

### **AMORPHOUS CHOKE COILS**

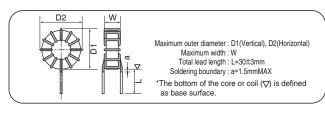
# **CM**Series

#### **♦MAJOR USES**

- ●For Switching Mode Power Supply
- ●Normal mode noise filter

#### **♦FEATURES**

- •Achieved significant miniaturization when compared to a ferrite choke
- •Reduced high frequency iron loss when compared to a silicon steel choke
- Excellent DC superimposition characteristics and temperature characteristics when compared to a dust choke
- •Unidirectional leakage flux enables parts to be mounted adjacently adjacent mounting parts.



Coil Part No.	Core Part No.	Rated	Peak Current [A]	Inductance (10kHz)		D.C.R.	Winding	Outside Dimensions			D.C. BIAS
		Current [A]		0Α [μΗ]	Rating [µH]	mΩ (max)	mm φ-lines	D1 [mm]	D2 [mm]	W [mm]	CHARACTERISTICS Graph
LACM002601G3-V0E		2	2.8	645	600	190	0.6-1P	23.5	24.0	16.0	
LACM003401G3-V0E		3	4.2	420	400	92	0.8-1P	24.5	25.0	17.5	
LACM004201G3-V0E	LNC181210G	4	5.7	209	200	51	0.9-1P	24.5	25.0	16.5	1
LACM006101G3-V0E		6	8.5	110	100	24	0.8-2P	24.5	25.0	17.5	
LACM008700G3-V0E		8	11.3	85	70	17	0.9-2P	25.0	25.5	19.0	
LACM002401G4-V0E		2	2.8	425	400	190	0.6-1P	24.5	25.0	12.5	2
LACM003251G4-V0E		3	4.2	265	250	87	0.8-1P	25.5	26.0	13.5	
LACM004101G4-V0E	LNC191305G	4	5.7	110	100	43	0.9-1P	25.5	26.0	13.0	
LACM006500G4-V0E		6	8.5	55	50	20	0.8-2P	25.5	26.0	14.0	
LACM008300G4-V0E		8	11.3	33	30	13	0.9-2P	26.0	26.5	14.0	
LACM010150G4-V0E		10	14.1	18	15	8	1.0-2P	26.5	27.0	13.5	
LACM001152G6-V0E		1	1.4	1530	1500	390	0.5-1P	27.0	27.5	15.5	3
LACM002102G6-V0E		2	2.8	1050	1000	230	0.6-1P	27.5	28.0	16.0	
LACM003601G6-V0E	LNC221310G	3	4.2	690	600	110	0.8-1P	28.0	28.5	18.0	
LACM004301G6-V0E		4	5.7	339	300	59	0.9-1P	28.5	29.0	17.0	
LACM005151G6-V0E		5	7.1	165	150	34	1.0-1P	28.5	29.0	17.5	
LACM006151G6-V0E	LNC221310G	6	8.5	171	150	27	0.8-2P	28.0	28.5	17.5	
LACM010500G6-V0E		10	14.1	60	50	11	1.0-2P	28.5	29.0	18.0	
LACM015150G6-V0E		15	21.2	17	15	5	1.0-3P	28.5	29.0	17.5	4
LACM020150G6-V0E		20	28.3	17	15	4	1.0-4P	29.0	29.5	18.5	
LACM010700G6-V0E		10	14.1	85	70	13	1.0-2P	29.5	30.0	18.5	

<sup>\*</sup> The inductance at current O[A] indicates the reference value.





	Core Part No.	Rated Current [A]	Peak Current [A]	Inductance (10kHz)		D.C.R.	Winding	Outside Dimensions			D.C. BIAS
Coil Part No.				0Α [μΗ]	Rating [µH]	mΩ (max)	mm φ-lines	D1 [mm]	D2 [mm]	W [mm]	CHARACTERISTICS Graph
LACM004401G7-V0E		4	5.7	420	400	77	0.9-1P	32.0	32.5	18.0	
LACM006201G7-V0E		6	8.5	207	200	35	0.8-2P	32.0	32.5	18.0	
LACM006261G7-V0E	LNC251510G	6	8.5	270	260	41	0.8-2P	32.0	32.5	18.5	5
LACM008151G7-V0E	LNG251510G	8	11.3	160	150	24	0.9-2P	32.5	33.0	18.5	
LACM010121G7-V0E		10	14.1	140	120	19	1.0-2P	33.0	33.5	19.5	
LACM010101G7-V0E		10	14.1	110	100	16	1.0-2P	32.5	33.0	18.5	
LACM008191G7-V0E		8	11.3	215	190	33	0.9 <b>-</b> 2P	32.5	33.0	19.5	6
LACM015300G7-V0E		15	21.2	35	30	7	1.0-3P	32.5	33.0	19.0	
LACM015500G7-V0E	I NIO0545400	15	21.2	55	50	9	1.0-3P	33.0	33.5	19.5	
LACM020300G7-V0E	LNC251510G	20	28.3	35	30	6	1.0-4P	33.0	33.5	20.0	
LACM025200G7-V0E		25	35.4	26	20	4	1.0-5P	33.5	34.0	20.0	
LACM030130G7-V0E		30	42.4	16	13	3	1.0-6P	34.0	34.5	20.0	
LACM002192G8-V0E		2	2.8	1940	1900	390	0.6-1P	31.0	31.5	22.5	7
LACM005301G8-V0E		5	7.1	306	300	58	1.0-1P	33.0	33.5	24.5	
LACM010151G8-V0E	LNC251515G	10	14.1	170	150	22	1.0-2P	33.0	33.5	25.5	
LACM015700G8-V0E		15	21.2	75	70	11	1.0-3P	33.5	34.0	26.0	
LACM020400G8-V0E		20	28.3	45	40	7	1.0-4P	33.5	34.0	26.0	
LACM025250G8-V0E		25	35.4	27	25	5	1.0-5P	33.5	34.0	26.5	
LACM003102G9-V0E	LNC322010G	3	4.2	1070	1000	170	0.8-1P	39.0	39.5	19.0	
LACM006301G9-V0E		6	8.5	335	300	48	0.8-2P	39.5	40.0	19.0	
LACM008251G9-V0E		8	11.3	289	250	37	0.9 <b>-</b> 2P	39.5	40.0	19.0	
LACM010191G9-V0E		10	14.1	220	190	21	1.1-2P	41.0	41.5	21.0	8
LACM015850G9-V0E		15	21.2	100	85	10	1.3-2P	41.0	41.5	21.5	
LACM020450G9-V0E		20	28.3	55	45	7	1.2-3P	41.0	41.5	21.5	
LACM030200G9-V0E		30	42.4	23	20	3	1.3-4P	42.0	42.5	22.0	

<sup>\*</sup> The inductance at current 0[A] indicates the reference value.





Coil Part No.	Core Part No.	Rated	Peak Current [A]	Inductance (10kHz)		D.C.R.	Winding	Outside Dimensions			D.C. BIAS
		Current [A]		0Α [μΗ]	Rating [µH]	mΩ (max)	mm φ-lines	D1 [mm]	D2 [mm]	W [mm]	CHARACTERISTICS Graph
LACM006501G0-V0E		6	8.5	569	500	61	0.8-2P	44.0	44.5	19.5	
LACM010201G0-V0E		10	14.1	255	200	27	1.0-2P	45.0	45.5	20.0	
LACM015900G0-V0E		15	21.2	135	90	13	1.0-3P	45.0	45.5	20.0	
LACM020500G0-V0E	LNC372310G	20	28.3	70	50	8	1.0-4P	45.0	45.5	20.5	9
LACM025300G0-V0E		25	35.4	38	30	6	1.0-5P	45.0	45.5	20.0	
LACM030250G0-V0E		30	42.4	35	25	5	1.0-6P	45.5	46.0	20.5	
LACM035150G0-V0E		35	49.5	18	15	4	1.0-7P	45.5	46.0	20.5	
LACM004102GJ-V0E		4	5.7	1080	1000	140	0.9-1P	44.0	44.5	23.0	10
LACM010301GJ-V0E		10	14.1	380	300	31	1.0-2P	45.0	45.5	25.0	
LACM015121GJ-V0E		15	21.2	137	120	14	1.0-3P	45.5	46.0	25.5	
LACM020700GJ-V0E	LNC372315G	20	28.3	83	70	12	1.0-4P	45.5	46.0	25.5	
LACM030300GJ-V0E		30	42.4	38	30	4	1.0-6P	45.5	46.0	26.0	
LACM025500GJ-V0E		25	35.4	60	50	7	1.0-5P	46.0	46.5	26.0	
LACM040150GJ-V0E		40	56.6	18	15	3	1.3-5P	46.0	46.5	26.5	
LACM015201GQ-V0E		15	21.2	255	200	20	1.0-3P	54.0	54.5	26.0	- 11
LACM020101GQ-V0E	LNC462715G	20	28.3	125	100	12	1.0-4P	54.5	55.0	25.5	
LACM035300GQ-V0E		35	49.5	35	30	5	1.0-7P	55.0	55.5	26.0	
LACM040200GQ-V0E		40	56.6	24	20	3	1.3-5P	55.5	56.0	26.0	
LACM010501GK-V0E	LNC462725G	10	14.1	530	500	44	1.0-2P	54.5	55.0	34.5	
LACM015301GK-V0E		15	21.2	350	300	24	1.0-3P	55.0	55.5	36.0	
LACM020201GK-V0E		20	28.3	250	200	15	1.0-4P	55.0	55.5	36.0	
LACM015451GK-V0E		15	21.2	516	450	30	1.0-3P	55.5	56.0	36.5	12
LACM025101GK-V0E		25	35.4	115	100	9	1.0-5P	55.5	56.0	35.5	
LACM030101GK-V0E		30	42.4	115	100	8	1.0-6P	55.5	56.0	36.5	
LACM035500GK-V0E		35	49.5	60	50	6	1.0-7P	56.0	56.5	36.5	

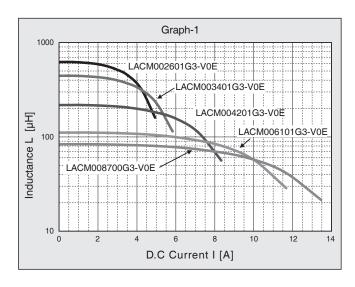
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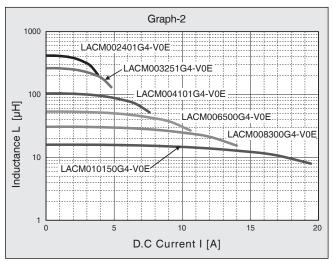


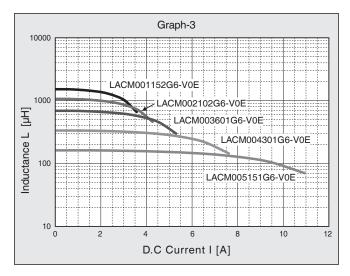
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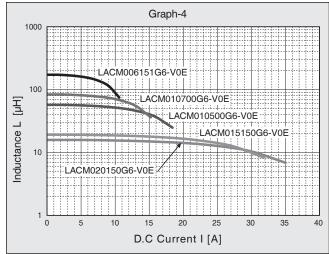
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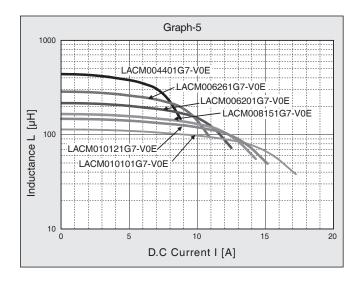
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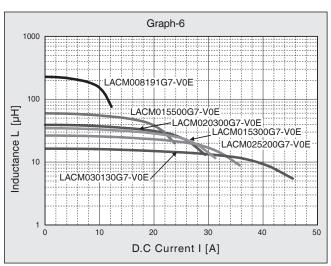










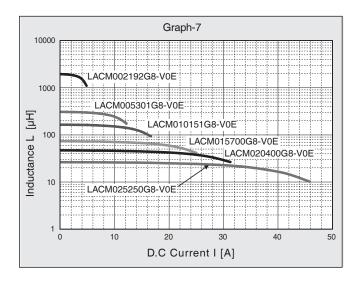


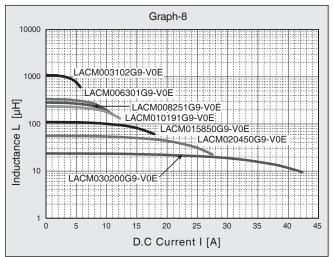


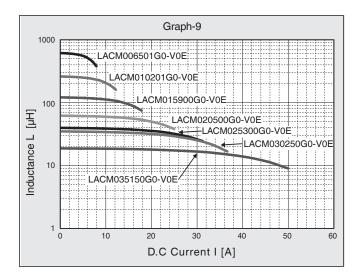
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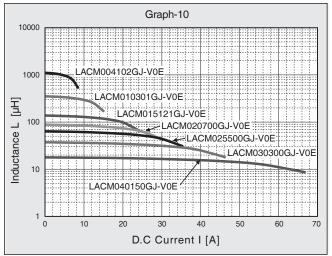
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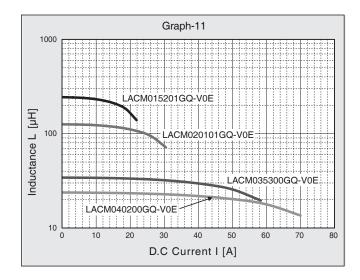
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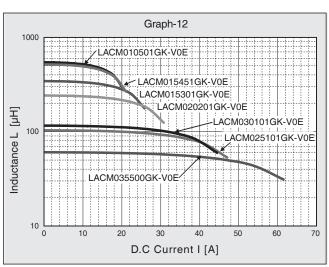


















- Always read "Notes on Use" before using the product in order to enable you to use the product correctly and prevent any faults and accidents from occurring.
- Request the Product Specification on the product of NIPPON CHEMI-CON CORPORATION to refer to it as well as this brochure prior to the order of the products. Some specific notes on use of the ordered product may be described in the specifications.
- The products listed in this catalog are designed and manufactured for general electronics equipment use and are not intended for use in applications that can adversely affect human life; where the malfunction of equipment may cause damage to life or property. In addition, our products are not intended to be used in specific applications that may cause a major social impact. Please consult with us in advance of usage of our products in the following listed applications. ① Aerospace equipment ② Power generation equipment such as thermal power, nuclear power etc. ③ Medical equipment ④ Transport equipment (automobiles, trains, ships, etc.) ⑤ Transportation control equipment ⑥ Disaster prevention / crime prevention equipment ⑦ Highly publicized information processing equipment ⑧ Submarine equipment ⑨ Other applications that are not considered general-purpose applications.
- The circuits described as examples in this catalog and the "delivery specifications" are featured in order to show the operations and usage of our products, however, this fact does not guarantee that the circuits are available to function in your equipment systems. We are not in any case responsible for any failures or damage caused by the use of information contained herein. You should examine our products, of which the characteristics are described in the "delivery specifications" and other documents, and determine whether or not our products suit your requirements according to the specifications of your equipment systems. Therefore, you bear final responsibility regarding the use of our products.
  - Please make sure that you take appropriate safety measures such as use of redundant design and malfunction prevention measures in order to prevent fatal accidents and/or fires in the event any of our products malfunction.
- We strongly recommend our customers to purchase Nippon Chemi-Con products only through our official sales channels. We assume no responsibility for any defects or damages caused by using products purchased from outside our official sales channel or of counterfeit goods. In addition, we will ask the customer to pay the investigation cost for products purchased outside our official sales channel.
- We reserve the right to discontinue production and delivery of products. We do not guarantee that all the products included in this catalog will be available in the future.

  The aforementioned does not apply in the case of individual agreements deviating from the foregoing for customer-specific products
- We continually strive to improve the quality and reliability of our products, but in any case that our product does not meet our published specifications, please stop using it promptly and contact us immediately. As for compensation for non-conforming goods delivered by Chemi-Con, we will limit it only to goods found in non-compliance of our published specifications. This may be accomplished by a no cost replacement of non-conforming individual products, a credit of the piece price paid per each individual non-conforming product, or in other ways deemed necessary.

In addition, we have an established system with enhanced traceability, therefore we will limit the applicable lot items for any potential compensation.

Accessory
Standard Specifications • Precautions and Guidelines
Minimum Order Quantity
Characteristics
Coil Design Request



### NANOCRYSTALLINE/AMORPHOUS/DUST CHOKE COILS

### **Notes on Use**

- •The indicated heat-resistant temperatures are the guaranteed temperatures including coil self-generated heat.
- •In high-temperature,-humidity environment, There is a possibility to occur hydrolyze and insulation deterioration.
- Common mode coils, by the unbalanced current, it may cause a magnetic saturation.
- •We do not acquire safety standards with coil only.
- Ensure that you do not repeatedly apply excessive force to the lead wires or repeatedly bend them.
- •Do not bang the coil against hard objects. Scratch on the coating, possibly impairing performance.
- 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 sometimes occurs.
- The products described in this catalog have been designed and manufactured for general electronic devices, therefore, if you intend to use our products for purposes that may endanger or threaten human lives and cause damage to property if such electronic devices fail or malfunction, or have a significant impact on society, please contact our information counter in advance to consult with us before using our products.
- Response to the Substances of Concern
- (1) Nippon Chemi-Con aims for developing products that meet laws and regulations concerning substances of concern. (Some products may contain regulated substances for exempted application.) Please contact us for more information about law-compliance status.
- (2) According to the content of REACH handbook (Guidance on requirements for May 2008), our electronic components are "articles without any intended release". Therefore they are not applicable for Registration for EU REACH Regulation Article 7 (1). Reference: Electrolytic Condenser Investigation Society
  - Study of REACH Regulation in EU about Electrolytic Capacitor (publicized on 13 March 2008)

### Inductor (Coil) AEC-Q200 Compliance

The Automotive Electronics Council (AEC) was originally established by major American automotive related manufactures. Today, it is composed of representatives from the manufacturing companies in automotive electronic devices and components. It standardizes the certification criteria and reliability tests for electronic components.

AEC-Q200 is the reliability test standard for approval of passive components in automotive applications. It specifies the test type, parameters, quantity, etc. for each component. The criteria used in reliability tests for "Inductors(Coils/Cores)" are described in this standard.

Pursuant to the customer's specific testing requirements, Chemi-Con submits the test results according to AEC-Q200 for Inductors(Coils/Cores) used in automotive applications on request.

An electronic component manufacturer cannot simply claim that their product is "AEC-Q200 Qualified". Instead, the manufacturer may claim their components as "Compliant", "Capable", "Available", etc.

Each component must be tested depending on the customer's "Qualification Test Plan" in order to claim AEC-Q200 Qualification.

The standard products listed in the catalog are designed for general electronic equipment. If you are considering using the products for automotive use, it may be necessary to change the specifications. Please contact our sales representative for more information.