

## ◆ MAJOR USES

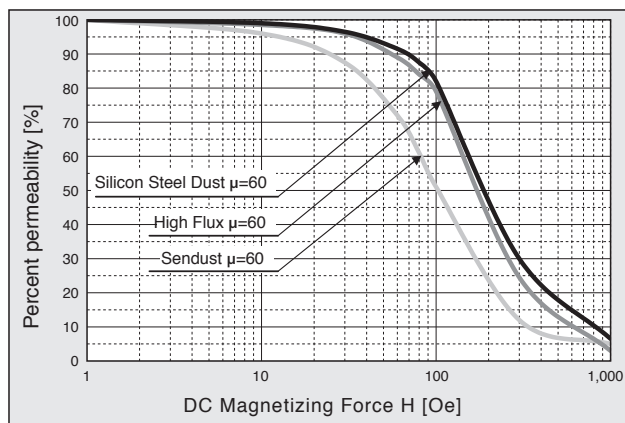
- For PFC For Switching Mode Power Supply

## ◆ FEATURES

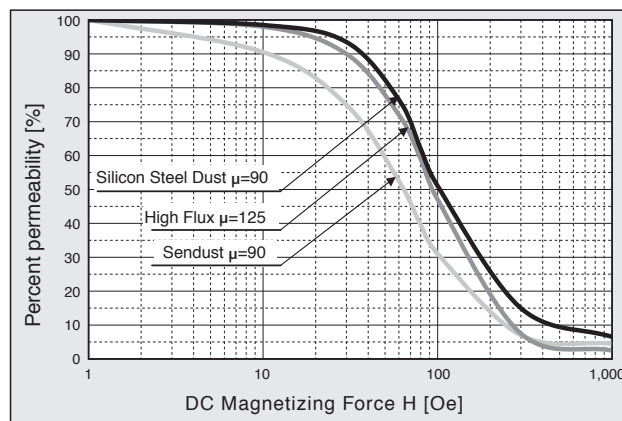
- Excellent frequency and temperature characteristics
- Exhibits high saturation magnetic flux density, excellent DC superimposition characteristics, and achieved significant miniaturization



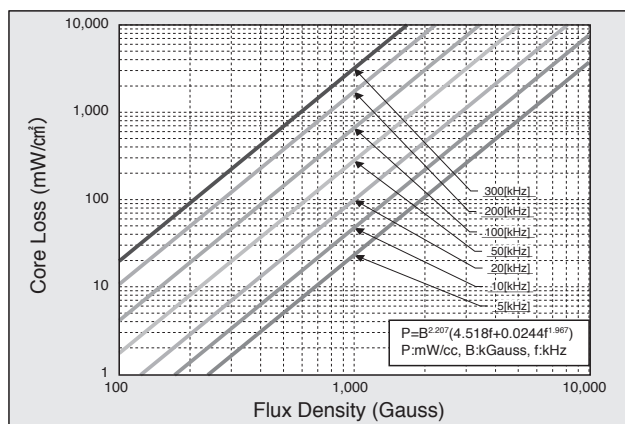
## ◆ D.C. bias of Dust core (1)



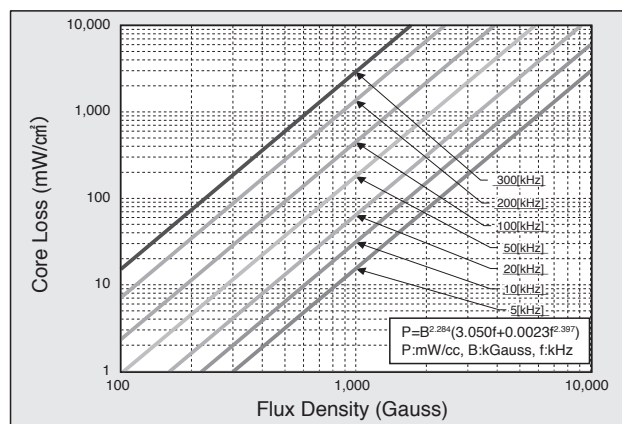
## ◆ D.C. bias of Dust core (2)



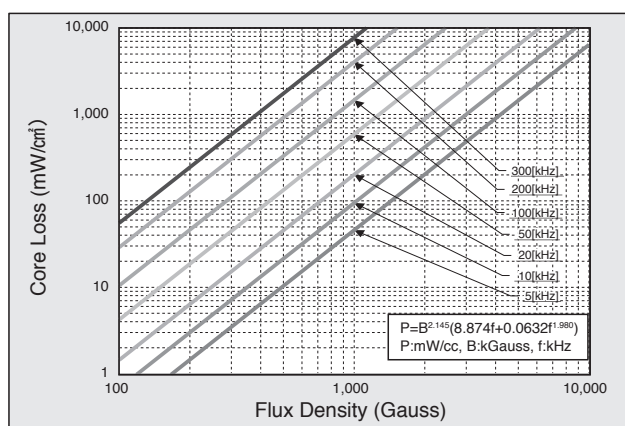
◆ Core Loss Characteristics (1)  
(Magnetic Flux Density Dependency)  
● Sendust(Fe-Si-Al)



◆ Core Loss Characteristics (2)  
(Magnetic Flux Density Dependency)  
● High Flux(Fe-Ni)



◆ Core Loss Characteristics (3)  
(Magnetic Flux Density Dependency)  
● Mega flux (Fe-Si)



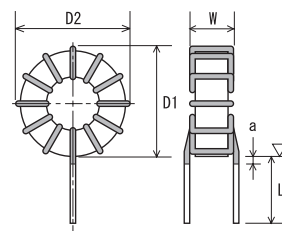
● Permissible end-to-end voltage of coils : 250V

### ◆ MAJOR USES

● For PFC For Switching Mode Power Supply

### ◆ FEATURES

- Excellent frequency and temperature characteristics
- Exhibits high saturation magnetic flux density, excellent DC superimposition characteristics, and achieved significant miniaturization
- Permissible end-to-end voltage of coils : 250V



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

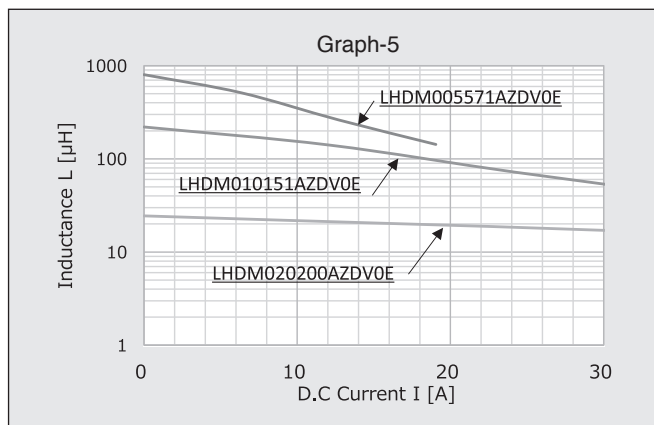
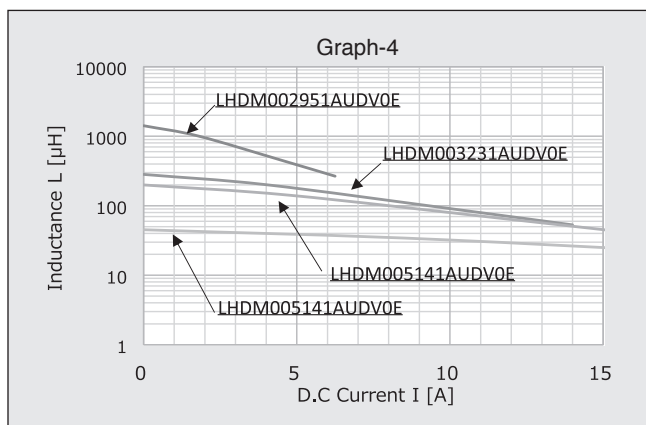
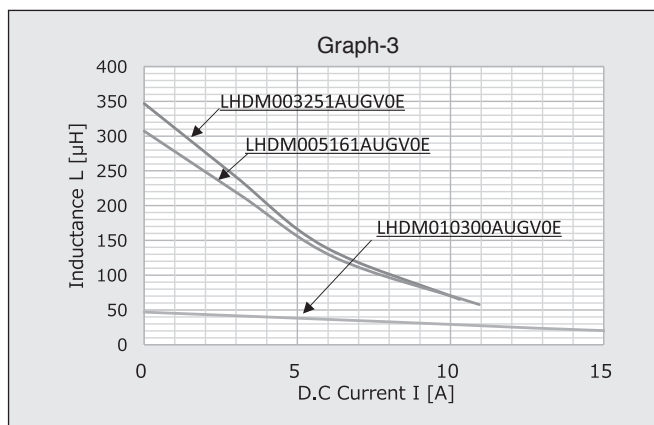
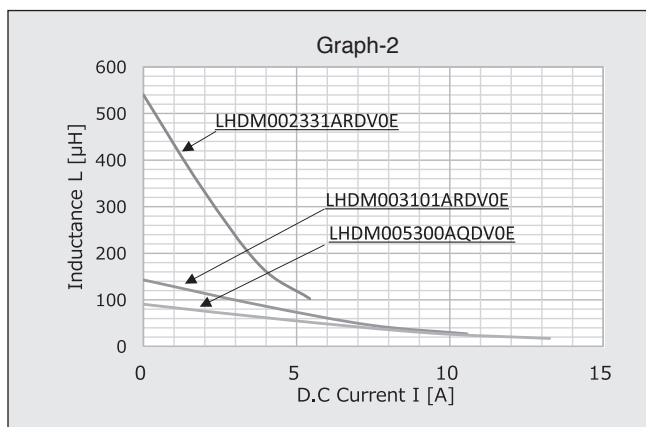
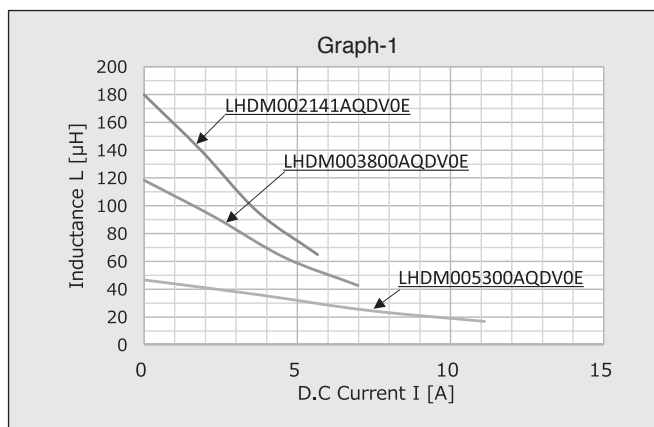
Coil Part No.	Rated Current [A]	Inductance (100kHz)		D.C.R. mΩ (max)	Winding mm φ-lines	Outside Dimensions			D.C. BIAS CHARACTERISTICS Graph
		0A [μH]	Rating [μH]			D1 [mm]	D2 [mm]	W [mm]	
LHDM002141AQDV0E	2	190	135	78	0.7-1P	22.5	23.5	12.5	1
LHDM003800AQDV0E	3	120	80	48	0.8-1P	23.0	24.0	13.5	
LHDM005300AQDV0E	5	46	30	23	1.0-1P	23.5	24.5	14.5	
LHDM002331ARDV0E	2	550	330	150	0.7-1P	26.0	27.0	14.0	2
LHDM003101ARDV0E	3	140	100	58	0.8-1P	26.0	27.0	14.0	
LHDM005550ARDV0E	5	95	55	32	1.0-1P	26.5	27.0	14.5	
LHDM003251AUGV0E	3	360	250	90	0.8-1P	32.5	33.0	14.0	3
LHDM005161AUGV0E	5	310	160	55	1.0-1P	33.5	34.0	15.0	
LHDM010300AUGV0E	10	48	30	14	1.1-2P	34.0	34.5	16.0	
LHDM002951AUDV0E	2	1500	950	260	0.7-1P	32.5	33.5	18.5	4
LHDM003231AUDV0E	3	300	230	90	0.8-1P	32.5	33.5	18.5	
LHDM005141AUDV0E	5	210	140	50	1.0-1P	33.0	34.0	19.0	
LHDM010330AUDV0E	10	48	33	12	1.6-1P	35.0	36.0	20.5	
LHDM005571AZDV0E	5	800	570	95	1.1-1P	52.5	53.0	26.5	5
LHDM010151AZDV0E	10	220	150	28	1.6-1P	55.0	56.0	28.0	
LHDM020200AZDV0E	20	26	20	6	1.8-2P	55.0	56.0	28.5	

\* The inductance at current 0[A] indicates the reference value.

## DM Series

## ◆D.C. BIAS CHARACTERISTICS

●Frequency : 100[kHz]



**DM Series**  
High Flux (Fe-Ni)



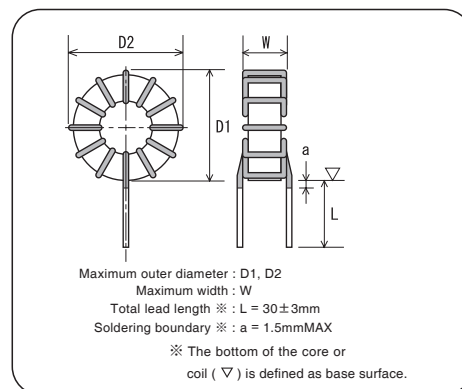
- Permissible end-to-end voltage of coils : 250V (Without a core case)  
500V (With a core case)

#### ◆ MAJOR USES

- For PFC For Switching Mode Power Supply

#### ◆ FEATURES

- Exhibits excellent DC superimposition characteristics and achieved significant miniaturization
- Great reduction of core loss enabling low temperature rise at high frequency
- Ideal for PFC use

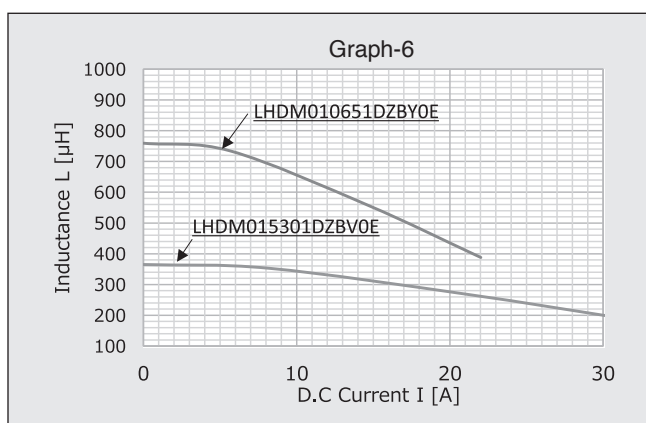
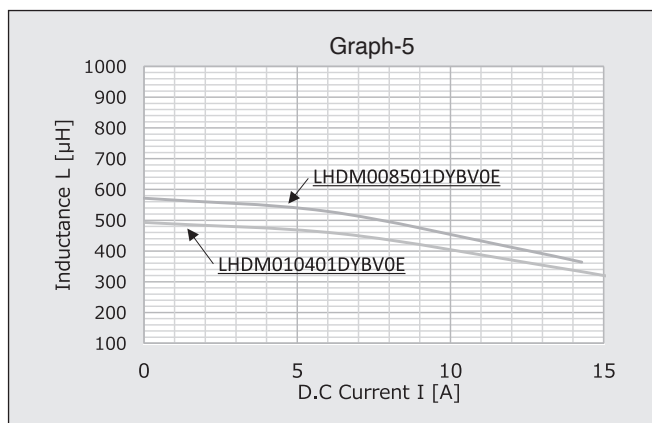
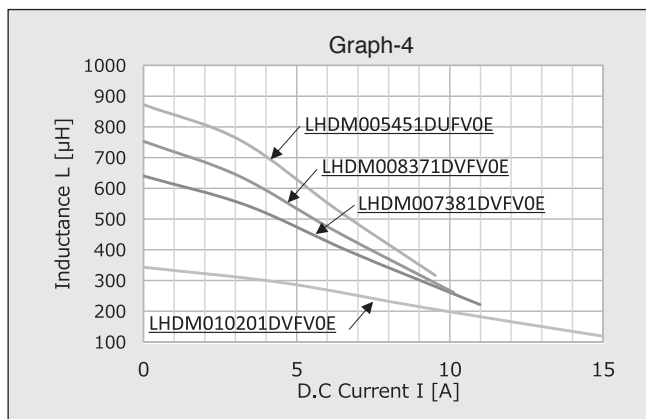
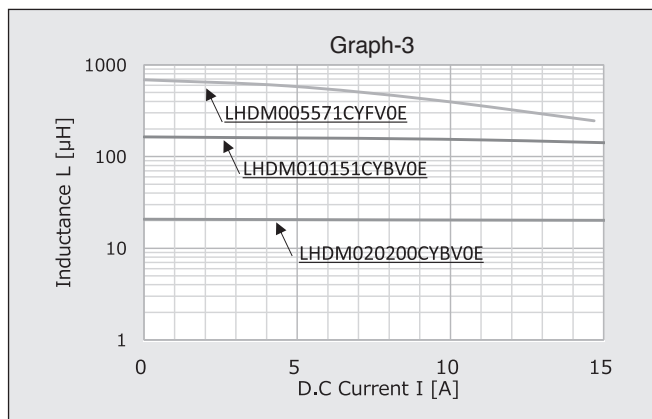
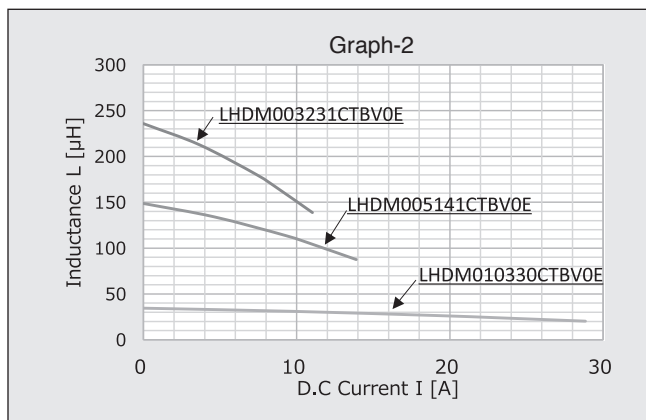
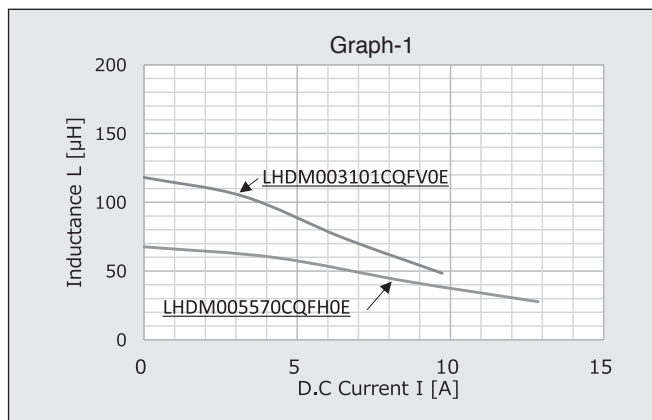


Coil Part No.	Rated Current [A]	Inductance (100kHz)		D.C.R. mΩ (max)	Winding mm φ-lines	Outside Dimensions			D.C. BIAS CHARACTERISTICS Graph	Core case
		0A [μH]	Rating [μH]			D1 [mm]	D2 [mm]	W [mm]		
LHDM003101CQFV0E	3	115	100	45	0.8-1P	22.0	23.0	13.5	1	-
LHDM005570CQFV0E	5	70	57	25	1.0-1P	22.5	23.5	14.5		
LHDM003231CTBV0E	3	250	230	96	0.8-1P	29.0	30.0	16.5	2	-
LHDM005141CTBV0E	5	160	140	52	1.0-1P	29.5	30.5	17.5		
LHDM010330CTBV0E	10	37	33	12	1.6-1P	31.5	32.5	19.5		
LHDM005571CYFV0E	5	710	570	76	1.1-1P	46.5	47.5	23.0	3	-
LHDM010151CYBV0E	10	170	150	28	1.6-1P	47.5	48.5	26.0		
LHDM020200CYBV0E	20	24	20	6	1.8-2P	48.0	49.0	26.5		
LHDM005451DUFV0E	5	620	450	85	1.0-1P	34.5	35.5	22.0	4	○
LHDM007381DVFV0E	7	640	380	65	1.2-1P	41.5	42.0	21.5		○
LHDM008371DVFV0E	8	750	370 **	59	1.3-1P	42.5	43.0	23.0		○
LHDM010201DVFV0E	10	340	200	30	1.1-2P	43.5	44.0	23.0		○
LHDM008501DYBV0E	8	570	500 **	68	1.4-1P	50.0	50.5	27.5	5	○
LHDM010401DYBV0E	10	490	400	58	1.5-1P	50.0	50.5	27.0		○
LHDM010651DZBV0E	10	760	650 **	72	1.0-2P	57.5	58.0	31.0	6	○
LHDM015301DZBV0E	15	360	300	35	1.3-2P	57.0	57.5	32.0		○

\* The inductance at current 0[A] indicates the reference value.

\*\* This is the inductance at 100kHz.

### ◆D.C. BIAS CHARACTERISTICS





- 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](#)

## 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.