

FEATURES

- Design to be compact, small and light-weight.
Coating epoxy resin that ensures the humidity resistance to be long life.
- Rugged reliability and performance fixed inductor.



APPLICATIONS

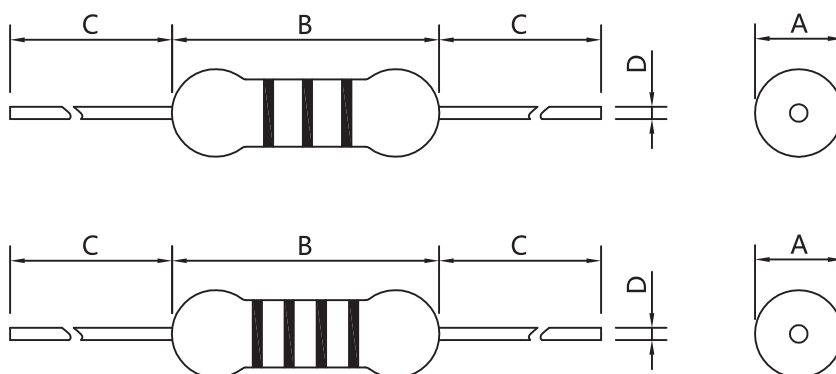
- Excellent as DC-DC converter boost or buck inductors,
Also used for filtering applications.

PRODUCT IDENTIFICATION

AL 0204 – 100 K - T
a b c d e

- a : Series name
b : Product dimensions
c : Inductance Value (1R0:1.0uH; 100: 10uH; 101:100uH)
d : Inductance Tolerance (K:10% ; M:20% ; N:30%)
e : Packaging style (T: Taping; B: bulk)

SHAPES AND DIMENSIONS Unit: mm



Series	Dimensions(mm)				Figure
	A Max.	B Ref.	C Ref.	D Ref.	
AL0204	2.8 Max	4.0	29.0	0.50	A
AL0307	3.0 Max	8.0	27.0	0.55	B
AL0410	4.0 Max	11.0	25.5	0.65	B
AL0510	5.0 Max	12.0	25.0	0.65	B

ELECTRICAL CHARACTERISTICS

Part Number	L(uH)	Q(Min)	Test Freq.(MHz)	SRF(MHz Min)	DCR max.(Ω)	Irated.(mA)
AL0204-R10M	0.10	50	25.2	250	0.030	700
AL0204-R12M	0.12	55	25.2	230	0.035	660
AL0204-R15M	0.15	55	25.2	200	0.040	620
AL0204-R18M	0.18	55	25.2	180	0.045	600
AL0204-R22M	0.22	55	25.2	160	0.050	400
AL0204-R27M	0.27	50	25.2	150	0.065	380
AL0204-R33M	0.33	50	25.2	150	0.075	370
AL0204-R39M	0.39	50	25.2	150	0.080	350
AL0204-R47M	0.47	60	25.2	150	0.085	330
AL0204-R56M	0.56	60	25.2	150	0.090	320
AL0204-R68M	0.68	50	25.2	120	0.10	310
AL0204-R82M	0.82	50	25.2	110	0.15	290
AL0204-1R0K	1.0	50	25.2	110	0.22	270
AL0204-1R2K	1.2	40	7.96	100	0.30	260
AL0204-1R5K	1.5	40	7.96	80	0.35	250
AL0204-1R8K	1.8	40	7.96	65	0.45	240
AL0204-2R2K	2.2	40	7.96	55	0.55	230
AL0204-2R7K	2.7	40	7.96	50	0.60	220
AL0204-3R3K	3.3	40	7.96	42	0.65	210
AL0204-3R9K	3.9	45	7.96	38	0.85	200
AL0204-4R7K	4.7	45	7.96	34	1.00	190
AL0204-5R6K	5.6	45	7.96	32	1.15	180
AL0204-6R8K	6.8	40	7.96	27	1.20	175
AL0204-8R2K	8.2	40	7.96	26	1.25	165
AL0204-100K	10	40	7.96	24	1.50	160
AL0204-120K	12	50	2.52	19	2.20	150
AL0204-150K	15	50	2.52	18	2.50	145
AL0204-180K	18	50	2.52	17	2.80	140
AL0204-220K	22	50	2.52	16.0	3.00	130
AL0204-270K	27	55	2.52	14.0	3.50	80
AL0204-330K	33	55	2.52	13.0	3.80	76
AL0204-390K	39	50	2.52	12.0	4.20	74
AL0204-470K	47	50	2.52	11.0	5.80	70
AL0204-560K	56	50	2.52	10.0	6.40	68
AL0204-680K	68	50	2.52	9.5	7.20	64
AL0204-820K	82	50	2.52	9.0	8.50	46
AL0204-101K	100	50	2.52	7.2	11.0	44
AL0204-121K	120	30	0.796	6.5	19.0	42
AL0204-151K	150	30	0.796	6.0	22.0	39
AL0204-181K	180	30	0.796	5.2	24.0	37
AL0204-221K	220	30	0.796	4.5	28.0	35

Note:

Irated: The DC current at which the inductance decreases to 90% of its initial value or when $\Delta t=40^{\circ}\text{C}$, whichever is lower($T_a=20^{\circ}\text{C}$)

Part Number	L(uH)	Q(Min)	Test Freq.(MHz)	SRF(MHz Min)	DCR max.(Ω)	Irated.(mA)
AL0204-271K	270	30	0.796	3.5	29.0	28
AL0204-331K	330	30	0.796	3.0	30.0	26
AL0204-391K	390	30	0.796	2.7	32.0	25
AL0204-471K	470	30	0.796	2.6	35.0	24
AL0204-561K	560	30	0.796	2.5	40.0	23
AL0204-681K	680	30	0.796	2.2	42.0	22
AL0204-821K	820	30	0.796	2.1	46.0	21
AL0204-102K	1000	30	0.796	2.0	52.0	20

ELECTRICAL CHARACTERISTICS

Part Number	L(uH)	Q(Min)	Test Freq.(MHz)	SRF(MHz Min)	DCR max.(Ω)	Irated.(mA)
AL0307-R10K	0.10	40	25.2	470	0.08	700
AL0307-R12K	0.12	40	25.2	450	0.08	700
AL0307-R15K	0.15	40	25.2	430	0.09	700
AL0307-R18K	0.18	40	25.2	410	0.1	700
AL0307-R22K	0.22	40	25.2	380	0.12	700
AL0307-R27K	0.27	40	25.2	360	0.15	680
AL0307-R33K	0.33	40	25.2	350	0.16	680
AL0307-R39K	0.39	40	25.2	320	0.18	680
AL0307-R47K	0.47	40	25.2	300	0.26	650
AL0307-R56K	0.56	40	25.2	280	0.38	500
AL0307-R68K	0.68	40	25.2	250	0.42	500
AL0307-R82K	0.82	40	25.2	200	0.55	450
AL0307-1R0K	1.0	65	25.2	180	0.12	700
AL0307-1R2K	1.2	50	7.96	165	0.18	700
AL0307-1R5K	1.5	50	7.96	150	0.20	700
AL0307-1R8K	1.8	70	7.96	125	0.23	655
AL0307-2R2K	2.2	50	7.96	85	0.25	630
AL0307-2R7K	2.7	60	7.96	80	0.28	595
AL0307-3R3K	3.3	60	7.96	75	0.30	575
AL0307-3R9K	3.9	60	7.96	65	0.32	555
AL0307-4R7K	4.7	50	7.96	45	0.35	530
AL0307-5R6K	5.6	50	7.96	36	0.40	500
AL0307-6R8K	6.8	50	7.96	30	0.45	470
AL0307-8R2K	8.2	50	7.96	28	0.55	425
AL0307-100K	10	50	7.96	22	0.72	370
AL0307-120K	12	50	2.52	20	0.80	350

Note:

Irated: The DC current at which the inductance decreases to 90% of its initial value or when $\Delta t=40^{\circ}\text{C}$, whichever is lower($T_a=20^{\circ}\text{C}$)

Part Number	L(uH)	Q(Min)	Test Freq.(MHz)	SRF(MHz Min)	DCR max.(Ω)	Irated.(mA)
AL0307-150K	15	50	2.52	16	0.88	335
AL0307-180K	18	50	2.52	15	1.00	315
AL0307-220K	22	60	2.52	13	1.20	285
AL0307-270K	27	60	2.52	11	1.35	270
AL0307-330K	33	50	2.52	10	1.5	255
AL0307-390K	39	50	2.52	9.5	1.7	240
AL0307-470K	47	50	2.52	8.5	2.3	205
AL0307-560K	56	55	2.52	7.5	2.6	195
AL0307-680K	68	55	2.52	6.5	3.2	185
AL0307-820K	82	55	2.52	6.00	3.5	175
AL0307-101K	100	60	2.52	5.50	3.8	165
AL0307-121K	120	75	0.796	5.40	3.8	160
AL0307-151K	150	75	0.796	4.75	4.4	150
AL0307-181K	180	75	0.796	4.35	5.0	140
AL0307-221K	220	75	0.796	4.00	5.7	130
AL0307-271K	270	70	0.796	3.70	6.5	120
AL0307-331K	330	70	0.796	3.40	9.5	100
AL0307-391K	390	70	0.796	2.80	10.5	95
AL0307-471K	470	70	0.796	2.40	12.5	90
AL0307-561K	560	70	0.796	2.20	14.5	85
AL0307-681K	680	70	0.796	2.00	18.0	75
AL0307-821K	820	60	0.796	1.60	23.7	65
AL0307-102K	1000	60	0.796	1.15	30.0	60

Part Number	L(uH)	Q(Min)	Test Freq.(MHz)	SRF(MHz Min)	DCR max.(Ω)	Irated.(mA)
AL0410-R10K	0.1	50	25.2	470	0.04	900
AL0410-R12K	0.12	50	25.2	450	0.06	900
AL0410-R15K	0.15	50	25.2	430	0.07	890
AL0410-R18K	0.18	50	25.2	410	0.07	890
AL0410-R22K	0.22	50	25.2	380	0.08	880
AL0410-R27K	0.27	50	25.2	340	0.09	800
AL0410-R33K	0.33	50	25.2	300	0.10	750
AL0410-R39K	0.39	50	25.2	280	0.12	680
AL0410-R47K	0.47	50	25.2	250	0.16	650
AL0410-R56K	0.56	50	25.2	230	0.18	600
AL0410-R68K	0.68	50	25.2	210	0.22	550
AL0410-R82K	0.82	50	25.2	172	0.24	980
AL0410-1R0K	1.0	50	25.2	157	0.09	920

Note:

Irated: The DC current at which the inductance decreases to 90% of its initial value or when $\Delta t=40^{\circ}\text{C}$, whichever is lower($T_a=20^{\circ}\text{C}$)

Part Number	L(uH)	Q(Min)	Test Freq.(MHz)	SRF(MHz Min)	DCR max.(Ω)	Irated.(mA)
AL0410-1R2K	1.2	50	7.96	144	0.10	880
AL0410-1R5K	1.5	55	7.96	131	0.23	830
AL0410-1R8K	1.8	60	7.96	121	0.25	790
AL0410-2R2K	2.2	80	7.96	110	0.28	750
AL0410-2R7K	2.7	85	7.96	100	0.30	720
AL0410-3R3K	3.3	90	7.96	94	0.34	670
AL0410-3R9K	3.9	90	7.96	86	0.37	640
AL0410-4R7K	4.7	90	7.96	80	0.39	620
AL0410-5R6K	5.6	80	7.96	74	0.43	590
AL0410-6R8K	6.8	80	7.96	58	0.48	550
AL0410-8R2K	8.2	85	7.96	53	0.52	530
AL0410-100K	10	85	7.96	45	0.58	500
AL0410-120K	12	75	2.52	30	0.63	480
AL0410-150K	15	75	2.52	20	0.72	460
AL0410-180K	18	70	2.52	14	0.77	430
AL0410-220K	22	65	2.52	7.9	0.84	410
AL0410-270K	27	65	2.52	7.6	0.94	390
AL0410-330K	33	55	2.52	6.3	1.03	370
AL0410-390K	39	55	2.52	6.3	1.12	350
AL0410-470K	47	45	2.52	6.3	1.22	340
AL0410-560K	56	45	2.52	6.2	1.34	320
AL0410-680K	68	40	2.52	5.7	1.47	305
AL0410-820K	82	35	2.52	5.3	1.62	290
AL0410-101K	100	30	2.52	4.8	1.8	275
AL0410-121K	120	70	0.796	3.8	3.7	185
AL0410-151K	150	80	0.796	3.5	4.2	175
AL0410-181K	180	80	0.796	3.3	4.6	165
AL0410-221K	220	70	0.796	3.0	5.1	155
AL0410-271K	270	70	0.796	2.8	5.8	145
AL0410-331K	330	65	0.796	2.6	6.4	137
AL0410-391K	390	65	0.796	2.4	7.0	133
AL0410-471K	470	60	0.796	2.25	7.7	126
AL0410-561K	560	60	0.796	2.10	8.5	120
AL0410-681K	680	55	0.796	1.95	9.4	113
AL0410-821K	820	55	0.796	1.85	12	100
AL0410-102K	1000	50	0.252	1.40	17	100

Note:

Irated: The DC current at which the inductance decreases to 90% of its initial value or when $\Delta t=40^{\circ}\text{C}$, whichever is lower($T_a=20^{\circ}\text{C}$)

ELECTRICAL CHARACTERISTICS

Part Number	L(uH)	Q(Min)	Test Freq.(MHz)	SRF(MHz Min)	DCR max.(Ω)	Irated.(mA)
AL0510-122K	1200	1KHz	80	252	9	75
AL0510-152K	1500	1KHz	80	252	10	69
AL0510-182K	1800	1KHz	80	252	11	60
AL0510-222K	2200	1KHz	80	252	14	58
AL0510-272K	2700	1KHz	80	252	18	52
AL0510-332K	3300	1KHz	80	252	22	48
AL0510-392K	3900	1KHz	80	252	26	45
AL0510-472K	4700	1KHz	80	252	32	40
AL0510-562K	5600	1KHz	70	252	34	37
AL0510-682K	6800	1KHz	70	252	45	34
AL0510-822K	8200	1KHz	50	252	60	31
AL0510-103K	10000	1KHz	50	79.6	70	28
AL0510-123K	12000	1KHz	50	79.6	82	24
AL0510-153K	15000	1KHz	50	79.6	89	22
AL0510-183K	18000	1KHz	40	79.6	141	14
AL0510-223K	22000	1KHz	40	79.6	170	12
AL0510-253K	25000	1KHz	40	79.6	185	11
AL0510-273K	27000	1KHz	40	79.6	210	9.5
AL0510-333K	33000	1KHz	40	79.6	250	8.0

Note:

Irated: The DC current at which the inductance decreases to 90% of its initial value or when $\Delta t=40^{\circ}\text{C}$, whichever is lower($T_a=20^{\circ}\text{C}$)