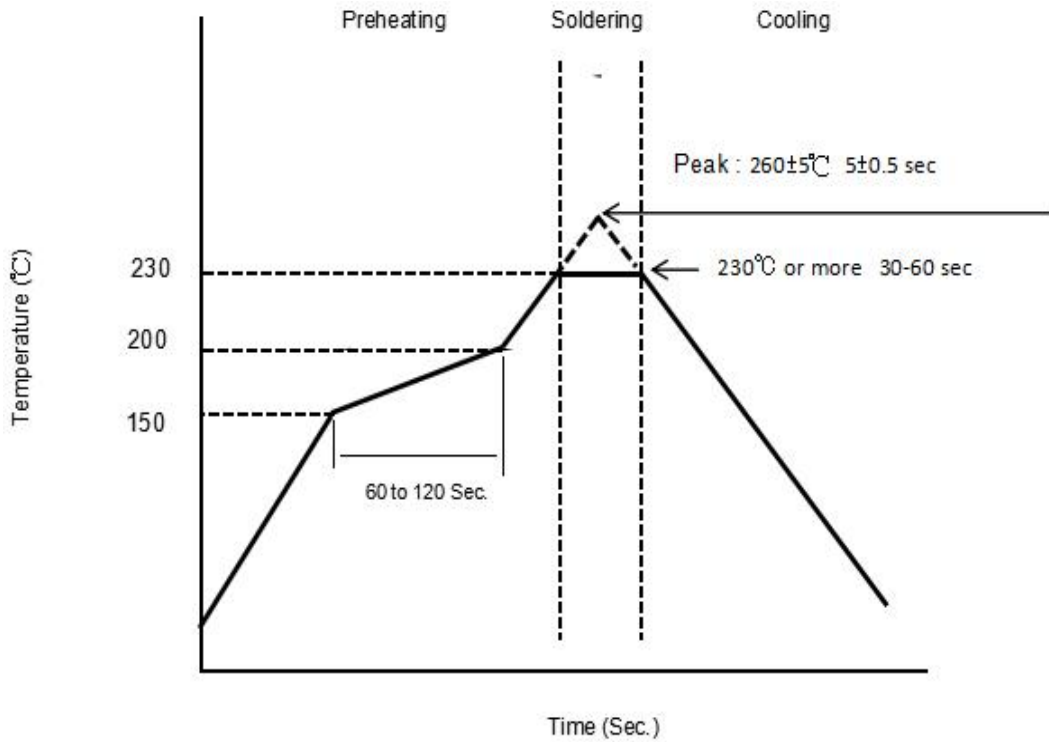
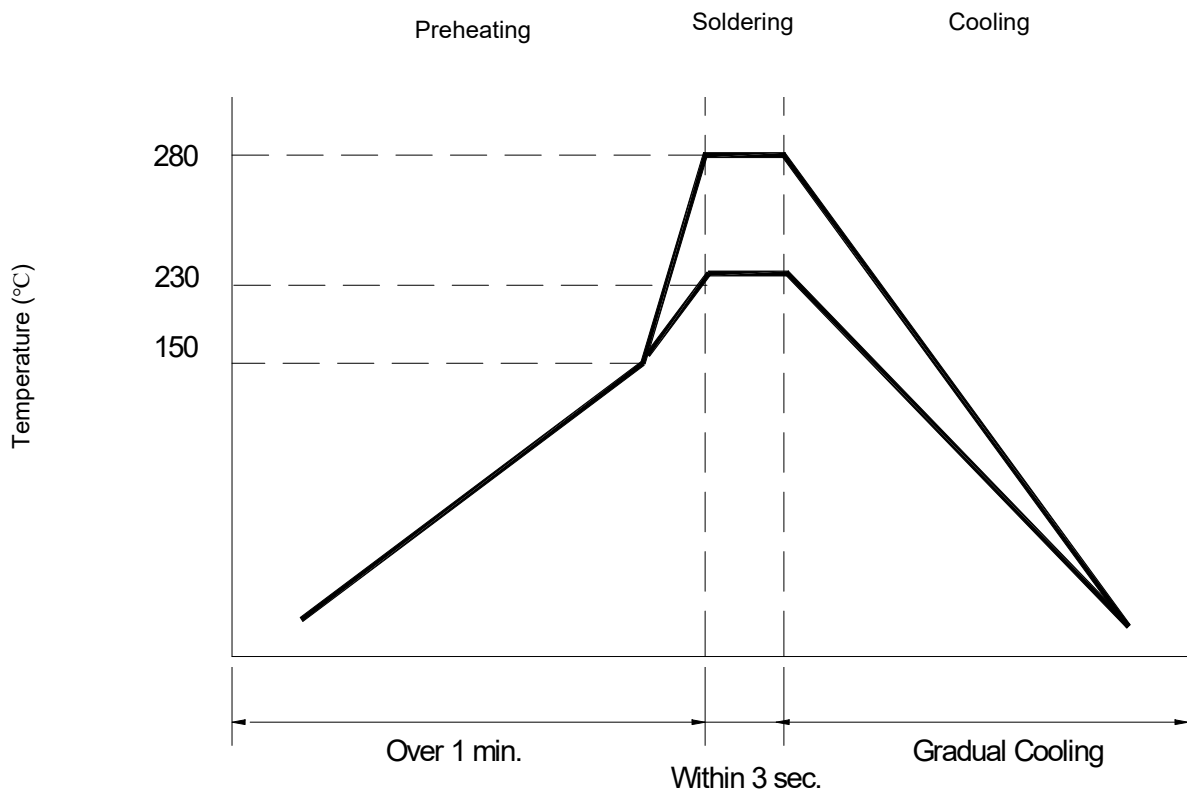
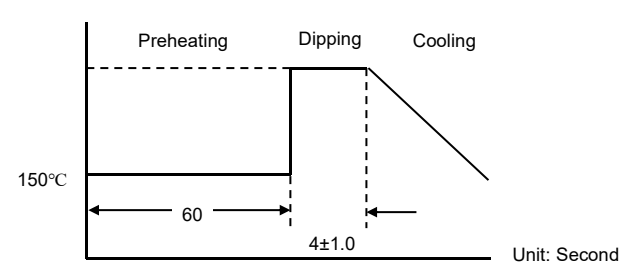
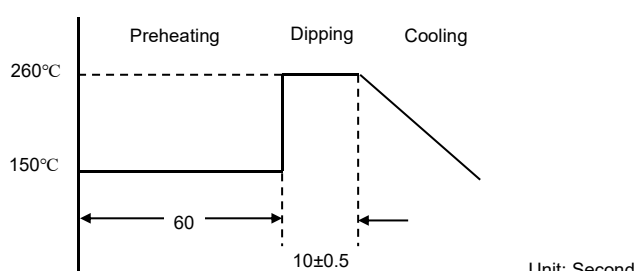


Figure 2. Hand Soldering



Reliability and Testing Conditions

Item	Specification	Conditions															
Operating temperature	-40°C ~ +125°C																
Storage temperature and humidity range	25±5°C , 70% RH Max																
Solderability	More than 90% of the terminal electrode should be covered with solder.	 <p style="text-align: right;">Unit: Second</p>															
Solder Heat Resistance	Inductance within ±20% of initial value. No disconnection or short circuit. The appearance shall not break.	 <p style="text-align: right;">Unit: Second</p>															
Heat resistance	Inductance within ±20% of initial value. No disconnection or short circuit. The appearance shall not break.	After 500 hours in 125±5°C and 2 hour drying under normal condition.															
Cold resistance	Inductance within ±20% of initial value. No disconnection or short circuit. The appearance shall not break.	After 500 hours in -40±5°C and 2 hour drying under normal condition.															
Thermal shock	Inductance within ±20% of initial value. No disconnection or short circuit. The appearance shall not break.	After 10 cycles of following condition. <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Step</th> <th>Temperature (°C)</th> <th>Times (min.)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>-40±5°C</td> <td>30</td> </tr> <tr> <td>2</td> <td>Room Temperature</td> <td>Within 3</td> </tr> <tr> <td>3</td> <td>125±5°C</td> <td>30</td> </tr> <tr> <td>4</td> <td>Room Temperature</td> <td>Within 3</td> </tr> </tbody> </table>	Step	Temperature (°C)	Times (min.)	1	-40±5°C	30	2	Room Temperature	Within 3	3	125±5°C	30	4	Room Temperature	Within 3
Step	Temperature (°C)	Times (min.)															
1	-40±5°C	30															
2	Room Temperature	Within 3															
3	125±5°C	30															
4	Room Temperature	Within 3															
Humidity Resistance	Inductance within ±20% of initial value. No disconnection or short circuit. The appearance shall not break.	After 500 hours in 40±2°C and 90 to 95% humidity , and 2 hour drying under normal condition.															
Vibration Test	Inductance within ±5% of initial value and appearance shall not break.	After vibration for 1hour, In each of three orientations at sweep vibration (10~55~10Hz) with 1.52mm P-P Amplitudes.															