

### FEATURES

The AL inductors series is Mag Layers' line of highly reliable axial lead inductors. Our AL inductors have high quality and high performance characteristics suitable for your design requirements.

#### High Performance Characteristics

AL inductors high Q values and high self-resonant frequencies.

#### High Durability

AL inductors are coated with epoxy resin ensuring long lasting humidity resistance.

#### Multiple Size Availability

AL inductors are available in three compact sizes: 0204, 0307, and 0410.

### APPLICATIONS

AL inductors can be used in a variety of electronics including:

- Personal Computers
- Computer Peripherals
- Televisions

### PRODUCT IDENTIFICATION

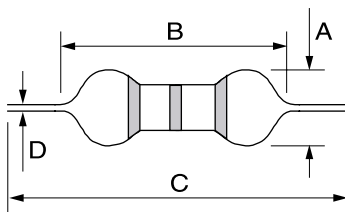
①      ②      ③      ④      ⑤  
 AL - 0204 - 3R3    K    □ □

- ① Product Code
- ② Dimensions (in mm)
- ③ Inductance Code
- ④ Tolerance Code
- ⑤ Pattern Code

Code	Tolerance
J	± 5%
K	± 10%
M	± 20%

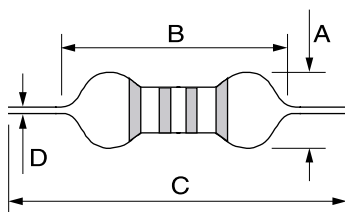
### PRODUCT DIMENSIONS

#### AL-0204



NOTE: Dimension in mm

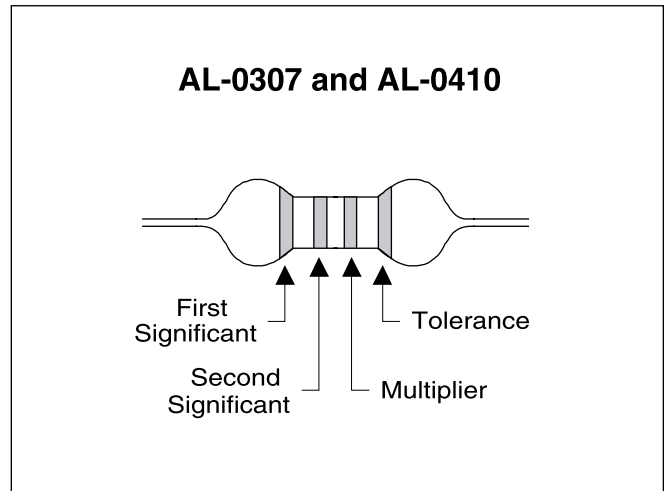
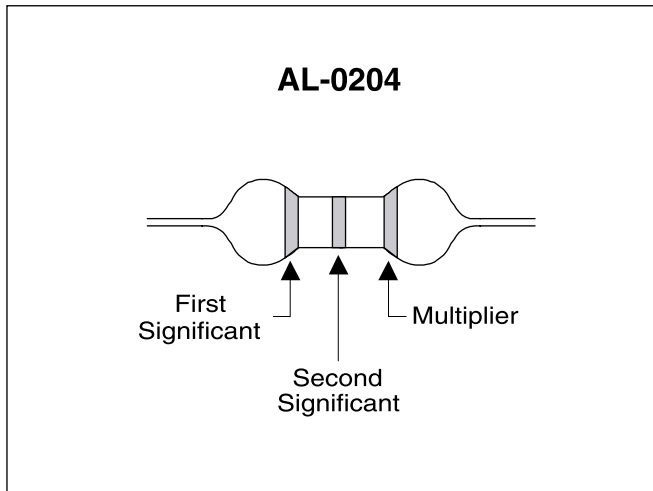
#### AL-0307 and AL-0410



NOTE: Dimension in mm

	AL-0204	AL-0307	AL-0410
A	2.50max.	3.00max.	4.00max.
B	4.00max.	7.37max.	10.00max.
C	62.50 ± 1.00	62.50 ± 1.00	62.50 ± 1.00
D	0.50 ± 0.05	0.5 ± 0.05	0.65 ± 0.05

■ COLOR CODES



Color Code	First Significant Figure	Second Significant Figure	Multiplier	Tolerance
Black	0	0	1	-
Brown	1	1	10	-
Red	2	2	100	-
Orange	3	3	1000	-
Yellow	4	4	-	-
Green	5	5	-	-
Blue	6	6	-	-
Violet	7	7	-	-
Gray	8	8	-	-
White	9	9	-	-
Black	-	-	-	± 20
Gold	-	-	0.1	± 5
Silver	-	-	0.01	± 10

LEADED TYPE

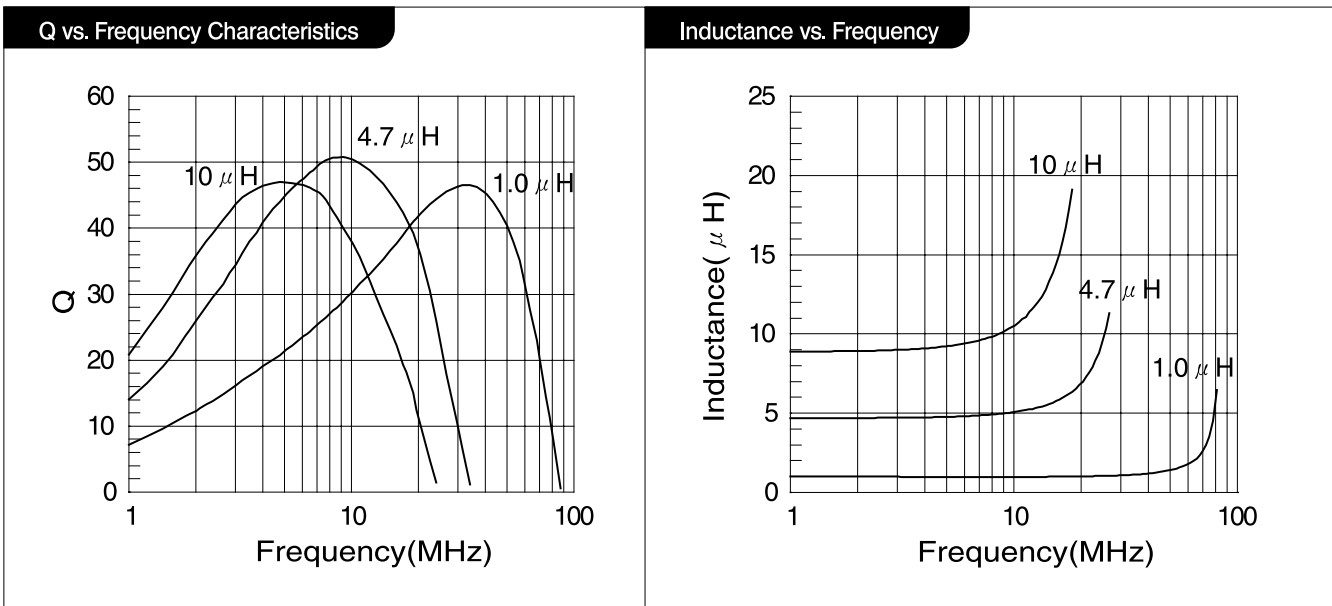
### ■ PRODUCT SPECIFICATIONS

Part No.	Inductance ( $\mu$ H)	Q Min.	Test Frequency (MHz)	S.R.F.(MHz) Min.	R <sub>DC</sub> ( $\Omega$ ) Max.	I <sub>DC</sub> (mA) Max.	
AL-0204-R10	0.10	35	25.2	250	0.18	700	
AL-0204-R12	0.12			230	0.20	660	
AL-0204-R15	0.15			200	0.22	620	
AL-0204-R18	0.18			180	0.24	600	
AL-0204-R22	0.22			160	0.40	400	
AL-0204-R27	0.27			0.43	380		
AL-0204-R33	0.33			0.48	370		
AL-0204-R39	0.39			150	0.51	350	
AL-0204-R47	0.47			0.56	330		
AL-0204-R56	0.56			0.61	320		
AL-0204-R68	0.68			120	0.67	310	
AL-0204-R82	0.82			110	0.74	290	
AL-0204-1R0	1.00			110	0.80	270	
AL-0204-1R2	1.20			100	0.90	260	
AL-0204-1R5	1.50			70	1.0	250	
AL-0204-1R8	1.80	60	1.1	240			
AL-0204-2R2	2.20	45	1.2	230			
AL-0204-2R7	2.70	40	1.3	220			
AL-0204-3R3	3.30	40	7.96	38	1.4	210	
AL-0204-3R9	3.90			36	1.5	200	
AL-0204-4R7	4.70			32	1.7	190	
AL-0204-5R6	5.60			30	1.9	180	
AL-0204-6R8	6.80			28	2.0	175	
AL-0204-8R2	8.20			26	2.2	165	
AL-0204-100	10.0			24	2.5	160	
AL-0204-120	12.0			22	2.50	150	
AL-0204-150	15.0			20	2.80	145	
AL-0204-180	18.0			18	3.1	140	
AL-0204-220	22.0		17	3.4	100		
AL-0204-270	27.0		16	4.3	80		
AL-0204-330	33.0		14	4.7	75		
				2.52			

■ **PRODUCT SPECIFICATIONS**

Part No.	Inductance ( $\mu$ H)	Q Min.	Test Frequency (MHz)	S.R.F.(MHz) Min.	R <sub>DC</sub> ( $\Omega$ ) Max.	I <sub>DC</sub> (mA) Max.
AL-0204-390	39.0	40	2.52	13	5.2	74
AL-0204-470	47.0			12	5.8	70
AL-0204-560	56.0			11	6.4	68
AL-0204-680	68.0			10	7.2	64
AL-0204-820	82.0			9.5	11	46
AL-0204-101	100			8.0	12	44
AL-0204-121	120	30	0.796	6.5	19	42
AL-0204-151	150			6.0	22	39
AL-0204-181	180			5.0	24	37
AL-0204-221	220			4.5	28	35
AL-0204-271	270			3.5	29	25
AL-0204-331	330			3.0	30	25
AL-0204-391	390			2.7	34	25
AL-0204-471	470			2.6	38	24

■ **TYPICAL ELECTRICAL CHARACTERISTIC CURVES**



LEADED TYPE

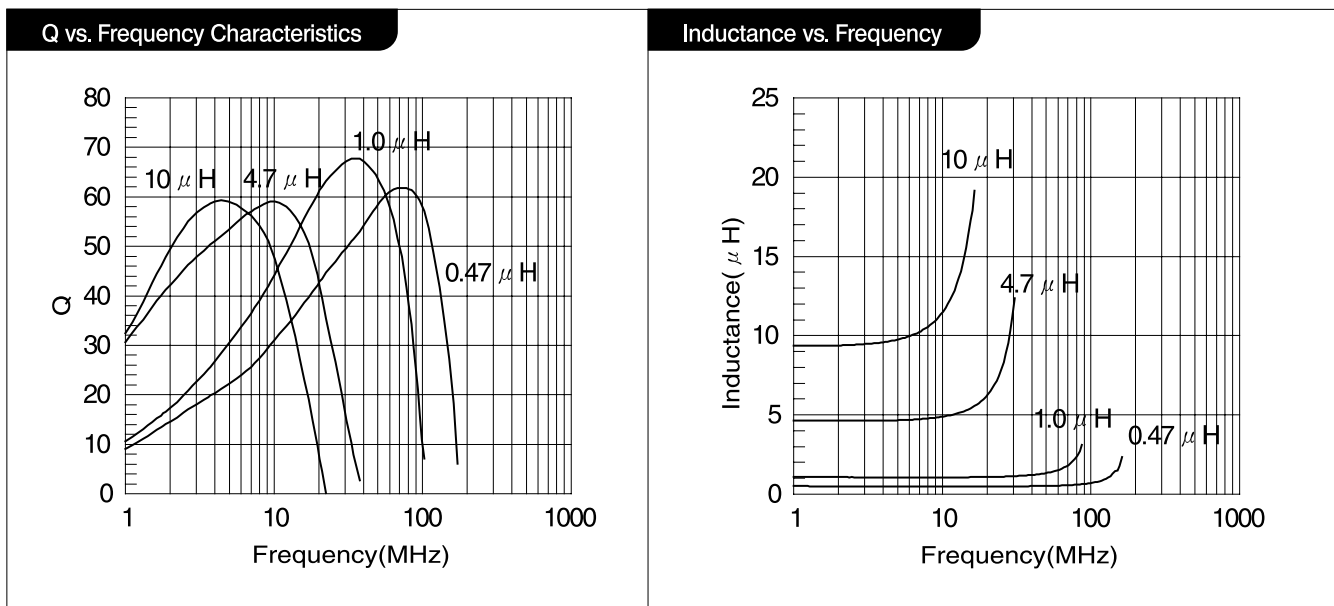
### ■ PRODUCT SPECIFICATIONS

Part No.	Inductance ( $\mu$ H)	Q Min.	Test Frequency (MHz)	S.R.F.(MHz) Min.	R <sub>DC</sub> ( $\Omega$ ) Max.	I <sub>DC</sub> (mA) Max.
AL-0307-R10	0.10	40	25.2	470	0.080	700
AL-0307-R12	0.12			450		700
AL-0307-R15	0.15			420	0.090	700
AL-0307-R18	0.18			400	0.100	700
AL-0307-R22	0.22			380	0.120	700
AL-0307-R27	0.27			360	0.150	680
AL-0307-R33	0.33			350	0.160	680
AL-0307-R39	0.39			320	0.180	680
AL-0307-R47	0.47			300	0.260	650
AL-0307-R56	0.56			280	0.380	500
AL-0307-R68	0.68			250	0.420	500
AL-0307-R82	0.82			200	0.550	450
AL-0307-1R0	1.00			180	0.150	700
AL-0307-1R2	1.20			50	7.96	165
AL-0307-1R5	1.50	150	0.200			700
AL-0307-1R8	1.80	125	0.230			655
AL-0307-2R2	2.20	85	0.250			630
AL-0307-2R7	2.70	80	0.280			595
AL-0307-3R3	3.30	70	0.300			575
AL-0307-3R9	3.90	65	0.320			555
AL-0307-4R7	4.70	45	0.350			530
AL-0307-5R6	5.60	36	0.400			500
AL-0307-6R8	6.80	30	0.450			470
AL-0307-8R2	8.20	28	0.560			425
AL-0307-100	10.0	22	0.750			370
AL-0307-120	12.0	20	0.800			350
AL-0307-150	15.0	16	0.930			335
AL-0307-180	18.0	15	1.000	315		
AL-0307-270	27.0	11	1.800	270		
AL-0307-330	33.0	10	2.100	255		
AL-0307-390	39.0	9.5	2.300	240		

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Part No.	Inductance ( $\mu$ H)	Q Min.	Test Frequency (MHz)	S.R.F.(MHz) Min.	R <sub>DC</sub> ( $\Omega$ ) Max.	I <sub>DC</sub> (mA) Max.
AL-0307-470	47.0	50	2.52	8.5	2.600	205
AL-0307-560	56.0			7.5	2.900	195
AL-0307-680	68.0			6.5	3.300	185
AL-0307-820	82.0			6.0	3.800	175
AL-0307-101	100			5.5	4.200	165
AL-0307-121	120	60	0.796	5.4	4.700	160
AL-0307-151	150			4.7	5.400	150
AL-0307-181	180			4.3	6.000	140
AL-0307-221	220			4.0	7.000	130
AL-0307-271	270			3.7	7.700	120
AL-0307-331	330			3.4	11.10	100
AL-0307-391	390			2.8	12.60	95
AL-0307-471	470			2.4	14.00	90
AL-0307-561	560			2.0	15.50	85
AL-0307-681	680			2.0	25.30	75
AL-0307-821	820	1.5	27.50	65		
AL-0307-102	1000	50		1.15	31.40	60

■ **TYPICAL ELECTRICAL CHARACTERISTIC CURVES**



### ■ PRODUCT SPECIFICATIONS

Part No.	Inductance ( $\mu$ H)	Q Min.	Test Frequency (MHz)	S.R.F.(MHz) Min.	R <sub>DC</sub> ( $\Omega$ ) Max.	I <sub>DC</sub> (mA) Max.	
AL-0410-R10	0.10	25	25.2	470	0.060	900	
AL-0410-R12	0.12			450		900	
AL-0410-R15	0.15			420	0.070	890	
AL-0410-R18	0.18			400		890	
AL-0410-R22	0.22			380	0.080	880	
AL-0410-R27	0.27			340	0.090	800	
AL-0410-R33	0.33			300	0.100	750	
AL-0410-R39	0.39			280	0.120	680	
AL-0410-R47	0.47			250	0.160	650	
AL-0410-R56	0.56			230	0.180	600	
AL-0410-R68	0.68			210	0.220	550	
AL-0410-R82	0.82			45		172	0.240
AL-0410-1R0	1.00	157	0.170			920	
AL-0410-1R2	1.20	50		144	0.180	880	
AL-0410-1R5	1.50			131	0.230	830	
AL-0410-1R8	1.80	55		121	0.250	790	
AL-0410-2R2	2.20			110	0.280	750	
AL-0410-2R7	2.70	60	7.96	100	0.300	720	
AL-0410-3R3	3.30	65		94	0.340	670	
AL-0410-3R9	3.90			86	0.370	640	
AL-0410-4R7	4.70	70		80	0.40	620	
AL-0410-5R6	5.60	75		74	0.45	590	
AL-0410-6R8	6.80			58	0.50	550	
AL-0410-8R2	8.20	80		53	0.60	530	
AL-0410-100	10.0			45	0.65	500	
AL-0410-120	12.0	75		2.52	30	0.70	480
AL-0410-150	15.0	70			20	0.75	460
AL-0410-180	18.0	65			14	0.80	430
AL-0410-220	22.0	50			9.9	0.90	410
AL-0410-270	27.0	55	7.6		1.0	390	
AL-0410-330	33.0	55	6.3		1.1	370	

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Part No.	Inductance ( $\mu$ H)	Q Min.	Test Frequency (MHz)	S.R.F.(MHz) Min.	R <sub>DC</sub> ( $\Omega$ ) Max.	I <sub>DC</sub> (mA) Max.
AL-0410-390	39.0	50	2.52	6.3	1.2	350
AL-0410-470	47.0	45			1.3	340
AL-0410-560	56.0	40			1.5	320
AL-0410-680	68.0	35			1.8	305
AL-0410-820	82.0	30			2.0	290
AL-0410-101	100	30			12.5	275
AL-0410-121	120	70	0.796	3.8	3.700	185
AL-0410-151	150				4.200	175
AL-0410-181	180				4.600	165
AL-0410-221	220				5.100	155
AL-0410-271	270				6.0	145
AL-0410-331	330				65	2.6
AL-0410-391	390	60	0.796	2.4	7.5	133
AL-0410-471	470				8.5	126
AL-0410-561	560				9.5	120
AL-0410-681	680				12.0	113
AL-0410-821	820				14.0	100
AL-0410-102	1000				15	20.0

■ **TYPICAL ELECTRICAL CHARACTERISTIC CURVES**

