

FEATURES

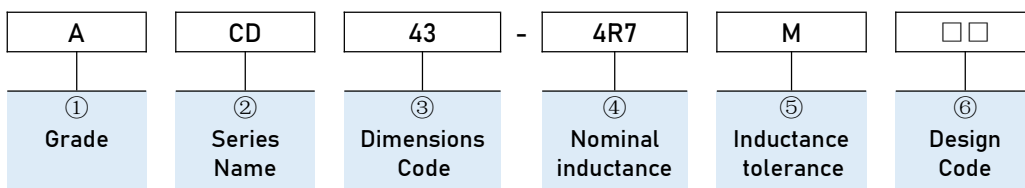
- Low profile & High current.
- SMT type .
- Packing:Tape Carrier Package.
- Operating Temperature: -40℃~+125℃ .
- RoHS, Halogen Free and REACH Compliance.



APPLICATIONS

- Portable communication equipment, Notebook Computer.
- LED Television.
- DC/DC Converters.

PART NUMBERING



① Grade	
A	Grade Code

② Series Name	
CD	Wire Wound Power Inductor

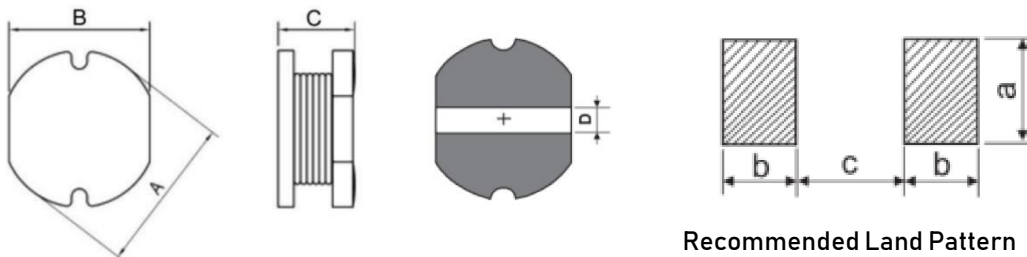
③ Dimensions Code	
Code	Dimensions (L×W×H)[mm]
32	3.5 x3.0 x2.1
43	4.5 x4.0 x3.2
53	5.8 x5.2 x3.0
54	5.8 x5.2 x5.0
75	7.8 x7.0 x5.5
76	7.8 x7.0 x6.8
77	7.8 x7.0 x7.2
105	10.0 x9.0 x5.9
106	10.0 x9.0 x7.0
108	10.0 x9.0 x8.7

④ Nominal inductance	
Code (example)	Nominal inductance [μH]
4R7	4.7
100	10
101	100

⑤ Inductance tolerance	
Code (example)	Inductance tolerance
K	±10%
M	±20%
N	±30%

⑥ Design Code	
□□	Standard product is blank

DIMENSIONS & RECOMMENDED LAND PATTERN



Recommended Land Pattern

Unit: mm

Series	Dimensions				Recommended Land Pattern		
	A	B	C	D Typ.	a Typ.	b Typ.	c Typ.
ACD32	3.5±0.3	3.0±0.3	2.1±0.3	1.2	3.5	1.6	0.8
ACD43	4.5±0.3	4.0±0.3	3.2±0.3	1.5	4	2.1	1

DIMENSIONS & RECOMMENDED LAND PATTERN

Series	Dimensions				Recommended Land Pattern		
	A	B	C	D Typ.	a Typ.	b Typ.	c Typ.
ACD53	5.8±0.3	5.2±0.3	3.0±0.3	2	5.8	2.15	1.7
ACD54	5.8±0.3	5.2±0.3	5.0Max	2	5.8	2.15	1.7
ACD75	7.8±0.3	7.0±0.3	5.5Max	2.6	8	3.3	1.4
ACD76	7.8±0.3	7.0±0.3	6.75Max	2.5	8	3.3	1.4
ACD77	7.8±0.3	7.0±0.3	7.2Max	2.5	8	3.3	1.4
ACD105	10±0.3	9.0±0.3	5.9Max	3	9.5	3.75	2.54
ACD106	10±0.3	9.0±0.3	7.0Max	3	9.5	3.75	2.54
ACD108	10±0.3	9.0±0.3	8.7Max	3.2	9.5	3.75	2.54

ELECTRICAL CHARACTERISTICS

● ACD32 Series

Part Number	Inductance	Inductance Tolerance	DC Resistance	Heat Rating Current	
	@100kHz,1V		Max.	Max.	Typ.
Unit	μH	K=±10% M=±20% N=±30%	Ω	A	
Symbol	L		DCR	I _{rms}	
ACD32-1R0□	1	M/N	0.45	3.35	4.00
ACD32-1R5□	1.5	M/N	0.05	2.80	3.50
ACD32-2R2M	2.2	M	0.085	2.00	2.80
ACD32-3R3M	3.3	M	0.1	1.85	2.20
ACD32-3R9M	3.9	M	0.13	1.65	2.00
ACD32-4R7M	4.7	M	0.15	1.50	1.80
ACD32-5R6M	5.6	M	0.22	1.30	1.60
ACD32-6R8M	6.8	M	0.25	1.20	1.45
ACD32-8R2M	8.2	M	0.28	1.00	1.30
ACD32-100M	10	M	0.32	0.95	1.15
ACD32-150M	15	M	0.65	0.75	0.90
ACD32-220M	22	M	0.68	0.65	0.80
ACD32-330M	33	M	0.95	0.55	0.60
ACD32-390M	39	M	1.35	0.50	0.55
ACD32-470M	47	M	1.6	0.40	0.45
ACD32-560M	56	M	2.05	0.35	0.40
ACD32-680M	68	M	2.25	0.30	0.35
ACD32-820M	82	M	2.35	0.28	0.32
ACD32-101□	100	K/M	2.52	0.25	0.30

ELECTRICAL CHARACTERISTICS

● ACD43 Series

Part Number	Inductance	Inductance Tolerance	DC Resistance	Heat Rating Current	
	@100kHz,1V		Max.	Max.	Typ.
Unit	μH	K=±10% M=±20% N=±30%	Ω	A	
Symbol	L		DCR	I _{rms}	
ACD43-1R0M	1	M	0.033	4.50	6.00
ACD43-1R5M	1.5	M	0.038	4.00	5.00
ACD43-2R2M	2.2	M	0.047	3.50	4.50
ACD43-3R3M	3.3	M	0.058	2.15	3.50
ACD43-4R7M	4.7	M	0.094	1.90	3.20
ACD43-5R6M	5.6	M	0.101	1.80	2.50
ACD43-6R8M	6.8	M	0.117	1.70	2.30
ACD43-8R2M	8.2	M	0.132	1.60	2.10
ACD43-100M	10	M	0.182	1.50	2.00
ACD43-120M	12	M	0.21	1.35	1.85
ACD43-150M	15	M	0.235	1.20	1.70
ACD43-180M	18	M	0.338	1.05	1.55
ACD43-220M	22	M	0.378	0.90	1.50
ACD43-270M	27	M	0.522	0.80	1.35
ACD43-330M	33	M	0.54	0.75	1.20
ACD43-390M	39	M	0.7	0.70	1.15
ACD43-470M	47	M	0.844	0.62	1.05
ACD43-560M	56	M	0.937	0.60	0.95
ACD43-680M	68	M	1.117	0.58	0.80
ACD43-820M	82	M	1.55	0.55	0.75
ACD43-101 □	100	K/M	2	0.53	0.70
ACD43-121 □	120	K/M	2.5	0.50	0.60
ACD43-151 □	150	K/M	2.8	0.48	0.55
ACD43-181 □	180	K/M	3.2	0.43	0.50
ACD43-221 □	220	K/M	4	0.30	0.40
ACD43-331 □	330	K/M	5.85	0.25	0.30
ACD43-471 □	470	K/M	6	0.20	0.23
ACD43-681 □	680	K/M	7.5	0.15	0.18

● ACD53 Series

Part Number	Inductance	Inductance Tolerance	DC Resistance	Heat Rating Current	
	@100kHz,1V		Max.	Max.	Typ.
Unit	μH	K=±10% M=±20% N=±30%	Ω	A	
Symbol	L		DCR	I _{rms}	
ACD53-1R0 □	1	M/N	0.03	5.00	7.00
ACD53-1R5 □	1.5	M/N	0.03	4.50	6.00
ACD53-2R2M	2.2	M	0.035	3.50	5.00

ELECTRICAL CHARACTERISTICS

● ACD53 Series

Part Number	Inductance	Inductance Tolerance	DC Resistance	Heat Rating Current	
	@100kHz,1V		Max.	Max.	Typ.
Unit	μ H	K=±10% M=±20% N=±30%	Ω	A	
Symbol	L		DCR	I _{rms}	
ACD53-3R3M	3.3	M	0.05	2.80	4.50
ACD53-4R7M	4.7	M	0.07	2.50	4.20
ACD53-5R6M	5.6	M	0.08	2.40	4.00
ACD53-6R8M	6.8	M	0.09	2.20	3.80
ACD53-8R2M	8.2	M	0.1	2.00	3.50
ACD53-100M	10	M	0.12	1.80	3.00
ACD53-150M	15	M	0.15	1.50	2.50
ACD53-180M	18	M	0.22	1.40	2.00
ACD53-220M	22	M	0.23	1.20	1.60
ACD53-270M	27	M	0.26	1.10	1.50
ACD53-330M	33	M	0.33	1.00	1.40
ACD53-390M	39	M	0.42	0.95	1.35
ACD53-470M	47	M	0.5	0.85	1.10
ACD53-560M	56	M	0.55	0.80	1.05
ACD53-680M	68	M	0.65	0.70	0.90
ACD53-820M	82	M	0.8	0.65	0.85
ACD53-101□	100	K/M	0.9	0.60	0.80
ACD53-121□	120	K/M	1	0.58	0.75
ACD53-151□	150	K/M	1.3	0.43	0.65
ACD53-181□	180	K/M	1.5	0.41	0.60
ACD53-221□	220	K/M	2.2	0.38	0.50
ACD53-271□	270	K/M	2.5	0.35	0.45
ACD53-331□	330	K/M	3.2	0.28	0.40
ACD53-471□	470	K/M	5	0.22	0.35
ACD53-561□	560	K/M	6.5	0.19	0.32
ACD53-681□	680	K/M	7.5	0.18	0.30
ACD53-821□	820	K/M	8	0.15	0.28
ACD53-102K	1000	K	8.5	0.13	0.25

● ACD54 Series

Part Number	Inductance	Inductance Tolerance	DC Resistance	Heat Rating Current	
	@100kHz,1V		Max.	Max.	Typ.
Unit	μ H	K=±10% M=±20% N=±30%	Ω	A	
Symbol	L		DCR	I _{rms}	
ACD54-1R5□	1.5	M/N	0.02	4.65	7.00
ACD54-2R2M	2.2	M	0.025	4.20	5.50
ACD54-3R3M	3.3	M	0.035	3.20	4.50

ELECTRICAL CHARACTERISTICS

● ACD54 Series

Part Number	Inductance	Inductance Tolerance	DC Resistance	Heat Rating Current	
	@100kHz,1V		Max.	Max.	Typ.
Unit	μH	K \pm 10% M \pm 20% N \pm 30%	Ω	A	
Symbol	L		DCR	I _{rms}	
ACD54-4R7M	4.7	M	0.037	3.10	4.20
ACD54-5R6M	5.6	M	0.05	2.40	3.60
ACD54-6R8M	6.8	M	0.057	2.30	3.20
ACD54-100M	10	M	0.1	1.80	2.80
ACD54-150M	15	M	0.14	1.30	2.30
ACD54-180M	18	M	0.17	1.25	2.10
ACD54-220M	22	M	0.18	1.20	1.85
ACD54-270M	27	M	0.22	1.15	1.60
ACD54-330M	33	M	0.26	1.00	1.40
ACD54-470M	47	M	0.35	0.85	1.20
ACD54-680M	68	M	0.5	0.70	1.00
ACD54-101□	100	K/M	0.75	0.65	0.85
ACD54-151□	150	K/M	1.25	0.60	0.75
ACD54-221□	220	K/M	1.57	0.35	0.58
ACD54-331□	330	K/M	2.5	0.30	0.50
ACD54-471□	470	K/M	3.5	0.28	0.45
ACD54-681□	680	K/M	5.5	0.25	0.38
ACD54-102K	1000	K	6.5	0.23	0.32
ACD54-122K	1200	K	9	0.21	0.26
ACD54-152K	1500	K	9.5	0.20	0.25
ACD54-182K	1800	K	13	0.17	0.22
ACD54-202K	2000	K	14	0.16	0.21
ACD54-222K	2200	K	15	0.15	0.20
ACD54-252K	2500	K	17	0.14	0.17
ACD54-302K	3000	K	21.5	0.12	0.14
ACD54-332K	3300	K	22.9	0.11	0.13

● ACD75 Series

Part Number	Inductance	Inductance Tolerance	DC Resistance	Heat Rating Current	
	@100kHz,1V		Max.	Max.	Typ.
Unit	μH	K \pm 10% M \pm 20% N \pm 30%	Ω	A	
Symbol	L		DCR	I _{rms}	
ACD75-1R0□	1	M/N	0.018	6.50	10.50
ACD75-2R2M	2.2	M	0.03	5.00	10.00
ACD75-3R3M	3.3	M	0.04	4.60	9.00
ACD75-4R7M	4.7	M	0.05	4.20	8.00
ACD75-6R8M	6.8	M	0.06	3.40	6.00

ELECTRICAL CHARACTERISTICS

● ACD75 Series

Part Number	Inductance	Inductance Tolerance	DC Resistance	Heat Rating Current	
	@100kHz,1V		Max.	Max.	Typ.
Unit	μH	K \pm 10% M \pm 20% N \pm 30%	Ω	A	
Symbol	L		DCR	I _{rms}	
ACD75-100M	10	M	0.07	2.30	5.00
ACD75-150M	15	M	0.09	1.80	4.00
ACD75-220M	22	M	0.11	1.50	2.80
ACD75-330M	33	M	0.13	1.20	2.50
ACD75-470M	47	M	0.18	1.00	1.50
ACD75-680M	68	M	0.35	0.85	1.25
ACD75-101□	100	K/M	0.43	0.72	0.90
ACD75-151□	150	K/M	0.64	0.58	0.70
ACD75-221□	220	K/M	0.96	0.49	0.65
ACD75-331□	330	K/M	1.5	0.45	0.58
ACD75-471□	470	K/M	2	0.41	0.55
ACD75-681□	680	K/M	3	0.40	0.50
ACD75-102K	1000	K	4.5	0.37	0.45
ACD75-122K	1200	K	5.72	0.33	0.42
ACD75-152K	1500	K	7.2	0.32	0.40
ACD75-182K	1800	K	7.5	0.30	0.35
ACD75-202K	2000	K	8.6	0.26	0.32
ACD75-222K	2200	K	9.2	0.25	0.31
ACD75-252K	2500	K	12	0.23	0.30
ACD75-302K	3000	K	14.2	0.22	0.27
ACD75-422K	4200	K	18.5	0.18	0.25
ACD75-502K	5000	K	22.7	0.15	0.22
ACD75-652K	6500	K	29	0.13	0.18
ACD75-802K	8000	K	37.3	0.11	0.15

● ACD76 Series

Part Number	Inductance	Inductance Tolerance	DC Resistance	Heat Rating Current	
	@100kHz,1V		Max.	Max.	Typ.
Unit	μH	K \pm 10% M \pm 20% N \pm 30%	Ω	A	
Symbol	L		DCR	I _{rms}	
ACD76-101□	100	K/M	0.95	1.45	1.65
ACD76-151□	150	K/M	1.15	1.23	1.45
ACD76-221□	220	K/M	1.55	1.05	1.35
ACD76-331□	330	K/M	2	0.78	1.05
ACD76-391□	390	K/M	2.5	0.70	0.90
ACD76-471□	470	K/M	2.85	0.61	0.80
ACD76-681□	680	K/M	3.5	0.56	0.75
ACD76-821□	820	K/M	3.9	0.54	0.70

ELECTRICAL CHARACTERISTICS

● ACD76 Series

Part Number	Inductance	Inductance Tolerance	DC Resistance	Heat Rating Current	
	@100kHz,1V		Max.	Max.	Typ.
Unit	μH	K \pm 10% M \pm 20% N \pm 30%	Ω	A	
Symbol	L		DCR	I _{rms}	
ACD76-102K	1000	K	4	0.52	0.60
ACD76-122K	1200	K	5	0.45	0.55
ACD76-152K	1500	K	6	0.43	0.48
ACD76-182K	1800	K	6.5	0.40	0.50
ACD76-202K	2000	K	8.2	0.36	0.42
ACD76-222K	2200	K	9.5	0.32	0.38
ACD76-252K	2500	K	10.2	0.27	0.36
ACD76-302K	3000	K	11.5	0.25	0.35
ACD76-332K	3300	K	16.5	0.23	0.34
ACD76-402K	4000	K	17.3	0.19	0.33
ACD76-452K	4500	K	18	0.17	0.32
ACD76-472K	4700	K	21	0.17	0.31
ACD76-502K	5000	K	22	0.16	0.30

● ACD77 Series

Part Number	Inductance	Inductance Tolerance	DC Resistance	Heat Rating Current	
	@100kHz,1V		Max.	Max.	Typ.
Unit	μH	K \pm 10% M \pm 20% N \pm 30%	Ω	A	
Symbol	L		DCR	I _{rms}	
ACD77-101 □	100	K/M	0.55	1.50	1.75
ACD77-151 □	150	K/M	0.85	1.25	1.50
ACD77-221 □	220	K/M	1.45	1.15	1.40
ACD77-331 □	330	K/M	1.85	0.90	1.15
ACD77-471 □	470	K/M	2.55	0.75	0.95
ACD77-681 □	680	K/M	3.05	0.65	0.80
ACD77-102K	1000	K	4	0.55	0.70
ACD77-122K	1200	K	4.6	0.50	0.60
ACD77-152K	1500	K	5.5	0.45	0.55
ACD77-182K	1800	K	7	0.43	0.52
ACD77-202K	2000	K	8.25	0.40	0.45
ACD77-222K	2200	K	8.5	0.37	0.40
ACD77-262K	2600	K	9.5	0.32	0.38
ACD77-302K	3000	K	12	0.30	0.35
ACD77-332K	3300	K	12.5	0.29	0.33
ACD77-382K	3800	K	14.5	0.25	0.31
ACD77-452K	4500	K	17.5	0.24	0.30
ACD77-472K	4700	K	19.5	0.22	0.27
ACD77-502K	5000	K	20.5	0.20	0.25

ELECTRICAL CHARACTERISTICS

● ACD105 Series

Part Number	Inductance	Inductance Tolerance	DC Resistance	Heat Rating Current	
	@100kHz,1V		Max.	Max.	Typ.
Unit	μ H	K \pm 10% M \pm 20% N \pm 30%	Ω	A	
Symbol	L		DCR	I _{rms}	
ACD105-100M	10	M	0.045	4.00	5.50
ACD105-150M	15	M	0.08	2.90	4.30
ACD105-180M	18	M	0.09	2.65	4.00
ACD105-220M	22	M	0.1	2.50	3.50
ACD105-330M	33	M	0.15	2.00	2.60
ACD105-470M	47	M	0.17	1.70	2.20
ACD105-680M	68	M	0.25	1.32	1.75
ACD105-101 □	100	K/M	0.33	1.05	1.50
ACD105-151 □	150	K/M	0.45	0.95	1.30
ACD105-221 □	220	K/M	0.7	0.75	1.20
ACD105-331 □	330	K/M	1.1	0.60	0.90
ACD105-471 □	470	K/M	1.45	0.55	0.75
ACD105-561 □	560	K/M	1.55	0.50	0.70
ACD105-681 □	680	K/M	1.65	0.48	0.65
ACD105-701 □	700	K/M	1.8	0.45	0.60
ACD105-801 □	800	K/M	2.5	0.43	0.55
ACD105-102K	1000	K	2.8	0.42	0.50
ACD105-122K	1200	K	3.4	0.39	0.45
ACD105-152K	1500	K	4.5	0.30	0.35
ACD105-202K	2000	K	6.5	0.25	0.32
ACD105-302K	3000	K	7.8	0.23	0.28
ACD105-402K	4000	K	11.5	0.20	0.25
ACD105-472K	4700	K	13.5	0.18	0.23

● ACD106 Series

Part Number	Inductance	Inductance Tolerance	DC Resistance	Heat Rating Current	
	@100kHz,1V		Max.	Max.	Typ.
Unit	μ H	K \pm 10% M \pm 20% N \pm 30%	Ω	A	
Symbol	L		DCR	I _{rms}	
ACD106-122K	1200	K	2.8	0.60	0.70

● ACD108 Series

Part Number	Inductance	Inductance Tolerance	DC Resistance	Heat Rating Current	
	@100kHz,1V		Max.	Max.	Typ.
Unit	μ H	K \pm 10% M \pm 20% N \pm 30%	Ω	A	
Symbol	L		DCR	I _{rms}	
ACD108-951K	950	K	1.8	0.80	0.90

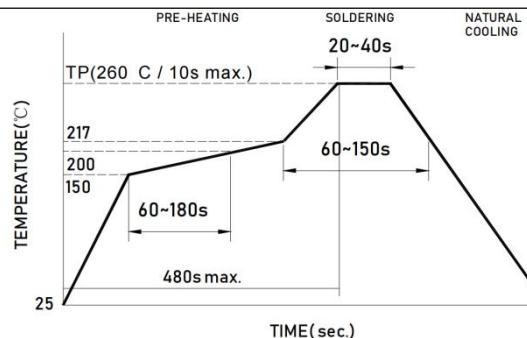
ELECTRICAL CHARACTERISTICS

REMARK:

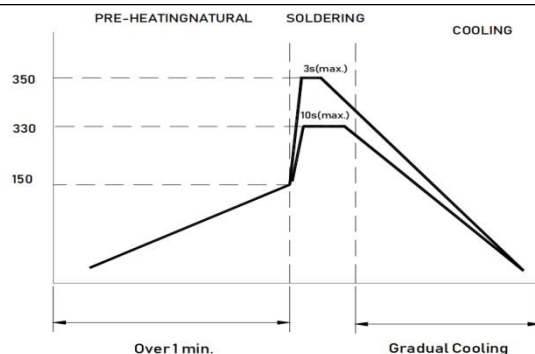
- All test data is referenced to 18-25°C ambient.
- Inductance tested at 100KHz/1V with WK6500B LCR Meter or equivalent.
- IDC: DC current at which the inductance drops 10% from its value without saturation, or causes the temperature rise ($\Delta T = 40^\circ\text{C}$) from ambient temperature.

SOLDERING CONDITIONS

- Preheat circuit and products to 150 °C
- 260 °C tip temperature (max)
- Reflow times: no more than 2 times
- Solder paste thickness: the best 0.08mm is, but max is 0.1mm



- Use a 20 watt soldering iron with tip diameter of 1.0mm
- Limit soldering time to 3 sec.



- Storage temperature and humidity conditions :
- Product packing with Carrier tape: $-5^\circ\text{C} \sim +40^\circ\text{C}$ and less than 60% RH.
- Product alone: $-20^\circ\text{C} \sim +60^\circ\text{C}$ and less than 60% RH.
- Products should be used within 6 months. (Note that the product should be used as soon as possible once it is unfolded).
- The packaging material should be kept where no chlorine or sulfur exists in the air.
- Do not touch the electrodes (soldering terminals) with fingers as this may lead to deterioration of solder ability.
- The use of tweezers or vacuum pick-ups is strongly recommended for individual components. Bulk handling should ensure that abrasion and mechanical shock are minimized.

Note:

This series product is not applies in automotive or related products. Otherwise, we will shall not bear than the resulting all the problems of quality and responsibility.

Please be sure to request approval specifications that provide further details of the products. Kindly not that the content of these specifications are subject to change or may be discontinued without prior notice. This product may not be designed/used in medical or high risk applications without APV approval.