NIPPON CHEMI-CON

AMORPHOUS CHOKE COILS

CAT. No. E1008E

◆List of products

Series	Major uses	Miniaturization	Thin Type	Low loss	Low cost	Large capacity	Classification
	Standard Specifications & Coil Series Guide						
CM	Switching mode power supplies DC-DC converter Normal mode line filter	◎		○		○	Toroidal with gap
CMJ	Switching mode power supplies Step up and down converter	◎		○		○	
AM	Harmonic counter-measure active filter Normal mode line filter	◎		○		○	
AW	Harmonic counter-measure active filter Uninterruptible power supply system (UPS)	◎		○		◎	
TM *Upgrade*	Switching mode power supplies DC-DC converter Normal mode line filter	○	○	○	○		Toroidal without gap
BM	Switching mode power supplies DC-DC converter Normal mode line filter	◎	○	○	◎		
EM	Noise preventive use for alternator	◎		○		○	
SM	DC-DC converter Switching mode power supplies	◎	◎	○	○		Package
FM *Upgrade*	Line filter for inverter or large power supply High frequency transformer	◎		○	○	◎	Common mode
	Accessories						
	AMORPHOUS CHOKE COIL Characteristics						

General specification can be Pb-free.
Contact NIPPON CHEMI-CON for details.

Notes on use

- Because the insulating material of type B is used, the operating temperature of the coil should be less than 130℃.
- Note that the lead wire may not be subject to excess force and also may not be bent repeatedly because the wire is made of copper.
- Never make the coil hit on a hard and/or sharp substance. If so, the coating of the coils may be damaged to ruin the performace of the coil.
- Contact NIPPON CHEMI-CON for how to clean the substrate on which the coil is mounted.
- When infra-acoustic frequency component is impressed, a beat sound some times occur.

Please ask for the individual catalog (NO. E1003), If you require the detailed specifications.

NIPPON CHEMI-CON

AMORPHOUS CHOKE COILS

Amorphous metal and NIPPON CHEMI-CON Amorphous Choke Coil

The amorphous metal has non cystalline structure generated by cooling molten metal rapidly. Due to the amorphous structure, the amorphous metal has excellent magnetic, mechanical, and chemical features in comparison with conventional metallic substances. NIPPON CHEMI-CON started developing amorphous components for electronic and electric equipment by making full use of the metarial and process technologies at its early stages and has continued the synthetic research and development to optimally match the amorphous choke coils with the material features and their applications through a variety of characteristics. NIPPON CHEMI-CON will help the customers design smaller and higher performance products by supplying excellent amorphous choke coils through the sophisticated production technology and manufacturing know-how.

STANDARD SPECIFICATIONS

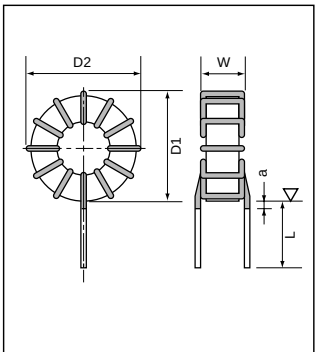
◆General Specification of Toroidal Coil

Items	Rated value
Operating temperature range*1	-25 to 130℃
Storage temperature range	-25 to 130℃
Operating humidity range	20 to 95%RH
Storage humidity range	20 to 80%RH
Operating frequency range*2	20kHz to 500kHz
Temperature rise *3	40deg. or less
Rating current range	1A and more
Rating inductance*4 (CM series)	10 to 1900μH
Insulation type	Type B (130℃)
Incombustibility *5	UL 94 V-0

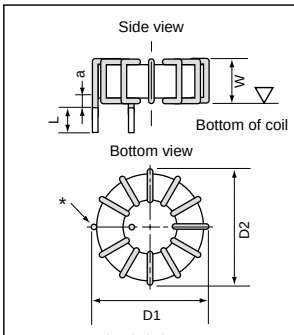
*1 Temperature on the coil surface including the temperature rise in installation. Never use the coil at a temperature exceeding the rated temperature range.
*2 Recommended range. When infra-acoustic frequency component is impressed, a beat sound some times occur.
*3 The temperature rise on the coil surface at the rated d.c. current.
*4 The incombustibility varies depending on the rated current. LCR meter, 10kHz.
*5 The housing case is made of FRPBT

Note carefully that the temperature of the core may exceed the operating temperature range depending on the circumference condition even if the coil is used in the specification ranges described above.

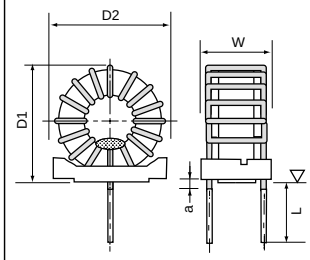
◆DIMENSIONS



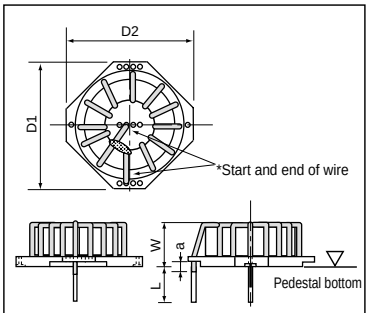
Maximum outer diameter : D1(Vertical), D2(Horizontal)
Maximum width : W
Total lead length : L=30mm(+3mm, -3mm)
Soldering boundary : a=1.5mmMAX
*The bottom of the core or coil (▽) is defined as base surface.



* Start and end of wire
Maximum outer diameter : D1(Vertical), D2(Horizontal)
Maximum width : W
Total lead length *1 : L=15mm(+3mm, -3mm)
Soldering boundary *1 : a=1.5mmMAX
*1 The bottom of the core or coil (▽) is defined as base surface.



Maximum outer diameter *1 : D2
Maximum width *1 : D1
Maximum width : W
Total lead length *2 : L=13mm(+2mm, -2mm)
Soldering boundary *2 : a=0mm MAX
*1 Indicates the maximum dimersion of coil or stand.
*2 The bottom of the core or coil (▽) is defined as base surface.



Maximum outer diameter *1 : D1, D2
Maximum width : W
Total lead length *2 : L=13mm(+2mm, -2mm)
Soldering boundary *2 : a=0mm MAX
*1 Indicates the maximum dimersion of coil or stand.
*2 The bottom of the core or coil (▽) is defined as base surface.

◆Notes on use

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- Never make the coil hit on a hard and/or sharp substance. If so, the coating of the coils may be damaged to ruin the performace of the coil.
- Contact NIPPON CHEMI-CON for how to clean the substrate on which the coil is mounted.
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CAT. No. E1008E

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TM (Upgrade)	Switching mode power supplies DC-DC converter Normal mode line filter	○	○	○	○		Toroidal without gap
BM	Switching mode power supplies DC-DC converter Normal mode line filter	◎	○	○	◎		
EM	Noise preventive use for alternator	◎	◎	◎	◎		
SM	DC-DC converter Switching mode power supplies	◎	◎	○	○		Package
FM (Upgrade)	Line filter for inverter or large power supply High frequency transformer	◎		○	○	◎	Common mode
	Accessories						
	AMORPHOUS CHOKE COIL Characteristics						

GLOBAL CODE SYSTEM

The current parts numbering system is changed to new system for global coding.

Your cooperation will be very much appreciated.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L	B	T	M	0	1	0	3	0	0	N	6	–	V	0	0

- Solder control code⑥
- Specifications control code⑤
- Mounting Direction④
- Core Abbreviation③
- Rated Inductance②
- Rated Current①
- Series
- Section code
- Class code

①Rated Current code

Code	Rated Current
0R5	0.5A
001	1A
010	10A
100	100A

②Rated Inductance code

Code	Rated Inductance
0R5	0.5μH
010	1μH
100	10μH
101	100μH
102	1000μH

③Core Abbreviation code

Code	Core Abbreviation
N6-	N6
JRH	JRH

④Mounting Direction code

Code	Mounting Direction
V	Vertical
H	Horizontal
D	Vertical pedestal
B	Horizontal pedestal
Y	Vertical pedestal with pins
W	Horizontal pedestal with pins

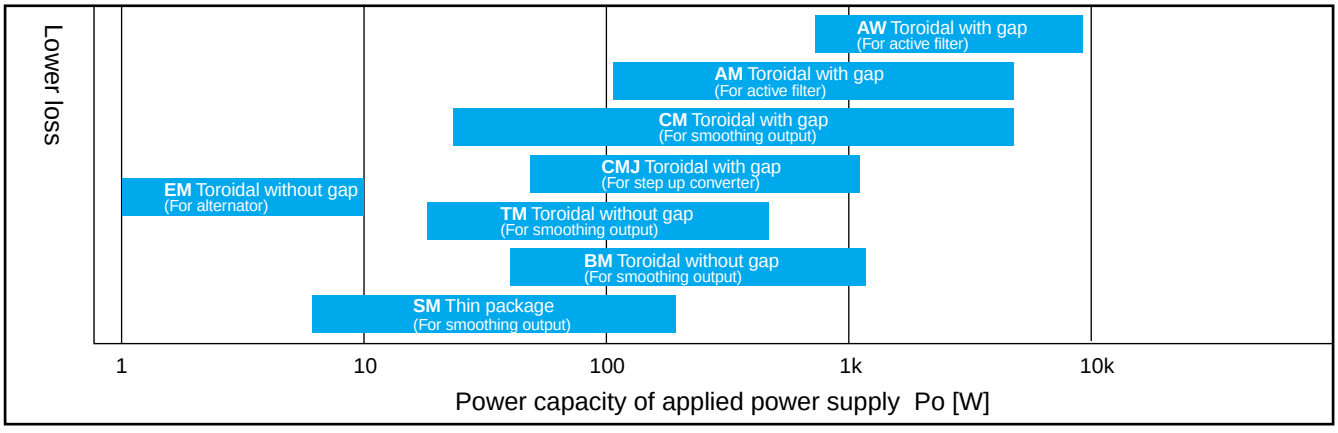
⑤Specifications control code

Code	Specifications
0	Standard
1	Custom

⑥Solder control code

Code	Specifications
0	Standard Solder
E	Pb free

COIL SERIES GUIDE



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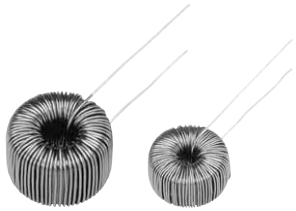
AMORPHOUS CHOKE COILS

CM Series



◆MAJOR USES

- Output choke coils for Switching Mode Power Supply
- For DC-DC converter
- Normal mode choke coils for noise control

◆FEATURES

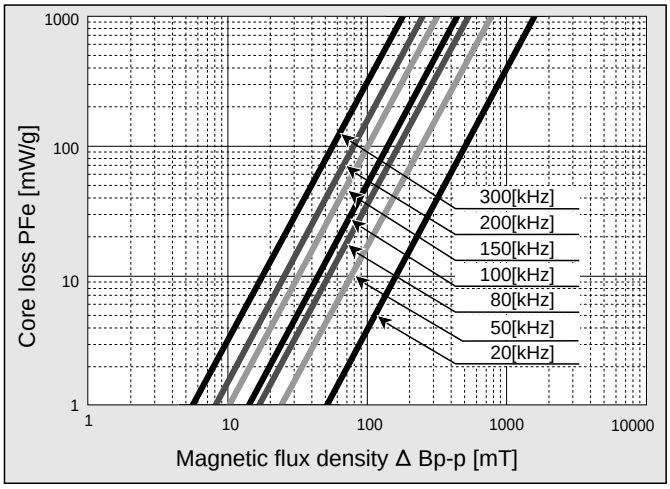
- Smaller size in comparison with ferrite choke coil by about half in volume
- Lower core loss in comparison with silicon steel sheet by about half
- More excellent DC bias and temperature characteristics in comparison with dust choke

◆CORE STANDARD SPECIFICATIONS

Core Part No. (Old Core Part No.)	Abbreviation	Cross Sectional Area cm²	Magnetic Path Length cm	Outside Dimensions			Inductance Coefficient AL Value		
				Outer Diameter mm	Width mm	Height mm	Idc=0[A] μH	Rated Current* μH	Rated Current Ampere Turn [AT]
LNC181210G (C181210G)	G3	0.264	4.71	21.0	9.0	12.5	0.122	0.116	150
LNC191305G (C191305G)	G4	0.132	5.03	22.0	10.0	8.0	0.050	0.045	200
LNC221310G (C221310G)	G6	0.396	5.50	24.7	10.5	12.0	0.164	0.147	190
LNC251510G (C251510G)	G7	0.440	6.28	28.3	12.7	12.3	0.133	0.120	300
LNC251515G (C251515G)	G8	0.660	6.28	28.3	12.7	17.5	0.185	0.170	330
LNC322010G (C322010G)	G9	0.528	8.17	35.2	17.5	12.3	0.137	0.125	330
LNC372310G (C372310G)	G0	0.616	9.42	40.5	19.5	13.0	0.154	0.140	350
LNC372315G (C372315G)	GJ	0.924	9.42	40.5	19.5	18.0	0.210	0.190	400
LNC462715G (C462715G)	GQ	1.254	11.5	49.4	22.7	18.0	0.235	0.207	450
LNC462725G (C462725G)	GK	2.090	11.5	49.4	22.7	28.0	0.360	0.320	550

◆CORE LOSS CHARACTERISTICS

●CM choke



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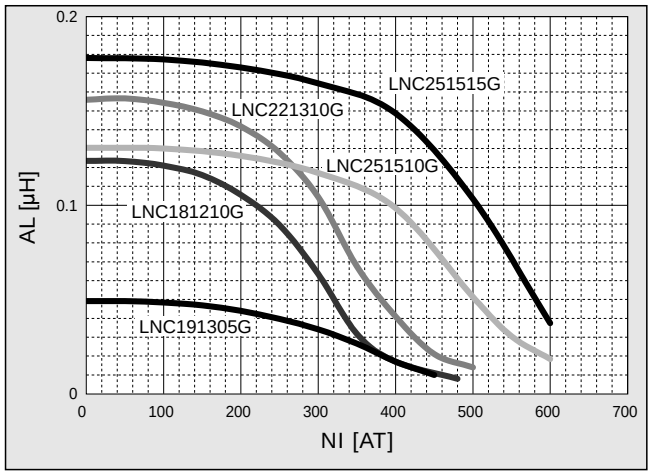
AMORPHOUS CHOKE COILS

CM Series

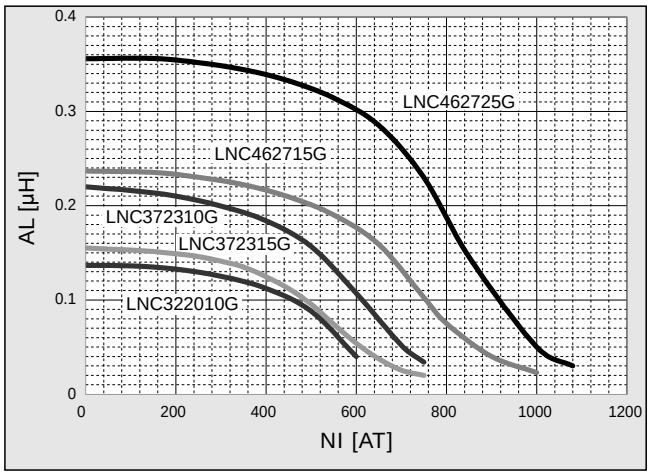
◆D.C. BIAS CHARACTERISTICS AL-AT(1)

●Frequency : 10[kHz]

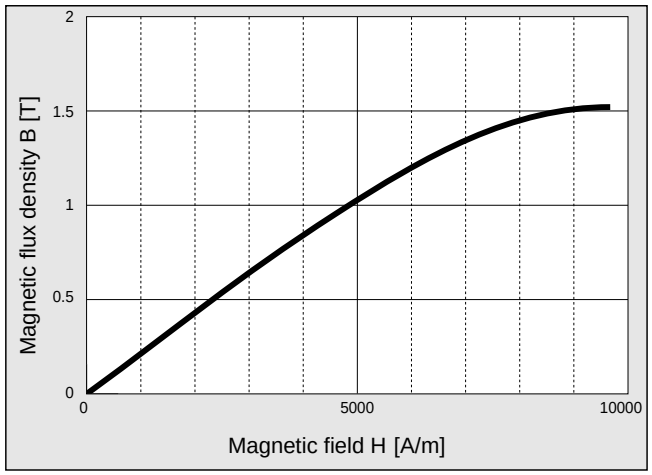


◆D.C. BIAS CHARACTERISTICS AL-AT(2)

●Frequency : 10[kHz]

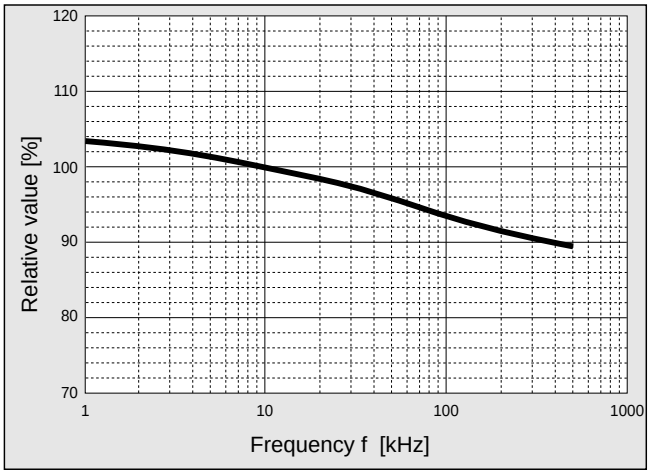


◆MAGNETIC FIELD - MAGNETIC DENSITY



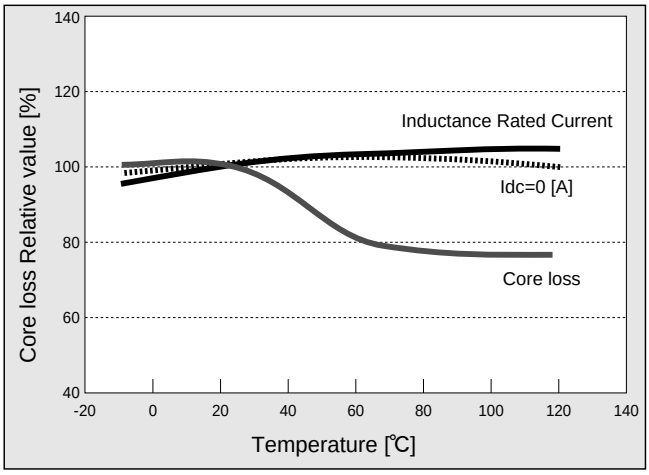
◆FREQUENCY - INDUCTANCE CHARACTERISTICS

●CM Core



◆TEMPERATURE DEPENDENCE - INDUCTANCE AND CORE LOSS

●Frequency : 100[kHz]



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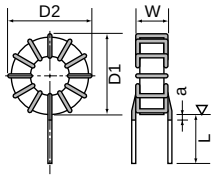
AMORPHOUS CHOKE COILS

CM Series



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

◆COIL STANDARD SPECIFICATIONS

	Coil Part No. (Old Coil Part No.)	Rated Current A	Inductance (10kHz) *1		D.C.R. mΩ (max)	Winding *2 mmϕ×lines-turns	Outside Dimensions		
			0[A] μH	Rating μH			D1 mm	D2 mm	W mm
●	LACM002601G3-V00 (CM02601G3)	2	645	600	190	0.6×1P-71T	23.5	24.0	16.0
●	LACM003401G3-V00 (CM03401G3)	3	420	400	92	0.8×1P-60T	24.5	25.0	17.5
●	LACM004201G3-V00 (CM04201G3)	4	209	200	51	0.9×1P-42T	24.5	25.0	16.5
●	LACM006101G3-V00 (CM06101G3)	6	110	100	24	0.8×2P-30T	24.5	25.0	17.5
●	LACM008700G3-V00 (CM08700G3)	8	85	70	17	0.9×2P-26T	25.0	25.5	19.0
	LACM002401G4-V00 (CM02401G4)	2	425	400	190	0.6×1P-92T	24.5	25.0	12.5
	LACM003201G4-V00 (CM03201G4)	3	210	200	76	0.8×1P-65T	25.5	26.0	14.0
	LACM003251G4-V00 (CM03251G4)	3	265	250	87	0.8×1P-73T	25.5	26.0	13.5
	LACM004101G4-V00 (CM04101G4)	4	110	100	43	0.9×1P-46T	25.5	26.0	13.0
	LACM006500G4-V00 (CM06500G4)	6	55	50	20	0.8×2P-33T	25.5	26.0	14.0
	LACM008300G4-V00 (CM08300G4)	8	33	30	13	0.9×2P-25T	26.0	26.5	14.0
	LACM010150G4-V00 (CM10150G4)	10	18	15	8	1.0×2P-18T	26.5	27.0	13.5
◎	LACM001152G6-V00 (CM01152G6)	1	1530	1500	390	0.5×1P-98T	27.0	27.5	15.5
◎	LACM002102G6-V00 (CM02102G6)	2	1050	1000	230	0.6×1P-82T	27.5	28.0	16.0
◎	LACM003501G6-V00 (CM03501G6)	3	560	500	95	0.8×1P-59T	28.0	28.5	17.0
◎	LACM003601G6-V00 (CM03601G6)	3	690	600	110	0.8×1P-66T	28.0	28.5	18.0
◎	LACM004251G6-V00 (CM04251G6)	4	271	250	52	0.9×1P-41T	28.5	29.0	17.0
◎	LACM004301G6-V00 (CM04301G6)	4	339	300	59	0.9×1P-46T	28.5	29.0	17.0
◎	LACM004451G6-V00 (CM04451G6)	4	560	450	80	0.9×1P-60T	28.0	28.5	17.5
◎	LACM005151G6-V00 (CM05151G6)	5	165	150	34	1.0×1P-32T	28.5	29.0	17.5
◎	LACM006151G6-V00 (CM06151G6)	6	171	150	27	0.8×2P-33T	28.0	28.5	17.5
◎	LACM010500G6-V00 (CM10500G6)	10	60	50	11	1.0×2P-19T	28.5	29.0	18.0
◎	LACM010700G6-V00 (CM10700G6)	10	85	70	13	1.0×2P-23T	29.5	30.0	18.5
◎	LACM015150G6-V00 (CM15150G6)	15	17	15	5	1.0×3P-10T	28.5	29.0	17.5
◎	LACM020150G6-V00 (CM20150G6)	20	17	15	4	1.0×4P-10T	29.0	29.5	18.5

*1 Rated inductance tolerance : ±25%, the inductance at current 0[A] indicates the reference value.
*2 The number of turns indicates the reference value.
The specification of the inductance takes precedence over that of the number of turns.
There is a horizontal putting type in all items in the above list."V"changes into "H" in last the third digit of the name of items.
There is a type with the length putting seat in ● item in the above list."V" changes into "D" in last the third digit of the name of items.
There are the type with the length putting seat and the horizontal putting seat in ◎ item.
The type with the length putting seat is "V" changes into "B" in last the third digit of the name of items.
*Order the auxiliary pins separately if they are required for the pedestal.
Please select them according to the situation.

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AMORPHOUS CHOKE COILS

CM Series

◆COIL STANDARD SPECIFICATIONS

	Coil Part No. (Old Coil Part No.)	Rated Current A	Inductance (10kHz) *1		D.C.R. mΩ (max)	Winding *2 mmφ×lines-turns	Outside Dimensions		
			0[A] μH	Rating μH			D1 mm	D2 mm	W mm
◎	LACM004401G7-V00 (CM04401G7)	4	420	400	77	0.9×1P- 57T	32.0	32.5	18.0
◎	LACM006201G7-V00 (CM06201G7)	6	207	200	35	0.8×2P- 40T	32.0	32.5	18.0
◎	LACM006261G7-V00 (CM06261G7)	6	270	260	41	0.8×2P- 46T	32.0	32.5	18.5
◎	LACM008101G7-V00 (CM08101G7)	8	108	100	20	0.9×2P- 29T	32.5	33.0	18.0
◎	LACM008151G7-V00 (CM08151G7)	8	160	150	24	0.9×2P- 35T	32.5	33.0	18.5
◎	LACM008191G7-V00 (CM08191G7)	8	215	190	33	0.9×2P- 41T	32.5	33.0	19.5
◎	LACM010101G7-V00 (CM10101G7)	10	110	100	16	1.0×2P- 29T	32.5	33.0	18.5
◎	LACM010121G7-V00 (CM10121G7)	10	140	120	19	1.0×2P- 33T	33.0	33.5	19.5
◎	LACM015300G7-V00 (CM15300G7)	15	35	30	7	1.0×3P- 16T	32.5	33.0	19.0
◎	LACM015500G7-V00 (CM15500G7)	15	55	50	9	1.0×3P- 21T	33.0	33.5	19.5
◎	LACM020300G7-V00 (CM20300G7)	20	35	30	6	1.0×4P- 17T	33.0	33.5	20.0
●	LACM025150G7-V00 (CM25150G7)	25	19	15	4	1.0×5P- 12T	33.0	33.5	20.0
●	LACM025200G7-V00 (CM25200G7)	25	26	20	4	1.0×5P- 14T	33.0	33.5	20.0
	LACM030100G7-V00 (CM30100G7)	30	12	10	3	1.0×6P- 9T	33.5	34.0	20.0
	LACM030130G7-V00 (CM30130G7)	30	16	13	3	1.0×6P- 11T	34.0	34.5	20.0
◎	LACM002192G8-V00 (CM02192G8)	2	1940	1900	390	0.6×1P-103T	31.0	31.5	22.5
◎	LACM004501G8-V00 (CM04501G8)	4	510	500	92	0.9×1P- 53T	32.5	33.0	24.0
◎	LACM005301G8-V00 (CM05301G8)	5	306	300	58	1.0×1P- 41T	33.0	33.5	24.5
◎	LACM010151G8-V00 (CM10151G8)	10	170	150	22	1.0×2P- 30T	33.0	33.5	25.5
◎	LACM015700G8-V00 (CM15700G8)	15	75	70	11	1.0×3P- 20T	33.5	34.0	26.0
◎	LACM020400G8-V00 (CM20400G8)	20	45	40	7	1.0×4P- 16T	33.5	34.0	26.0
●	LACM025250G8-V00 (CM25250G8)	25	27	25	5	1.0×5P- 12T	33.5	34.0	26.5
◎	LACM003102G9-V00 (CM03102G9)	3	1070	1000	170	0.8×1P- 88T	39.0	39.5	19.0
◎	LACM005671G9-V00 (CM05671G9)	5	745	670	75	1.1×1P- 75T	40.5	41.0	20.0
◎	LACM006301G9-V00 (CM06301G9)	6	335	300	48	0.8×2P- 49T	39.5	40.0	19.0
◎	LACM008251G9-V00 (CM08251G9)	8	289	250	37	0.9×2P- 45T	39.5	40.0	19.0
◎	LACM010191G9-V00 (CM10191G9)	10	220	190	21	1.1×2P- 41T	41.0	41.5	21.0
◎	LACM015850G9-V00 (CM15850G9)	15	100	85	10	1.3×2P- 28T	41.0	41.5	21.5
◎	LACM020450G9-V00 (CM20450G9)	20	55	45	7	1.2×3P- 20T	41.0	41.5	21.5
●	LACM025300G9-V00 (CM25300G9)	25	35	30	4	1.2×4P- 17T	42.0	42.5	21.5
●	LACM030200G9-V00 (CM30200G9)	30	23	20	3	1.3×4P- 13T	42.0	42.5	22.0

NIPPON CHEMI-CON

AMORPHOUS CHOKE COILS

CM Series

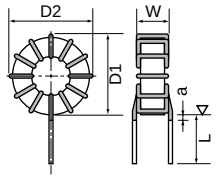
◆COIL STANDARD SPECIFICATIONS

	Coil Part No. (Old Coil Part No.)	Rated Current A	Inductance (10kHz) *1		D.C.R. mΩ (max)	Winding *2 mmφ×lines-turns	Outside Dimensions		
			0[A] μH	Rating μH			D1 mm	D2 mm	W mm
◎	LACM006501G0-V00 (CM06501G0)	6	569	500	61	0.8×2P-63T	44.0	44.5	19.5
◎	LACM008301G0-V00 (CM08301G0)	8	381	300	38	0.9×2P-50T	44.0	44.5	19.5
◎	LACM010201G0-V00 (CM10201G0)	10	255	200	27	1.0×2P-41T	45.0	45.5	20.0
◎	LACM015900G0-V00 (CM15900G0)	15	135	90	13	1.0×3P-28T	45.0	45.5	20.0
◎	LACM020500G0-V00 (CM20500G0)	20	70	50	8	1.0×4P-20T	45.0	45.5	20.5
◎	LACM025300G0-V00 (CM25300G0)	25	38	30	6	1.0×5P-16T	45.0	45.5	20.0
◎	LACM030250G0-V00 (CM30250G0)	30	35	25	5	1.0×6P-15T	45.5	46.0	20.5
◎	LACM035150G0-V00 (CM35150G0)	35	18	15	4	1.0×7P-11T	45.5	46.0	20.5
◎	LACM040100G0-V00 (CM40100G0)	40	16	10	3	1.3×5P- 9T	46.0	46.5	20.5
◎	LACM004102GJ-V00 (CM04102GJ)	4	1080	1000	140	0.9×1P-71T	44.0	44.5	23.0
◎	LACM005501GJ-V00 (CM05501GJ)	5	509	500	74	1.0×1P-49T	44.0	44.5	22.5
◎	LACM008401GJ-V00 (CM08401GJ)	8	450	400	43	0.9×2P-46T	44.5	45.0	24.5
◎	LACM010301GJ-V00 (CM10301GJ)	10	380	300	31	1.0×2P-40T	45.0	45.5	25.0
◎	LACM015121GJ-V00 (CM15121GJ)	15	137	120	14	1.0×3P-25T	45.5	46.0	25.5
◎	LACM020700GJ-V00 (CM20700GJ)	20	83	70	12	1.0×4P-20T	45.5	46.0	25.5
◎	LACM025500GJ-V00 (CM25500GJ)	25	60	50	7	1.0×5P-17T	46.0	46.5	26.0
◎	LACM030300GJ-V00 (CM30300GJ)	30	38	30	4	1.0×6P-13T	45.5	46.0	26.0
◎	LACM040150GJ-V00 (CM40150GJ)	40	18	15	3	1.3×5P- 9T	46.0	46.5	26.5
◎	LACM015201GQ-V00 (CM15201GQ)	15	255	200	20	1.0×3P-32T	54.0	54.5	26.0
◎	LACM020101GQ-V00 (CM20101GQ)	20	125	100	12	1.0×4P-23T	54.5	55.0	25.5
◎	LACM020141GQ-V00 (CM20141GQ)	20	190	140	13	1.0×4P-28T	55.0	55.5	27.0
◎	LACM025700GQ-V00 (CM25700GQ)	25	79	70	8	1.0×5P-19T	54.5	55.0	26.0
◎	LACM035300GQ-V00 (CM35300GQ)	35	35	30	5	1.0×7P-12T	55.0	55.5	26.0
◎	LACM040200GQ-V00 (CM40200GQ)	40	24	20	3	1.3×5P-10T	55.5	56.0	26.0
◎	LACM010501GK-V00 (CM10501GK)	10	530	500	44	1.0×2P-39T	54.5	55.0	34.5
◎	LACM015301GK-V00 (CM15301GK)	15	350	300	24	1.0×3P-31T	55.0	55.5	36.0
◎	LACM015451GK-V00 (CM15451GK)	15	516	450	30	1.0×3P-38T	55.5	56.0	36.5
◎	LACM020201GK-V00 (CM20201GK)	20	250	200	15	1.0×4P-26T	55.0	55.5	36.0
◎	LACM025101GK-V00 (CM25101GK)	25	115	100	9	1.0×5P-18T	55.5	56.0	35.5
◎	LACM030101GK-V00 (CM30101GK)	30	115	100	8	1.0×6P-18T	55.5	56.0	36.5
◎	LACM035500GK-V00 (CM35500GK)	35	60	50	6	1.0×7P-13T	56.0	56.5	36.5
◎	LACM050200GK-V00 (CM50200GK)	50	23	20	3	1.3×6P- 8T	57.0	57.5	36.0
◎	LACM060130GK-V00 (CM60130GK)	60	14	13	3	1.3×7P- 6T	57.0	57.5	36.0

NIPPON CHEMI-CON

AMORPHOUS CHOKE COILS

CMJ Series



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

◆MAJOR USES

- ●Output choke coils for Switching Mode Power Supply
- ●Choke coils for DC-DC converter
- ●Normal mode choke coils for noise control

◆FEATURES

- ●Miniaturization in comparison with CM series coils by about 30 percent
- ●Lineup about the standard from 3 to 30A
- ●Little inductance fall when overload

◆COIL STANDARD SPECIFICATIONS

	Coil Part No. (Old Coil Part No.)	Rated Current A	Inductance*1 (10kHz)		D.C.R. mΩ (max)	Winding *2 mmφ×lines-turns	Outside Dimensions		
			0[A] μH	Rating μH			D1 mm	D2 mm	W mm
◎	LACM003192JRHV00 (CM03192JR)	3	2000	1900	290	0.9φ×1P - 126T	41.5	41.5	27.0
◎	LACM005102JRHV00 (CM05102JR)	5	1200	1000	150	1.1φ×1P - 96T	42.0	42.0	28.0
◎	LACM008511JRHV00 (CM08511JR)	8	600	510	77	1.3φ×1P - 69T	42.0	42.0	29.5
◎	LACM010261JRHV00 (CM10261JR)	10	290	260	38	1.1φ×2P - 48T	42.0	42.0	28.0
◎	LACM015131JRHV00 (CM15131JR)	15	150	130	20	1.3φ×2P - 34T	42.0	42.0	29.5
◎	LACM020790JRHV00 (CM20790JR)	20	92	79	13	1.2φ×3P - 27T	42.5	42.5	28.5
●	LACM025430JRHV00 (CM25430JR)	25	50	43	7	1.2φ×4P - 20T	42.5	42.5	28.5
●	LACM030320JRHV00 (CM30320JR)	30	36	32	6	1.3φ×4P - 17T	42.5	42.5	29.5

*1 Rated inductance tolerance : ±25%, the inductance at current 0[A] indicates the reference value.
*2 The number of turns indicates the reference value.
The specification of the inductance takes precedence over that of the number of turns.
There is a horizontal putting type in all items in the above list."V"changes into "H" in last the third digit of the name of items.
There is a type with the length putting seat in ● item in the above list."V" changes into "D" in last the third digit of the name of items.
There are the type with the length putting seat and the horizontal putting seat in ◎ item.
The type with the length putting seat is "V" changes into "B" in last the third digit of the name of items.
*Order the auxiliary pins separately if they are required for the pedestal.
Please select them according to the situation.

CAT. No. E1008E

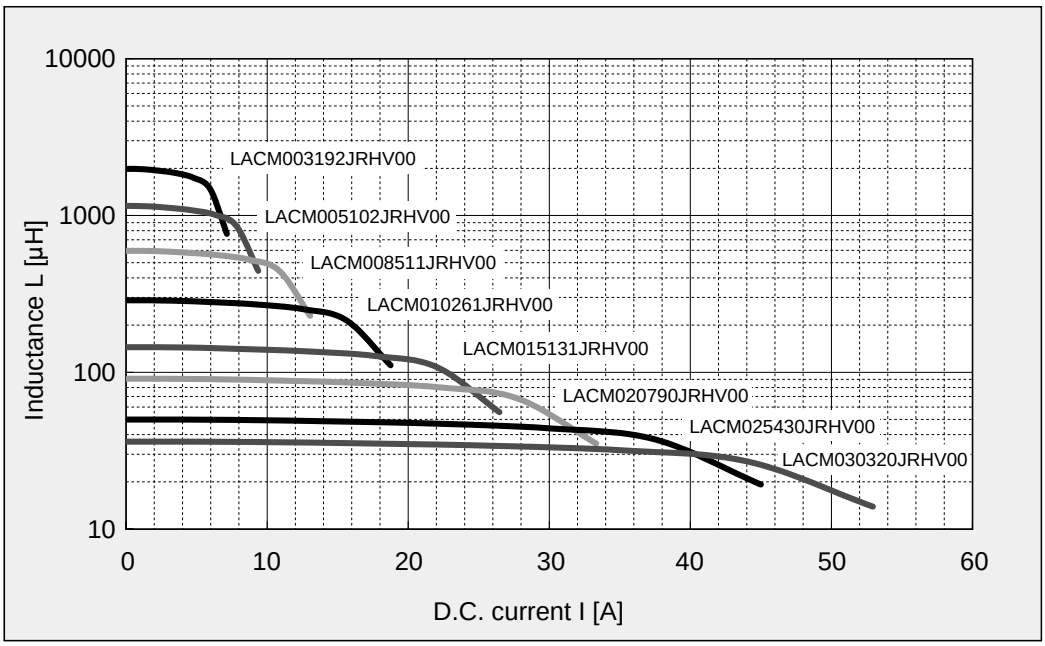
NIPPON CHEMI-CON

AMORPHOUS CHOKE COILS

CMJ Series

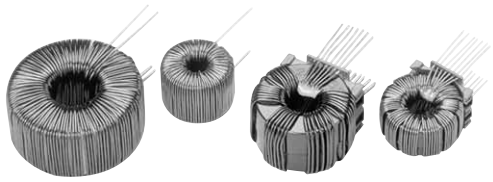
◆D.C. BIAS CHARACTERISTICS

●Core : LNC322015J2, Frequency : 10 kHz



AMORPHOUS CHOKE COILS

AM Series



◆MAJOR USES

- Choke coils for Power Factor Corrective circuit
- Normal mode choke coils for noise control

◆FEATURES

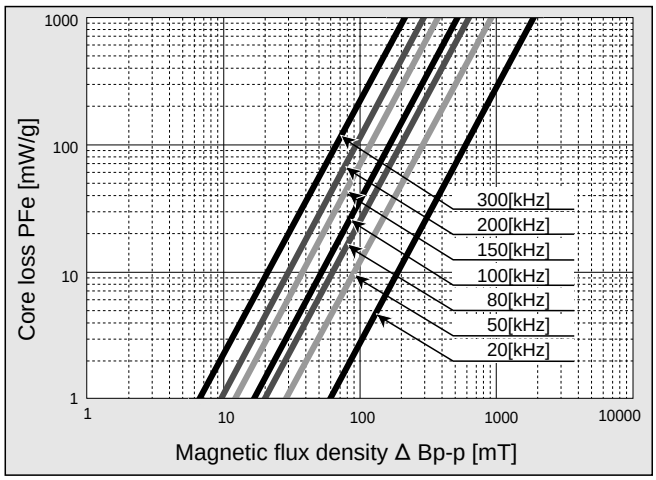
- Excellent D.C. bias characteristics
- Reduction of core loss in comparison with the conventional CM-series coils, providing low temperature rises for uses at power of 100V or larger
- Excellent temperature stability

◆CORE STANDARD SPECIFICATIONS

Core Part No. (Old Core Part No.)	Abbreviation	Cross Sectional Area cm²	Magnetic Path Length cm	Outside Dimensions			Inductance Coefficient AL Value		
				Outer Diameter mm	Width mm	Height mm	I_{dc}=0[A] μH	Rated Current* μH	Rated Current Ampere Turn [AT]
LNC251510J3 (C251510J3)	J7H	0.430	6.28	28.3	12.7	12.3	0.100	0.075	430
LNC251515J2 (C251515J2)	J8H	0.645	6.28	28.3	12.7	17.5	0.140	0.113	460
LNC322015J2 (C322015J2)	JRH	0.774	8.17	35.2	17.5	17.3	0.122	0.102	600
LNC322020J2 (C322020J2)	JAH	1.032	8.17	35.5	17.0	23.8	0.156	0.125	660
LNC372320J2 (C372320J2)	JBH	1.204	9.42	40.5	19.5	23.0	0.173	0.140	700
LNC462720J2 (C462720J2)	JCH	1.634	11.5	49.4	22.7	23.0	0.193	0.156	840
LNC462725J2 (C462725J2)	JKH	2.043	11.5	49.4	22.7	28.0	0.230	0.183	900
LNC603525J2 (C603525J2)	JLH	2.688	14.9	66.7	29.3	29.2	0.230	0.166	1300

◆CORE LOSS CHARACTERISTICS

- **AM choke**



CAT. No. E1008E

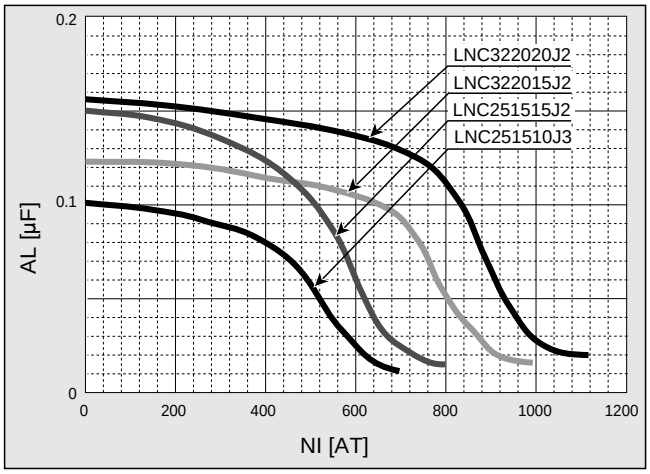
NIPPON CHEMI-CON

AMORPHOUS CHOKE COILS

AM Series

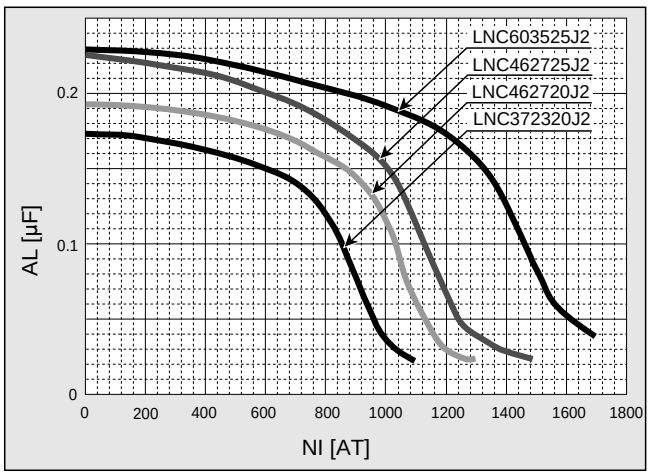
◆D.C. BIAS CHARACTERISTICS AL-AT(1)

●Frequency : 100[kHz]



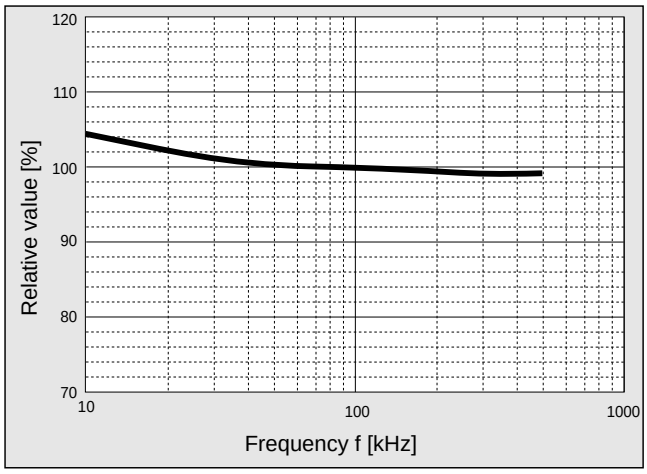
◆D.C. BIAS CHARACTERISTICS AL-AT(2)

●Frequency : 100[kHz]



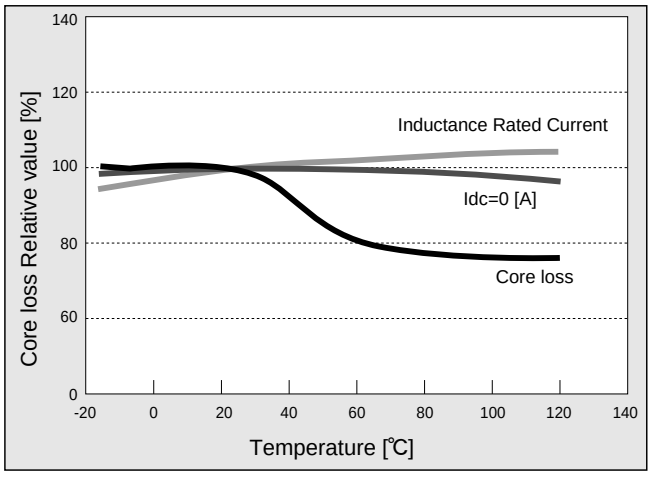
◆FREQUENCY - INDUCTANCE CHARACTERISTICS

●AM choke



◆TEMPERATURE DEPENDENCE - INDUCTANCE AND CORE LOSS

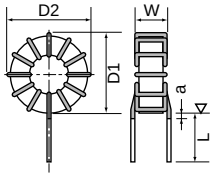
●Frequency : 100[kHz]



NIPPON CHEMI-CON

AMORPHOUS CHOKE COILS

AM Series



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

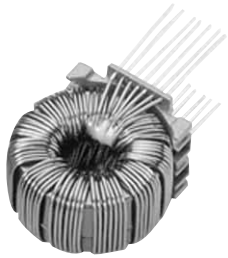
◆COIL STANDARD SPECIFICATIONS

	Coil Part No. (Old Coil Part No.)	Rated Current A	Peak Current A	Inductance *1 (100kHz) 0[A] μH	Inductance *1 (100kHz) Rating μH	D.C.R. mΩ (max)	Winding *2 mmφ×lines-turns	Outside Dimensions D1 mm	Outside Dimensions D2 mm	Outside Dimensions W mm
◎	LAAM002202J7HV00 (AM02202J7H)	2	2.8	2400	2000	350	0.7×1P-155T	33.0	34.5	19.0
◎	LAAM003901J7HV00 (AM03901J7H)	3	4.2	1100	900	140	0.9×1P-102T	33.0	34.5	19.5
◎	LAAM003152J8HV00 (AM03152J8H)	3	4.2	2000	1500	230	0.85×1P-116T	34.0	35.5	26.0
◎	LAAM004801J8HV00 (AM04801J8H)	4	5.7	1100	800	150	0.9×1P- 84T	32.5	34.0	25.5
◎	LAAM005501J8HV00 (AM05501J8H)	5	7.1	600	500	80	1.1×1P- 65T	33.0	34.5	28.0
◎	LAAM004102JRHV00 (AM04102JRH)	4	5.7	1200	1000	160	1.0×1P-100T	40.5	42.0	26.5
◎	LAAM005751JRHV00 (AM05751JRH)	5	7.1	890	750	110	1.1×1P- 85T	40.5	42.0	27.0
◎	LAAM005901JAHV00 (AM05901JAH)	5	7.1	1000	900	115	1.1×1P- 81T	40.5	42.0	32.0
◎	LAAM006651JAHV00 (AM06651JAH)	6	8.5	740	650	87	1.2×1P- 69T	41.0	42.5	32.5
◎	LAAM005122JBHV00 (AM05122JBH)	5	7.1	1500	1200	140	1.1×1P- 92T	45.5	47.0	31.5
◎	LAAM006801JBHV00 (AM06801JBH)	6	8.5	970	800	94	1.2×1P- 75T	45.0	46.5	30.5
◎	LAAM008501JBHV00 (AM08501JBH)	8	11.3	600	500	53	1.0×2P- 59T	46.5	48.0	32.0
◎	LAAM008801JCHV00 (AM08801JCH)	8	11.3	1000	800	73	1.0×2P- 72T	56.0	57.5	33.5
◎	LAAM010501JCHV00 (AM10501JCH)	10	14.1	600	500	45	1.1×2P- 56T	54.5	56.0	32.5
◎	LAAM012351JCHV00 (AM12351JCH)	12	17.0	420	350	33	1.2×2P- 47T	55.0	56.5	32.0
◎	LAAM010651JKHV00 (AM10651JCH)	10	14.1	840	650	53	1.1×2P- 61T	56.0	57.5	38.0
◎	LAAM012451JKHV00 (AM12451JKH)	12	17.0	590	450	41	1.2×2P- 51T	55.5	57.0	38.0
◎	LAAM015301JKHV00 (AM15301JKH)	15	21.2	380	300	26	1.1×3P- 41T	55.5	57.0	38.0
	LAAM012701JLHV00 (AM12701JLH)	12	17.0	860	700	53	1.2×2P- 61T	72.5	74.0	39.0
	LAAM015451JLHV00 (AM15451JLH)	15	21.2	550	450	35	1.1×3P- 49T	72.0	73.5	40.0
	LAAM020251JLHV00 (AM20251JLH)	20	28.3	310	250	20	1.1×4P- 37T	72.5	74.0	39.0

*1 Rated inductance tolerance : ±25%, the inductance at current 0[A] indicates the reference value.
*2 The number of turns indicates the reference value.
The specification of the inductance takes precedence over that of the number of turns.
There is a horizontal putting type in all items in the above list."V"changes into "H" in last the third digit of the name of items.
There is a type with the length putting seat in ● item in the above list."V" changes into "D" in last the third digit of the name of items.
There are the type with the length putting seat and the horizontal putting seat in ◎item.
The type with the length putting seat is "V" changes into "B" in last the third digit of the name of items.
*Order the auxiliary pins separately if they are required for the pedestal.
Please select them according to the situation.

AMORPHOUS CHOKE COILS

AW Series



◆MAJOR USES
- For harmonic counter-measure active filter
- Inverter output smoothing choke coil

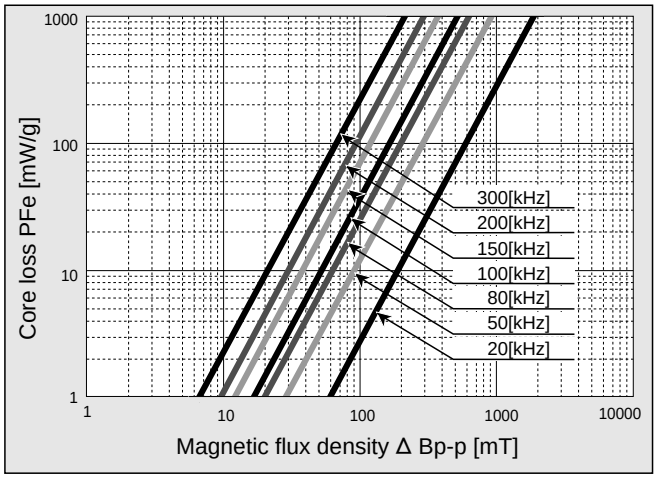
◆FEATURES
- Miniaturization in comparison with AM series coils by about 30 percent
- Excellent d.c. superposition characteristics

◆CORE STANDARD SPECIFICATIONS

Core Part No. (Old Core Part No.)	Abbreviation	Cross Sectional Area cm²	Magnetic Path Length cm	Outside Dimensions			Inductance Coefficient AL Value		
				Outer Diameter mm	Width mm	Height mm	I_{dc}=0[A] μH	Rated Current* μH	Rated Current Ampere Turn [AT]
LNW462725J2 (W462725J2)	WK	2.043	11.5	49.4	22.7	28.0	0.133	0.106	1900
LNW603525J2 (W603525J2)	WL	2.688	14.9	66.7	29.3	29.2	0.135	0.109	2500

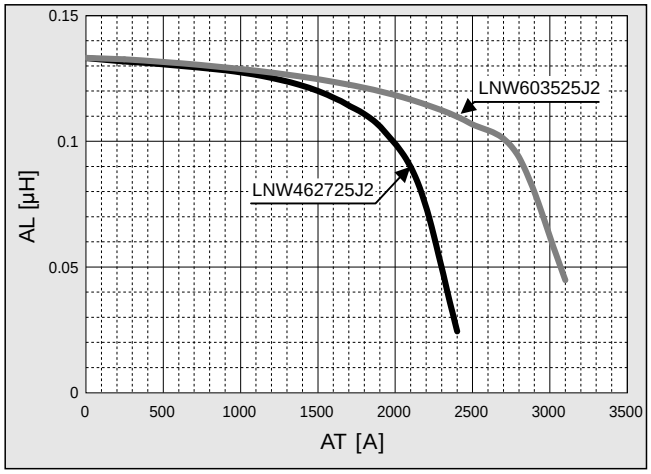
◆CORE LOSS CHARACTERISTICS

●AW choke



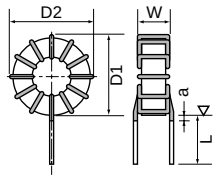
◆D.C. BIAS CHARACTERISTICS AL-AT

●AW core, Frequency : 100[kHz]



AMORPHOUS CHOKE COILS

AW Series



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

◆COIL STANDARD SPECIFICATIONS

	Coil Part No. (Old Coil Part No.)	Rated Current A	Peak Current A	Inductance *1 (100kHz) 0[A] μH	Inductance *1 (100kHz) Rating μH	D.C.R. mΩ (max)	Winding *2 mmφ×lines-turns	Outside Dimensions D1 mm	Outside Dimensions D2 mm	Outside Dimensions W mm
◎	LAAW020251WKHV00 (AW20251WKH)	20	28.3	270	250	20	1.0×5P - 45T	59.0	59.0	41.5
◎	LAAW030101WKHV00 (AW30101WKH)	30	42.4	105	100	10	1.3×4P - 28T	57.0	57.0	41.5
	LAAW040500WKHV00 (AW40500WKH)	40	56.6	53	50	5	1.5×4P - 20T	57.0	57.0	41.5
	LAAW020501WLHV00 (AW20501WLH)	20	28.3	546	500	35	1.0×5P - 64T	78.5	78.5	46.0
	LAAW030201WLHV00 (AW30201WLH)	30	42.4	213	200	15	1.3×4P - 40T	78.5	78.5	46.0
	LAAW040101WLHV00 (AW40101WLH)	40	56.6	105	100	10	1.5×4P - 28T	78.5	78.5	46.0

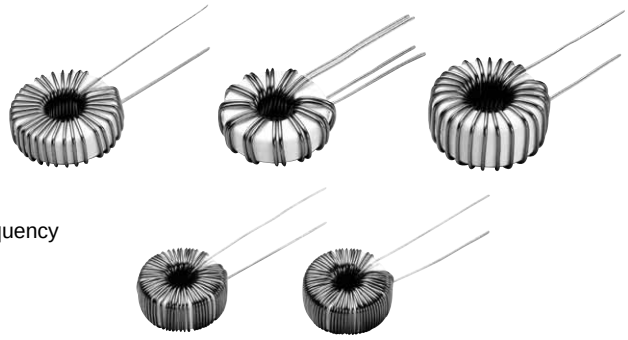
*1 Rated inductance tolerance : ±25%, the inductance at current 0[A] indicates the reference value.
*2 The number of turns indicates the reference value.
The specification of the inductance takes precedence over that of the number of turns.
There is a horizontal putting type in all items in the above list."V"changes into "H" in last the third digit of the name of items.
There is a type with the length putting seat in ● item in the above list."V" changes into "D" in last the third digit of the name of items.
There are the type with the length putting seat and the horizontal putting seat in ◎item.
The type with the length putting seat is "V" changes into "B" in last the third digit of the name of items.
*Order the auxiliary pins separately if they are required for the pedestal.
Please select them according to the situation.

CAT. No. E1008E

NIPPON CHEMI-CON

AMORPHOUS CHOKE COILS

TM Series



◆MAJOR USES

- Output choke coils for Switching Mode Power Supply
- Choke coils for DC-DC converter
- Normal mode choke coils for noise control

◆FEATURES

- Great reduction of core loss enabling low temperature rise at high frequency
- Miniaturization and reduction of DC resistance
- Low leakage flux due to gap-less structure
- Excellent frequency and temperature features

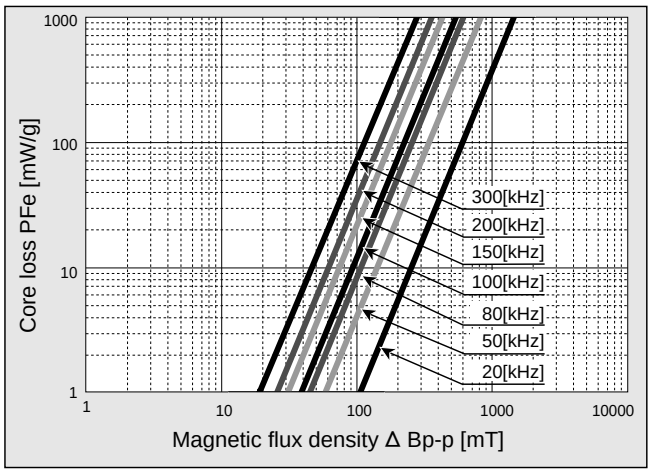
◆CORE STANDARD SPECIFICATIONS

Core Part No. (Old Core Part No.)	Abbreviation	Cross Sectional Area cm^2	Magnetic Path Length cm	Outside Dimensions			Inductance Coefficient AL Value		
				Outer Diameter mm	Width mm	Height mm	I_{dc}=0[A] μH	Rated Current* μH	Rated Current Ampere Turn [AT]
LPT100805N (T100805N)	NS	0.08	2.84	13.0	6.0	6.5	0.100	0.063	70
LPT130805N (T130805N)	N1	0.13	3.44	16.0	5.8	7.4	0.120	0.070	75
LPT150905N (T150905N)	N2	0.14	3.85	17.2	7.3	6.4	0.118	0.063	100
LPT211205N (T211205N)	N5	0.21	5.26	23.2	10.2	6.9	0.126	0.060	155
LPT160910N (T160910N)	NU	0.29	3.92	18.0	7.3	11.9	0.260	0.115	120
LPT191210N (T191210N)	NP	0.33	4.95	21.9	9.8	11.8	0.212	0.095	160
LPT221310N (T221310N)	N6	0.40	5.50	24.7	10.5	12.0	0.229	0.112	160
LPT271510N (T271510N)	N7	0.53	6.60	29.7	12.5	12.3	0.253	0.120	200
LPT322010N (T322010N)	N9	0.56	8.25	35.2	17.5	12.3	0.211	0.090	280

*200[kHz], ±25% (LPT100805N : 100[kHz], ±25%)

◆CORE LOSS CHARACTERISTICS

●TM choke



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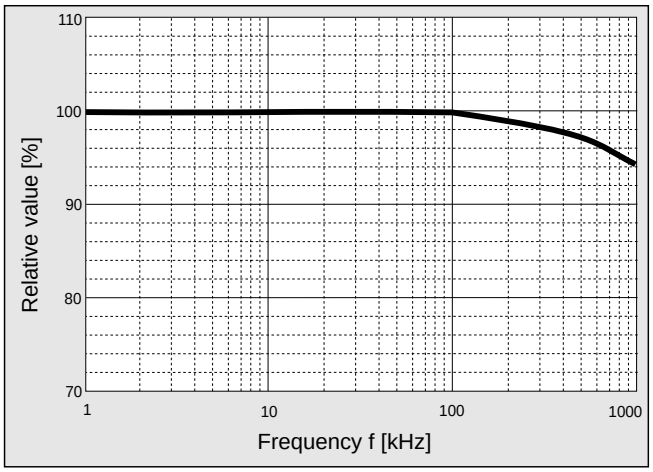
NIPPON CHEMI-CON

AMORPHOUS CHOKE COILS

TM Series

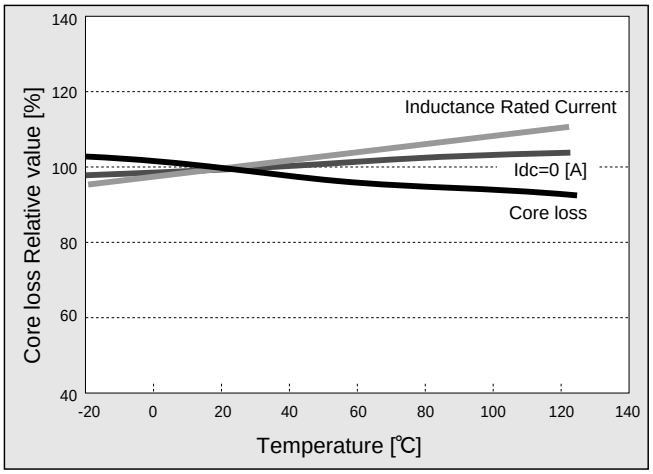
◆FREQUENCY - INDUCTANCE CHARACTERISTICS

●TM choke

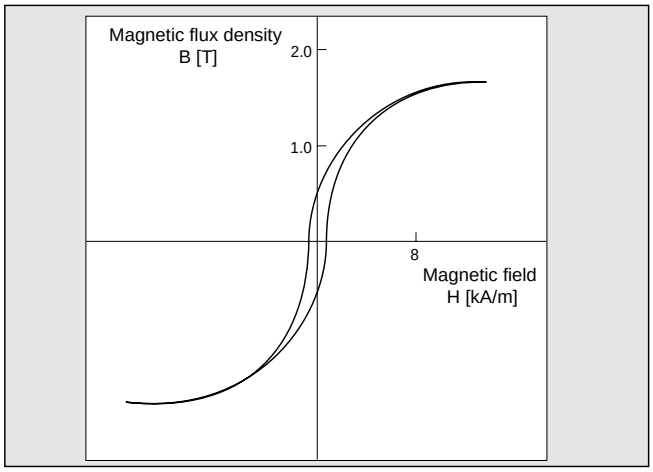


◆TEMPERATURE DEPENDENCE - INDUCTANCE AND CORE LOSS

●Frequency : 200[kHz]

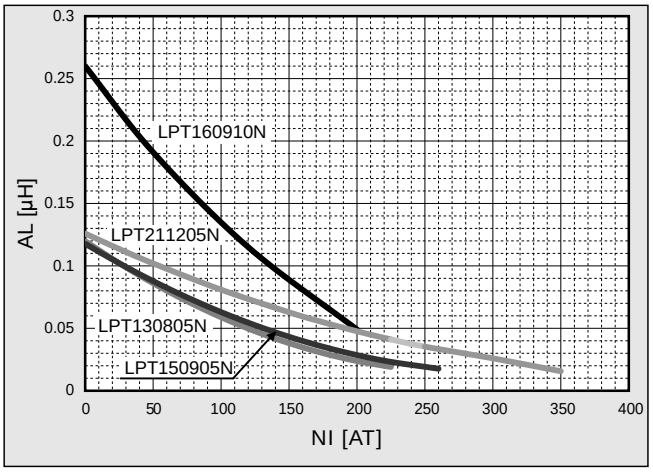


◆B-H CURVE



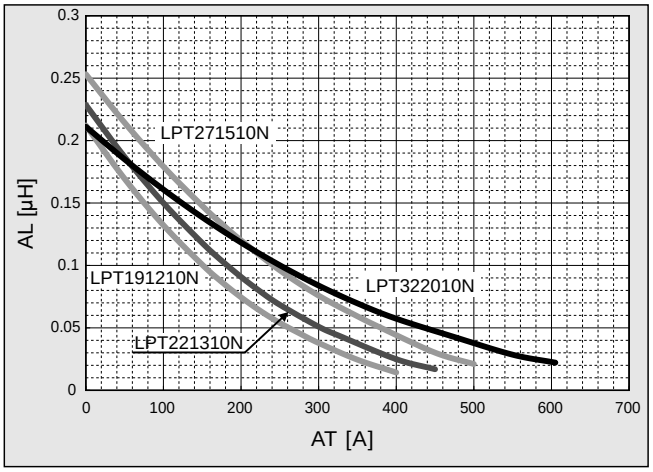
◆D.C. BIAS CHARACTERISTICS AL-AT(1)

●Frequency : 200[kHz]



◆D.C. BIAS CHARACTERISTICS AL-AT(2)

●Frequency : 200[kHz]



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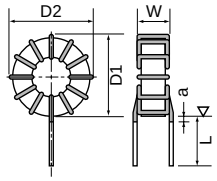
AMORPHOUS CHOKE COILS

TM Series



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

◆COIL STANDARD SPECIFICATIONS

	Coil Part No. (Old Coil Part No.)	Rated Current A	Inductance*1 (200kHz)*2		D.C.R. mΩ (max)	Winding *3 mmφ×lines-turns	Outside Dimensions		
			0[A] μH	Rating μH			D1 mm	D2 mm	W mm
	LBTM001201NS-V00 (TM01201NS)	1	260	200	120	0.5×1P-51T	16.0	16.0	11.0
	LBTM002800NS-V00 (TM02800NS)	2	113	80	60	0.6×1P-35T	16.5	16.5	11.0
	LBTM003270NS-V00 (TM03270NS)	3	40	27	20	0.8×1P-20T	16.5	17.0	11.5
	LBTM005100NS-V00 (TM05100NS)	5	14	10	9	1.0×1P-12T	17.0	17.5	11.5
●	LBTM001201N1-V00 (TM01201N1)	1	290	200	150	0.5×1P-49T	18.5	19.0	10.5
●	LBTM001251N1-V00 (TM01251N1)	1	400	250	170	0.5×1P-58T	18.5	19.0	11.0
●	LBTM001301N1-V00 (TM01301N1)	1	430	300	170	0.5×1P-60T	18.5	19.0	11.0
●	LBTM002101N1-V00 (TM02101N1)	2	160	100	70	0.6×1P-37T	18.5	19.0	11.0
●	LBTM003400N1-V00 (TM03400N1)	3	69	40	27	0.8×1P-24T	19.0	19.5	11.0
●	LBTM004250N1-V00 (TM04250N1)	4	43	25	18	0.9×1P-19T	19.0	19.5	11.5
●	LBTM005150N1-V00 (TM05150N1)	5	23	15	11	1.0×1P-14T	19.5	20.0	11.5
●	LBTM001401N2-V00 (TM01401N2)	1	580	400	210	0.5×1P-70T	19.5	20.0	11.0
●	LBTM001501N2-V00 (TM01501N2)	1	770	500	230	0.5×1P-81T	20.0	20.5	11.0
●	LBTM002151N2-V00 (TM02151N2)	2	240	150	89	0.6×1P-45T	20.0	20.5	10.5
●	LBTM002201N2-V00 (TM02201N2)	2	360	200	110	0.6×1P-55T	20.0	20.5	11.0
●	LBTM002211N2-V00 (TM02211N2)	2	400	210	110	0.6×1P-58T	20.5	21.0	11.5
●	LBTM003700N2-V00 (TM03700N2)	3	110	70	36	0.8×1P-31T	20.5	21.0	11.5
●	LBTM004450N2-V00 (TM04450N2)	4	74	45	24	0.9×1P-25T	21.0	21.5	11.5
●	LBTM004500N2-V00 (TM04500N2)	4	92	50	24	0.9×1P-28T	21.0	21.5	11.5
●	LBTM005300N2-V00 (TM05300N2)	5	52	30	17	1.0×1P-21T	21.0	21.5	12.0
●	LBTM006200N2-V00 (TM06200N2)	6	34	20	11	0.8×2P-17T	21.0	21.5	12.0

*1 Rated inductance tolerance : ±25%, the inductance at current 0[A] indicates the reference value.
*2 LBTM001201NS-V00, LBTM002800NS-V00, LBTM003270NS-V00, LBTM005100NS-V00 : 100kHz
*3 The number of turns indicates the reference value.
The specification of the inductance takes precedence over that of the number of turns.
There is a horizontal putting type in all items in the above list."V "changes into "H" in last the third digit of the name of items.
There is a type with the length putting seat in ● item in the above list."V" changes into "D" in last the third digit of the name of items.
There are the type with the length putting seat and the horizontal putting seat in ◎ item.
The type with the length putting seat is "V" changes into "B" in last the third digit of the name of items.
*Order the auxiliary pins separately if they are required for the pedestal.
Please select them according to the situation.

NIPPON CHEMI-CON

AMORPHOUS CHOKE COILS

TM Series

◆COIL STANDARD SPECIFICATIONS

	Coil Part No. (Old Coil Part No.)	Rated Current A	Inductance*1 (200kHz)*2		D.C.R. mΩ (max)	Winding *3 mmφ×lines-turns	Outside Dimensions		
			0[A] μH	Rating μH			D1 mm	D2 mm	W mm
	LBTM001132N5-V00 (TM01132N5)	1	2100	1300	400	0.5×1P-127T	26.0	26.0	12.0
	LBTM003800N5-V00 (TM03800N5)	3	120	80	41	0.8×1P-30T	26.5	26.5	11.0
	LBTM003171N5-V00 (TM03171N5)	3	290	170	59	0.8×1P-48T	26.5	26.5	12.0
	LBTM005750N5-V00 (TM05750N5)	5	150	75	27	1.0×1P-35T	27.0	27.0	13.5
	LBTM006450N5-V00 (TM06450N5)	6	85	45	18	0.8×2P-26T	27.0	27.0	13.0
	LBTM008250N5-V00 (TM08250N5)	8	45	25	11	0.9×2P-19T	27.0	27.0	13.5
	LBTM010160N5-V00 (TM10160N5)	10	28	16	7	1.1×2P-15T	28.0	28.0	14.0
	LBTM015080N5-V00 (TM15080N5)	15	15	8	4	1.1×3P-11T	27.5	27.5	14.5
●	LBTM002351NU-V00 (TM02351NU)	2	650	350	135	0.6×1P-52T	22.0	22.0	16.5
●	LBTM003131NU-V00 (TM03131NU)	3	217	130	44	0.8×1P-30T	22.5	22.5	17.0
●	LBTM005500NU-V00 (TM05500NU)	5	87	50	19	1.0×1P-19T	22.5	22.5	16.5
●	LBTM008170NU-V00 (TM08170NU)	8	29	17	7	0.9×2P-11T	22.5	22.5	16.5
●	LBTM002621NP-V00 (TM02621NP)	2	1200	620	150	0.7×1P-76T	24.5	24.5	16.5
●	LBTM003291NP-V00 (TM03291NP)	3	550	290	76	0.8×1P-51T	24.5	24.5	16.0
●	LBTM004161NP-V00 (TM04161NP)	4	320	160	46	0.9×1P-39T	25.0	25.0	16.5
●	LBTM005101NP-V00 (TM05101NP)	5	190	100	29	1.0×1P-30T	25.0	25.0	16.5
●	LBTM006700NP-V00 (TM06700NP)	6	130	70	19	0.8×2P-25T	24.5	24.5	16.0
●	LBTM008400NP-V00 (TM08400NP)	8	77	40	12	0.9×2P-19T	25.0	25.0	16.5
●	LBTM010270NP-V00 (TM10270NP)	10	54	27	7	1.1×2P-16T	26.0	26.0	17.0
●	LBTM015120NP-V00 (TM15120NP)	15	26	12	4	1.1×3P-11T	26.0	26.0	17.5

NIPPON CHEMI-CON

AMORPHOUS CHOKE COILS

TM Series

◆COIL STANDARD SPECIFICATIONS

	Coil Part No. (Old Coil Part No.)	Rated Current A	Inductance *1 (200kHz) *2		D.C.R. mΩ (max)	Winding *3 mmφ×lines-turns	Outside Dimensions		
			0[A] μH	Rating μH			D1 mm	D2 mm	W mm
◎	LBTM002701N6-V00 (TM02701N6)	2	1200	700	150	0.7×1P-73T	27.5	28.0	16.5
◎	LBTM003181N6-V00 (TM03181N6)	3	260	180	50	0.8×1P-33T	27.5	28.0	15.0
◎	LBTM003351N6-V00 (TM03351N6)	3	640	350	82	0.8×1P-53T	27.5	28.0	16.5
◎	LBTM004101N6-V00 (TM04101N6)	4	140	100	33	0.9×1P-25T	27.5	28.0	16.0
◎	LBTM004201N6-V00 (TM04201N6)	4	370	200	48	0.9×1P-40T	28.0	28.5	16.5
◎	LBTM005131N6-V00 (TM05131N6)	5	250	130	34	1.0×1P-33T	28.5	29.0	17.0
◎	LBTM006850N6-V00 (TM06850N6)	6	170	85	22	0.8×2P-27T	28.0	28.5	17.0
◎	LBTM008450N6-V00 (TM08450N6)	8	83	45	13	0.9×2P-19T	28.0	28.5	17.0
◎	LBTM010300N6-V00 (TM10300N6)	10	51	30	7	1.1×2P-15T	29.0	29.5	17.5
◎	LBTM015160N6-V00 (TM15160N6)	15	33	16	5	1.1×3P-12T	28.5	29.0	18.5
◎	LBTM020100N6-V00 (TM20100N6)	20	23	10	4	1.3×3P-10T	29.5	30.0	19.0
◎	LBTM002901N7-V00 (TM02901N7)	2	1500	900	240	0.6×1P-73T	32.0	32.5	15.5
◎	LBTM002112N7-V00 (TM02112N7)	2	1800	1100	190	0.7×1P-85T	32.5	33.0	16.5
◎	LBTM003481N7-V00 (TM03481N7)	3	820	480	94	0.8×1P-57T	32.5	33.0	16.5
◎	LBTM005141N7-V00 (TM05141N7)	5	240	140	34	1.0×1P-31T	33.0	33.5	16.0
◎	LBTM005211N7-V00 (TM05211N7)	5	390	210	42	1.0×1P-39T	33.0	33.5	17.5
	LBTM010300N7-V00 (TM10300N7)	10	45	30	7	1.6×1P-13T	35.5	36.0	18.5
◎	LBTM010500N7-V00 (TM10500N7)	10	100	50	11	1.1×2P-20T	34.0	34.5	18.0
◎	LBTM015260N7-V00 (TM15260N7)	15	57	26	6	1.1×3P-15T	33.5	34.0	18.0
	LBTM025100N7-V00 (TM25100N7)	25	25	10	3	1.6×2P-10T	35.5	36.0	19.0
◎	LBTM003501N9-V00 (TM03501N9)	3	840	500	120	0.8×1P-63T	38.5	39.0	18.5
◎	LBTM005281N9-V00 (TM05281N9)	5	530	280	61	1.0×1P-50T	39.5	40.0	19.0
◎	LBTM005301N9-V00 (TM05301N9)	5	550	300	62	1.0×1P-51T	39.5	40.0	19.0
	LBTM010600N9-V00 (TM10600N9)	10	110	60	12	1.6×1P-23T	41.5	42.0	20.0
◎	LBTM010800N9-V00 (TM10800N9)	10	170	80	15	1.1×2P-28T	41.0	41.5	20.5
◎	LBTM015400N9-V00 (TM15400N9)	15	93	40	8	1.1×3P-21T	39.5	40.0	20.0
◎	LBTM020130N9-V00 (TM20130N9)	20	21	13	4	1.3×3P-10T	41.0	41.5	19.5
◎	LBTM020200N9-V00 (TM20200N9)	20	41	20	5	1.3×3P-14T	40.5	41.0	20.5

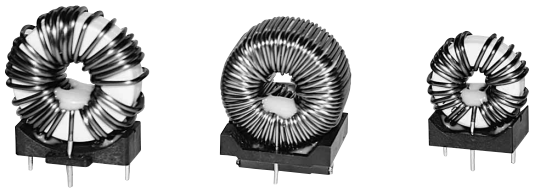
AMORPHOUS CHOKE COILS

Upgrade

TM Series (Base specifications with pins)

◆MAJOR USES

- Output choke coils for Switching Mode Power Supply
- Choke coils for DC-DC converter
- Normal mode choke coils for noise control



◆FEATURES

- Excellent ANTI-VIBRATION DEVICE. Insulation for substrate
- Miniaturization and reduction of DC resistance
- Low leakage flux due to gap-less structure
- Excellent frequency and temperature features
- Pb free

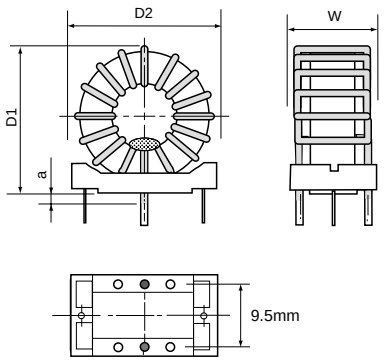
◆CORE STANDARD SPECIFICATIONS

Coil Part No. (Old Coil Part No.)	Rated Current A	Inductance (200kHz)*1		D.C.R. mΩ (max)	Winding *2 mmϕ×lines-turns	Outside Dimensions			
		0[A] μH	Rating μH			D1 mm	D2 mm	W mm	Dimensions
LBTM2R2171N2-Y0E (TM02201N2ZDGPBF)	2.2	400	170	96	0.7×1P-58T	24.5	21.5	12.5	Fig-1
LBTM005750N5-Y0E (TM05750N5DGPBF)	5	150	75	27	1.0×1P-35T	31.0	28.5	15.0	Fig-2
LBTM005131NPAY0E (TM05131NPZDGPBF)	5	410	130	40	1.1×1P-44T	28.5	26.5	18.0	Fig-3

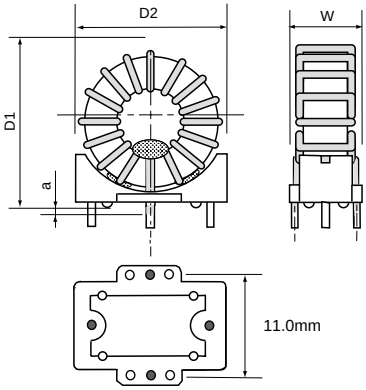
*1 Rated inductance tolerance : ±25%, the inductance at current 0[A] indicates the reference value.
*2 The number of turns indicates the reference value.
The specification of the inductance takes precedence over that of the number of turns.

◆OVERALL DIMENSIONS DIAGRAM

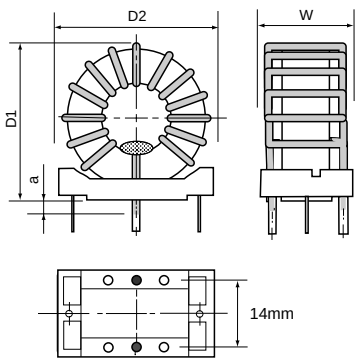
●Fig1



●Fig2



●Fig3



NIPPON CHEMI-CON

AMORPHOUS CHOKE COILS

BM Series

◆MAJOR USES

- Output choke coils for Switching Mode Power Supply
- Choke coils for DC-DC converter
- Normal mode choke coils for noise control

◆FEATURES

- Miniaturization in comparison with TM series coils
- High inductance in low load current
- Low leakage flux due to gap-less structure

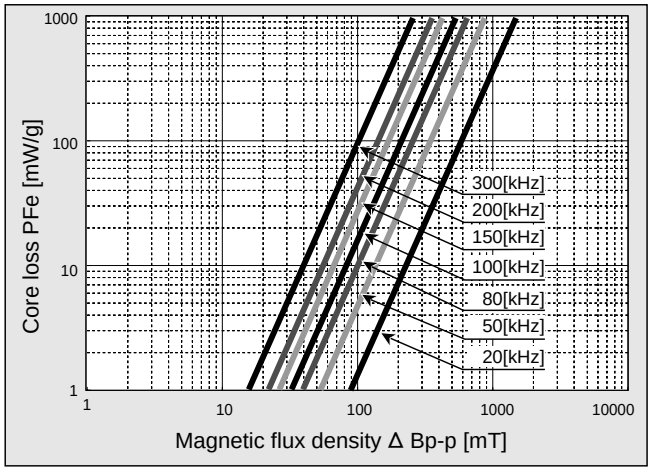
◆CORE STANDARD SPECIFICATIONS

Core Part No. (Old Core Part No.)	Abbreviation	Cross Sectional Area cm^2	Magnetic Path Length cm	Outside Dimensions			Inductance Coefficient AL Value		
				Outer Diameter mm	Width mm	Height mm	I_{dc}=0[A] μH	Rated Current* μH	Rated Current Ampere Turn [AT]
LPB150905N (B150905N)	X2	0.140	3.85	17.2	7.3	6.4	0.079	0.047	100
LPB190910N (B190910N)	XU	0.447	4.49	21.6	7.3	11.9	0.248	0.100	200
LPB221310N (B221310N)	X6	0.396	5.50	24.7	10.5	12.0	0.153	0.065	240
LPB251510N (B251510N)	X7	0.430	6.28	28.3	12.7	12.3	0.153	0.068	270
LPB251515N (B251515N)	X8	0.645	6.28	28.3	12.7	17.5	0.226	0.091	300
LPB322015N (B322015N)	XR	0.774	8.17	35.2	17.5	17.3	0.229	0.091	350
LPB372315N (B372315N)	XJ	0.924	9.42	40.5	19.5	18.0	0.209	0.096	375
LPB462715N (B462715N)	XQ	1.254	11.50	49.4	22.7	18.0	0.232	0.084	600
LPB462720N (B462720N)	XC	1.634	11.50	49.4	22.7	23.0	0.310	0.112	600

*200[kHz], ±25%

◆CORE LOSS CHARACTERISTICS

●BM choke



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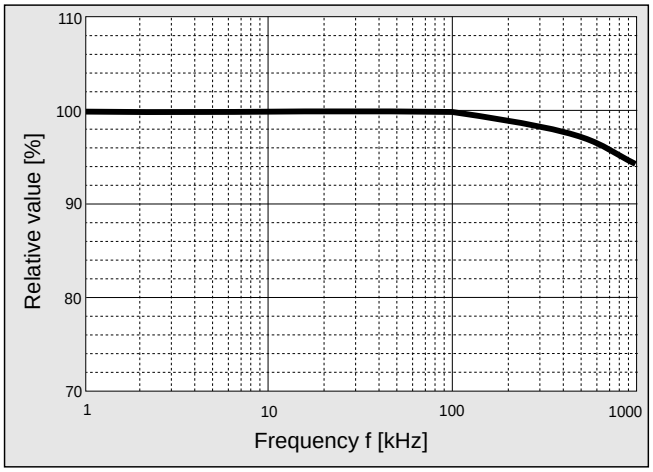
AMORPHOUS CHOKE COILS

BM Series

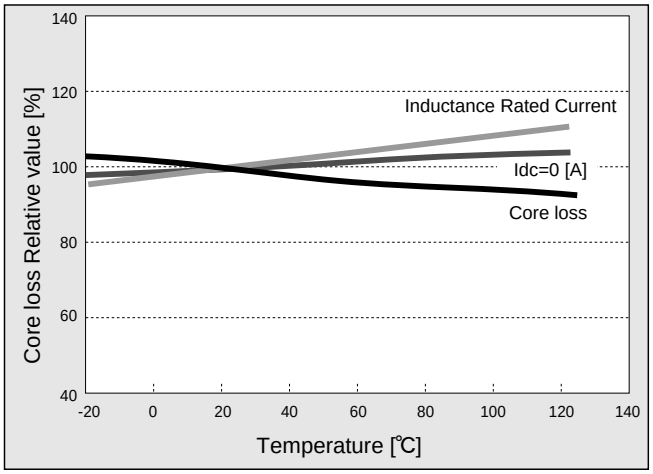
◆FREQUENCY - INDUCTANCE CHARACTERISTICS

●BM choke

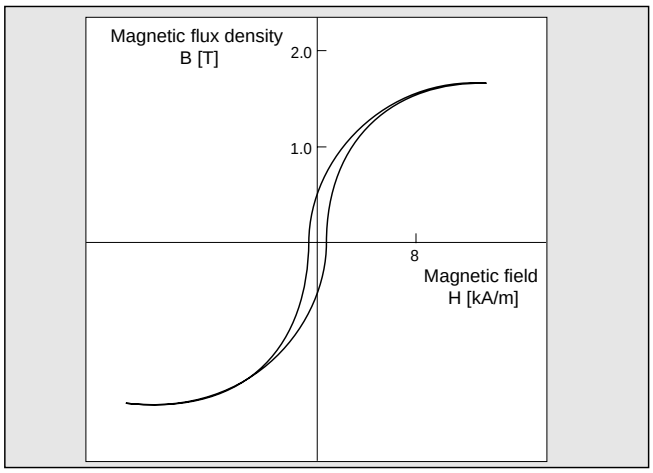


◆TEMPERATURE DEPENDENCE - INDUCTANCE AND CORE LOSS

●Frequency : 200[kHz]

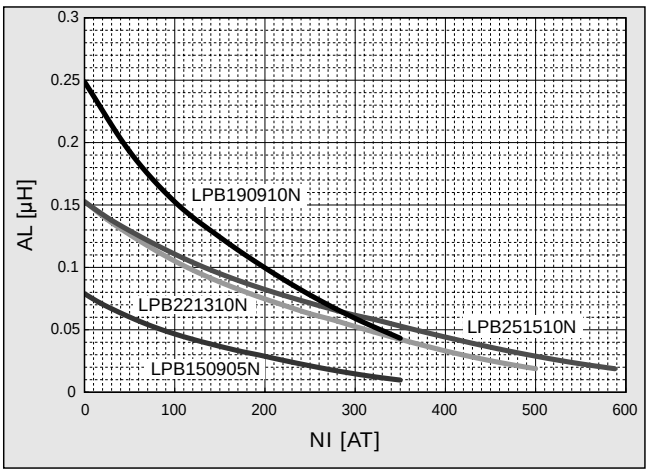


◆B-H CURVE



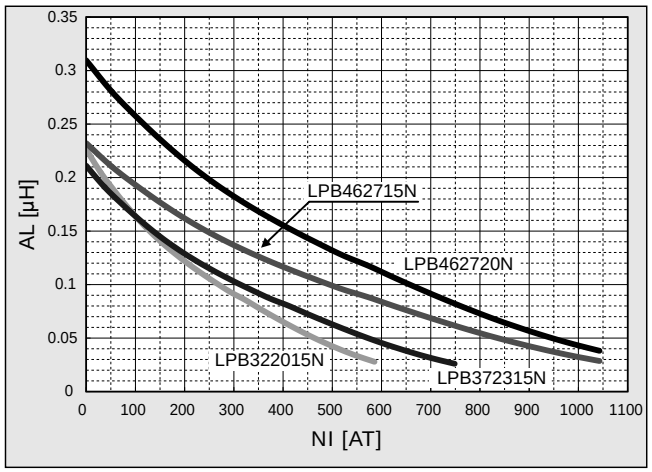
◆D.C. BIAS CHARACTERISTICS AL-AT(1)

●Frequency : 200[kHz]



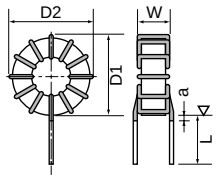
◆D.C. BIAS CHARACTERISTICS AL-AT(2)

●Frequency : 200[kHz]



AMORPHOUS CHOKE COILS

BM Series



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

◆COIL STANDARD SPECIFICATIONS

	Coil Part No. (Old Coil Part No.)	Rated Current A	Inductance (200kHz)*1		D.C.R. mΩ (max)	Winding *2 mmφ×lines-turns	Outside Dimensions		
			0[A] μH	Rating μH			D1 mm	D2 mm	W mm
◎	LBBM003421X6-V00 (BM03421X6)	3	1100	420	130	0.8×1p - 80T	29.0	29.0	17.5
◎	LBBM005161X6-V00 (BM05161X6)	5	360	160	55	1.0×1p - 48T	29.0	29.0	18.0
◎	LBBM008600X6-V00 (BM08600X6)	8	140	60	20	0.9×2p - 30T	29.0	29.0	18.0
◎	LBBM010300X6-V00 (BM10300X6)	10	62	30	11	1.0×2p - 20T	29.0	29.0	18.0
◎	LBBM015150X6-V00 (BM15150X6)	15	35	15	6	1.0×3p - 15T	29.5	29.5	18.5
◎	LBBM020100X6-V00 (BM20100X6)	20	23	10	4	1.0×4p - 12T	29.5	29.5	18.5
◎	LBBM025060X6-V00 (BM25060X6)	25	13	6	2	1.2×4p - 9T	30.0	30.0	19.0
◎	LBBM0303R6X6-V00 (BM30040X6)	30	7.6	3.6	2	1.3×4p - 7T	31.0	31.0	19.5
◎	LBBM003551X7-V00 (BM03551X7)	3	1400	550	150	0.8×1p - 90T	32.5	32.5	18.0
◎	LBBM005201X7-V00 (BM05201X7)	5	460	200	60	1.0×1p - 54T	32.0	32.5	18.0
◎	LBBM008800X7-V00 (BM08800X7)	8	180	80	23	0.9×2p - 34T	32.5	33.0	18.5
◎	LBBM010500X7-V00 (BM10500X7)	10	110	50	16	1.0×2p - 27T	32.5	33.0	18.5
◎	LBBM015270X7-V00 (BM15270X7)	15	62	27	8	1.0×3p - 20T	33.0	33.5	19.0
◎	LBBM020150X7-V00 (BM20150X7)	20	35	15	5	1.2×3p - 15T	33.5	33.5	20.0
◎	LBBM025090X7-V00 (BM25090X7)	25	22	9	3	1.2×4p - 12T	33.5	33.5	21.0
◎	LBBM030070X7-V00 (BM30070X7)	30	16	7	3	1.3×4p - 10T	34.5	34.5	21.0
	LBBM035050X7-V00 (BM35050X7)	35	12	5.0	3	1.4×4p - 9T	34.0	34.0	21.0
	LBBM0403R4X7-V00 (BM40030X7)	40	7.6	3.4	2	1.4×5p - 7T	35.0	35.0	21.0

*1 Rated inductance tolerance : ±25%, the inductance at current 0[A] indicates the reference value.
*2 The number of turns indicates the reference value.
The specification of the inductance takes precedence over that of the number of turns.
There is a horizontal putting type in all items in the above list."V "changes into "H" in last the third digit of the name of items.
There is a type with the length putting seat in ● item in the above list."V" changes into "D" in last the third digit of the name of items.
There are the type with the length putting seat and the horizontal putting seat in ◎ item.
The type with the length putting seat is "V" changes into "B" in last the third digit of the name of items.
*Order the auxiliary pins separately if they are required for the pedestal.
Please select them according to the situation.

NIPPON CHEMI-CON

AMORPHOUS CHOKE COILS

BM Series

◆COIL STANDARD SPECIFICATIONS

	Coil Part No. (Old Coil Part No.)	Rated Current A	Inductance (200kHz)*1		D.C.R. mΩ (max)	Winding *2 mmϕ×lines-turns	Outside Dimensions		
			0[A] μH	Rating μH			D1 mm	D2 mm	W mm
◎	LBBM003801X8-V00 (BM03801X8)	3	1800	800	185	0.8×1P - 88T	33.0	33.0	24.5
◎	LBBM005351X8-V00 (BM05351X8)	5	840	350	85	1.0×1p - 60T	34.0	34.0	24.5
◎	LBBM008121X8-V00 (BM08121X8)	8	280	120	30	1.3×1p - 35T	34.0	34.0	24.5
◎	LBBM010750X8-V00 (BM10750X8)	10	170	75	17	1.1×2p - 27T	34.0	34.0	25.5
◎	LBBM015350X8-V00 (BM15350X8)	15	84	35	9	1.3×2p - 19T	34.5	34.5	25.0
◎	LBBM020210X8-V00 (BM20210X8)	20	52	21	6	1.2×3p - 15T	34.0	34.0	26.0
◎	LBBM025130X8-V00 (BM25130X8)	25	33	13	4	1.2×4p - 12T	35.0	35.0	26.0
◎	LBBM030090X8-V00 (BM30090X8)	30	23	9	3	1.3×4p - 10T	35.5	35.5	27.0
	LBBM0357R5X8-V00 (BM35070X8)	35	20	7.5	3	1.4×4p - 9T	35.0	35.0	27.5
	LBBM040050X8-V00 (BM40050X8)	40	12	5.0	2	1.4×5p - 7T	36.5	36.5	26.5
◎	LBBM003122XR-V00 (BM03122XR)	3	2800	1200	155	1.0×1p -100T	41.5	41.5	26.5
◎	LBBM005481XR-V00 (BM05481XR)	5	1100	480	100	1.1×1p - 70T	41.0	41.0	25.5
◎	LBBM008191XR-V00 (BM08191XR)	8	460	190	40	1.3×1p - 45T	41.5	41.5	25.5
◎	LBBM010121XR-V00 (BM10121XR)	10	280	120	22	1.1×2p - 35T	40.5	40.5	26.0
◎	LBBM015570XR-V00 (BM15570XR)	15	140	57	13	1.3×2p - 25T	41.5	41.5	26.0
◎	LBBM020310XR-V00 (BM20310XR)	20	74	31	7	1.2×3p - 18T	42.0	42.0	26.0
●	LBBM025200XR-V00 (BM25200XR)	25	51	20	5	1.2×4p - 15T	41.5	41.5	26.0
●	LBBM030140XR-V00 (BM30140XR)	30	33	14	4	1.3×4p - 12T	42.0	42.0	27.0
●	LBBM0359R5XR-V00 (BM35100XR)	35	23	9.5	3	1.4×4p - 10T	42.0	42.0	26.0
●	LBBM0406R5XR-V00 (BM40070XR)	40	15	6.5	2	1.4×5p - 8T	42.5	42.5	26.5
●	LBBM0454R9XR-V00 (BM45050XR)	45	11	4.9	2	1.3×6p - 7T	42.5	42.5	26.5

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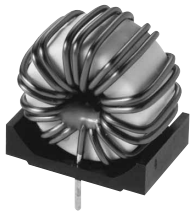
NIPPON CHEMI-CON

AMORPHOUS CHOKE COILS

EM Series



◆MAJOR USES

●Car audio for Alternator noise prevension

◆FEATURES

●Miniaturization in comparison with ferrite choke coil and dust choke coil
●Miniaturization and reduction of DC resistance
●Low leakage flux due to gap-less structure

◆CORE STANDARD SPECIFICATIONS

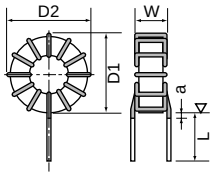
Core Part No. (Old Core Part No.)	Abbreviation	Cross Sectional Area cm^2	Magnetic Path Length cm	Outside Dimensions			Inductance Coefficient AL Value		
				Outer Diameter mm	Width mm	Height mm	I_{dc}=0[A] μH	Rated Current* μH	Rated Current Ampere Turn [AT]
LQE110705S (E110705S)	SS	0.090	2.97	13.0	5.9	6.5	0.160	0.120	30
LQE160908S (E160908S)	SW	0.234	3.92	18.4	6.9	10.3	0.674	0.495	36
LQE160910S (E160910S)	SU	0.300	3.92	18.0	7.3	11.9	1.190	0.713	29
LQE181110S (E181110S)	S3	0.301	4.56	20.2	8.8	11.8	0.871	0.775	23
LQE191006U (E191006U)	SV	0.227	4.52	20.5	8.4	7.1	0.430	0.297	51

*1[kHz], +50%, -25%

CAT. No. E1008E

AMORPHOUS CHOKE COILS

EM Series



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

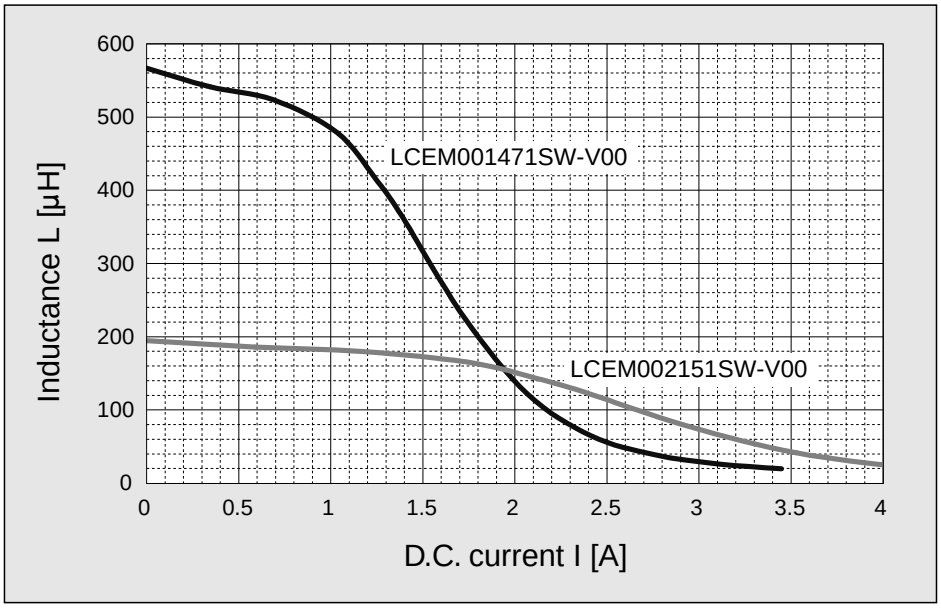
◆COIL STANDARD SPACIFICATIONS

	Coil Part No. (Old Coil Part No.)	Rated Current A	Inductance (1kHz) *1		D.C.R. mΩ (max)	Winding *2 mmϕ×lines-turns	Outside Dimensions		
			0[A] μH	Rating μH			D1 mm	D2 mm	W mm
●	LCEM001471SW-V00 (EM01471SW)	1	567	352	33	0.9×1P - 29T	22.5	22.5	15.5
●	LCEM002151SW-V00 (EM02151SW)	2	195	112	20	1.0×1P - 17T	23.5	23.5	16.0

*1 Rated inductance minimum value, the inductance at current 0[A] indicates the reference value.
*2 The number of turns indicates the reference value.
The specification of the inductance takes precedence over that of the number of turns.
There is a horizontal putting type in all items in the above list.
"V"changes into "H" in last the third digit of the name of items.
There is a type with the length putting seat in ● item in the above list.
"V" changes into "D" in last the third digit of the name of items.
*Order the auxiliary pins separately if they are required for the pedestal.

◆D.C. BIAS CHARACTERISTICS

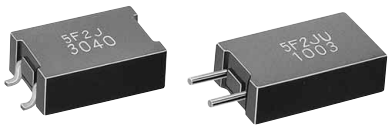
●Core : LQE160908S, Frequency : 1 [kHz]

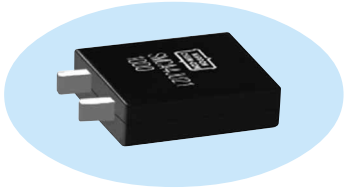


NIPPON CHEMI-CON

AMORPHOUS CHOKE COILS

SM Series





◆MAJOR USES

- Choke coils for DC-DC converter
- Output choke coils for Switching Mode Power Supply

◆FEATURES

- Minimum device thickness of 6.8 mm with high D.C. rated current
- Remarkably small of D.C. resistance in this type of device
- Use of Fe-base amorphous for excellent operation stability at high temperature
- Preparation of both SMD and SIP type

◆GENERAL SPECIFICATION

Items	Rated value
Operating Temperature Range *1	-25 to 130℃
Storage Temperature Range	-25 to 130℃
Operating Humidity Range	20 to 95%RH
Storage Humidity Range	20 to 80%RH
Operating Frequency Range *2	20kHz to 500kHz
Increase in Temperature *3	45 deg. or less
Insulating Type	Type B (130℃)
Incombustibility *4	UL94V-0

*1 Temperature on the coil surface including the increase in self-temperature in installation.
*2 When infra-acoustic frequency component is impressed, a beat sound some times occur.
*3 Increase in the temperature on the coil surface during the flow of the rated D.C. current.
*4 Housing case material.

◆PART NUMBER DESIGNATIONS

1	2	3 4	5 6 7 8	9	10	11	12	13	14
L	E	SM	5F2J	L	3	2	L	0	0

- 14: Solder control code⑥
- 13: Specifications control code⑤
- 12: Package Method④
- 11: Lead side③
- 10: Lead number②
- 9: Lead shape①
- 6 7 8: Core type
- 3 4: Series
- 2: Section code
- 1: Class code

①Lead shape

Code	Lead shape
S	SMD type(Vertical)
L	SMD type(Horizontal)
U	SIP type(Vertical)
G	SIP type(Horizontal)

②Lead number

Code	Laad number
2	2
3	3
4	4

③Lead side

Code	Lead side
1	One Side
2	Two Side

④Package Method

Code	Contents
T	Taping
L	Standard tray
N	Others

⑤Specifications control code

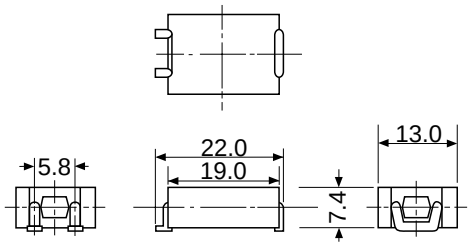
Code	Specifications
0	Standard
1	Custom

⑥Solder control code

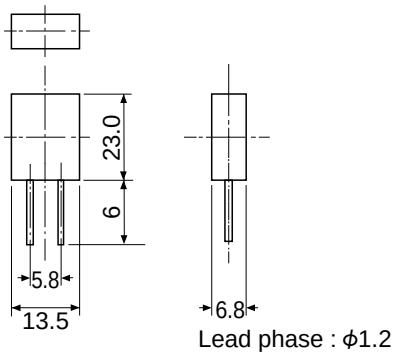
Code	Specifications
0	Standard solder
E	Pb free

◆STANDARD DIMENSION DIAGRAM (mm)

●SMD type : LESM5F2JL32L00
LESM5F2HL32L00

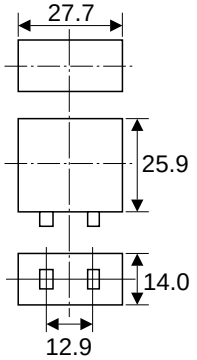


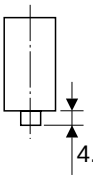
●SIP type : LESM5F2JU21L00



Lead phase : ϕ1.2

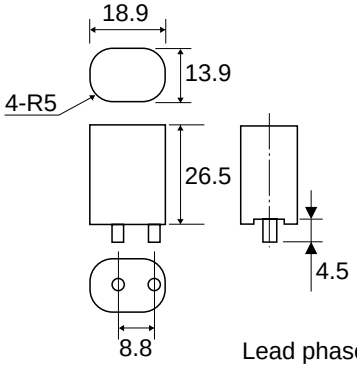
●SIP type : LESMCA4JU21L0E, LESMCA4HU21L0E





	Lead phase
LESMCA4JU21L0E	3×5
LESMCA4HU21L0E	ϕ3.2

●SIP type : LESMBA2HU21L0E



Lead phase : ϕ3.2

CAT. No. E1008E

NIPPON CHEMI-CON

AMORPHOUS CHOKE COILS

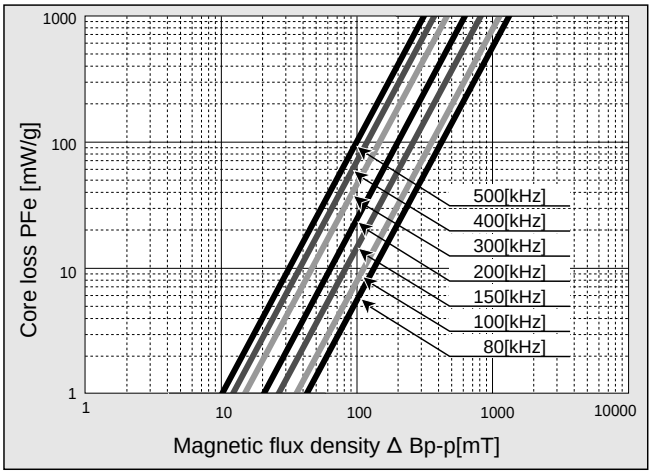
SM Series

◆COIL STANDARD SPECIFICATIONS

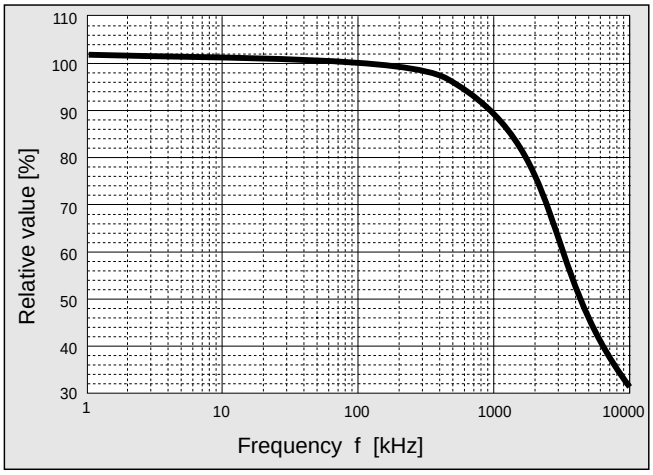
Coil Part No. (Old Coil Part No.)	Rated Current A	Inductance *1		D.C.R. mΩ (max)	Mounting Direction	Outside Dimensions		
		0[A] μH	Rating μH			ℓ mm	w mm	h mm
LESM5F2JU21L00 (SM5F2JU21)	10	4.8	2.6	1.0	Vertical	13.5	6.8	23.0
LESM5F2JL32L00 (SM5F2JL32)	10	4.8	2.6	1.0	Horizontal	22.0	13.0	7.4
LESM5F2HL32L00 (SM5F2HL32)	20	1.2	0.9	1.0	Horizontal	22.0	13.0	7.4
● LESMCA4HU21L0E (SMCA4HU21ZPBF)	30	3.5	2.2	0.3	Vertical	27.7	14.0	25.9
● LESMBA2HU21L0E (SMBA2HU21ZPBF)	35	1.2	0.9	0.3	Vertical	18.9	13.9	26.5
● LESMCA4JU21L0E (SMCA4JU21PBF)	70	1.6	0.9	0.2	Vertical	27.7	14.0	25.9

*Inductance measurement condition : 100kHz (SMCA4HU21Z, SMBA2HU21Z : 200kHz)
The inductance at current 0[A] indicates the reference value.
The item preceded by symbol ● Pb free only.

◆CORE LOSS CHARACTERISTICS

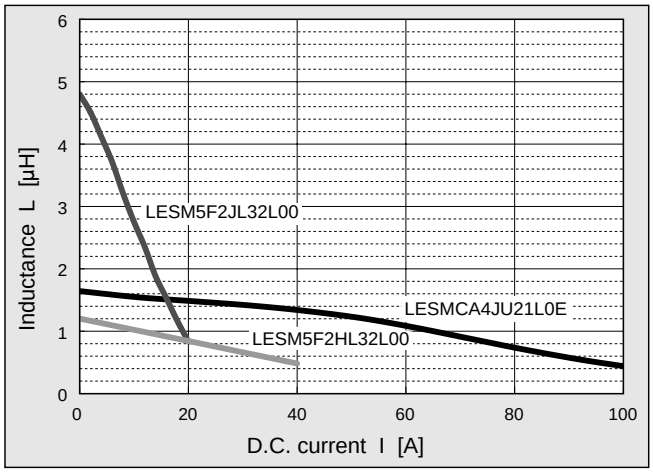


◆FREQUENCY - INDUCTANCE CHARACTERISTICS



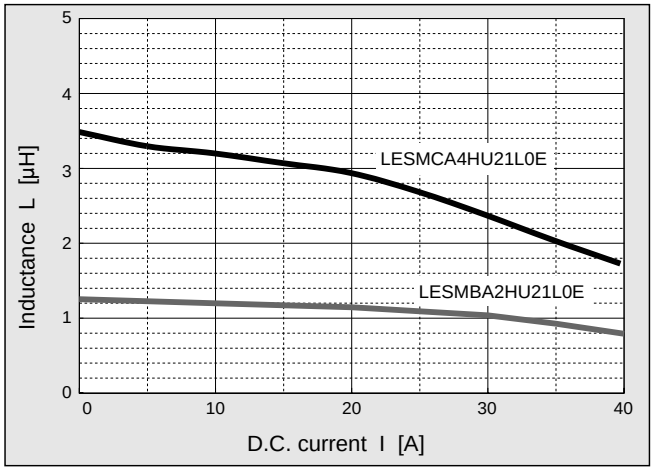
◆D.C. BIAS CHARACTERISTICS (1)

●Frequency : 100[kHz]



◆D.C. BIAS CHARACTERISTICS (2)

●Frequency : 200[kHz]



CAT. No. E1008E

NIPPON CHEMI-CON

AMORPHOUS CHOKE COILS

FM Series

The FM series coils are made of nano-crystal.

◆MAJOR USES

- ●Signal power line noise control
- ●DC power line noise control
- ●AC power line noise control

◆FEATURES

- ●The high permeability core is made of nano-crystal
- ●High impedance in spite of a small number of turns
- ●Excellent temperature characteristics
- ●Conforming to insulating type B and incombustibility UL94V-0

◆CORE STANDARD SPECIFICATIONS

Core Part No. (Old Core Part No.)	Abbreviation	Cross Sectional Area cm^2	Magnetic Path Length cm	Outside Dimensions			Inductance Coefficient AL Value
				Outer Diameter mm	Width mm	Height mm	I_{dc}=0[A] μH (100kHz)
LRF251515MK (F251515MK)	M8K	0.63	6.40	28.3	12.7	17.5	18.3
LRF322015MK (F322015MK)	MRK	0.73	8.17	35.2	17.5	17.3	16.6
LRF372315MK (F372315MK)	MJK	0.85	9.42	40.5	19.5	18.0	17.2
LRF462725MK (F462725MK)	MKK	1.92	11.50	49.4	22.7	28.0	31.0
LRF603525MK (F603525MK)	MLK	2.53	14.90	66.7	29.3	29.2	31.6
LRF624520MK (F624520MK)	MLCH	1.36	16.80	66.0	41.0	24.0	15.2

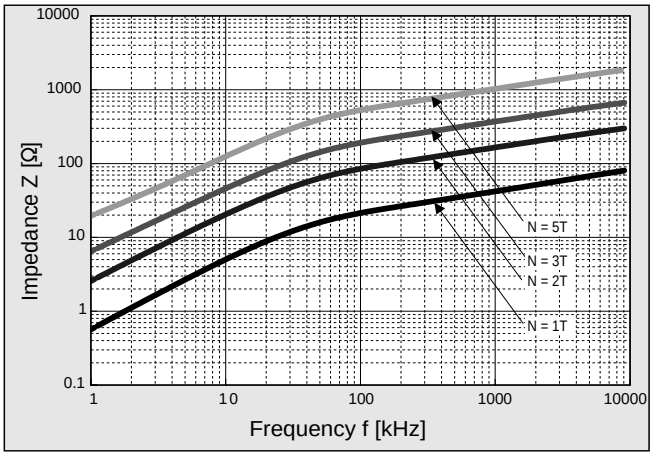
NIPPON CHEMI-CON

AMORPHOUS CHOKE COILS

FM Series

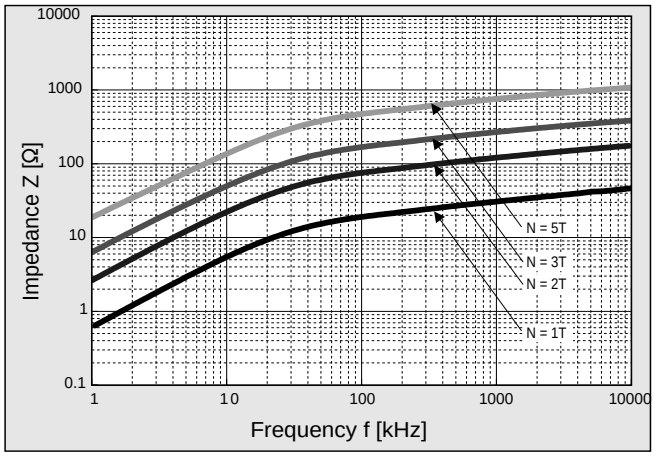
◆FREQUENCY - IMPEDANCE CHARACTERISTICS (1)

●LRF251515MK



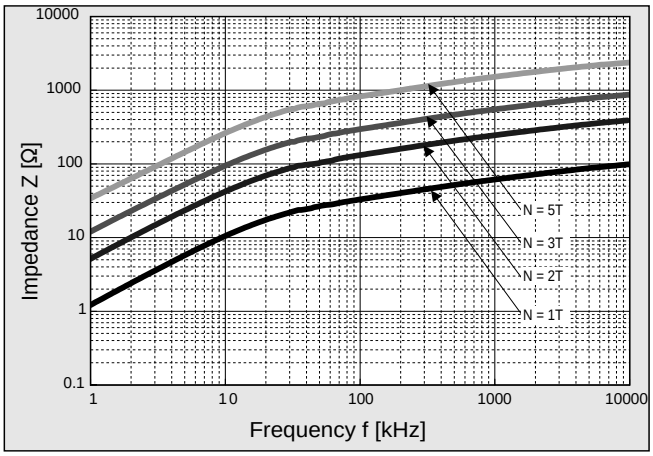
◆FREQUENCY - IMPEDANCE CHARACTERISTICS (2)

●LRF372315MK



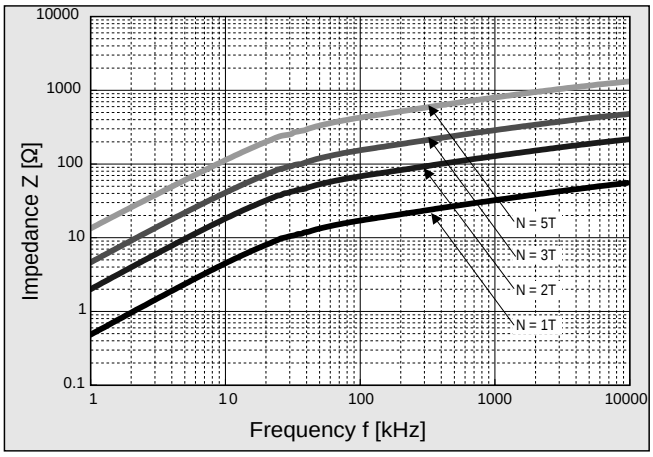
◆FREQUENCY - IMPEDANCE CHARACTERISTICS (3)

●LRF462725MK

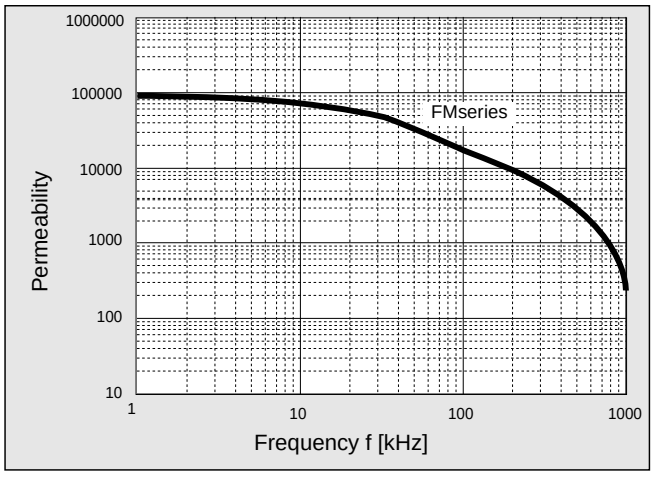


◆FREQUENCY - IMPEDANCE CHARACTERISTICS (4)

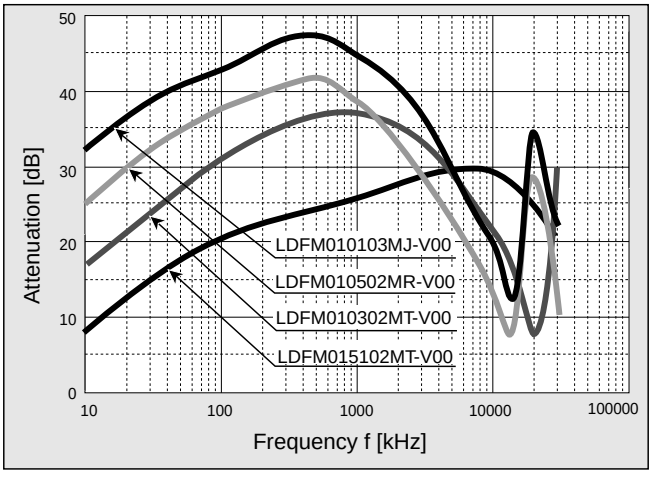
●LRF624520MK



◆FREQUENCY - PERMEABILITY CHARACTERISTICS



◆ATTENUATION CHARACTERISTICS

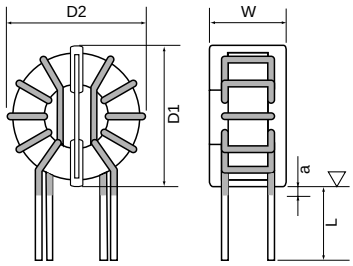


NIPPON CHEMI-CON

AMORPHOUS CHOKE COILS

FM Series

The FM series coils are made of nano-crystal.



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

◆MAJOR USES

- ●Signal power line noise control
- ●DC power line noise control
- ●AC power line noise control

◆FEATURES

- ●The high permeability core is made of nano-crystal
- ●High impedance in spite of a small number of turns
- ●Excellent temperature characteristics
- ●Conforming to insulating type B and incombustibility UL94V-0

◆COIL STANDARD SPECIFICATIONS

Coil Part No. (Old Coil Part No.)	Core Part No. (Old Core Part No.)	Rated Current A	Inductance 10kHz Typical mH	Inductance 100kHz Rating mH	D.C.R. mΩ (max)	Winding mmφ×lines-turns	Outside Dimensions D1 mm	D2 mm	W mm
LDFM001802MS-V00 (FM01393MS)	LRF110705M (F110705M)	1	28.0	8.0	350	0.35×1p - 36T	15.0	15.0	11.9
LDFM002302MS-V00 (FM02173MS)	LRF110705M (F110705M)	2	11.6	3.0	150	0.45×1p - 23T	15.0	15.0	11.9
LDFM003152MS-V00 (FM03872MS)	LRF110705M (F110705M)	3	5.6	1.5	70	0.55×1p - 16T	15.0	15.0	11.9
LDFM005302MT-V00 (FM05302MT)	LRF281510M (F281510M)	5	13.0	3.0	17	1.1 ×1p - 15T	34.0	36.0	20.0
LDFM005502MT-V00 (FM05502MT)	LRF281510M (F281510M)	5	23.0	5.0	23	1.1 ×1p - 20T	34.5	36.5	20.5
LDFM005103MR-V00 (FM05103MR)	LRF322015M (F322015M)	5	39.0	10.0	33	1.1 ×1p - 26T	39.0	41.0	25.5
LDFM010102MT-V00 (FM10102MT)	LRF281510M (F281510M)	10	5.8	1.0	8	1.5 ×1p - 10T	34.0	38.0	22.0
LDFM010302MT-V00 (FM10302MT)	LRF281510M (F281510M)	10	13.0	3.0	11	1.4 ×1p - 15T	36.0	38.0	22.0
LDFM010502MR-V00 (FM10502MR)	LRF322015M (F322015M)	10	24.0	5.0	15	1.5 ×1p - 19T	40.0	43.0	27.0
LDFM010103MJ-V00 (FM10103MJ)	LRF372315M (F372315M)	10	46.5	10.0	20	1.5 ×1p - 26T	46.5	47.5	27.5
LDFM015102MT-V00 (FM15102MT)	LRF281510M (F281510M)	15	3.7	1.0	6	1.6 ×1p - 8T	34.5	38.0	20.5
LDFM015302MR-V00 (FM15302MR)	LRF322015M (F322015M)	15	15.0	3.0	10	1.8 ×1p - 15T	40.0	42.5	29.0
LDFM015502MJ-V00 (FM15502MJ)	LRF372315M (F372315M)	15	24.8	5.0	11	1.8 ×1p - 19T	47.0	49.0	28.0
LDFM020102MR-V00 (FM20102MR)	LRF322015M (F322015M)	20	4.2	1.0	5	1.5 ×2p - 8T	42.5	43.0	28.0
LDFM020302MJ-V00 (FM20302MJ)	LRF372315M (F372315M)	20	13.5	3.0	7	1.5 ×2p - 14T	46.5	48.0	30.0
LDFM025252MJ-V00 (FM25252MJ)	LRF372315M (F372315M)	25	11.6	2.5	5	1.6 ×2p - 13T	47.0	49.0	31.0
LDFM030102MR-V00 (FM30102MR)	LRF322015M (F322015M)	30	4.2	1.0	5	1.7 ×2p - 8T	39.5	44.0	29.5
LDFM030202MJ-V00 (FM30202MJ)	LRF372315M (F372315M)	30	9.9	2.0	6	1.7 ×2p - 12T	47.0	48.5	31.0

There is a horizontal putting type in all items in the above list.
"V" changes into "H" in last the third digit of the name of items.

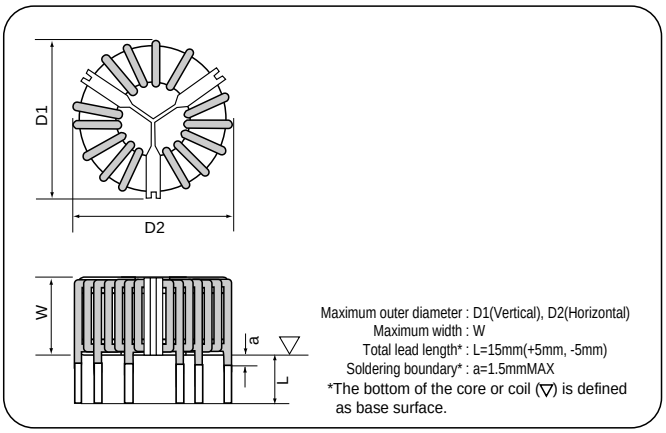
CAT. No. E1008E

AMORPHOUS CHOKE COILS

Upgrade!

FM Series

The FM series coils are made of nano-crystal.



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

◆MAJOR USES

- Common mode coils for noise filter in inverter or large capacity power supply

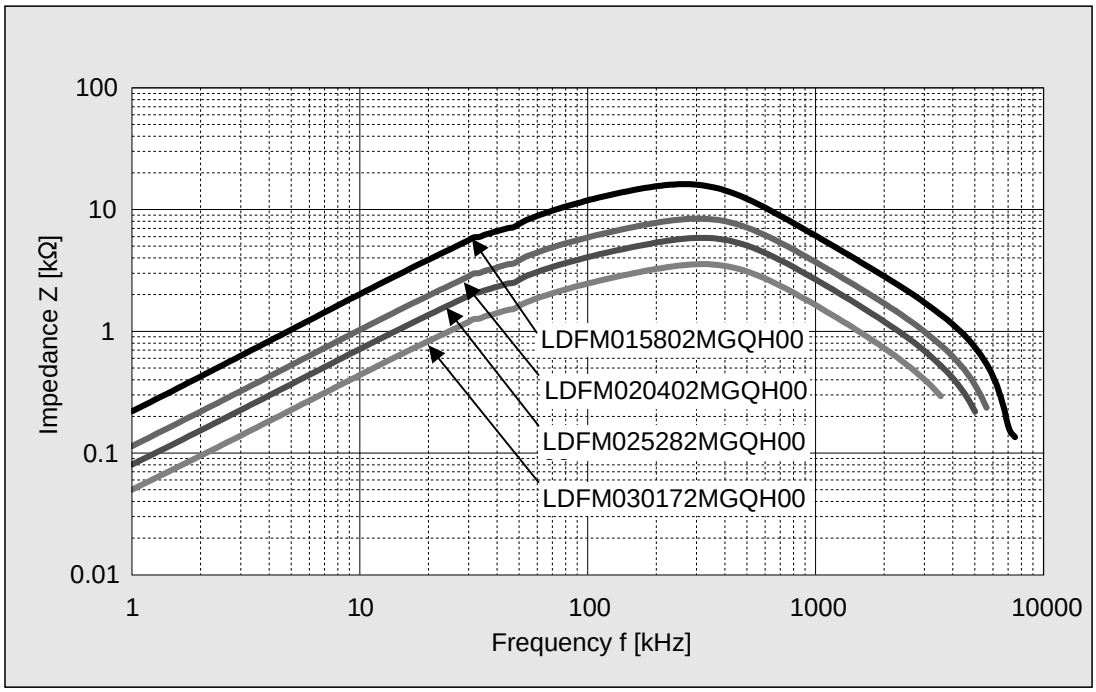
◆FEATURES

- Small profile, light through adoption of high permeability core
- High inductance in spite of a small number of turns
- Low temperature rise and, low D.C. resistance
- Stable frequency performance of noise suppression in wide frequency range
- Excellent temperature characteristics
- Conforming to insulating type B and incombustibility UL94V-0

◆COIL STANDARD SPECIFICATIONS

Coil Part No. (Old Coil Part No.)	Core Part No. (Old Core Part No.)	Rated Current A	Inductance 10kHz Typical mH	Inductance 100kHz Rating mH	D.C.R. mΩ (max)	Winding mmϕ×lines-turns	Outside Dimensions D1 mm	D2 mm	W mm
LDFM015802MGQH00 (FM15802MGQ)	LRF503415MQ (F503415MQ)	15	30.0	8.0	15	2.0×1P	65.0	65.0	35.0
LDFM020402MGQH00 (FM20402MGQ)	LRF503415MQ (F503415MQ)	20	16.0	4.0	6	2.3×1P	65.0	65.0	35.0
LDFM025282MGQH00 (FM25282MGQ)	LRF503415MQ (F503415MQ)	25	10.0	2.8	5	1.8×2P	65.0	65.0	35.0
LDFM030172MGQH00 (FM30172MGQ)	LRF503415MQ (F503415MQ)	30	7.0	1.7	4	2.0×2P	65.0	65.0	35.0

◆FREQUENCY - IMPEDANCE CHARACTERISTICS



NIPPON CHEMI-CON

AMORPHOUS CHOKE COILS

ACCESSORIES

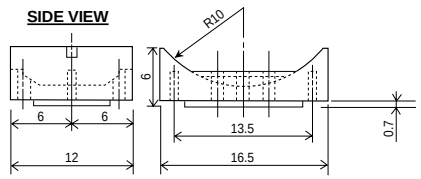
◆Accessories used for choke coils of upright type

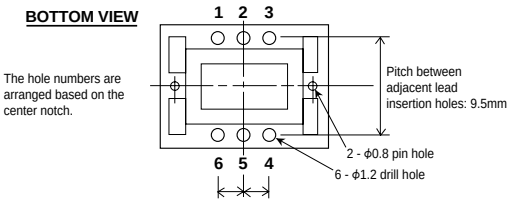
(mm)

Pedestal (P/N XD1610VW)

P/N of available core

N1
N2





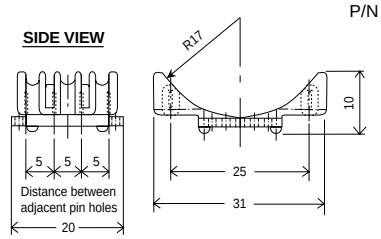
Pitch between adjacent lead insertion holes: 2.5mm

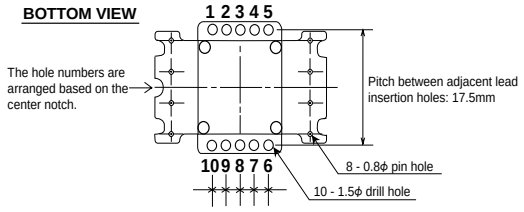
(mm)

Pedestal (P/N XD3415VW)

P/N of available core

G6
G7
G8
J7H
J8H
N6
N7
X6
X7
X8





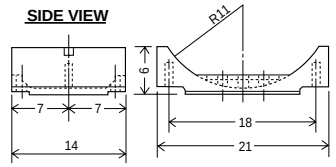
Pitch between adjacent lead insertion holes: 2.5mm

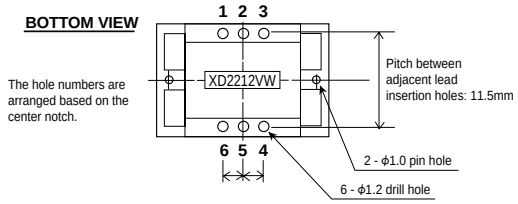
(mm)

Pedestal (P/N XD2212VW)

P/N of available core

SW





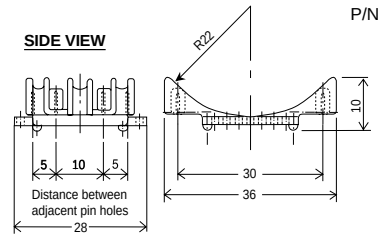
Pitch between adjacent lead insertion holes: 2.5mm

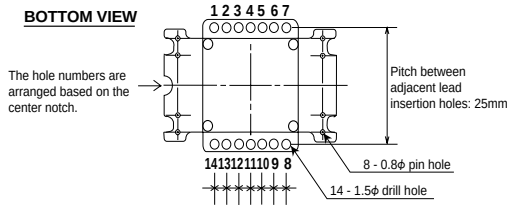
(mm)

Pedestal (P/N XD4420VW)

P/N of available core

G9
G0
GJ
JRH
JAH
JBH
N9
XR





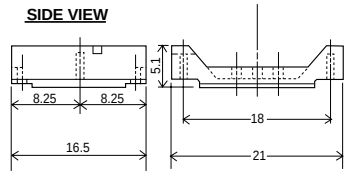
Pitch between adjacent lead insertion holes: 2.5mm

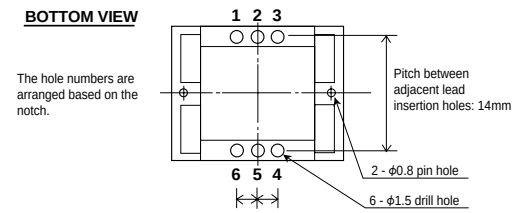
(mm)

Pedestal (P/N XD2314VW)

P/N of available core

G3
NU
NP





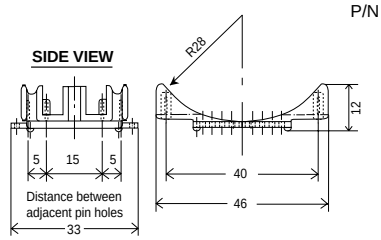
Pitch between adjacent lead insertion holes: 2.5mm

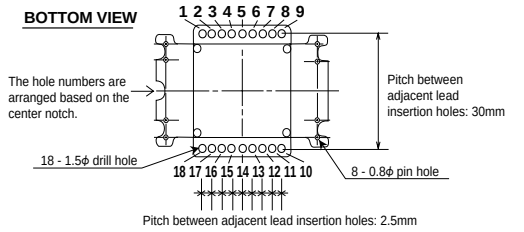
(mm)

Pedestal (P/N XD5625VW)

P/N of available core

GQ
GK
JCH
JKH
WKH





Pitch between adjacent lead insertion holes: 2.5mm

CAT. No. E1008E

AMORPHOUS CHOKE COILS

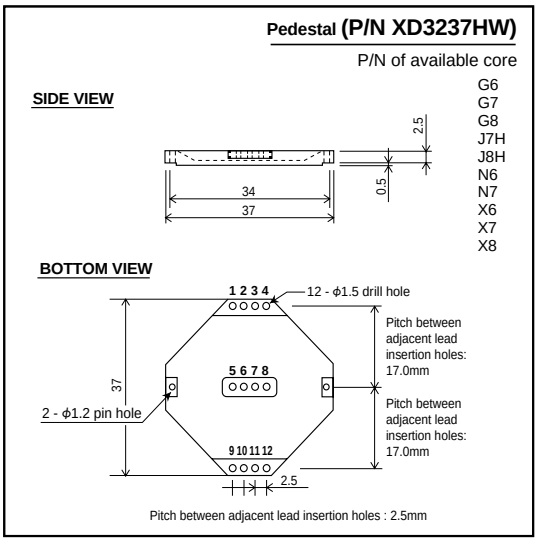
◆Accessories used for choke coils of lying type

(mm)

Pedestal (P/N XD3237HW)

P/N of available core

G6
G7
G8
J7H
J8H
N6
N7
X6
X7
X8

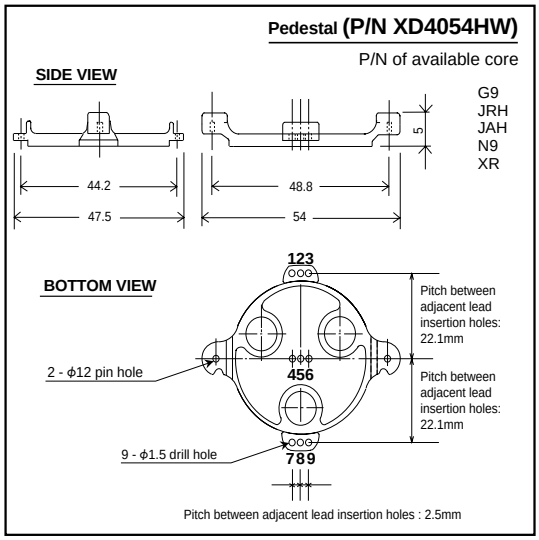


(mm)

Pedestal (P/N XD4054HW)

P/N of available core

G9
JRH
JAH
N9
XR

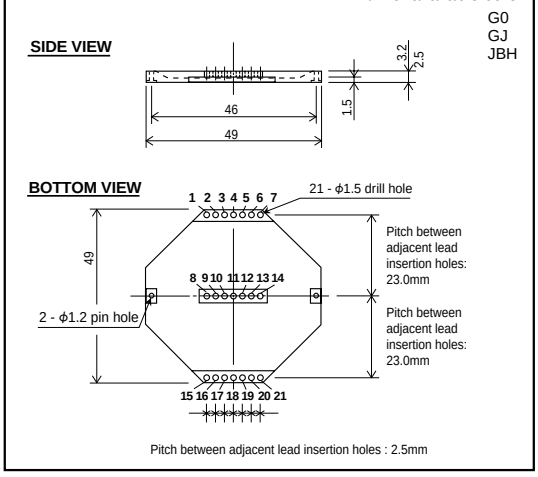


(mm)

Pedestal (P/N XD4449HW)

P/N of available core

G0
GJ
JBH

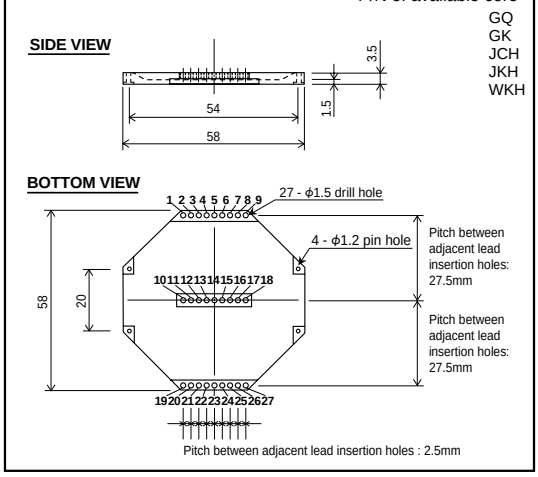


(mm)

Pedestal (P/N XD5358HW)

P/N of available core

GQ
GK
JCH
JKH
WKH



◆Materials

P/N	Shape	Base material	Auxiliary pin material	Coil fixing material
XD1610VW, XD2212VW XD2314VW, XD3415VW XD4420VW, XD5625VW XD3237HW, XD4054HW XD4449HW, XD5358HW	Without auxiliary pin	PPS resin F-type insulation UL94V-0 or Modified PA-6T Polyamide resin UL94V-0 or PBT resin B-type insulation UL94V-0	— — — — —	Epoxy adhensive
XD1610VW2, XD2212VW2 XD2314VW2, XD3415VW4 XD4420VW4, XD5625VW4 XD3237HW2, XD4054HW2 XD4449HW2, XD5358HW4	Without auxiliary pin		Fe or Fe-Ni alloy Standard ϕ0.8mm, ϕ1.0mm, ϕ1.2mm Solder plating	

◆Note on use

- The auxiliay pins are normally insulated from lead wires.
- Contact NIPPON CHEMI-CON for the shape, dimension, and strength of the auxiliary pin.

NIPPON CHEMI-CON

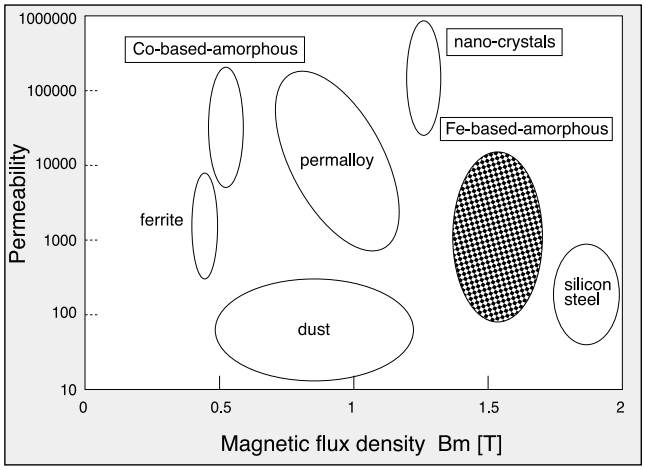
AMORPHOUS CHOKE COILS

AMORPHOUS CHOKE COIL CHARACTERISTICS

◆Characteristics comparison of magnetic materials

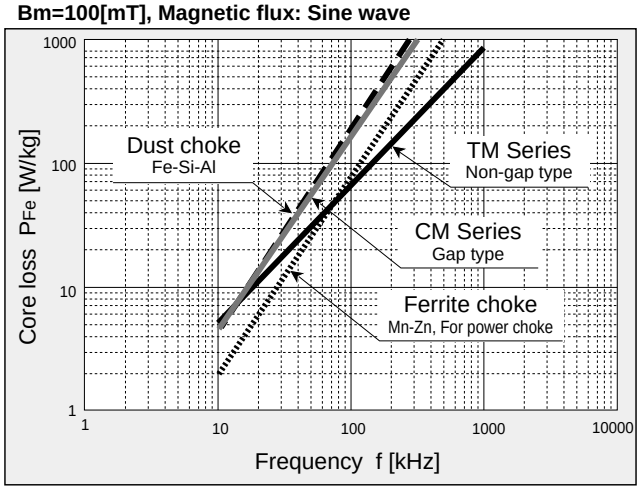
	Fe-based amorphous	Nano-crystalline alloy	High permeability ferrite	Power ferrite	Permalloy	Silicon steel
Saturation magnetic flux density Bs [mT]	1550	1250	500	500	700	2000
Magnetic permeability μ (10[kHz])	5000	75000	12000	2300	10000	700
Core loss at high frequency P_{Fe} [mW/g]	40	20	85	52	97	325
Curie point Tc [℃]	400	570	120	230	350	750
Crystallization temperature Tx [℃]	550	—	—	—	—	—
Applications	Output smoothing Common-mode noize supression High frequency transformer	Common-mode noise supression	Broad-band frequency transformer Common-mode noise supression	High frequency transformer Pulse transformer Output smoothing	Sensor Current transformer	Transformer for commercial frequency Low frequency choke

◆Location of amorphous alloy in soft magnetic materials

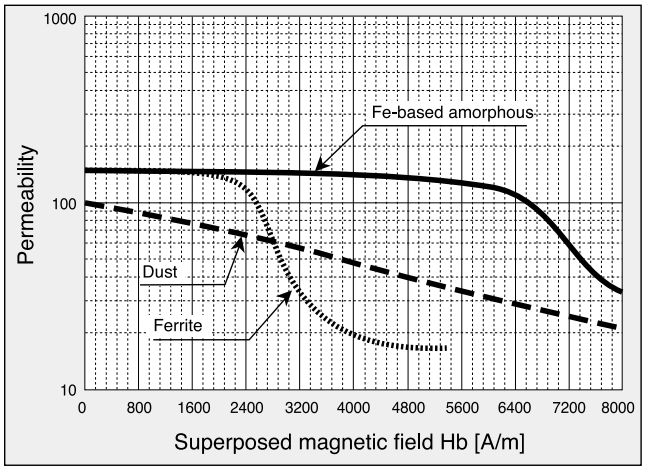


◆Frequency dependence of the core loss of amorphous

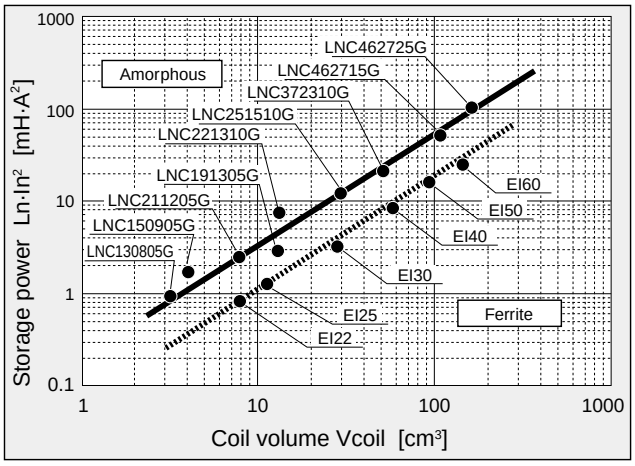
●Comparison between ferrite choke and dust choke
Bm=100[mT], Magnetic flux: Sine wave



◆D.C. bias of normal mode choke coil



◆Storage power vs. Coil volume (Energy capacity)



◆D.C. bias of amorphous choke coil

●Temperature dependence : Core temperature 25, 100℃