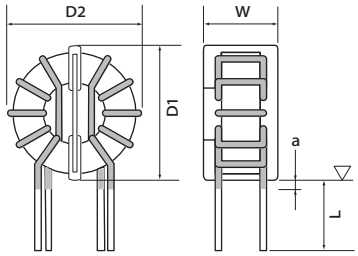
NANOCRYSTALLINE COMMON MODE COILS

FL Series

Standard type for single phase



Maximum outer diameter : D1(Vertical), D2(Horizontal)
Maximum width : W
Total lead length* : L=30±3mm
Soldering boundary* : a=1.5mmMAX
*The bottom of the core or coil (▽) is defined as base surface.

◆MAJOR USES

●Common mode noise filter for AC/DC

◆FEATURES

●Achieved significant miniaturization due to high permeability core
●High inductance in spite of a small number of turns
●Low temperature rise due to low D.C. resistance
●Stable frequency performance of noise suppression in wide frequency range
●Excellent temperature characteristics

◆COIL STANDARD SPECIFICATIONS

	Coil Part No.	Rated Current A	Inductance		D.C.R. mΩ (max)	Winding mmϕ×lines	Outside Dimensions		
			10kHz (Typical) mH	100kHz (Rating) mH			D1 mm	D2 mm	W mm
●	LDFL001802LS-V0E	1	28.0	8.0	200	0.35×1P	15.0	16.0	11.9
●	LDFL002302LS-V0E	2	11.6	3.0	85	0.45×1P	15.0	16.0	11.9
●	LDFL003152LS-V0E	3	5.6	1.5	45	0.55×1P	15.0	16.0	11.9
	LDFL003552L5-V0E	3	22.0	5.5	56	0.7 ×1P	28.0	29.0	15.0
	LDFL003153L6-V0E	3	60.0	15.0	82	0.7 ×1P	29.0	30.5	20.5
	LDFL005132L5-V0E	5	5.4	1.3	16	1.0 ×1P	29.0	30.0	15.0
	LDFL005332L6-V0E	5	13.0	3.3	21	1.0 ×1P	29.0	30.5	20.0
	LDFL005302LT-V0E	5	13.0	3.0	17	1.1 ×1P	34.0	36.0	20.0
	LDFL005502LT-V0E	5	23.0	5.0	23	1.1 ×1P	34.5	36.5	20.5
	LDFL005103LR-V0E	5	39.0	10.0	33	1.1 ×1P	39.0	41.0	25.5
	LDFL008451L5-V0E	8	1.8	0.45	6.5	1.3 ×1P	29.5	31.0	15.0
	LDFL008102L6-V0E	8	4.2	1.0	9	1.3 ×1P	29.5	31.5	20.5
	LDFL010102LT-V0E	10	5.8	1.0	8	1.5 ×1P	34.0	38.0	22.0
	LDFL010302LT-V0E	10	13.0	3.0	11	1.4 ×1P	36.0	38.0	22.0
	LDFL010502LR-V0E	10	24.0	5.0	15	1.5 ×1P	40.0	43.0	27.0
	LDFL010103LJ-V0E	10	46.5	10.0	20	1.5 ×1P	46.5	47.5	27.5
	LDFL015102LT-V0E	15	3.7	1.0	6	1.6 ×1P	34.5	38.0	20.5
	LDFL015302LR-V0E	15	15.0	3.0	10	1.8 ×1P	40.0	42.5	29.0
	LDFL015502LJ-V0E	15	24.8	5.0	11	1.8 ×1P	47.0	49.0	28.0
	LDFL020102LR-V0E	20	4.2	1.0	5	1.5 ×2P	42.5	43.0	28.0
	LDFL020302LJ-V0E	20	13.5	3.0	7	1.5 ×2P	46.5	48.0	30.0
	LDFL025252LJ-V0E	25	11.6	2.5	5	1.6 ×2P	47.0	49.0	31.0
	LDFL030102LR-V0E	30	4.2	1.0	5	1.7 ×2P	39.5	44.0	29.5
	LDFL030202LJ-V0E	30	9.9	2.0	6	1.7 ×2P	47.0	48.5	31.0

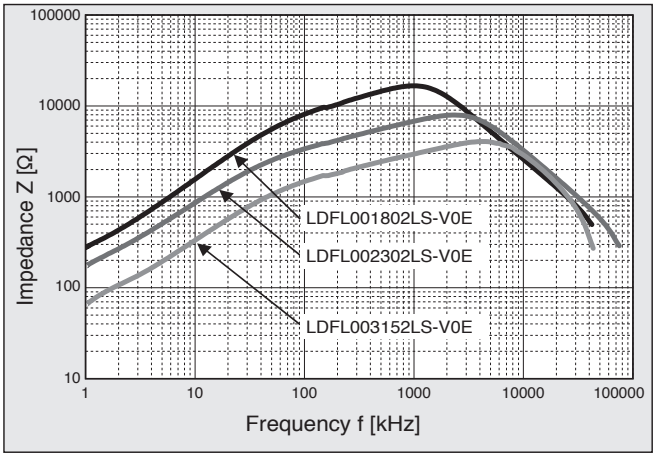
The total lead length of the items marked with ● is 15±3mm.

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FL Series

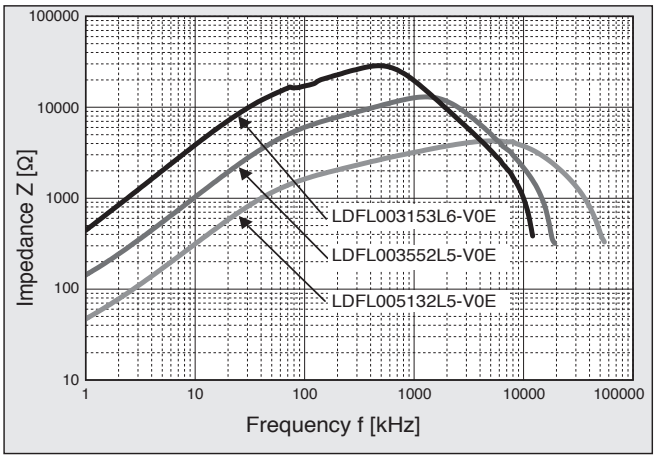
◆FREQUENCY - IMPEDANCE CHARACTERISTICS (1)

●Rated Current: 1, 2, 3 [A]



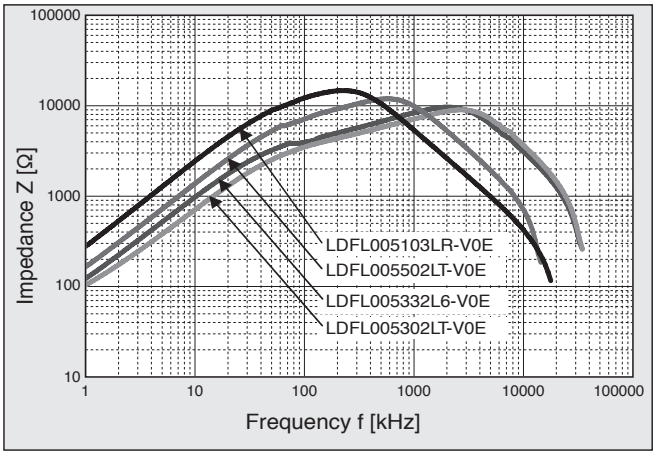
◆FREQUENCY - IMPEDANCE CHARACTERISTICS (2)

●Rated Current: 3, 5 [A]



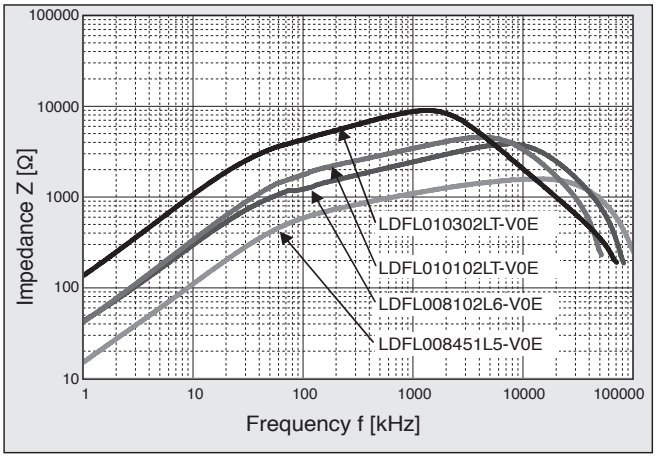
◆FREQUENCY - IMPEDANCE CHARACTERISTICS (3)

●Rated Current: 5 [A]



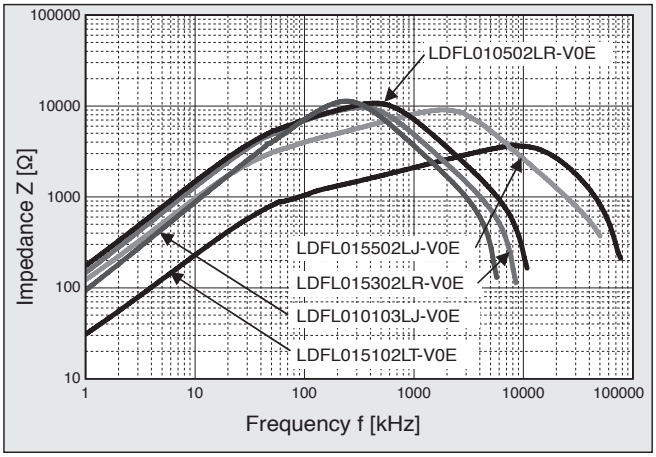
◆FREQUENCY - IMPEDANCE CHARACTERISTICS (4)

●Rated Current: 8, 10 [A]



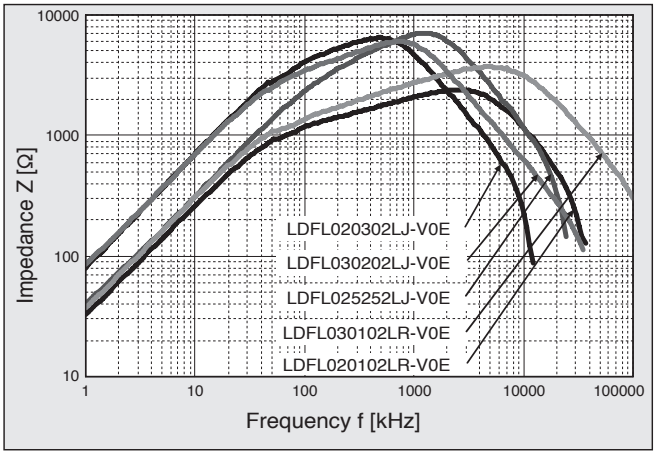
◆FREQUENCY - IMPEDANCE CHARACTERISTICS (5)

●Rated Current: 10, 15 [A]



◆FREQUENCY - IMPEDANCE CHARACTERISTICS (6)

●Rated Current: 20, 25, 30 [A]

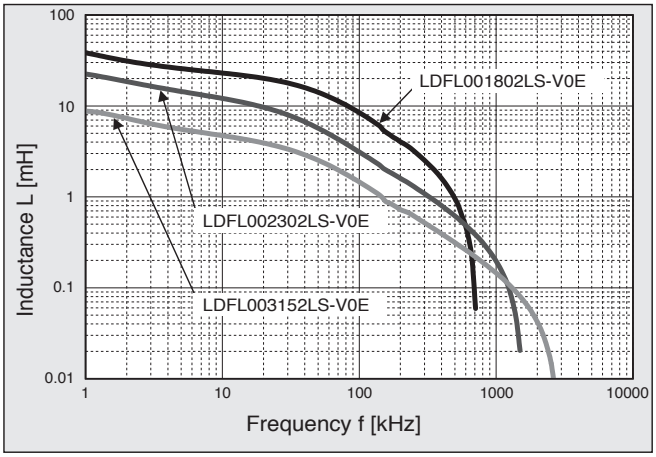


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FL Series

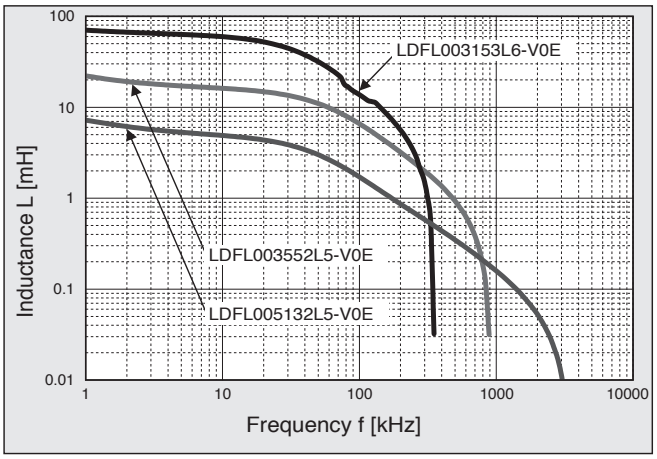
◆FREQUENCY - INDUCTANCE CHARACTERISTICS (1)

●Rated Current: 1, 2, 3 [A]



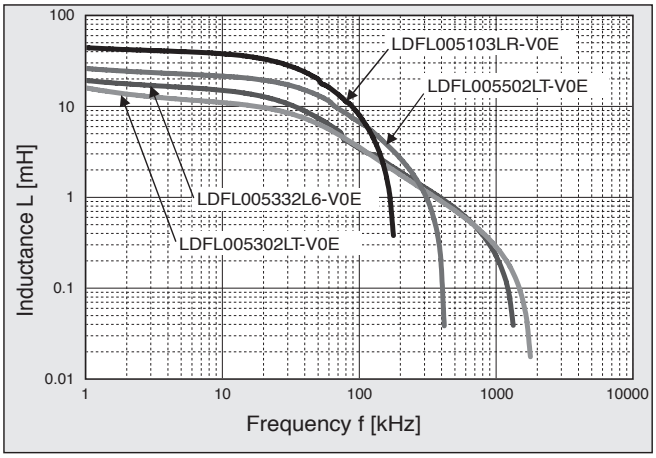
◆FREQUENCY - INDUCTANCE CHARACTERISTICS (2)

●Rated Current: 3, 5 [A]



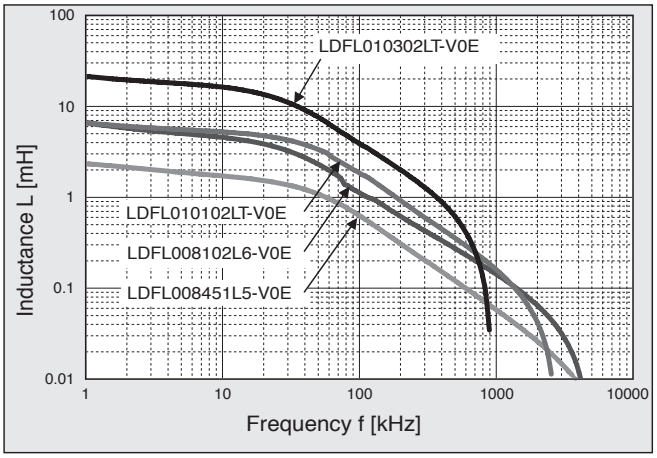
◆FREQUENCY - INDUCTANCE CHARACTERISTICS (3)

●Rated Current: 5 [A]



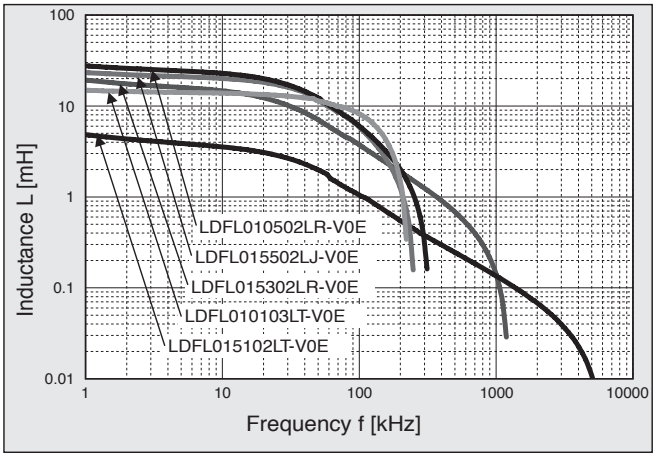
◆FREQUENCY - INDUCTANCE CHARACTERISTICS (4)

●Rated Current: 8, 10 [A]



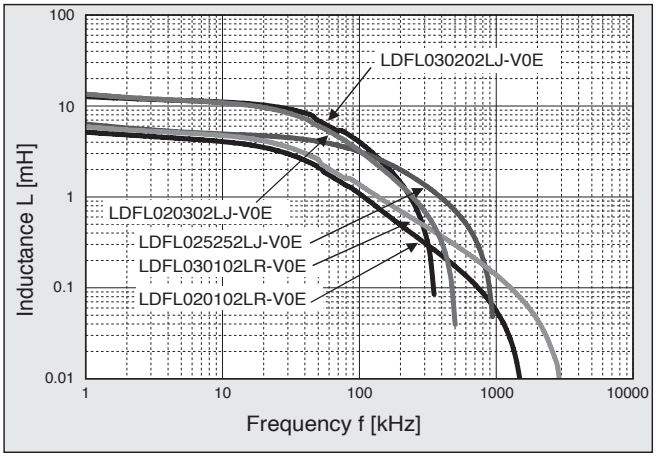
◆FREQUENCY - INDUCTANCE CHARACTERISTICS (5)

●Rated Current: 10, 15 [A]



◆FREQUENCY - INDUCTANCE CHARACTERISTICS (6)

●Rated Current: 20, 25, 30 [A]



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NANOCRYSTALLINE COMMON MODE COILS

FL Series

High voltage type for single phase

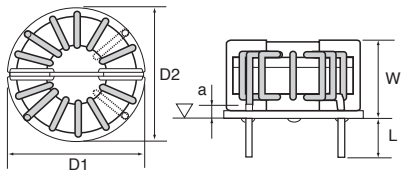
◆MAJOR USES

- Common mode noise filter for AC/DC

◆FEATURES

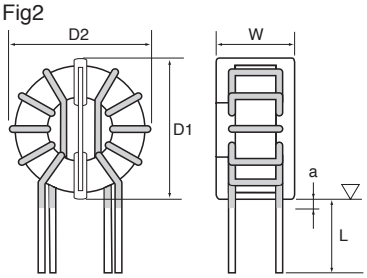
- Applicable to input voltage (700V)
- Achieved significant miniaturization due to high permeability core
- High inductance in spite of a small number of turns
- Low temperature rise due to low D.C. resistance
- Stable frequency performance of noise suppression in wide frequency range
- Excellent temperature characteristics

Fig1



Maximum outer diameter : D1(Vertical), D2(Horizontal)
Maximum width : W
Total lead length* : L=15±3mm
Soldering boundary* : a=1.5mmMAX
*The bottom of the core or coil (▽) is defined as base surface.

Fig2



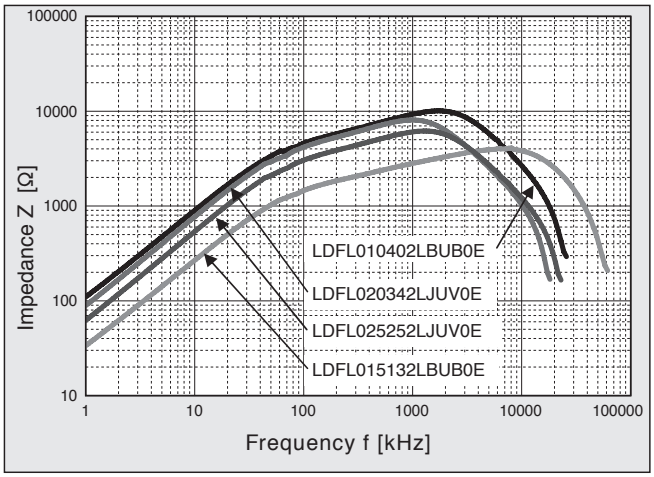
Maximum outer diameter : D1(Vertical), D2(Horizontal)
Maximum width : W
Total lead length* : L=30±3mm
Soldering boundary* : a=1.5mmMAX
*The bottom of the core or coil (▽) is defined as base surface.

◆COIL STANDARD SPECIFICATIONS

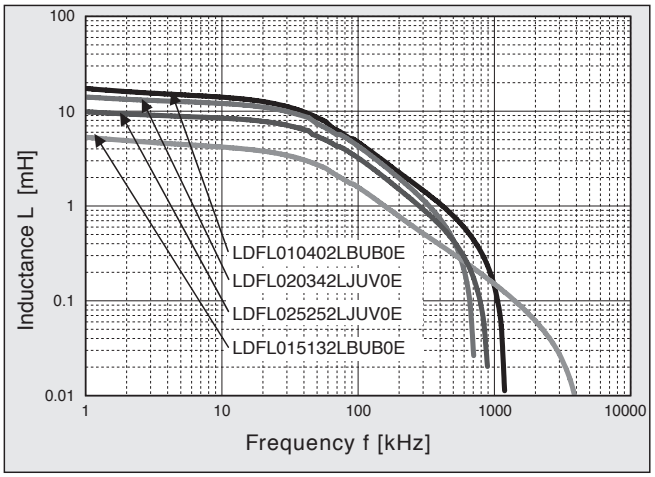
Coil Part No.	Rated Current A	Inductance		D.C.R. mΩ (max)	Winding mmϕ×lines	Outside Dimensions			
		10kHz (Typical)	100kHz (Rating)			D1 mm	D2 mm	W mm	Dimensions
		mH	mH						
LDFL010402LBUB0E	10	16.0	4.0	12	1.5×1P	42.0	42.0	32.0	Fig1
LDFL015132LBUB0E	15	5.1	1.3	6	1.9×1P	42.0	42.0	32.5	Fig1
LDFL020342LJUV0E	20	13.5	3.4	8	1.4×2P	49.0	49.0	31.0	Fig2
LDFL025252LJUV0E	25	9.9	2.5	6	1.6×2P	50.0	50.0	32.0	Fig2

LDFL010402LBUB0E, LDFL015132LMBB0E listed in the above table are coils of lying type with pedestal.
For LDFL020342LJUV0E, LDFL025252LJUV0E, lying type is also available. "V" changes into "H" in last the third digit of the name of items.

◆FREQUENCY - IMPEDANCE CHARACTERISTICS



◆FREQUENCY - INDUCTANCE CHARACTERISTICS



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NANOCRYSTALLINE COMMON MODE COILS

FL Series

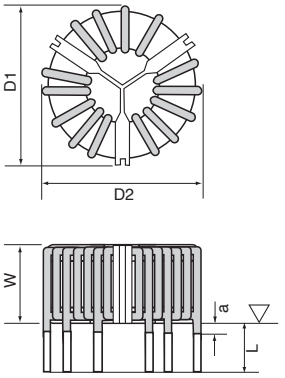
For three-phase circuit

◆MAJOR USES

- Common mode noise filter for AC/DC

◆FEATURES

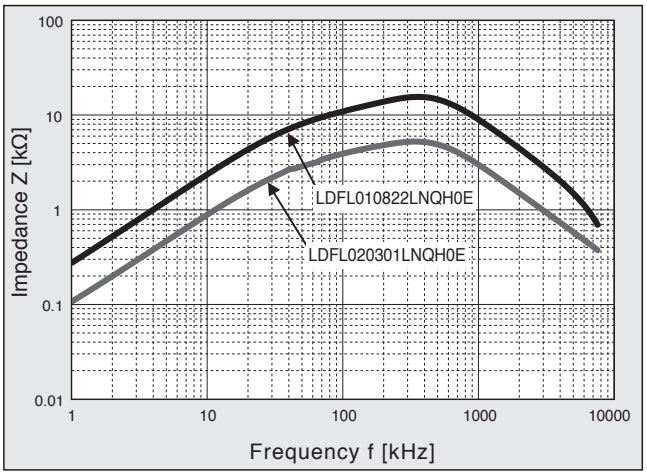
- Achieved significant miniaturization due to high permeability core
- High inductance in spite of a small number of turns
- Low temperature rise due to low D.C. resistance
- Stable frequency performance of noise suppression in wide frequency range
- Excellent temperature characteristics

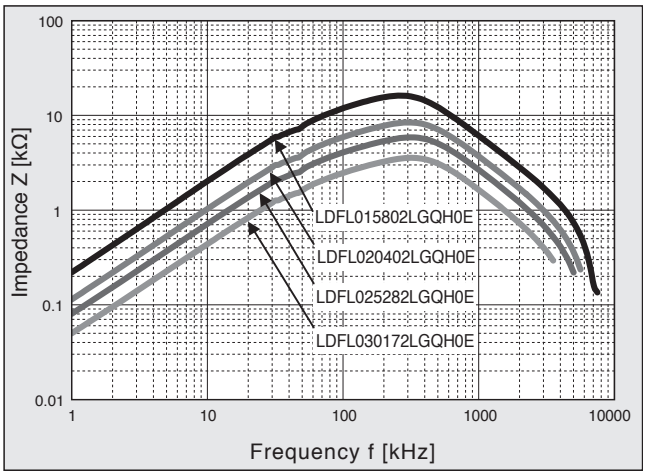


Maximum outer diameter : D1(Vertical), D2(Horizontal)
Maximum width : W
Total lead length* : L=15±5mm
Soldering boundary* : a=1.5mmMAX
*The bottom of the core or coil (▽) is defined as base surface.

Coil Part No.	Rated Current A	Inductance		D.C.R. mΩ (max)	Winding mmϕ×lines	Outside Dimensions		
		10kHz (Typical)	100kHz (Rating)			D1 mm	D2 mm	W mm
		mH	mH					
LDFL010822LNQH0E	10	32.5	7.0	18	1.5×1P	56.0	56.0	32.0
LDFL020302LNQH0E	20	11.7	2.5	6	2.0×1P	56.0	56.0	32.0
LDFL015802LGQH0E	15	30.0	8.0	15	2.0×1P	65.0	65.0	35.0
LDFL020402LGQH0E	20	16.0	4.0	6	2.3×1P	65.0	65.0	35.0
LDFL025282LGQH0E	25	10.0	2.8	5	1.8×2P	65.0	65.0	35.0
LDFL030172LGQH0E	30	7.0	1.7	4	2.0×2P	65.0	65.0	35.0

◆COIL STANDARD SPECIFICATIONS





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NANOCRYSTALLINE CORES

FL Series

RoHS2 Compliant

The FM series coils are made of nano-crystal.



◆MAJOR USES

- Common mode noise filter for AC/DC
- Zero-phase reactor

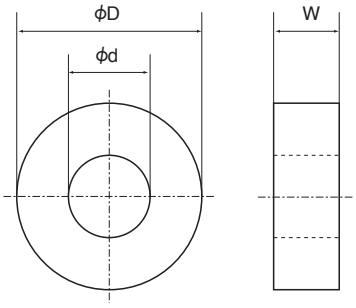
◆FEATURES

- High impedance in spite of a small number of turns
- Excellent temperature characteristics

◆CORE STANDARD SPECIFICATIONS

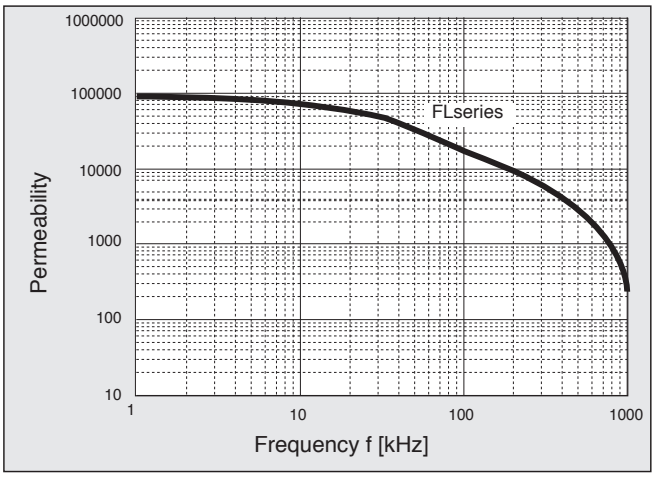
Core Part No.	Cross Sectional Area cm^2	Magnetic Path Length cm	Weight g	Outside Dimensions			Inductance Coefficient (AL Value) [μH/100kHz at 0A]
				ϕD mm	ϕd mm	W mm	
LRF251515MKX	0.63	6.40	35	28.3	12.7	17.5	18.3
LRF322015MKX	0.73	8.17	45	35.2	17.5	17.3	16.6
LRF372315MKX	0.85	9.42	62	40.5	19.5	18.0	17.2
LRF462715MKX	1.15	11.50	110	49.4	22.7	18.0	18.6
LRF462725MKX	1.92	11.50	176	49.4	22.7	28.0	31.0
LRF603525MKX	2.53	14.90	310	66.7	29.3	29.2	31.6
LRF624520MKX	1.36	16.80	200	66.0	41.0	24.0	15.2

◆DIMENSIONS OF CORE



Outer diameter : ϕD
Inner diameter : ϕd
Width : W

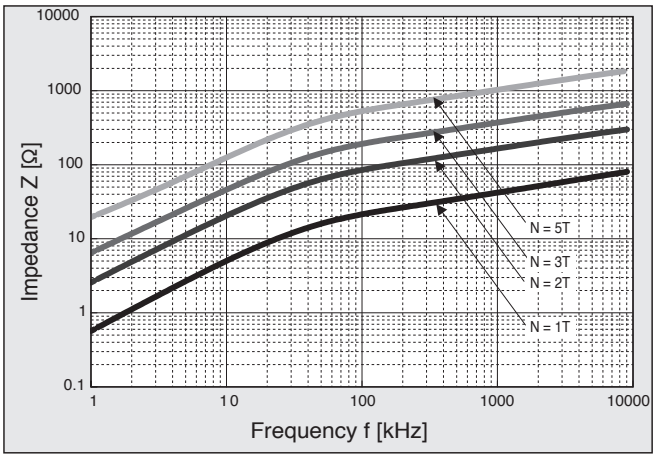
◆FREQUENCY - PERMEABILITY CHARACTERISTICS



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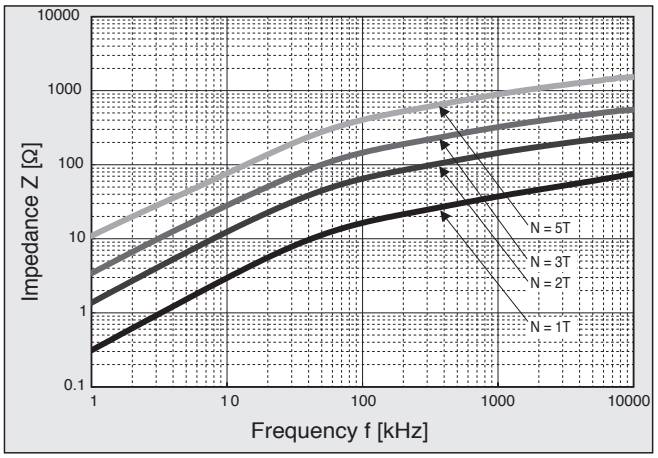
◆FREQUENCY - IMPEDANCE CHARACTERISTICS (1)

●LRF251515MKX



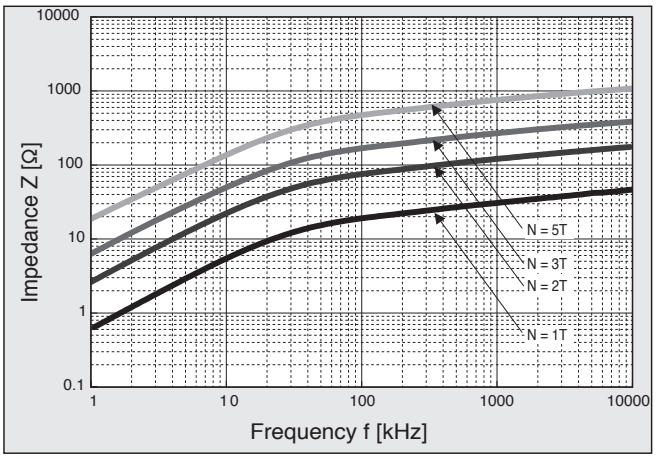
◆FREQUENCY - IMPEDANCE CHARACTERISTICS (2)

●LRF322015MKX



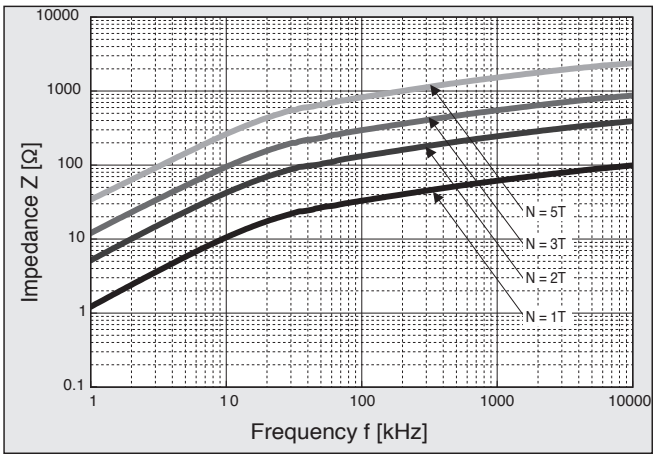
◆FREQUENCY - IMPEDANCE CHARACTERISTICS (3)

●LRF372315MKX



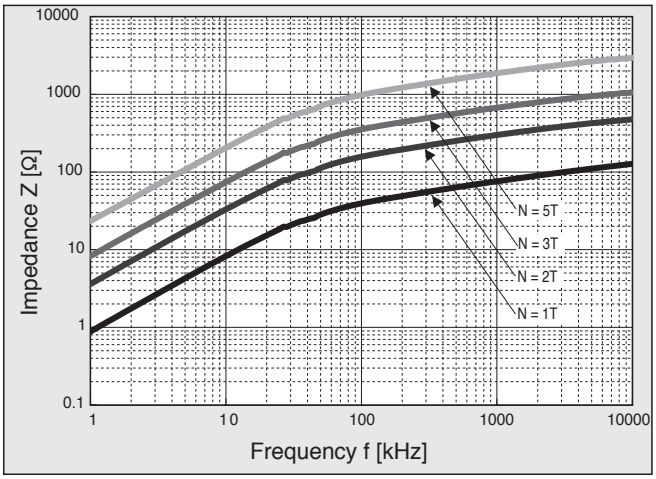
◆FREQUENCY - IMPEDANCE CHARACTERISTICS (4)

●LRF462725MKX



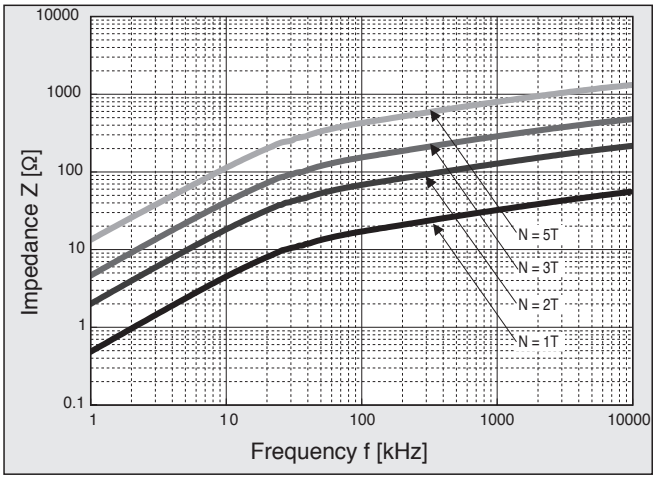
◆FREQUENCY - IMPEDANCE CHARACTERISTICS (5)

●LRF603525MKX



◆FREQUENCY - IMPEDANCE CHARACTERISTICS (6)

●LRF624520MKX



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FL Series



◆MAJOR USES
- Zero-phase reactor
- Common mode noise filter for AC/DC

◆FEATURES
- Case with a hole to secure the chassis
- High impedance in spite of a small number of turns
- Excellent temperature characteristics

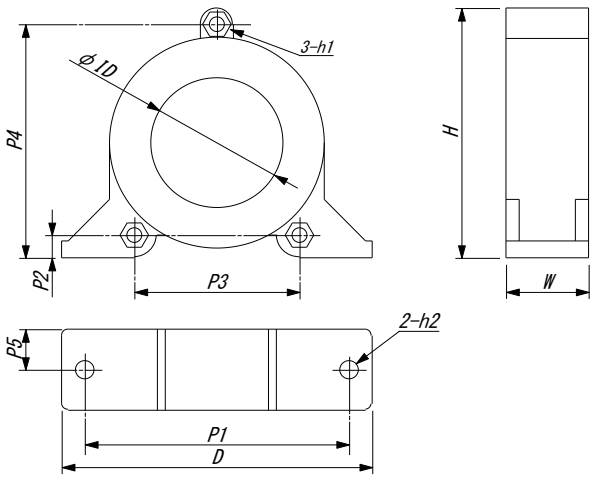
◆CORE STANDARD SPECIFICATIONS

Core Part No.	Cross Sectional Area [cm^2]	Magnetic Path Length [cm]	AL [μH/at 0A]	
			10kHz	100kHz
LRF604520MBX	1.2typ.	16.4typ.	77.0typ.	13.0typ.
LRF1108020MBX	2.2typ.	30.0typ.	85.0typ.	15.0typ.

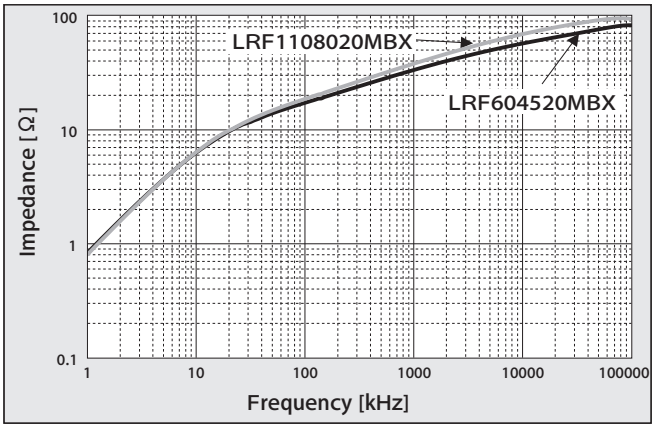
Core Part No.	Outside Dimensions [mm]								
	D	ϕID	H	W	P1	P2	P3	P4	P5
LRF604520MBX	95max.	39.5min.	78max.	26max.	80±0.5	7±0.5	50±0.5	72±0.5	12.5±0.3
LRF1108020MBX	181max.	74min.	131max.	26max.	150±0.5	20±0.5	100±0.5	124±0.5	12.5±0.3

Core Part No.	Applicable screws	
	h1	h2
LRF604520MBX	M4	M5
LRF1108020MBX	M5	M6

◆DIMENSIONS OF CORE



◆FREQUENCY - IMPEDANCE CHARACTERISTICS
(number of turns 1T)



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