



High Frequency Fixed Inductors-LF Series



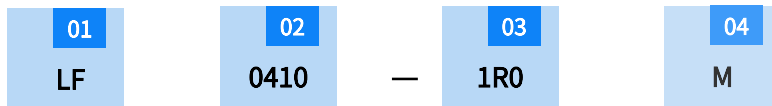
FEATURES

- Suitable for general high-frequency circuits such as audio-video equipment.
- Automatic insertion is applicable with axial or radial tapping.
- Flame retardant coating.
- Various types of forming are available.

APPLICATIONS

TVs and Audio equipment and Switching power supplies. Audio-video equipment

PRODUCT IDENTIFICATION



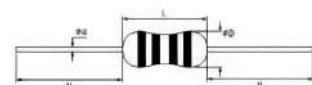
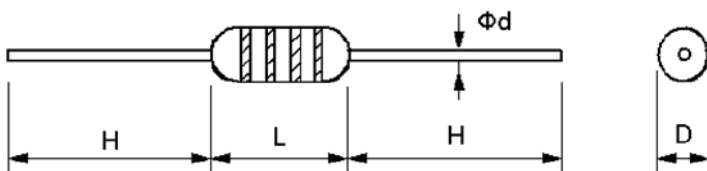
01 Type	
LF	Fixed Inductor

02 External Dimensions (ΦDxL)(mm)	
0204	2.3x 4.2
0307	3.0x 7.0
0410	4.0x 10.5
0510	5.0x 10.5
0512	5.0x 12.0

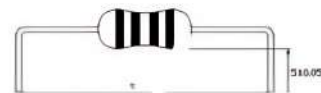
03 Nominal Inductance	
Example	Nominal value
R10	0.1uH
1R0	1uH
100	10uH
101	100uH

04 Tolerance	
J	±5%
K	±10%
M	±20%

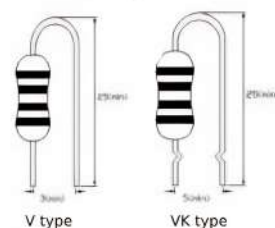
SHAPE AND DIMENSIONS



Axial



L type



V type

VK type

Note: The products can be customized according to customer requirement



Part Number	Dimensions(mm)			
	ΦD(Max)	L(MAX)	H(Min)	Φd
LF0204	2.3	3.4	22	0.45±0.05
LF0307	3.0	7.0	28	0.50±0.05
LF0410	4.0	10.5	28	0.60±0.05
LF0510	5.0	10.5	28	0.60±0.05
LF0512	5.0	12.5	28	0.60±0.05

COLOR CODE

Color	Nominal Inductance(μH)			Tolerance
	First Figure	Second Figure	Multplier	
Black	0		1	±20%
Brown	1		10	---
Red	2		100	---
Orange	3		1000	---
Yellow	4		---	---
Green	5		---	---
Blue	6		---	---
Violet	7		---	---
Grey	8		---	---
White	9		---	---
Gold	---		0.1	±5%
Silver	---		0.01	±10%

Note: Only the first three color zones are marked on the body of LGA0204, due to the small body size.

SPECIFICATIONS

● LF0204 TYPE

Part Number	Inductance (μH)	Tolerance	Q Min	Test condition (MHz)	SRF(Mhz)min	DCR Max(Ω)	Rated Current Max (mA)
LF0204-R10	0.10	K、M	35	25.2	300	0.18	700
LF0204-R12	0.12			25.2		0.20	660
LF0204-R15	0.15			25.2		0.22	620
LF0204-R18	0.18			25.2		0.24	600
LF0204-R22	0.22			25.2	150	0.40	400



Part Number	Inductance (uH)	Tolerance	Q Min	Test condition (MHz)	SRF(Mhz)min	DCR Max(Ω)	Rated Current Max (mA)	
LF0204-R27	0.27		35	25.2	300	0.43	380	
LF0204-R33	0.33			25.2		0.48	370	
LF0204-R39	0.39			25.2		0.51	350	
LF0204-R47	0.47			25.2		0.56	330	
LF0204-R56	0.56			25.2	150	0.61	320	
LF0204-R68	0.68			25.2	150	0.67	310	
LF0204-R82	0.82			25.2	150	0.74	290	
LF0204-1R0	1.0			25.2	150	0.80	270	
LF0204-1R2	1.2			K、 M	40	7.96	110	0.90
LF0204-1R5	1.5		7.96			80	1.0	250
LF0204-1R8	1.8		7.96			60	1.1	240
LF0204-2R2	2.2		7.96			45	1.2	230
LF0204-2R7	2.7		7.96			40	1.3	220
LF0204-3R3	3.3		7.96			38	1.4	210
LF0204-3R9	3.9		7.96			35	1.6	200
LF0204-4R7	4.7		7.96			32	1.7	190
LF0204-5R6	5.6		7.96			30	1.9	180
LF0204-6R8	6.8		7.96			28	2.0	175
LF0204-8R2	8.2	7.96	26			2.2	165	
LF0204-100	10	7.96	24			2.5	160	
LF0204-120	12	2.52	22			2.5	150	
LF0204-150	15	2.52	20			2.8	145	
LF0204-180	18	2.52	18			3.1	140	
LF0204-220	22	2.52	17			3.4	130	
LF0204-270	27	2.52	16			4.3	80	
LF0204-330	33	2.52	14			4.7	76	
LF0204-390	39	2.52	13	5.2	74			
LF0204-470	47	2.52	12	5.8	70			
LF0204-560	56	2.52	11	6.4	68			
LF0204-680	68	2.52	10	7.2	64			
LF0204-820	82	2.52	9.5	11	46			



Part Number	Inductance (uH)	Tolerance	Q Min	Test condition (MHz)	SRF(Mhz)min	DCR Max(Ω)	Rated Current Max (mA)
LF0204-101	100	K、 M	40	2.52	9.0	12	44
LF0204-121	120			0.796	8.0	13	42
LF0204-151	150			0.796	6.0	16	39
LF0204-181	180			0.796	5.5	18	37
LF0204-221	220			0.796	5.0	20	35
LF0204-271	270			0.796	4.6	26	28
LF0204-331	330			0.796	4.2	30	26
LF0204-391	390			0.796	3.8	34	25
LF0204-471	470			0.796	3.5	38	24

Note: When ordering, please specify tolerance code. Tolerance: K: ±10%, M: ±20%;

1. Operating temperature range -40 -125°C

2. Isat for Inductance drop 30% from its value without current

3. The products can be customized according to customer requiremen.

● **LF0307 TYPE**

Part Number	Inductance (uH)	Tolerance	Q Min	Test condition (MHz)	SRF(Mhz)min	DCR Max(Ω)	Rated Current Max (mA)
LF0307-R22	0.22	K、 M	45	25.2	380	0.08	1150
LF0307-R27	0.27			25.2	360	0.09	1100
LF0307-R33	0.33			25.2	320	0.10	1100
LF0307-R39	0.39			25.2	310	0.12	1000
LF0307-R47	0.47			25.2	300	0.15	1000
LF0307-R56	0.56			25.2	280	0.18	950
LF0307-R68	0.68			25.2	240	0.20	900
LF0307-R82	0.82			25.2	200	0.22	900
LF0307-1R0	1.0			25.2	180	0.25	815
LF0307-1R2	1.2		50	7.96	160	0.28	740
LF0307-1R5	1.5			7.96	140	0.30	700
LF0307-1R8	1.8			7.96	120	0.35	655
LF0307-2R2	2.2			7.96	110	0.40	630
LF0307-2R7	2.7			7.96	85	0.45	595
LF0307-3R3	3.3			7.96	74	0.50	575
LF0307-3R9	3.9			7.96	62	0.55	555



Part Number	Inductance (uH)	Tolerance	Q Min	Test condition (MHz)	SRF(Mhz)min	DCR Max(Ω)	Rated Current Max (mA)
LF0307-4R7	4.7	K、 M	50	7.96	48	0.60	530
LF0307-5R6	5.6			7.96	35	0.65	500
LF0307-6R8	6.8			7.96	28	0.70	470
LF0307-8R2	8.2			7.96	20	0.80	425
LF0307-100	10			7.96	18	0.85	370
LF0307-120	12			2.52	16	0.90	350
LF0307-150	15			2.52	14	1.00	335
LF0307-180	18			2.52	12	1.20	315
LF0307-220	22			2.52	10	1.35	285
LF0307-270	27			2.52	9.0	1.80	270
LF0307-330	33			2.52	8.0	2.10	255
LF0307-390	39			2.52	7.5	2.30	240
LF0307-470	47			2.52	7.0	2.60	205
LF0307-560	56			2.52	6.5	2.90	195
LF0307-680	68			2.52	6.0	3.20	185
LF0307-820	82			2.52	5.5	3.80	175
LF0307-101	100			2.52	5.0	4.20	165
LF0307-121	120			0.796	4.8	4.50	160
LF0307-151	150			0.796	4.5	5.00	150
LF0307-181	180			0.796	4.0	6.00	140
LF0307-221	220			0.796	3.5	7.00	130
LF0307-271	270			0.796	3.0	7.50	120
LF0307-331	330			0.796	2.8	8.00	100
LF0307-391	390			0.796	2.6	10	95
LF0307-471	470			0.796	2.4	13	90
LF0307-561	560			0.796	2.0	15	85
LF0307-681	680			0.796	1.8	16	75
LF0307-821	820			0.796	1.6	23	65
LF0307-102	1000			0.796	1.4	26	60

Note: When ordering, please specify tolerance code. Tolerance: K: ±10%, M: ±20%;

1. Operating temperature range -40 -125°C
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● LF0410 TYPE

Part Number	Inductance (uH)	Tolerance	Q Min	Test condition (MHz)	SRF(Mhz)min	DCR Max(Ω)	Rated Current Max (mA)		
LF0410-R10	0.10	K、M	20	25.2	300	0.09	1400		
LF0410-R12	0.12			25.2	300	0.09	1400		
LF0410-R15	0.15			25.2	300	0.09	1400		
LF0410-R18	0.18			25.2	300	0.09	1400		
LF0410-R22	0.22		45	45	25.2	270	0.10	1400	
LF0410-R33	0.33				25.2	250	0.11	1320	
LF0410-R47	0.47				25.2	220	0.12	1280	
LF0410-R56	0.56				25.2	200	0.13	1200	
LF0410-R68	0.68				25.2	190	0.14	1150	
LF0410-R82	0.82				25.2	172	0.15	980	
LF0410-1R0	1.0				25.2	157	0.21	980	
LF0410-1R2	1.2				50	7.96	144	0.23	930
LF0410-1R5	1.5				55	7.96	131	0.24	920
LF0410-1R8	1.8				55	7.96	121	0.25	900
LF0410-2R2	2.2				55	7.96	110	0.27	880
LF0410-2R7	2.7		60	7.96	100	0.28	860		
LF0410-3R3	3.3		65	7.96	94	0.30	840		
LF0410-3R9	3.9		65	7.96	86	0.32	830		
LF0410-4R7	4.7		70	7.96	80	0.36	780		
LF0410-5R6	5.6		70	7.96	74	0.38	760		
LF0410-6R8	6.8		75	7.96	68	0.42	730		
LF0410-1R2	8.2		80	7.96	48	0.46	700		
LF0410-100	10		75	7.96	38	0.49	500		
LF0410-120	12		75	2.52	25	0.63	480		
LF0410-150	15		70	2.52	16	0.72	460		
LF0410-180	18		65	2.52	14	0.77	430		
LF0410-220	22		60	2.52	9.9	0.84	410		
LF0410-270	27		55	2.52	7.6	0.94	390		
LF0410-330	33		55	2.52	6.3	1.03	370		
LF0410-390	39		50	2.52	6.3	1.12	350		



Part Number	Inductance (uH)	Tolerance	Q Min	Test condition (MHz)	SRF(Mhz)min	DCR Max(Ω)	Rated Current Max (mA)
LF0410-470	47	K、M	45	2.52	6.3	1.22	340
LF0410-560	56		40	2.52	6.2	1.34	320
LF0410-680	68		40	2.52	5.7	1.47	305
LF0410-820	82		35	2.52	5.3	1.62	290
LF0410-101	100		30	2.52	4.8	1.80	275
LF0410-121	120		70	0.796	3.8	3.70	185
LF0410-151	150		70	0.796	3.5	4.20	175
LF0410-181	180		70	0.796	3.3	4.60	165
LF0410-221	220		70	0.796	3.0	5.10	155
LF0410-271	270		65	0.796	2.8	5.80	145
LF0410-331	330		65	0.796	2.6	6.40	137
LF0410-391	390		65	0.796	2.4	7.00	133
LF0410-471	470		60	0.796	2.25	7.70	126
LF0410-561	560		60	0.796	2.10	9.00	120
LF0410-681	680		55	0.796	1.95	9.40	113
LF0410-821	820	55	0.796	1.85	10.50	105	
LF0410-102	1000	J、K	50	0.796	1.40	14.00	100
LF0410-122	1200		50	0.252	1.30	16.00	90
LF0410-152	1500		50	0.252	1.00	20.00	85
LF0410-182	1800		50	0.252	0.90	32.00	80
LF0410-222	2200		50	0.252	0.85	35.00	75
LF0410-272	2700		40	0.252	0.80	60.00	70
LF0410-332	3300		40	0.252	0.75	65.00	65
LF0410-392	3900		40	0.252	0.75	71.00	50
LF0410-472	4700		40	0.252	0.70	78.00	50

Note: When ordering, please specify tolerance code. Tolerance: K: ±10%、M: ±20%;

1. Operating temperature range -40 -125°C
2. Isat for Inductance drop 30% from its value without current
3. The products can be customized according to customer requiremen.

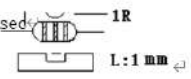


● LF0510 TYPE

Part Number	Inductance (uH)	Tolerance	Q Min	Test condition (MHz)	SRF(Mhz)min	DCR Max(Ω)	Rated Current Max (mA)	
LF0510-2R2	2.2	K、M	40	7.96	7.8	0.28	175	
LF0510-5R6	5.6			7.96	6.5	0.43	170	
LF0510-100	10			7.96	5.5	0.58	165	
LF0510-150	15			2.52	4.5	0.72	160	
LF0510-330	33			2.52	4.2	1.03	156	
LF0510-470	47			2.52	4.0	1.22	152	
LF0510-820	82			2.52	3.8	1.62	148	
LF0510-101	100			2.52	3.5	1.80	145	
LF0510-151	150		60	0.796	3.0	4.80	140	
LF0510-221	220			0.796	2.8	5.10	135	
LF0510-271	270			0.796	2.5	5.80	133	
LF0510-301	300			0.796	2.2	6.80	130	
LF0510-471	470			0.796	1.9	7.70	126	
LF0510-561	560			50	0.796	1.8	8.50	120
LF0510-681	680			55	0.796	1.5	9.00	113
LF0510-821	820			45	0.796	1.2	10.50	108
LF0510-102	1000	J、K	40	0.796	1.0	14.00	100	
LF0510-122	1200		40	0.252	0.95	16.9	95	
LF0510-152	1500		40	0.252	0.90	21.6	90	
LF0510-182	1800		40	0.252	0.85	24.0	85	
LF0510-222	2200		40	0.252	0.80	34.7	80	
LF0510-272	2700		40	0.252	0.75	40.0	75	
LF0510-332	3300		40	0.252	0.70	59.5	65	
LF0510-392	3900		40	0.252	0.65	66.0	59	
LF0510-472	4700		40	0.252	0.60	74.0	55	
LF0510-562	5600		30	0.252	0.50	80.0	40	
LF0510-682	6800		30	0.252	0.45	85.0	35	
LF0510-822	8200		30	0.252	0.40	95	30	
LF0510-103	10000		20	0.252	0.35	105	20	



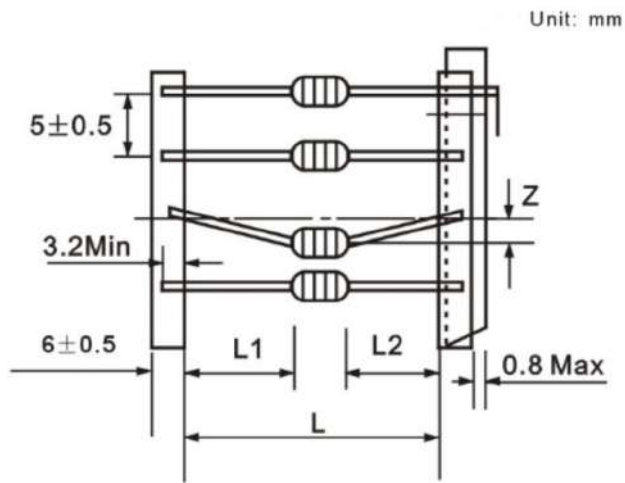
PERFORMANCE

Item	Performance	Test Method
DC superimposition	$\Delta L/L \leq -10\%$	Inductance when the allowable current is applied, to be measured by LCR-METER
Rise in temperature	Within 20°C	A rise in temperature, when the allowable current is applied for 10 min., to be measured by thermoelectric thermometer.
Over current test	No evidence of shining or flaming	The current twice the allowable current to be applied for 5 min.
Resistance to soldering heat	No evidence of outer damage. $\Delta L/L \leq \pm 5\%$, $\Delta Q/Q \leq \pm 20\%$	Immerse in the solder of 260±5°C for 10±1 sec
Solder ability	More than 90% surface to be covered with new soldering.	245±5°C for 2±0.5 sec
Dielectric with standing voltage	No evidence of breakdown	DC 500V 1 min
Insulation resistance	No evidence of breakdown., Resistor 1000Mohm and over.	DC 500V 1 min
Terminal strength	No evidence of damage.	Terminals shall withstand a pull of 2.5Kgf in a horizonal direction , 5 sec
Terminal strength(BEND)	No evidence of damage.	Terminals withstand a return bend of 250gf for 5 sec at a right angle to the axis, while being repeated the same to the opposed direction.
Body strength	No evidence of damage.	A load of 5Kgf 10 sec 
Vibration	$\Delta L/L \leq \pm 5\%$, $\Delta Q/Q \leq \pm 20\%$	2 hours in each direction of X,Y,Z on p-Board at a frequency range of 10-55-10Hz with 1.5mm amplitude.
Dropping	No evidence of outer damage. $\Delta L/L \leq \pm 5\%$, $\Delta Q/Q \leq \pm 20\%$	Dropping 1 m over the ground of concrete or cement.
LOW TEMP Characteristics	$\Delta L/L \leq \pm 10\%$, $\Delta Q/Q \leq \pm 20\%$	TEMP. -25±2°C, 96±2hrs
High TEMP Overload Characteristics		Leave for 96±2hrs in TEMP. 85±2°C, 96±2hrs
TEMP. Cycling		Keep for 30 min. at TEMP. of -25°C~+85°C at 5 cycle case of TEMP.
Temperature	$\Delta L/L \leq \pm 5\%$	$\Delta L/L$ to be measured at the temperature of between -25°C and +85°C.
Moisture load Characteristics	$\Delta L/L \leq \pm 10\%$, $\Delta Q/Q \leq \pm 30\%$	TEMP. -40±2°C, Humidity 90~95% 1000hrs
Endurance(Moistuer)		TEMP. 40±2°C, Humidity 90~95%, Load allowable DC current for 1000hrs

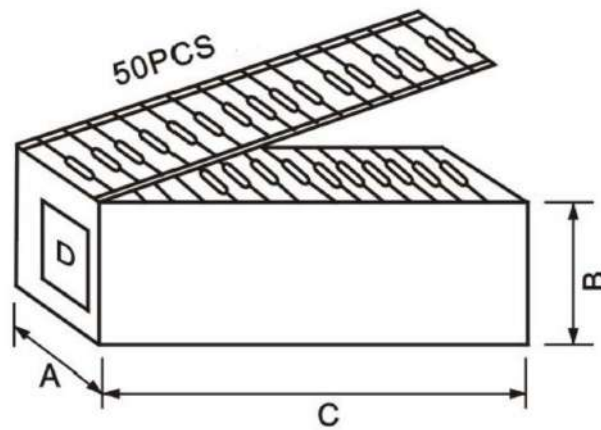


PACKAING STYLE

• Taping Dimensions



• Packing Dimensions(mm)



• Quantity

Type	Packaging Style		
	PCS/REEL	PCS/INNERBOX	Bluk
LF0204	5000	3000	1000
LF0307	4000	2000	1000
LF0410	3000	2000	1000
LF0510	2500	1000	1000
LF0512	2500	1000	1000

