JSM
金宁三环磁业

软磁铁氧体

SOFT FERRITE

金宁三环高技术磁业有限公司

JINNING SANHUAN HI-TECH.MAGNETIC INDUSTRIAL CO.,LTD.

目录 CONTENTS

南京金宁三环高技术磁业有限公司是由南京金宁电子集团有限公司（原名国营第八九八厂）和北京中科三环高技术股份有限公司合资组建的高科技磁性材料生产企业。金宁三环公司继承了金宁在软磁铁氧体领域近四十年的深厚技术积淀和多层次的人才资源，依托中科三环在科技和产业界良好的声誉及其雄厚的资金实力，叠加合资双方的高价值品牌优势，采用现代企业的先进管理模式，凭借领先的生产设备和仪器，致力于“金宁牌”高性能软磁铁氧体材料和磁芯的研发和制造，以满足二十一世纪人类社会高度信息化对于磁性材料更多和更高的需求。

金宁三环公司主要产品有五大材料系列、二十余个磁芯系列，共计四百多个规格品种。材料方面包括用于开关电源和其它功率转换领域的锰锌功率铁氧体 JP 系列、用于 CRT 彩色显示系统回扫变压器的锰锌功率铁氧体 JV 系列、用于数字和模拟通讯及电磁兼容领域的锰锌高磁导率铁氧体 JH 系列、用于传统通讯滤波器的锰锌低损耗铁氧体 JL 系列和用于射频领域的镍锌铁氧体 JR 系列。采用上述材料制成的各种规格的磁芯，被广泛应用于电脑及其外部设备、办公自动化设备、彩电、录像机和 DVD 等家用视听装置、数字和模拟通信、国际互联网、电磁兼容、绿色照明、工业和医疗仪器、汽车及航空航天工业等领域。除了磁芯产品外，金宁三环公司还向顾客提供可直接用于成型的铁氧体颗粒料。

本指南汇编了金宁三环公司的各种高性能软磁铁氧体磁芯产品数据，供您在选用时参考，欢迎垂询相关的技术和商务问题。

Nanjing Jinning Sanhuan Hi-Tech. Magnetic Industrial Co., Ltd.(JSM) is a high-tech joint venture which manufactures magnetic materials and devices, and was established by Nanjing Jinning Electronics Group Co., Ltd. (the former name was State-Run Factory No.898) and Beijing Zhongke Sanhuan High-Tech Co., Ltd. Inheriting Jinning's rich technical experiences in soft ferrite manufacturing for near 40 years and multi-level human resource, relying on Zhongke Sanhuan's good prestige in scientific and industrial circles and its abundant capital, combining both valuable brand superiorities, introducing the advanced management pattern of the modern enterprise and depending on the sophisticated production equipment and measuring instruments, JSM specializes in R&D and production of "JN" brand high-grade soft ferrite materials and cores so as to meet the more and higher demands for magnetic materials in 21 century of high informativeness.

The main products of JSM include 5 material series and more than 20 core series. The total product varieties are above 400. The material series include JP series—MnZn power ferrite used for switching power supplies and other power conversion applications, JV series—MnZn power ferrite used for fly-back transformers in CRT color display systems, JH series—MnZn high permeability ferrite used for digital and analog communication and EMC field, JL series—MnZn low loss ferrite used for traditional communication filters and JR series—NiZn ferrite used for radio frequency fields. The ferrite cores made of above-mentioned materials are widely used in computer and peripheral equipment, OA equipment, household AV equipment such as TV, VCR and DVD, digital and analog communication, Internet, EMI suppression, green illumination, industrial and medical instruments, automobile and aerospace fields, etc. In addition to ferrite cores, JSM also provides the customers with ferrite granules which can be directly used for pressing green compacts.

This manual is a corpus of data of soft ferrite products manufactured by JSM. Kindly refer to it when selecting our products. Your inquires about related technical and commercial questions are always welcome.

1. 引言

大规模生产高质量的铁氧体磁芯，需要关于材料工艺的基本知识，并需运用先进的生产技术。

通过“质量保证体系”实现产品的高性能，在生产过程中应用了“统计工序控制”(SPC)。

每个制造阶段，通过各种控制图以表明其工序能力，这些控制是在有关试验样品上进行的。

2. 标准与性能

金宁牌铁氧体磁芯是遵照 GB（中华人民共和国国家标准）、SJ（中华人民共和国电子工业行业标准）和 IEC（国际电工委员会标准）制造和控制的。

产品标准分为三级：

GS：总规范

SS：分规范

DS：详细规范

有关软磁铁氧体磁芯的主要国家标准（GB）如下：

GB/T 9623	通信用电感器和变压器磁芯 第一部分：总规范
GB/T 9624	通信用电感器和变压器磁芯 第二部分：分规范 电感器用磁性氧化物磁芯
GB/T 9626	通信用电感器和变压器磁芯 第三部分：分规范 宽带变压器用磁性氧化物磁芯
GB/T 9628	通信用电感器和变压器磁芯 第四部分：分规范 电源变压器和扼流圈用磁性氧化物磁芯
GB/T 9630	磁性氧化物制成的罐型磁芯及其附件的尺寸
GB/T 9632.1	通信用电感器和变压器磁芯测量方法
GB/T 9634	磁性氧化物零件外形缺陷极限规范的指南
GB/T 9637	磁学基本术语和定义
GB/T 10192	磁性氧化物制成的螺纹磁芯的尺寸
GB/T 11439	通信用电感器和变压器磁芯 第二部分：性能规范起草导则

我公司软磁铁氧体罐型磁芯生产线已由“中国军用电子元器件质量认证监督机构”检查确认为“贯彻国家军用标准生产线”。

3. 质量保证

3.1 体系

我公司的质量体系遵照 GB/T19002 - ISO9002 规范。

我们的总控制计划分为四个主要部分：

——原、辅材料受入检验（IQC）

在限定供货商的情况下，由 IQC 人员对每批原、辅材料的关键参数实行检验。

——工序检验 （IPQC）

在每道工序对半成品进行“统计工序控制”（SPC）或试验，以保证最终产品符合规范。

对每道重要的工序，都建立“质量控制点”（QCP），在这里判定“通过”还是“停止”，如发现某些参数不合格，则不能通过，判为“不合格制造批”。

另外，前一道工序的试验结果可用于后一道工序的监控，如造粒工序的试验结果可用于确定批次的压制条件。

图一示出 MnZn 铁氧体磁芯制造的典型工艺流程图。全工序流程图分为两大部分：粉体制备和磁芯制造。对每道工序“质量控制点”的控制，通过规定的媒体进行试验。试验媒体可取粉末样品、铁氧体半成品的片块或磁芯。

——成品检验（FQC）

在进入成品库前，每批产品均须通过成品检验。检验时，须检查相关批次收集的所有结果，控制某些样品，并按要求打印出试验报告。

——出货检验（OQC）

在发货前对出库的产品进行检验，防止包装破损或标识不清的产品交付顾客。

3.2 可追溯性

通过产品包装件上的标识能获得如下信息：

——客户名称和客户部品号

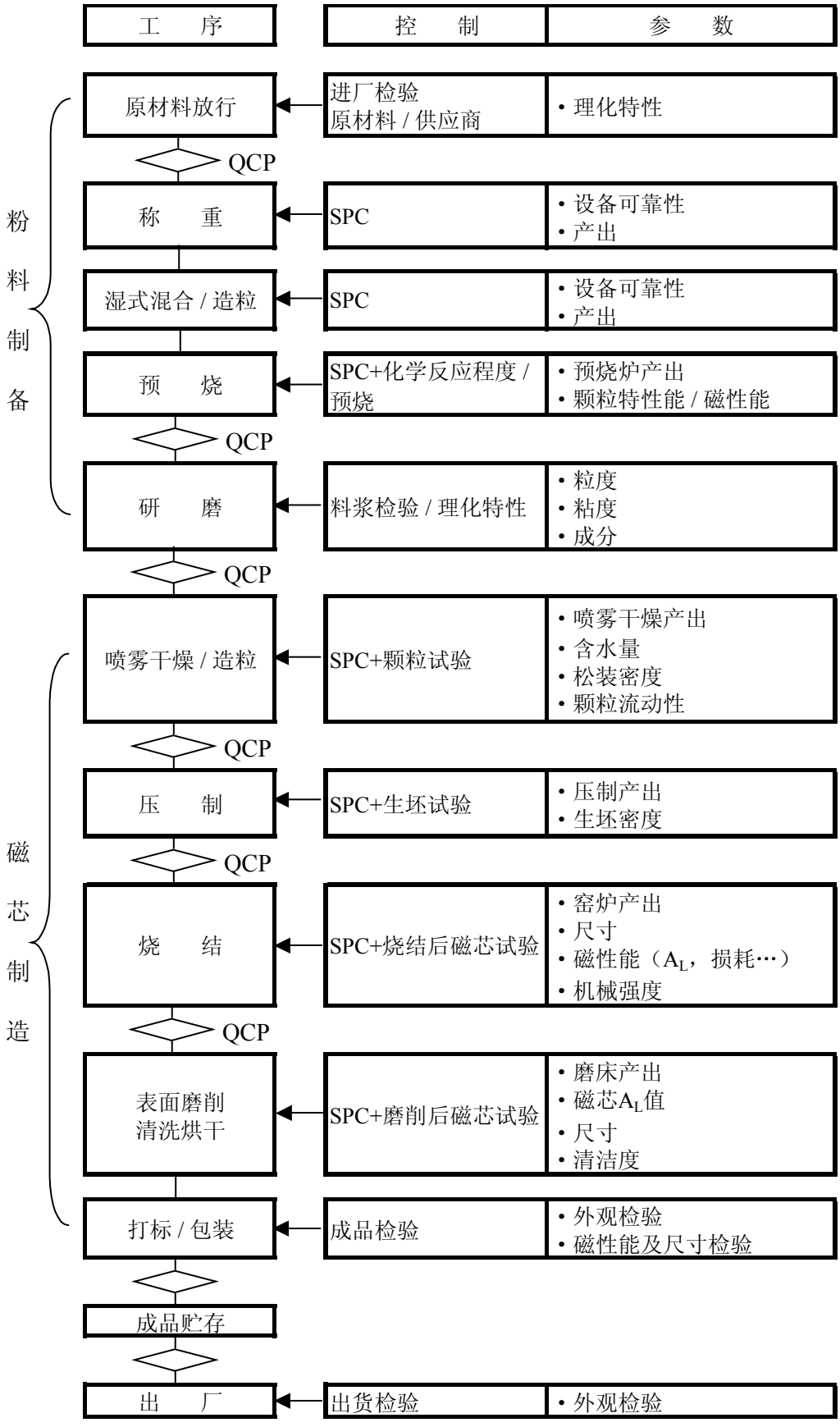
——材料牌号及磁芯型号

——检验者代号

——制造批号

——制造厂名及地址

图一 MnZn 铁氧体磁芯典型工艺流程图



图一中 QCP：质量控制点

SPC：统计工序控制

4. 质量控制

4.1 缺陷的分类

如铁氧体磁芯与产品规范不一致，则认为是有缺陷的。缺陷的两种水平定义为：

主要缺陷：可导致最后绕线或装配时出现故障。

次要缺陷：不影响绕制组件的操作或装配。一般为机械、外观缺陷，如开裂或掉块。

表一给出了参数的分类，这些是针对产品与应用类别判为主要、次要缺陷所必须的。

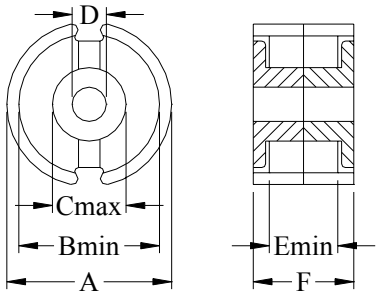
表一 铁氧体磁芯电磁特性的缺陷分类

磁 芯 型 式	应 用	参 数	
		主要缺陷	次要缺陷
U 型磁芯 E 型磁芯 EC 磁芯	功率变换 （如 SMPS） ——变压器 ——扼流圈	• A_L 或气隙 • 磁芯损耗 • 基本尺寸	• 次要尺寸 • 机械强度
UF 型磁芯 E 型磁芯 磁 珠 环形磁芯	EMI 滤波器 （如共模滤波器）	• A_L min • 基本尺寸 • ｜Z｜min（如需要）	• A_L max • tanδ/μ • 次要尺寸
罐型磁芯 RM 型磁芯	高稳定性滤波器 （如通信应用）	• A_L • 基本尺寸	• α_F • tanδ/μ • η_B • DF

注：如用户指定要求，表中某些次要缺陷可改变为主要缺陷，当然必须给予专门编号。关于铁氧体磁芯的尺寸检验，各种磁芯机械尺寸的主要缺陷和次要缺陷分述如下：

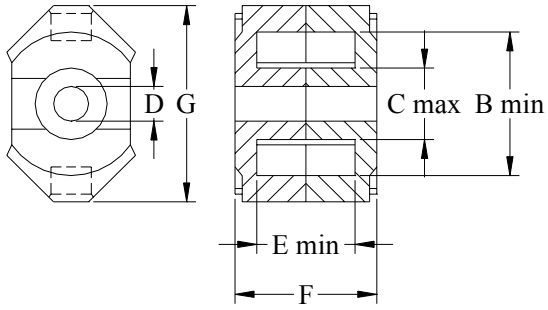
① 罐型磁芯

主要缺陷	次要缺陷
F	
E min	E max
A	
B min	B max
C max	C min
D	



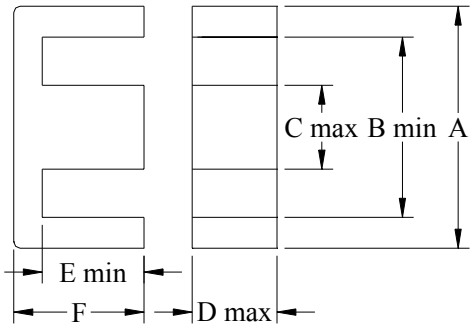
② RM 型磁芯

主要缺陷	次要缺陷
G	
F	
E min	E max
B min	B max
C max	C min
D	



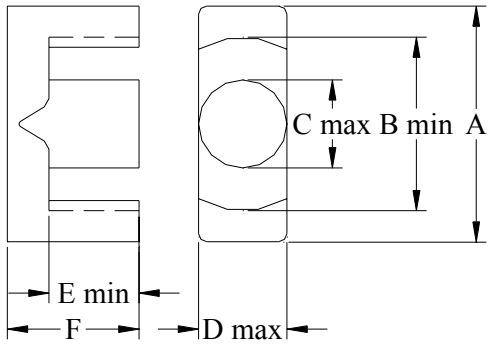
③ E 型磁芯

主要缺陷	次要缺陷
A	
E min	E max
F	
B min	B max
C max	C min
D max	D min



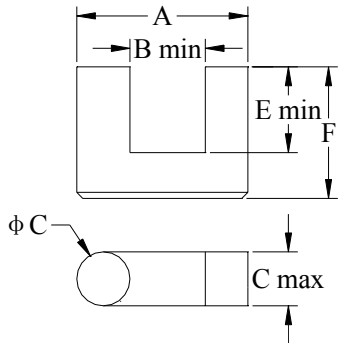
④ EC/ETD 型

主要缺陷	次要缺陷
A	
E min	E max
F	
B min	B max
C max	C min
D max	



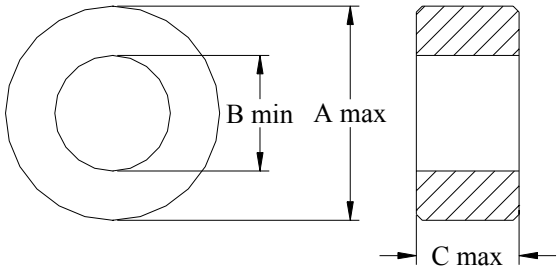
⑤ U 型磁芯

主要缺陷	次要缺陷
A	
F	
E min	E max
B min	B max
C max	C min



⑥ 环形磁芯

主要缺陷	次要缺陷
C max	C min
A max	A min
B min	B max



1. INTRODUCTION

Mass production of high quality ferrite cores requires a fundamental knowledge of processing rules dedicated to each material and the use of advanced production techniques.

Existing products specifications are achieved mainly by the implementation of a reliable Quality Assurance System using Statistical Process Control (SPC) in the manufacturing processes.

At each manufacturing step, the capabilities of processes are demonstrated through various controls performed on the related test vehicles.

2. STANDARDS AND SPECIFICATIONS

Our ferrite cores are manufactured and controlled in accordance with GB standards (National Standards of P.R.China), SJ standards (Trade Standards of Electronics Industry of P.R.China) and IEC standards (Standards of International Electrotechnical Commission).

The standards are divided into three levels:
GS = Generic Specification
SS = Sectional Specification
DS = Detail Specification

Concerning soft ferrite parts and accessories, the following GB standards are important for quality assessment and for choice of standardized core types and materials:

GB/T 9623	Inductor and transformer Cores for Telecommunications Part 1: Generic Specification
GB/T 9624	Inductor and Transformer Cores for Telecommunications Part 2: Sectional Specification Magnetic Oxide Cores for Inductor Applications
GB/T 9626	Inductor and Transformer Cores for Telecommunications Part 3: Sectional Specification Magnetic Oxide Cores for Broad-Band Transformers
GB/T 9628	Inductor and Transformer Cores for Telecommunications Part 4: Sectional Specification Magnetic Oxide Cores for Transformers and Chokes for Power Application
GB/T 9630	Dimensions of Pot Cores Made of Magnetic Oxide and Associated Parts
GB/T 9632.1	Measuring Methods of Inductor and Transformer Cores for Telecommunications
GB/T 9634	Guidelines of Limit Specification External Shape Defects of Magnetic Oxide Parts
GB/T 9637	Basic Terms and Definitions of Magnetic
GB/T 10192	Dimensions of Spire Cores Made of Magnetic Oxides
GB/T 11439	Inductor and Transformer Cores for Telecommunications Part 2: Drafting Guidelines of Performance Specification

Our soft ferrite pot cores production line has been inspected and validated as “a production line implementing military standards” by the Professional Auditors of China for Military Electronic Components Quality Certification.

3. QUALITY ASSURANCE

3.1 System

Our system complies with GB/T19002- ISO9002, GJB9002 and IECQ.

Our corporate control plan can be divided into four main parts:

----Incoming inspection (IQC)
Not only there is restriction on the scope and number of suppliers, but also the key parameters of each batch of raw material are inspected by our inspectors when it enters our factory and is put in storage.

----Processing inspection (IPQC)
At each process, semi-finished products are tested or controlled by SPC method so that the finished products comply with the specification.

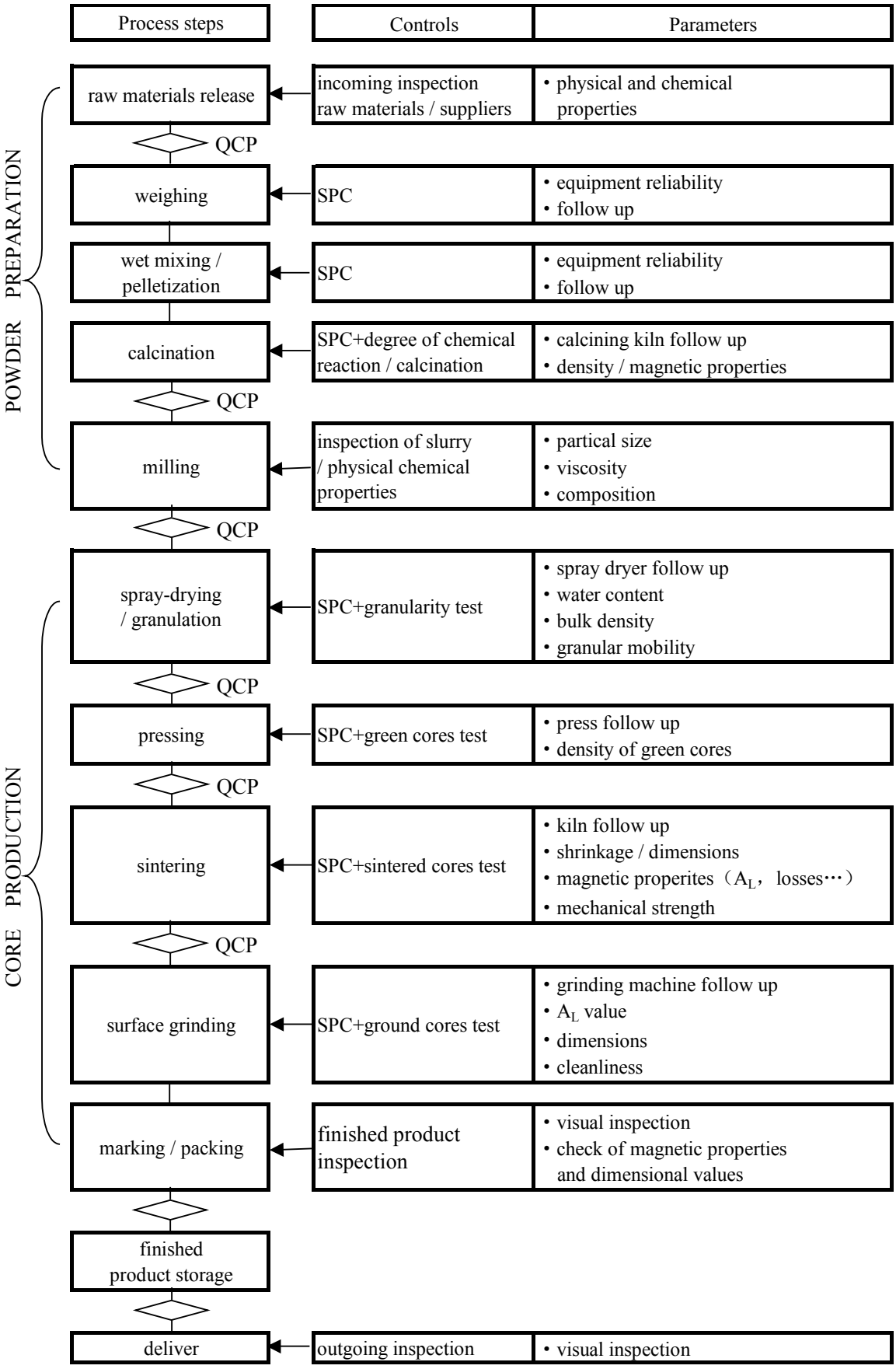
Each important process is followed by a Quality Control Point (QCP) where the decision is made to continue or stop the batch if unacceptable parameters are found (nonconforming batch procedure).

On the other hand, results from one process stop can be used to monitor the following step, e.g. results of granulation are used to define the pressing conditions of the relevant batch.

A typical example of manufacturing flow chart dedicated to MnZn ferrite cores is shown Fig 1. For each process step, QCP controls are performed on the defined test vehicles. The relevant test vehicles could be powder samples or pieces of semi-finished ferrite parts.

The complete flow chart is split into two main parts: powder reparation and core production.

Fig. 1 Typical Manufacturing Flow Chart of MnZn Ferrite Cores



In Fig. 1, QCP is Quality Control Point and SPC is Statistical Process Control.

----Finished product Inspection (FQC)
Each batch must pass through a final outgoing inspection before entrance into the sales warehouse. During the outgoing inspection, all results collected on relevant lot are checked, some samples are controlled and test report is printed upon request.

----Outgoing Inspection (OQC)
Each batch must pass through a shipment inspection before taken out of the sales warehouse and delivered to the customers, to prevent the product with destroyed packaging or dim mark from outgoing.

3.2 Traceability

The following information can be got from the label stuck on each packing unit:
-- customer name and customer's part number
-- material brand and type of core concerned
-- code name of the inspector
-- lot number
-- name of the manufacturer and its address

4. QUALITY CONTROL

4.1 Classification of Defects

A ferrite core will be considered defective if it does not comply with the standard specification of our factory. Two levels of defects are defined:

Major defects: may lead to an operating malfunction in the final winding or mounting processes.

Minor defects: do not affect the operation or mounting of the wound components. Generally they are mechanical and visual defects such as cracks and chips.

Table 1 giver hereunder defines the parameters, which must be considered as major or minor defects versus the type of product and applications.

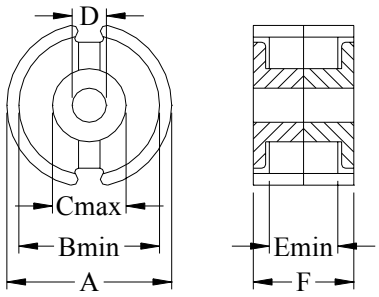
Table 1 Electrical and Magnetic properties of Ferrite Cores – Classification of Defects

CORE TYPE	APPLICATION	PARAMETERS	
		MAJOR DEFECTS	MINOR DEFECTS
U-cores E-cores EC-cores	Power conversion (e.g. SMPS) - transformers - chokes	• A_L or airgap • Power loss • Primary dimensions	• secondary dimension • Mechanical strength
UF-cores E-cores Beads Toroids	EMI suppression filters (e.g. common mode filter)	• A_L min • Primary dimensions • ｜Z｜min (if required)	• A_L max • tanδ/μ • Secondary dimensions
Pot-cores RM	High stability filters (e.g. Telecommunication usage)	• A_L • Primary dimensions	• α_F • tanδ/μ • η_B. • DF

Remarks: If required by customers' specifications, some minor defects in Table 1 may be changed into major defects. Consequently a specific number must be given. Concerning the dimensional inspection on ferrite cores, major and minor defects related to primary and secondary dimensions are summarized in the following:

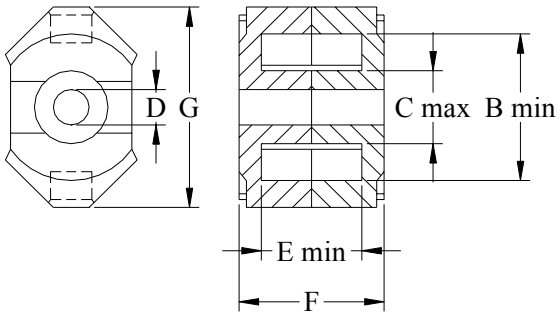
① Pot Cores

Major Defects	Minor Defects
F	
E min	E max
A	
B min	B max
C max	C min
D	



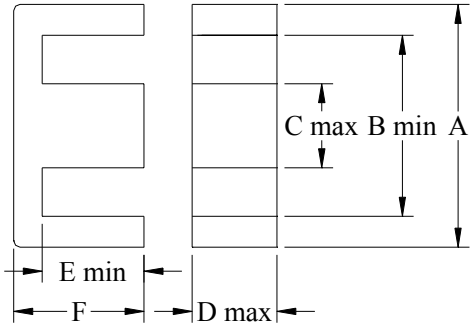
② RM 型磁芯

Major Defects	Minor Defects
G	
F	
E min	E max
B min	B max
C max	C min
D	



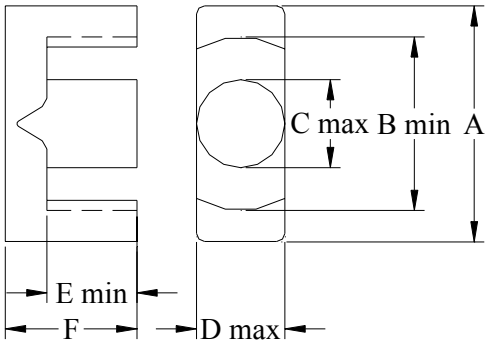
③ E Cores

Major Defects	Minor Defects
A	
E min	E max
F	
B min	B max
C max	C min
D max	D min



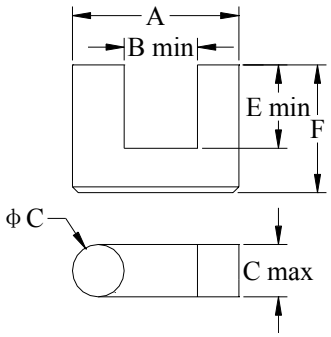
④ EC/ETD Cores

Major Defects	Minor Defects
A	
E min	E max
F	
B min	B max
C max	C min
D max	



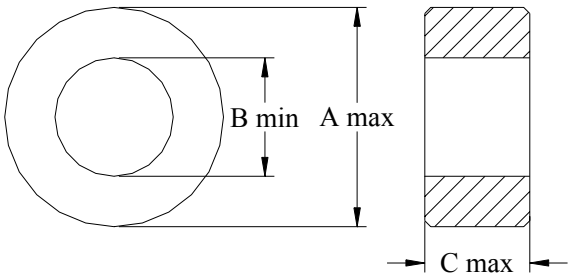
⑤ U Cores

Major Defects	Minor Defects
A	
F	
E min	E max
B min	B max
C max	C min



⑥ Toroids

Major Defects	Minor Defects
C max	C min
A max	A min
B min	B max



1. 初始磁导率 μ_i

初始磁导率是磁性材料的磁导率 (B/H)在磁化曲线始端的极限值，即

$$\mu_i = \frac{1}{\mu_0} \lim_{H \to 0} \frac{B}{H}$$

式中 μ_0 为真空磁导率($4\pi \times 10^{-7}$ H/m)

H 为磁场强度(A/m)

B 为磁通密度(T)

2. 有效磁导率 μ_e

在闭合磁路中，如果漏磁可忽略, 可以用有效磁导率来表征磁芯的性能。

$$\mu_e = \frac{L}{\mu_0 N^2} \bullet \frac{le}{Ae}$$

式中 L 为装有磁芯的线圈的电感量(H)

N 为线圈匝数

Le 为有效磁路长度(m)

Ae 为有效截面积 (m^2)

3. 饱和磁通密度 Bs (T)

磁化到饱和状态的磁通密度。见图 1。

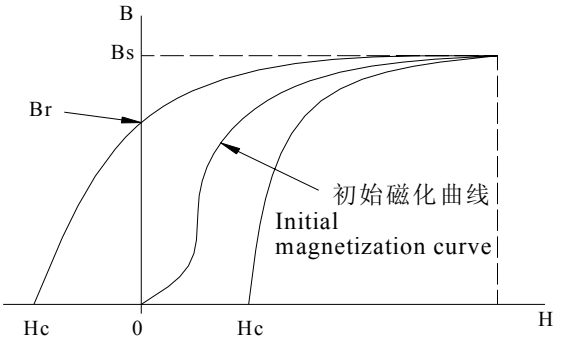


图 1（Fig 1）

4. 剩余磁通密度 Br (T)

从饱和状态去除磁场后，剩余的磁通密度。见图 l。

1. Initial permeability, μ_i

The initial permeability μ_i is the limit value at the initial magnetization curve's origin point and is given by the following formula:

$$\mu_i = \frac{1}{\mu_0} \lim_{H \to 0} \frac{B}{H}$$

Where

μ_0: Permeability of vacuum ($4\pi \times 10^{-7}$H / m)

H: Magnetic field strength (A / m)

B: Magnetic flux density (T)

2. Effective permeability, μ_e

This is usually defined as the permeability of a core forming a closed circuit where leakage flux is negligibly small.

$$\mu_e = \frac{L}{\mu_0 N^2} \bullet \frac{le}{Ae}$$

Where

L: self-inductance of core with coil (H)

N: number of turns

Le: effective magnetic path length (m)

Ae: effective cross-sectional area (m^2)

3. Saturation magnetic flux density, Bs (T)

The magnetic flux density at a magnetic field where H is up to an approximate saturation magnetic field value. (Fig. 1)

4. Residual magnetic flux density, Br (T)

The value of flux density retained by the core when the magnetic field is reduced from the state of the effective saturation magnetic flux density to zero. (Fig. 1)

5. 矫顽力 Hc (A / m)

从饱和状态去除磁场后，磁芯继续被反向磁场磁化，直至磁通密度减为零，此时的磁场强称为矫顽力。见图 1。

6. 损耗因数 tan δ

损耗因数是磁滞损耗、涡流损耗和剩余损耗三者之和

$\tan\delta = \tan\delta h + \tan\delta e + \tan\delta r$

式中 $\tan\delta h$ 为磁滞损耗因数

$\tan\delta e$ 为涡流损耗因数

$\tan\delta r$ 为剩余损耗因数

7. 相对损耗因数 tan δ / μ

相对损耗因数是损耗因数与磁导率之比:

$\tan\delta / \mu i$ (适用于材料)

$\tan\delta / \mu e$ (适用于磁路中含有气隙的磁芯)

8. 品质因数 Q

品质因数为损耗因数的倒数:

$Q = 1/\tan\delta$

9. 温度系数 α_μ (1/K)

温度系数为温度在 T_1 和 T_2 范围内变化时，每变化 1K 相应的磁导率的相对变化量：

$$\alpha_\mu = \frac{\mu_2 - \mu_1}{\mu_1} \bullet \frac{1}{T_2 - T_1} \qquad (T_2 > T_1)$$

式中 μ_1 为温度为 T_1 时的磁导率

μ_2 为温度为 T_2 时的磁导率

10. 相对温度系数 $\alpha_{\mu r}$ (1/K)

温度系数和磁导率之比，即

$$\alpha_\mu = \frac{\mu_2 - \mu_1}{\mu_2^{\,2}} \bullet \frac{1}{T_2 - T_1} \qquad (T_2 > T_1)$$

11. 居里温度 Tc (℃)

在该温度下材料由铁磁性(或亚铁磁性)转变成顺磁性。见图 2。

5. Coercivity, Hc (A / m)

The value of magnetic field strength whereby the flux density becomes zero under the intensification, in the opposite direction, of the magnetic field. (Fig.1)

6. Loss factor , tan δ

This is the sum of the hysteresis loss factor, eddy current loss factor and residual loss factor.

$\tan\delta = \tan\delta h + \tan\delta e + \tan\delta r$

Where $\tan\delta h$ is the hysteresis loss factor

$\tan\delta e$ is the eddy current loss factor

$\tan\delta r$ is the residual loss factor

7. Relative loss factor , tan δ / μ

This is the ratio of loss factor to permeability.

$\tan\delta / \mu i$ (for materials)

$\tan\delta / \mu e$ (for cores with gaps in the magnetic circuit)

8. Quality factor, Q

This is the reciprocal of the loss factor and is given by $Q = 1/\tan\delta$.

9. Temperature coefficient, α_μ (1/K)

This is the fractional difference of permeability per 1K in a temperature range of from T_1 to T_2.

$$\alpha_\mu = \frac{\mu_2 - \mu_1}{\mu_1} \bullet \frac{1}{T_2 - T_1} \qquad (T_2 > T_1)$$

Where μ_1: permeability at temperature T_1

μ_2: permeability at temperature T_2

10. Relative temperature coefficient, $\alpha_{\mu r}$ (1/K)

This is the temperature coefficient per unit permeability and is given by the following equation:

$$\alpha_\mu = \frac{\mu_2 - \mu_1}{\mu_2^{\,2}} \bullet \frac{1}{T_2 - T_1} \qquad (T_2 > T_1)$$

11. Curie temperature, Tc

It is the critical temperature level at which the ferromagnetic state of the material changes to paramagnetic state. (Fig. 2)

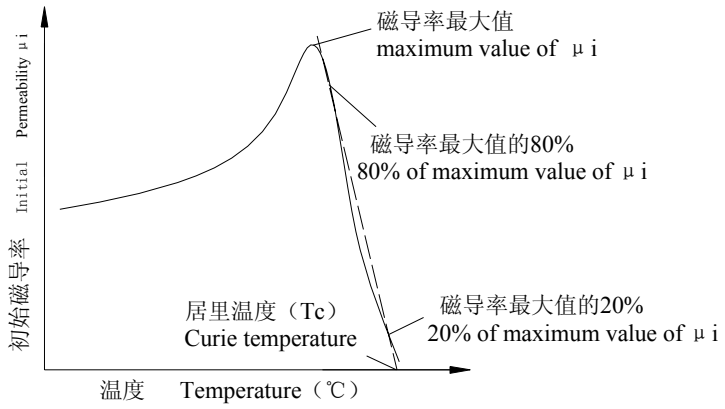


图 2（Fig 2）

12. 减落因数 D_F

在恒温条件下，完全退磁的磁芯的磁导率随时间的衰减变化，即

$$D_F = \frac{\mu_1 - \mu_2}{\log \frac{T_2}{T_1}} \cdot \frac{1}{\mu_1^2} \qquad (T_2 > T_1)$$

式中 μ_1 为退磁后 t_1 分钟的磁导率

μ_2 为退磁后 t_2 分钟的磁导率

13. 电阻率 ρ (Ω/m)

具有单位截面积和单位长度的磁性材料的电阻。

14. 密度 d (kg/m³)

单位体积材料的重量，即

$d = W/V$

式中 W 为磁芯的重量 (kg)

V 为磁芯的体积 (m^3)

15. 功率损耗 Pc (kW/ m³、W/ kg)

磁芯在高磁通密度下的单位体积损耗或单位重量损耗。该磁通密度可表示为

$$Bm = \frac{E}{4.44\ f\ N\ Ae}$$

式中 E 为施加在线圈上的电压有效值 (V)

Bm 为磁通密度的峰值 (T)

12. Disaccommodation factor , D_F

This is the factor representing the variation of permeability through time after a complete demagnetization of the core at a constant temperature.

$$D_F = \frac{\mu_1 - \mu_2}{\log \frac{T_2}{T_1}} \cdot \frac{1}{\mu_1^2} \qquad (T_2 > T_1)$$

Where

μ_1: permeability t_1 minutes after complete demagnetization.

μ_2: permeability t_2 minutes after complete demagnetization.

13. Electrical resistivity , ρ (Ω/m)

This is the electrical resistance per unit length and cross-sectional area of a magnetic core.

14. Density, d (kg/m³)

This is the weight per unit volume of a magnetic core as expressed below:

$d = W/V$

Where W : weight of magnetic body (kg)

V : volume of magnetic body (m^3)

15. Power loss Pc (kW/ m³、W/ kg)

Power loss denotes the loss by an electrical transformer, such as a switching power supply, under a magnetization condition featuring a high frequency and large amplitude. Operating magnetic flux density is given by the following equation.

f 为频率 (Hz)
N 为线圈匝数
Ae 为有效截面积 (m^2)

$$Bm = \frac{E}{4.44\ f\ N\ Ae}$$

Where
E: voltage effective value applied to coil
Bm: peak value of magnetic flux density
f : frequency (Hz)
N: number of coil turns
Ae: effective cross-sectional area (m^2)

16. 电感因数 A_L (nH / N^2)

电感因数定义为具有一定形状和尺寸的磁芯上每一匝线圈产生的电感量，即

$$A_L = L / N^2$$

式中 L 为装有磁芯的线圈的电感量 (H)
N 为线圈匝数

16. Inductance factor A_L (nH / N^2)

This is the inductance per turn of the coil wound around the ferrite cores with definite shape and dimension.

$$A_L = L / N^2$$

Where
L: inductance of the coil with ferrite core.
N: turns of the coil

- **Mn-Zn 铁氧体 Mn-Zn Ferrites**

  开关电源变压器用功率铁氧体材料 Power ferrite materials for SMPS

特性 Characteristics	符号 Symbol	单位 Unit		JP2	JP3	JP4A	JP4B	JP5
初始磁导率 Initial permeability	μi			3000±25%	2500±25%	2300±25%	2400±25%	1400±25%
相对损耗因数 Relative loss factor	tanδ/μi	$\times10^{-6}$				4		
饱和磁通密度 Saturation flux density	Bs	mT	25℃	480	510	510	510	485
			100℃		400	390	390	
				(800A/m)	(1194A/m)	(1194A/m)	(1194A/m)	(1600A/m)
剩磁 Remanence	Br	mT		120	117		110	190
矫顽力 Coercivity	Hc	A/m		16	12		13	35
功率损耗 Power loss (f=16kHz,B=150mT)	Pc	kW/m^3	25℃	≤12 *				
			60℃	≤11 *				
			80℃					
			100℃	≤12 *				
功率损耗 Power loss (f=25kHz,B=200mT)	Pc	kW/m^3	25℃			130		
			60℃			90		
			80℃					
			100℃			100		
功率损耗 Power loss (f=100kHz,B=200mT)	Pc	kW/m^3	25℃		700	650	600	
			60℃		500	500	400	
			80℃			430		
			100℃		600	400	300	
			120℃				380	
功率损耗 Power loss (f=500kHz,B=50mT)	Pc	kW/m^3	25℃					130
			60℃					80
			80℃					
			100℃					80
居里温度 Curie temperature	Tc	℃		＞200	＞230	＞235	＞230	＞240
电阻 Resistivity	ρ	Ω・m		1	10	3	6.5	
密度 Density	d	$kg/m^3\times10^3$		4.8	4.8	4.8	4.8	4.8

注 Note： 1) * 单位 Unit W/kg

2) 如无说明，各项数值均系用环型磁芯在室温下测得。

The values were obtained with toroidal cores at room temperature unless otherwise shown.

- **Mn-Zn 铁氧体 Mn-Zn Ferrites**

  回扫变压器用功率铁氧体材料 Power ferrite materials for FBT

特性 Characteristics	符号 Symbol	单位 Unit		JV2A	JV4
初始磁导率 Initial permeability	μi			2000±25%	2300±25%
相对损耗因数 Relative loss factor	tanδ/μi	$\times10^{-6}$			4
饱和磁通密度 Saturation flux density (H=1194A/m)	Bs	mT	25℃	520	500
			100℃	410	380
剩磁 Remanence	Br	mT			130
矫顽力 Coercivity	Hc	A/m			14
功率损耗 Power loss (f=16kHz,B=150mT)	Pc	W/kg	25℃	9.0	
			60℃	5.5	
			80℃	4.2	
			100℃	3.5	3
功率损耗 Power loss (f=64kHz,B=200mT)	Pc	W/kg	25℃		
			60℃		
			80℃		
			100℃		40
功率损耗 Power loss (f=100kHz,B=200mT)	Pc	W/kg	25℃	165	
			60℃	120	
			80℃	100	
			100℃	100	90
居里温度 Curie temperature	Tc	℃		＞245	＞215
电阻率 Resistivity	ρ	Ω・m		3	3
密度 Density	d	$kg/m^3\times10^3$		4.8	4.8

注：如无说明，各项数值均系用环型磁芯在室温下测得。

Note: The values were obtained with toroidal cores at room temperature unless otherwise shown.

- **Mn-Zn 铁氧体 Mn-Zn Ferrites**

  高磁导率、高饱和磁通密度铁氧体材料 High μ i and high Bs ferrite material

特性 Characteristics	**符号 Symbol**	**单位 Unit**		**JH5B**
初始磁导率 Initial permeability	μi			5000±20%
相对损耗因数 Relative loss factor	tanδ/μi	$\times10^{-6}$		≤15 (100kHz)
饱和磁通密度 Saturation flux density	Bs	mT	23℃	480
			100℃	350
剩磁 Remanence	Br	mT	23℃	130
			100℃	100
矫顽力 Coercivity	Hc	A/m		12
功率损耗 Power loss (f=100kHz,B=200mT)	Pc	kW/m^3	23℃	750
			60℃	600
			100℃	900
居里温度 Curie temperature	Tc	℃		＞180
密度 Density	d	$kg/m^3\times10^3$		4.8

注：如无说明，各项数值均系用环型磁芯在室温下测得。

Note: The values were obtained with toroidal cores at room temperature unless otherwise shown.

- **Mn-Zn 铁氧体 Mn-Zn Ferrites**
  高磁导率铁氧体材料 High μ i ferrite materials

特性 Characteristics	符号 Symbol	单位 Unit	JH5	JH5A	JH7	JH7A
初始磁导率 Initial permeability	μi		5500±25%	5300±25%	7000±25%	7500±25% 2000 min. (500kHz)
相对损耗因数 Relative loss factor	tanδ/μi	$\times10^{-6}$	≤15 (100kHz)	≤12 (100kHz) ≤180 (500kHz)	≤7 (10kHz)	≤30 (100kHz)
相对温度系数 Relative temperature coefficient	$\alpha_{\mu r}$	$\times10^{-6}$ 1/K	0～1.5 (20～60℃)	-0.5～1.5 (20～70℃)	0～1.5 (-30～20℃) 0～2 (20～55℃)	
饱和磁通密度 Saturation flux density	Bs	mT	420 (800A/m)	410 (1194A/m)	400 (800A/m)	410 (1194A/m)
剩磁 Remanence	Br	mT	150	130	90	80
矫顽力 Coercivity	Hc	A/m	8	8	10.4	6
减落因数 Disaccommodation factor	D_F	$\times10^{-6}$	≤3	≤3	≤3	
居里温度 Curie temperature	Tc	℃	＞140	＞140	＞125	＞130
电阻率 Resistivity	ρ	Ω・m	0.3	1	0.3	0.2
密度 Density	d	$kg/m^3\times10^3$	4.9	4.9	4.9	4.9

特性 Characteristics	符号 Symbol	单位 Unit	JH8A	JH10	JH10A	JH15
初始磁导率 Initial permeability	μi		8000±20%	10000±30%	10000±25% 3500 min (500kHz)	15000±30%
相对损耗因数 Relative loss factor	tanδ/μi	$\times10^{-6}$	≤30 (100kHz)	≤7 (10kHz)	≤25 (100kHz)	≤7 (10kHz)
相对温度系数 Relative temperature coefficient	$\alpha_{\mu r}$	$\times10^{-6}$ 1/K		-0.5～1.5 (-30～20℃) -0.5～1.5 (20～70℃)		
饱和磁通密度 Saturation flux density	Bs	mT	410 (1194A/m)	400 (1194A/m)	380 (1194A/m)	360 (1194A/m)
剩磁 Remanence	Br	mT	80	90	120	100
矫顽力 Coercivity	Hc	A/m	6	7.2	5	4.4
减落因数 Disaccommodation factor	D_F	$\times10^{-6}$		≤2		
居里温度 Curie temperature	Tc	℃	＞125	＞120	＞120	＞100
电阻率 Resistivity	ρ	Ω・m	0.2	0.05	0.2	0.15
密度 Density	d	$kg/m^3\times10^3$	4.9	4.9	4.9	4.95

注：如无说明，各项数值均系用环型磁芯在室温下测得。

Note: The values were obtained with toroidal cores at room temperature unless otherwise shown.

- **Mn-Zn 铁氧体 Mn-Zn Ferrites**

  高稳定性铁氧体材料 High stability ferrite materials

特性 Characteristics	符号 Symbol	单位 Unit	JL1	JL1A	JL2
初始磁导率 Initial permeability	μi		600±25%	600±25%	2000±20%
相对损耗因数 Relative loss factor	tanδ/μi	$\times10^{-6}$	≤25 (0.7MHz)	≤12 (1MHz)	≤5 (100kHz)
相对温度系数 Relative temperature coefficient	$\alpha_{\mu r}$	$\times10^{-6}$ 1/K	0～3 (20～60℃)	0～2 (5～45℃)	-0.25～1.5 (20～60℃)
饱和磁通密度 Saturation flux Density	Bs	mT	350 (800A/m)	400 (800A/m)	350 (800A/m)
矫顽力 Coercivity	Hc	A/m	80	80	20
减落因数 Disaccommodation factor	D_F	$\times10^{-6}$	≤50	≤15	≤8
居里温度 Curie temperature	Tc	℃	＞200	＞200	＞180
电阻率 Resistivity	ρ	Ω・m	5	5	1
密度 Density	d	$kg/m^3\times10^3$	4.6	4.6	4.7

注：如无说明，各项数值均系用环型磁芯在室温下测得。

Note: The values were obtained with toroidal cores at room temperature unless otherwise shown.

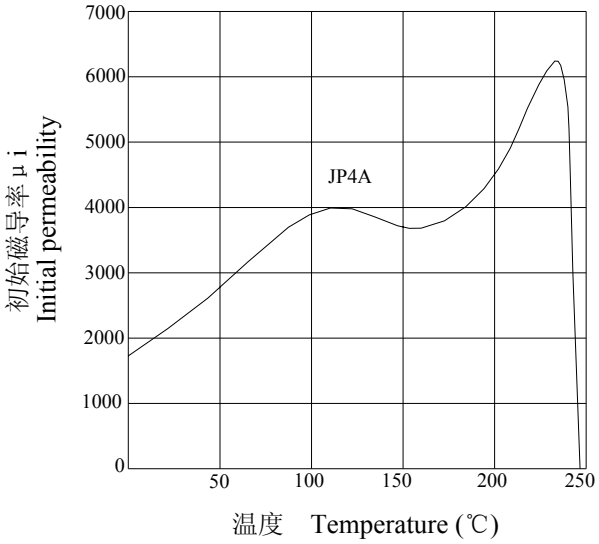
- **Ni-Zn 铁氧体 Ni-Zn Ferrites**

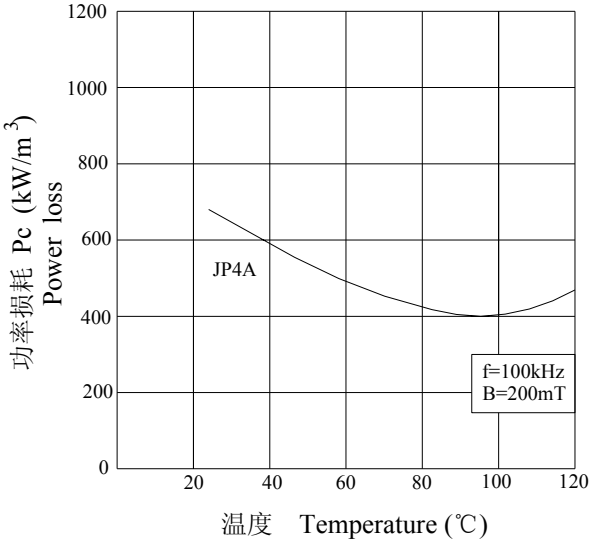
特性 Characteristics	符号 Symbol	单位 Unit	JR10	JR20	JR40	JR40A	JR100	JR100A
使用频率范围 Operation Frequency range		MHz	＜150	＜60	＜60	＜35	＜35	＜10
初始磁导率 Initial permeability	μi		10±20%	20±20%	40±20%	45±20%	100±20%	100±20%
相对损耗因数 Relative loss factor	tanδ/μi	$\times10^{-6}$	≤600 (7.95MHz)	≤330 (2.52MHz)	≤80 (2.52MHz)	≤100 (2.52MHz)	≤80 (2.52MHz)	≤55 (2.52MHz)
相对温度系数 Relative temperature coefficient	$\alpha_{\mu r}$	$\times10^{-6}$ 1/K	≤150 (20～60℃)	≤15 (20～60℃)	≤25 (20～60℃)	≤8 (-5～45℃)	≤10 (20～60℃)	≤4.5 (-5～45℃)
饱和磁通密度 Saturation flux density	Bs	mT		270 (4000A/m)	300 (4000A/m)	300 (4000A/m)	350 (4000A/m)	300 (4000A/m)
居里温度 Curie temperature	Tc	℃	＞460	＞400	＞350	＞400	＞350	＞300
电阻率 Resistivity	ρ	Ω・m	10^5	10^4	10^4	10^4	10^4	10^4
密度 Density	d	$kg/m^3\times10^3$	4.5	4.5	4.5	4.5	4.5	4.5

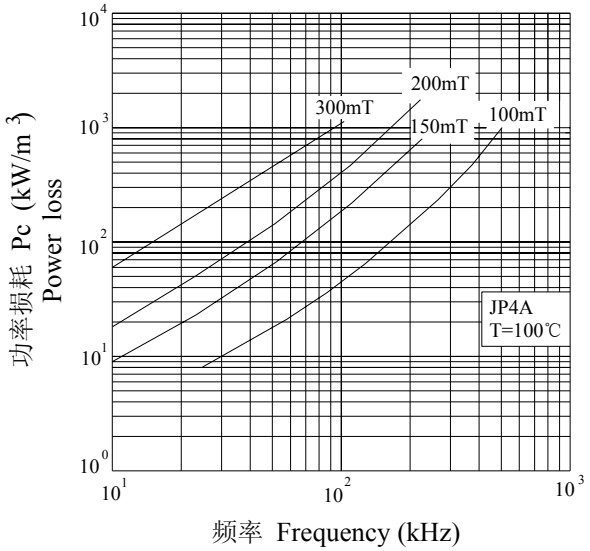
特性 Characteristics	符号 Symbol	单位 Unit	JR250	JR500	JR750	JR1K	JR1.5K
使用频率范围 Operation Frequency range		MHz	＜10	＜2	＜1.5	＜1.5	＜1.0
初始磁导率 Initial permeability	μi		250 ±20%	500 ±20%	750 ±20%	1000 ±20%	1500 ±20%
相对损耗因数 Relative loss factor	tanδ/μi	$\times10^{-6}$	≤40 (0.795MHz)	≤30 (100kHz)	≤25 (100kHz)	≤40 (100kHz)	≤30 (100kHz)
相对温度系数 Relative temperature coefficient	$\alpha_{\mu r}$	$\times10^{-6}$ 1/K	≤6 (20～60℃)	≤8 (20～60℃)	≤4 (20～60℃)	≤5 (20～60℃)	≤4 (20～60℃)
饱和磁通密度 Saturation flux density	Bs	mT	370 (1600A/m)	300 (1600A/m)	310 (1600A/m)	350 (4000A/m)	280 (1600A/m)
居里温度 Curie temperature	Tc	℃	＞250	＞150	＞150	＞150	＞100
电阻率 Resistivity	ρ	Ω・m	10^4	10^5	10^5	10^5	10^5
密度 Density	d	$kg/m^3\times10^3$	4.6	5.0	5.0	5.0	4.8

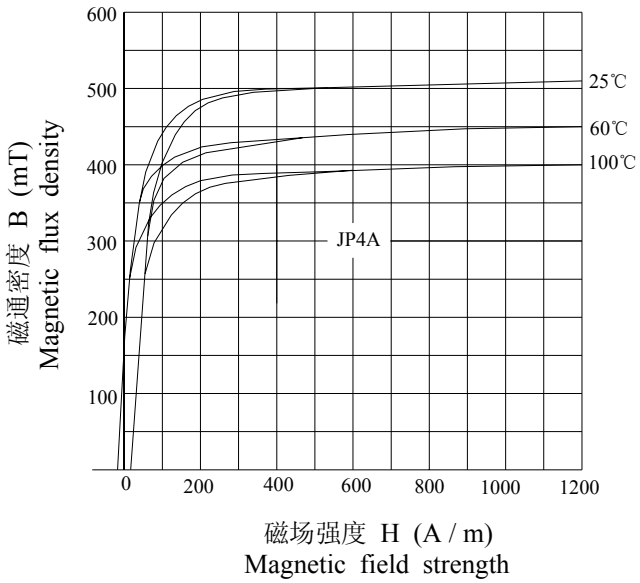
注：如无说明，各项数值均系用环型磁芯在室温下测得。

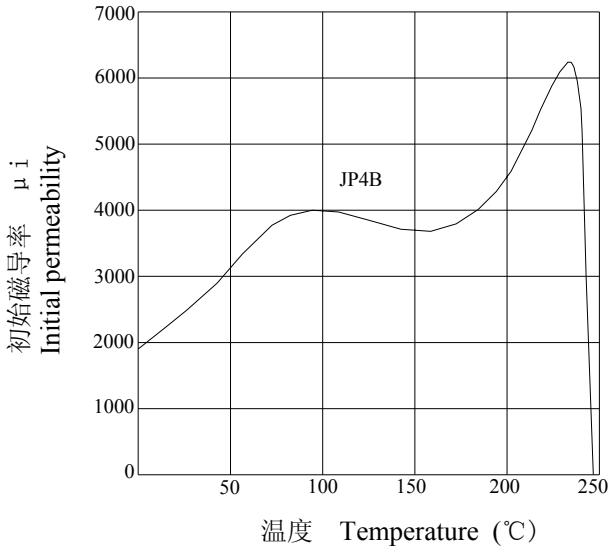
Note: The values were obtained with toroidal cores at room temperature unless otherwise shown.

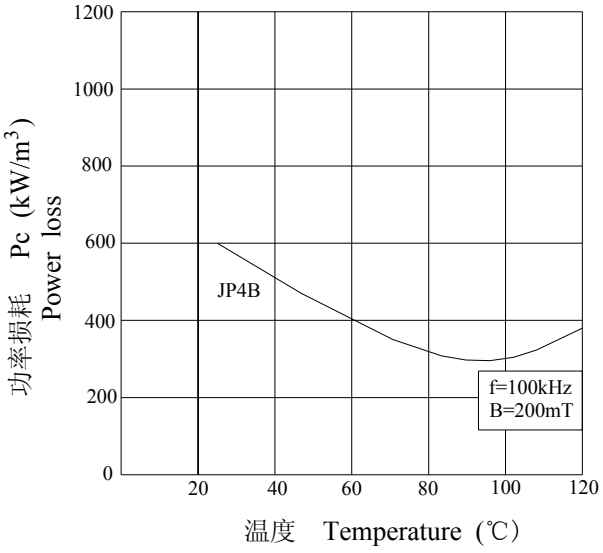

初始磁导率 μi
Initial permeability
7000
6000
5000
4000
3000
2000
1000
0
JP4A
50
100
150
200
250
温度 Temperature (℃)

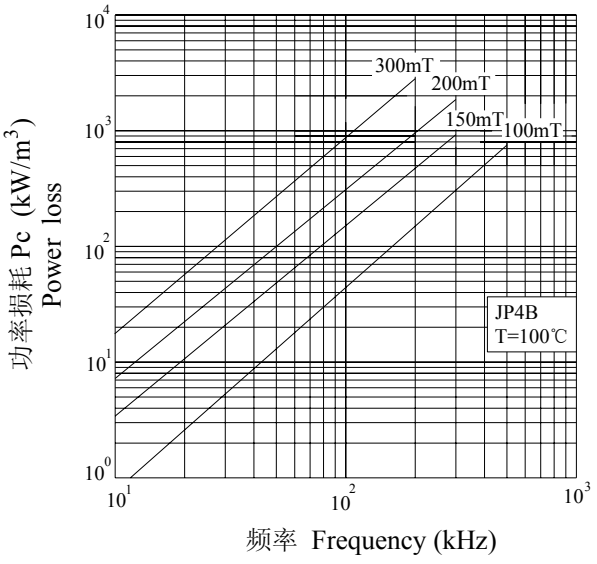

功率损耗 Pc (kW/m 3)
Power loss
1200
1000
800
600
400
200
0
JP4A
f=100kHz
B=200mT
20
40
60
80
100
120
温度 Temperature (℃)

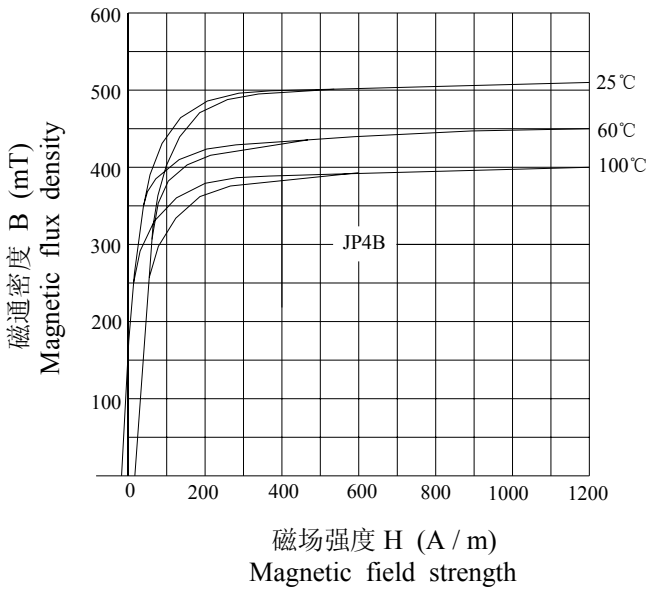

功率损耗 Pc (kW/m 3)
Power loss
10 4
10 3
10 2
10 1
10 0
200mT
300mT
150mT
100mT
JP4A
T=100℃
10 1
10 2
10 3
频率 Frequency (kHz)

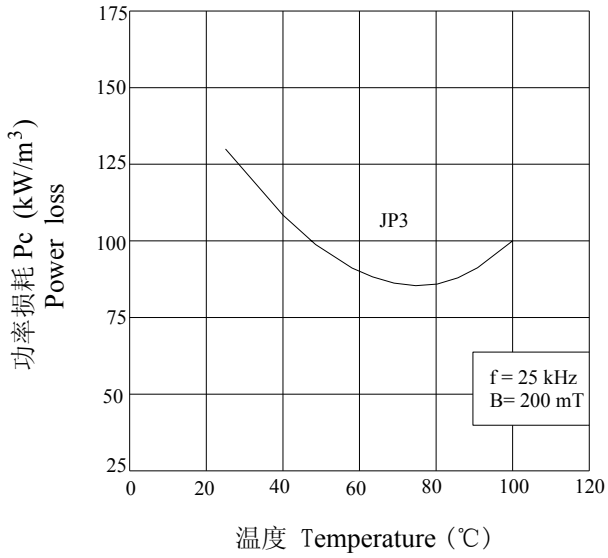

磁通密度 B (mT)
Magnetic flux density
600
500
400
300
200
100
25℃
60℃
100℃
JP4A
0
200
400
600
800
1000
1200
磁场强度 H (A / m)
Magnetic field strength

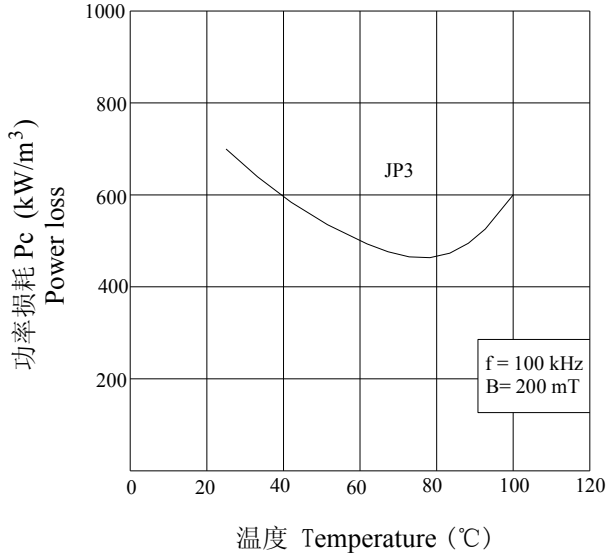

初始磁导率 μi
Initial permeability
7000
6000
5000
4000
3000
2000
1000
0
JP4B
50
100
150
200
250
温度 Temperature (℃)

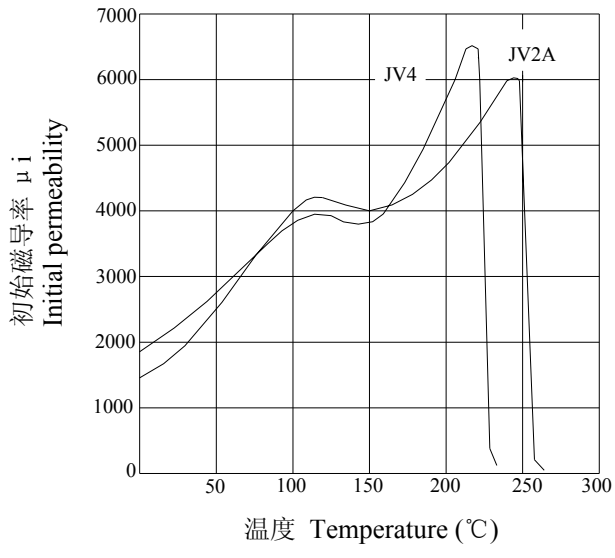

功率损耗 Pc (kW/m3)
Power loss
1200
1000
800
600
400
200
0
JP4B
f=100kHz
B=200mT
20
40
60
80
100
120
温度 Temperature (℃)

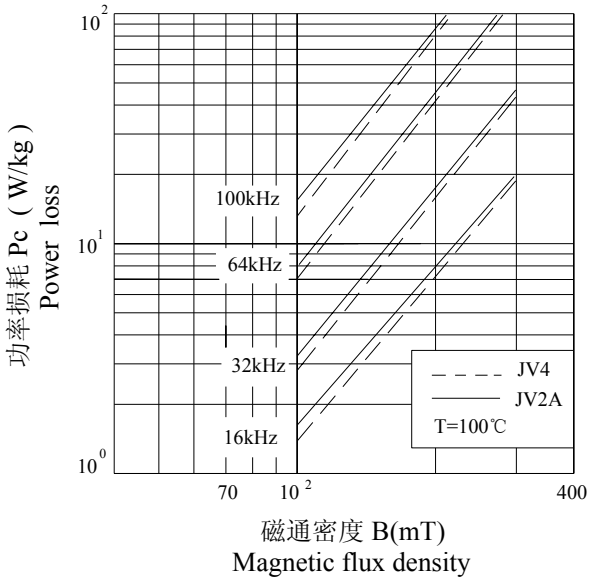

功率损耗 Pc (kW/m3)
Power loss
10^4
10^3
10^2
10^1
10^0
300mT
200mT
150mT
100mT
JP4B
T=100℃
10^1
10^2
10^3
频率 Frequency (kHz)

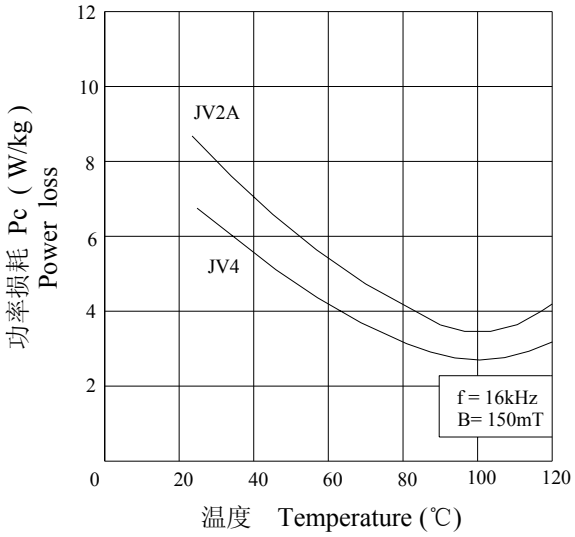

磁通密度 B (mT)
Magnetic flux density
600
500
400
300
200
100
25℃
60℃
100℃
JP4B
0
200
400
600
800
1000
1200
磁场强度 H (A / m)
Magnetic field strength

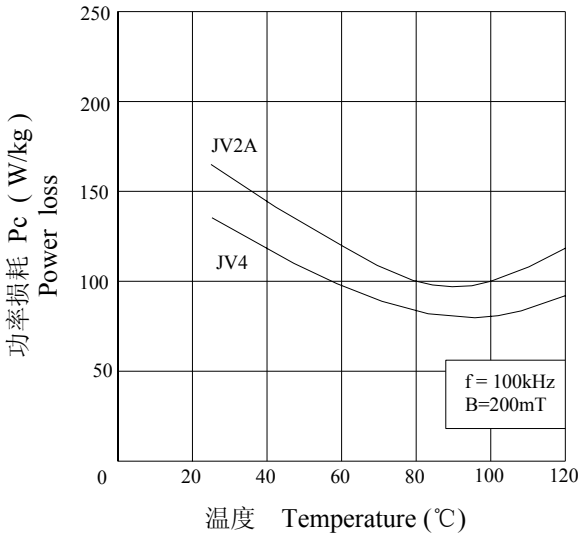

功率损耗 Pc (kW/m3)
Power loss
175
150
125
100
75
50
25
0
20
40
60
80
100
120
JP3
f = 25 kHz
B= 200 mT
温度 Temperature（℃）

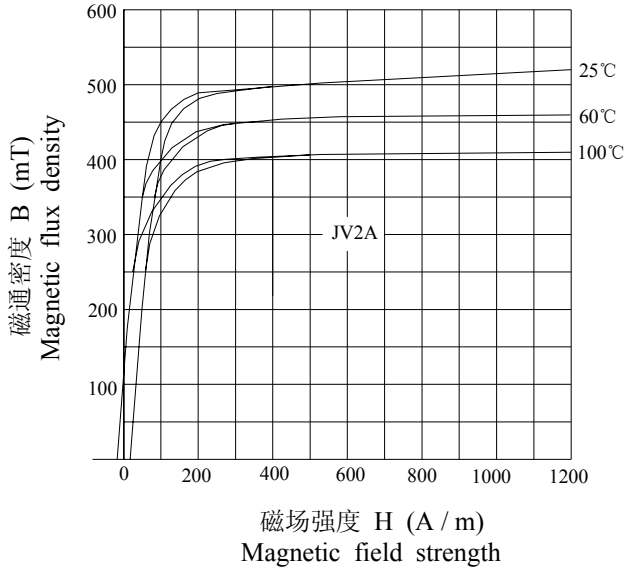

功率损耗 Pc (kW/m3)
Power loss
1000
800
600
400
200
0
20
40
60
80
100
120
JP3
f = 100 kHz
B= 200 mT
温度 Temperature（℃）

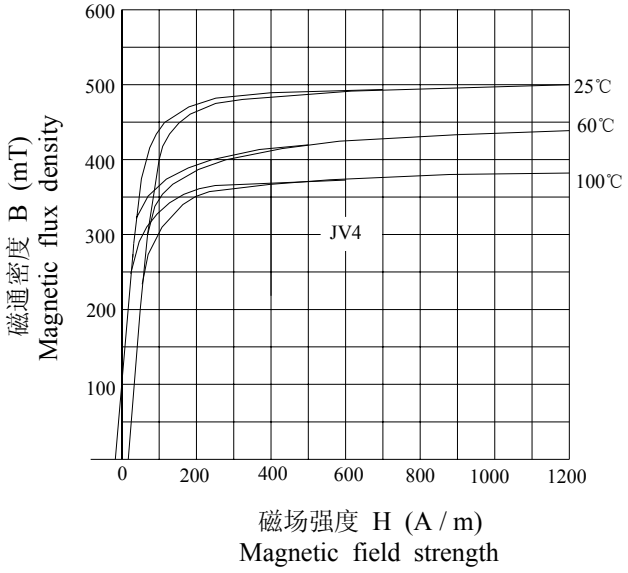

初始磁导率 μi
Initial permeability
7000
6000
5000
4000
3000
2000
1000
0
50
100
150
200
250
300
JV4
JV2A
温度 Temperature (℃)

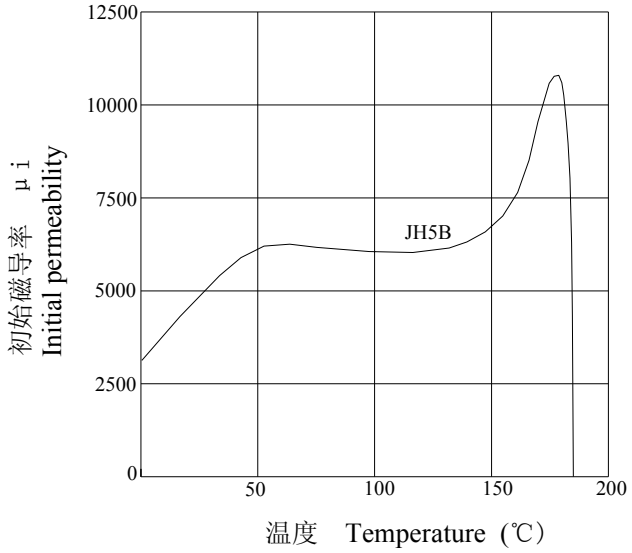

功率损耗 Pc (W/kg)
Power loss
10 2
10 1
10 0
100kHz
64kHz
32kHz
16kHz
70
10 2
400
JV4
JV2A
T=100℃
磁通密度 B(mT)
Magnetic flux density

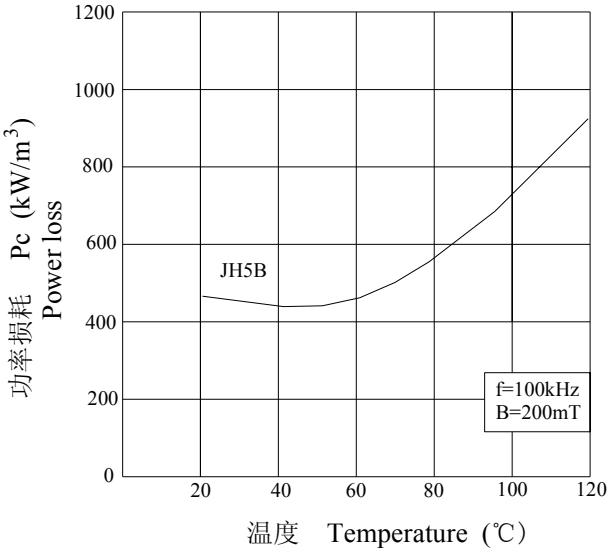

功率损耗 Pc (W/kg)
Power loss
JV2A
JV4
f = 16kHz
B= 150mT
温度 Temperature (℃)

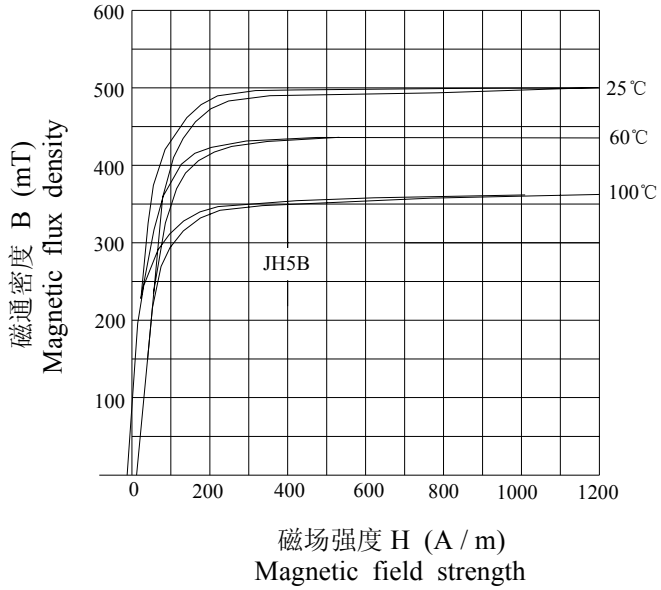

功率损耗 Pc (W/kg)
Power loss
JV2A
JV4
f = 100kHz
B=200mT
温度 Temperature (℃)

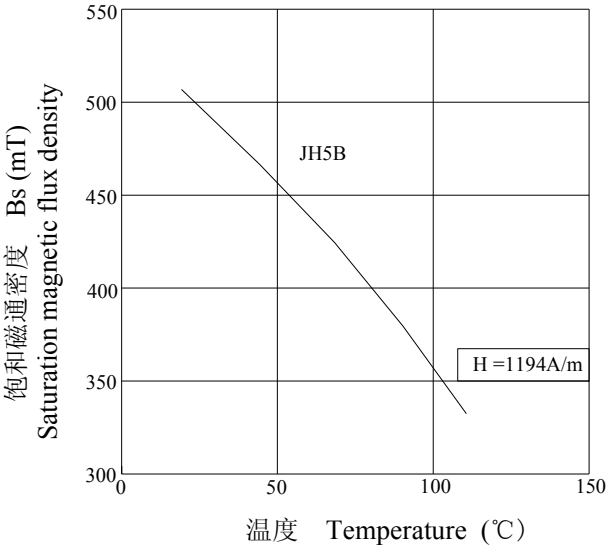

磁通密度 B (mT)
Magnetic flux density
JV2A
25℃
60℃
100℃
磁场强度 H (A / m)
Magnetic field strength

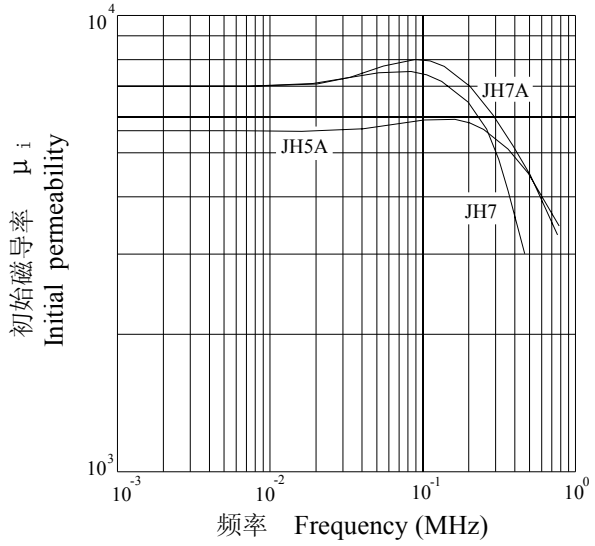

磁通密度 B (mT)
Magnetic flux density
JV4
25℃
60℃
100℃
磁场强度 H (A / m)
Magnetic field strength

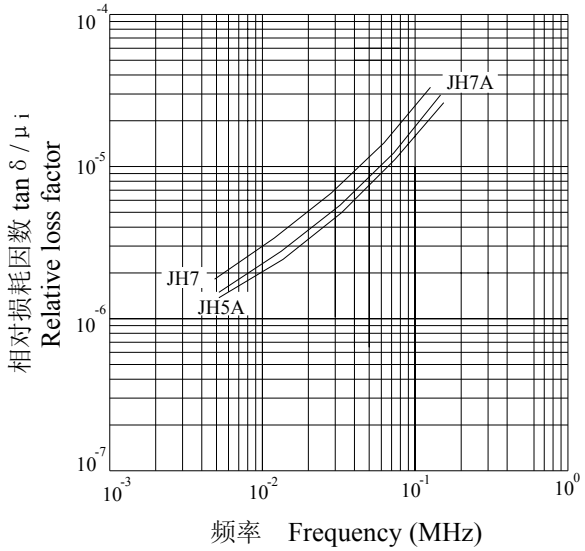

12500
10000
7500
5000
2500
0
50
100
150
200
JH5B
初始磁导率 μi
Initial permeability
温度 Temperature (℃)

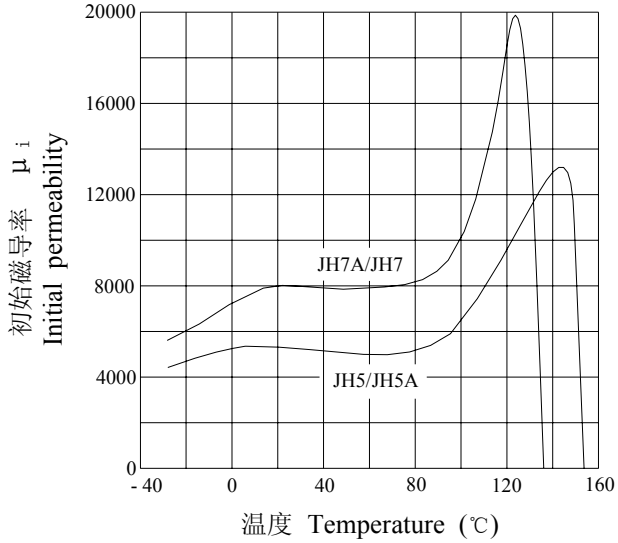

1200
1000
800
600
400
200
0
20
40
60
80
100
120
JH5B
f=100kHz
B=200mT
功率损耗 Pc (kW/m3)
Power loss
温度 Temperature (℃)

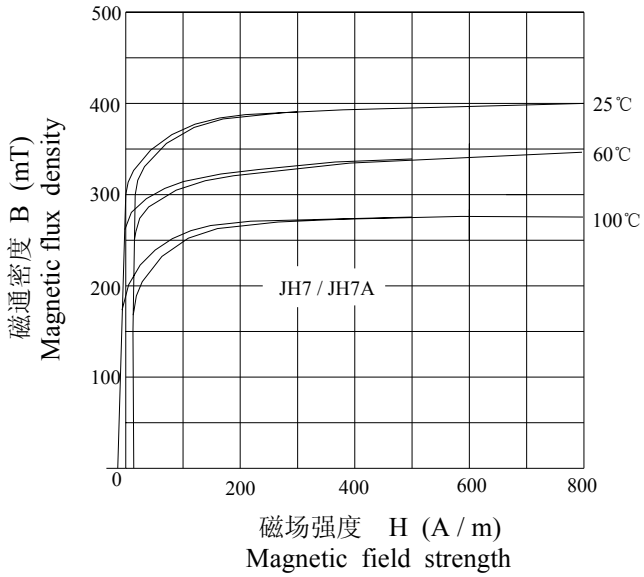

600
500
400
300
200
100
0
200
400
600
800
1000
1200
25℃
60℃
100℃
JH5B
磁通密度 B (mT)
Magnetic flux density
磁场强度 H (A / m)
Magnetic field strength

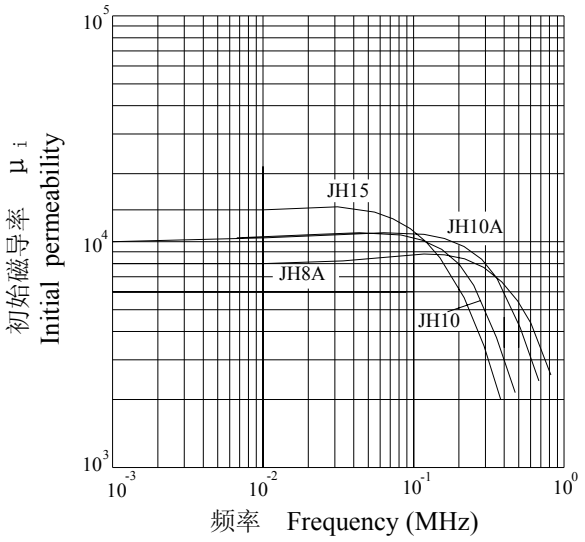

550
500
450
400
350
300
0
50
100
150
JH5B
H =1194A/m
饱和磁通密度 Bs (mT)
Saturation magnetic flux density
温度 Temperature (℃)

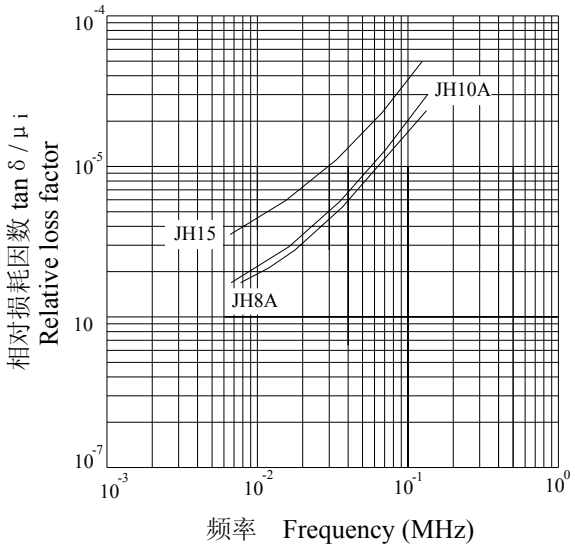

初始磁导率 μi
Initial permeability
JH7A
JH5A
JH7
频率 Frequency (MHz)

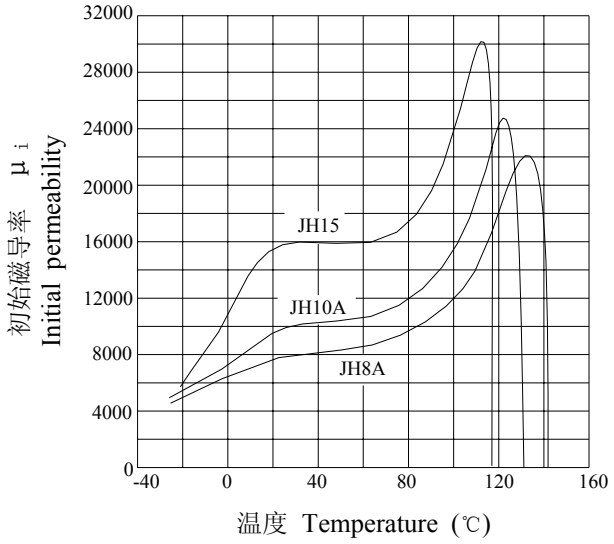

相对损耗因数 tan δ / μi
Relative loss factor
JH7A
JH7
JH5A
频率 Frequency (MHz)

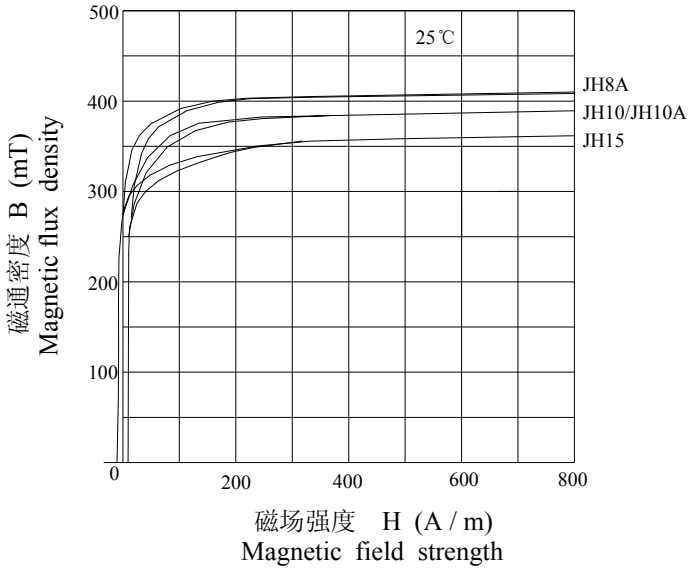

初始磁导率 μi
Initial permeability
JH7A/JH7
JH5/JH5A
温度 Temperature (℃)


磁通密度 B (mT)
Magnetic flux density
25℃
60℃
100℃
JH7 / JH7A
磁场强度 H (A / m)
Magnetic field strength


初始磁导率 μi
Initial permeability
JH15
JH10A
JH8A
JH10
频率 Frequency (MHz)


相对损耗因数 tan δ / μi
Relative loss factor
JH10A
JH15
JH8A
频率 Frequency (MHz)


初始磁导率 μi
Initial permeability
JH15
JH10A
JH8A
温度 Temperature (℃)


25℃
JH8A
JH10/JH10A
JH15
磁通密度 B (mT)
Magnetic flux density
磁场强度 H (A / m)
Magnetic field strength

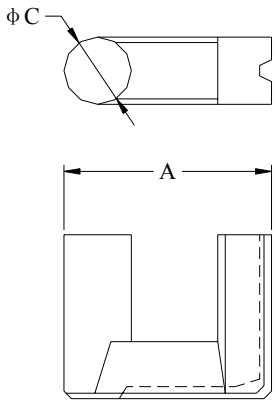
铁氧体颗粒料是已经过配料、混合、预烧、粉碎和造粒等工序，可以直接用于成形加工的铁氧体料粒。顾客使用该料可直接压制成毛坯，经烧结、磨削后即可制成所需磁芯。本公司生产并销售高品质的铁氧体颗粒料，品种包括功率铁氧体 JP 系列和高磁导率铁氧体 JH 系列。

Ferrite granules is a kind of material which has been weighed, mixed, pre-sintered, milled and granulated, and which can be directly used for pressing green compacts. Through sintering and surface grinding the ferrite cores will be made. JSM produces and sales ferrite granules of high quality, among which are power ferrite JP series and high μi ferrite JH series.

特性 Characteristics		**符号 Symbol**	**单位 Unit**	**JP 系列 / JH 系列 JP series / JH series**
物理特性 Physical properties	松装比重 Bulk density	d_B	g/cm^3	1.34±0.03 *
	含水量 Moisture content	η	%	≤0.25 *
	安息角 Rest angle	θ	°	≤31
	粒度分布峰值 Peak value of granule size distribution		目 mesh	100~140*
电气特性 Electric properties	参见“材料特性”（第 19 页~第 31 页） refer to “*Material Characteristics”* (from page 19 to page 31)			

注：* 指标可根据顾客需求在一定范围内调整。

Note: * Specifications can be adjusted according to customers’ request.

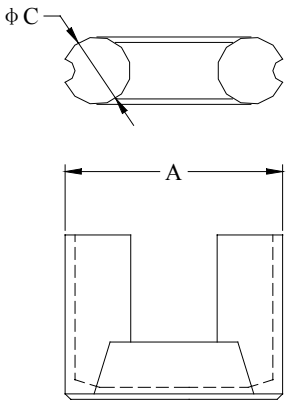


例：　UYF 15 / 42 A

型号　尺寸C　尺寸A　标识字母

Sample: UYF 15 / 42 A

Type　Dimension C　Dimension A　Mark

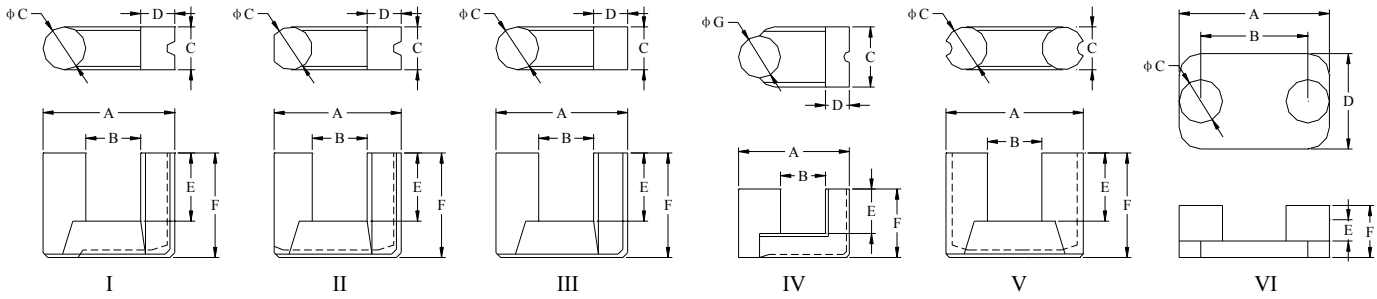


例：　UY 5 / 17

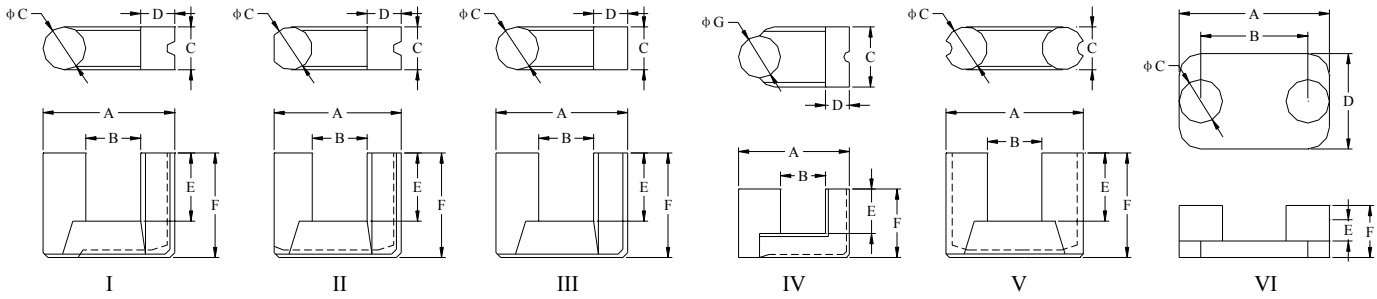
型号　尺寸C　尺寸A

Sample: UY 5 / 17

Type　Dimension C　Dimension A



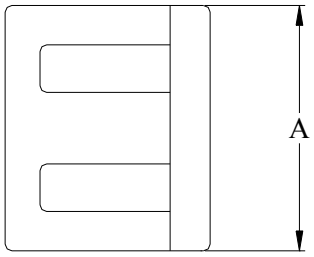
型号 Type	形状 Shape	尺寸 Dimensions (mm)					
		A	B	C	D	E	F
UYF10/18.5	**IV**	18.5±0.5	7.0 min	$10.0^{+0.15}_{-0.3}$	4.0±0.2	7.4±0.2	11.4±0.2
UYF10/30	**I**	30.5±0.6	12.0 min	9.9±0.2	7.9±0.3	21.2±0.3	29.6±0.3
UYF10/31	**I**	31.2±0.6	13.4 min	9.6±0.3	7.6±0.3	20.2±0.3	28.2±0.3
UYF10/35	**I**	35.2±0.6	17.3 min	9.7±0.2	7.6±0.3	16.9±0.3	24.6±0.3
UYF10/36	**I**	36.3±0.6	17.0 min	10.1±0.3	8.5±0.3	17.5±0.3	26.1±0.3
UYF11/34A	**I**	$34.0^{+0.7}_{-0.3}$	14.3min	$11.0^{+0.5}_{-0.3}$	8.2±0.3	$20.1^{+0.5}_{-0}$	$29.1^{+0.5}_{-0}$
UYF11.5/35	**I**	34.5±0.6	12.9 min	11.5±0.2	9.5±0.3	19.1±0.2	29.1±0.3
UYF11.5/36	**I**	35.5±0.6	13.9 min	11.5±0.2	9.5±0.3	21.0±0.2	31.0±0.3
UYF12/37	**I**	37.0±0.6	15.8 min	12.2±0.2	8.4±0.3	24.8±0.3	35.3±0.3
UYF13/33	**III**	33.5±0.6	11.4 min	13.0±0.3	8.5±0.3	20.5±0.3	30.5±0.3
UYF13/35	**III**	35.0±0.6	12.4 min	12.7±0.3	9.3±0.3	24.0±0.3	34.3±0.3
UYF13/35A	**II**	35.2±0.6	12.6 min	12.7±0.2	9.3±0.2	18.0±0.3	28.3±0.3
UYF13/35B	**I**	35.4±0.5	11.9 min	13.0±0.3	10.0±0.3	17.5±0.3	27.5±0.3
UYF13/36	**I**	35.5±0.6	12.0 min	12.9±0.2	10.0±0.3	20.5±0.3	30.5±0.3
UYF13/38	**I**	38.0±0.6	13.7 min	13.0±0.3	10.7±0.3	18.5±0.3	29.0±0.3
UYF13/38A	**I**	38.0±0.6	13.4 min	13.0±0.3	11.0±0.3	23.9±0.3	34.2±0.3
UYF14/37	**I**	37.4±0.6	14.8 min	14.4±0.3	7.5±0.3	21.2±0.3	29.4±0.3
UYF14/38	**I**	38.5±0.6	13.5 min	14.0±0.3	10.5±0.3	23.2±0.3	34.3±0.3
UYF14/39	**I**	38.9±0.6	13.4 min	14.0±0.3	10.9±0.3	21.3±0.3	31.8±0.3
UYF14/40	**I**	40.0±0.6	14.9 min	14.0±0.3	10.5±0.3	22.0±0.3	33.2±0.3
UYF14/43	**I**	42.8±0.6	16.6 min	14.0±0.3	11.5±0.3	21.8±0.3	33.3±0.3
UYF14/44	**I**	43.6±0.6	17.4 min	14.0±0.3	11.5±0.3	25.7±0.2	37.2±0.2
UYF14.3/41	**I**	40.5±0.5	13.5 min	$14.3^{+0.5}_{-0.3}$	12.0±0.3	22.8±0.3	34.2±0.3
UYF14.5/41A	**I**	40.5±0.6	13.4 min	14.5±0.3	12.0±0.3	20.5±0.3	31.5±0.3
UYF14.5/41B	**I**	40.8±0.5	13.8 min	14.5±0.3	14.5±0.3	26.5±0.25	38.5±0.25
UYF14.5/42	**I**	42.2±0.6	14.8 min	14.6±0.3	12.0±0.3	22.5±0.2	34.2±0.2



型号 Type	形状 Shape	尺寸 Dimensions (mm)					
		A	B	C	D	E	F
UYF15/40	**I**	40.3±0.6	13.2 min	15.0±0.3	11.5±0.3	21.5±0.3	33.0±0.3
UYF15/41	**III**	41.5±0.6	14.5 min	15.0±0.3	11.3±0.3	26.0±0.3	38.0±0.3
UYF15/42	**I**	42.2±0.6	14.8 min	14.8±0.3	12.0±0.3	25.2±0.3	37.2±0.3
UYF15/42A	**I**	42.1±0.6	14.6 min	14.7±0.3	12.0±0.3	22.5±0.2	34.2±0.2
UYF15/42C	**III**	42.3±0.6	14.4 min	15.2±0.3	12.0±0.3	26.0±0.3	38.0±0.3
UYF15/42D	**I**	42.0±0.6	14.4 min	15.0±0.2	12.0±0.3	25.5±0.2	37.5±0.2
UYF15/43	**I**	42.5±0.6	14.9 min	15.0±0.3	12.0±0.3	22.7±0.3	34.7±0.3
UYF15/46	**I**	46.0±0.6	18.4 min	15.0±0.3	12.0±0.3	26.3±0.3	38.4±0.3
UYF16/43	**I**	43.0±0.6	14.4 min	16.0±0.2	12.0±0.3	25.5±0.3	38.3±0.3
UYF16/43A	**I**	43.2±0.6	14.4 min	16.0±0.2	12.0±0.3	25.5±0.3	37.5±0.3
UYF16/44	**I**	44.0±0.6	15.2 min	15.9±0.3	12.0±0.3	25.6±0.2	38.3±0.2
UYF16/45	**I**	44.6±0.6	16.0 min	16.0±0.3	12.0±0.3	25.5±0.2	37.5±0.3
UYF16/48	**I**	48.0±0.8	17.9 min	16.0±0.3	13.3±0.3	26.2±0.3	39.5±0.3
UYF16.5/46	**I**	46.0±0.6	15.2 min	16.5±0.3	13.3±0.3	24.5±0.5	37.5±0.3
UYF17/47	**I**	46.5±0.6	15.5 min	16.8±0.2	13.5±0.3	25.7±0.3	38.2±0.3
UYF17/50	**I**	50.0±0.8	18.4 min	17.0±0.3	13.8±0.3	26.1±0.3	40.2±0.3
UYF18/48	**I**	48.4±0.8	15.1 min	18.0±0.3	14.5±0.3	25.5±0.3	40.3±0.3
UY5/17	**VI**	17.35±0.2	12.35±0.2	5.0±0.1	11.0±0.15	4.1±0.1	6.0±0.15
UY10	**V**	32.0±0.6	11.8 min	9.8±0.3		14.0±0.3	22.0±0.3
UY12	**V**	46.7±1.0	21.7 min	12.0±0.3		16.0±0.5	25.2±0.2
UY16	**V**	58.7±1.2	25.5 min	16.0±0.3		17.0±0.3	29.0±0.3

型号 Type	等效参数 Effective Parameter				重量(克/付) W(g/set)
	$C_1(mm^{-1})$	le(mm)	$Ae(mm^2)$	$Ve(mm^3)$	
UYF10/18.5	1.63	61	37.5	2290	12
UYF10/30	1.82	137	75.2	10300	52
UYF10/31	1.87	135	72.1	9720	49
UYF10/35	1.81	129	71.3	9200	48
UYF10/36	1.63	133	81.8	10900	56
UYF11/34A	1.55	140	90.1	12600	63
UYF11.5/35	1.30	136	104	14100	71
UYF11.5/36	1.39	145	104	15200	75
UYF12/37	1.47	163	111	18200	94
UYF13/33	1.24	136	110	15000	84
UYF13/35	1.36	154	113	17500	88
UYF13/35A	1.00	131	120	17000	81
UYF13/35B	1.01	129	127	16400	85
UYF13/36	1.13	141	125	17600	88
UYF13/38	1.05	138	131	18100	91
UYF13/38A	1.20	158	132	20900	94
UYF14/37	1.21	141	116	16300	83
UYF14/38	1.08	157	146	23000	118
UYF14/39	1.02	149	147	21900	108
UYF14/40	1.06	156	147	22800	112
UYF14/43	1.04	160	153	24400	122
UYF14/44	1.16	177	153	27100	135
UYF14.3/41	0.98	158	162	25596	128
UYF14.5/41A	0.932	148	159	23400	117
UYF14.5/41B	1.05	174	166	28892	145
UYF14.5/42	0.967	160	166	26500	132

型号 Type	等效参数 Effective Parameter				重量(克/付) W(g/set)
	$C_1(mm^{-1})$	le(mm)	$Ae(mm^2)$	$Ve(mm^3)$	
UYF15/40	0.923	152	165	25100	125
UYF15/41	1.00	174	173	30100	144
UYF15/42	1.01	171	170	29200	148
UYF15/42A	0.956	160	167	26700	134
UYF15/42C	0.986	174	177	30700	154
UYF15/42D	0.994	172	173	29800	145
UYF15/43	0.934	162	173	28000	148
UYF15/46	1.07	183	171	31300	160
UYF16/43	0.920	174	189	32800	160
UYF16/43A	0.912	173	189	32700	164
UYF16/44	0.920	176	191	33600	160
UYF16/45	0.935	176	188	33000	162
UYF16/48	0.917	186	203	37800	184
UYF16.5/46	0.835	173	208	36000	180
UYF17/47	0.839	178	213	37900	184
UYF17/50	0.844	189	224	42400	206
UYF18/48	0.717	183	255	46500	227
UY5/17	2.07	41.9	20.2	847	4.3
UY10	1.76	107	61.0	6540	33
UY12	1.38	143	103	14700	74
UY16	0.921	165	179	29600	160

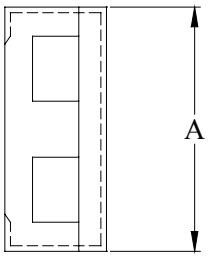


例：　EI 22 B

型号　尺寸A　标识字母

Sample: EI 22 B

Type　Dimension A　Mark

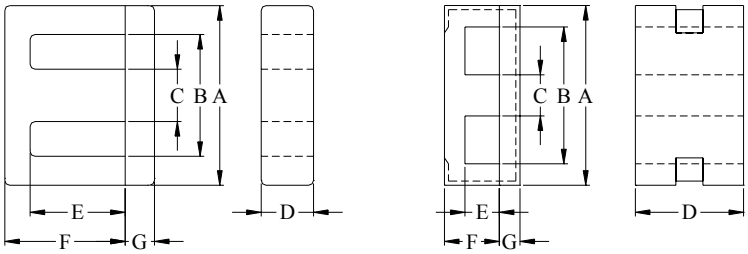


例：　EIF 14

型号　尺寸A

Sample: EIF 14

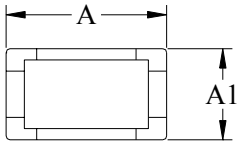
Type　Dimension A



型号 Type	形状 Shape	尺寸 Dimensions (mm)							重量(克/付) W(g/set)
		A	B	C	D	E	F	G	
EI22B	**I**	22.0±0.6	16.2min	5.7±0.3	5.7±0.3	11.4±0.2	15.4±0.3	4.0±0.2	7
EI25.4	**I**	25.3±0.5	18.7min	6.35±0.3	6.75±0.3	12.4±0.3	15.6±0.3	3.2±0.3	10
EI26	**I**	26.5±0.5	18.5min	7.0±0.3	8.0±0.3	13.5±0.3	17.3±0.3	3.75±0.25	15
EI28	**I**	28.0±0.5	18.6min	7.2±0.3	10.7±0.3	12.5±0.3	17.0±0.3	3.5±0.2	20
EI30	**I**	30.0±0.6	19.5min	10.7±0.3	10.7±0.3	16.25±0.25	21.25±0.25	5.5±0.3	33
EI33	**I**	33.0±0.6	23.6min	9.7±0.3	12.7±0.3	19.25±0.3	23.75±0.25	5.0±0.3	40
EI35	**I**	35.0±0.5	24.5min	10.0±0.3	11.4±0.3	18.35±0.15	24.35±0.15	4.7±0.2	39
EI40	**I**	40.0±0.7	26.8min	11.65±0.35	11.65±0.35	21.15±0.35	26.8±0.5	6.5±0.3	54
EIF14	**II**	14.0±0.3	10.7min	3.0±0.2	5.0±0.2	2.0±0.2	3.5±0.15	1.5±0.15	1.2
EIF18	**II**	18.0±0.4	13.6min	4.0±0.2	10.0±0.25	2.0±0.2	4.0±0.2	2.0±0.15	4
EIF22	**II**	21.8±0.4	16.4min	5.0±0.25	15.8±0.3	3.2±0.3	5.7±0.3	2.5±0.25	10
EIF32	**I**	31.75±0.6	24.4min	6.35±0.25	20.32±0.5	3.18±0.4	6.35±0.3	3.18±0.3	23
EIF38	**I**	38.1±0.7	29.4min	7.6±0.3	25.4±0.5	4.45±0.3	8.26±0.3	3.8±0.3	42
EIF64	**I**	63.8±1.5	52.3min	10.2±0.3	50.3±1.0	5.1±0.3	10.2±0.3	5.1±0.3	178

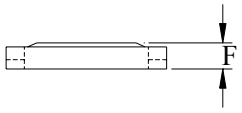
电感因数 A_L-value(nH/N^2±25%): 1kHz,100Ts,25℃

型号 Type	等效参数 Effective Parameter				A_L		
	C_1(mm^{-1})	le(mm)	Ae(mm^2)	Ve(mm^3)	JP2	JP3	JP4A
EI22B	1.27	43.3	34.0	1471	1800	1750	
EI25.4	1.13	47.6	41.9	1990		2100	
EI26	0.869	50.6	58.2	2940		2200	
EI28	0.585	48.9	83.6	4090	4300	3970	
EI30	0.526	58.1	110.5	6423		4132	
EI33	0.575	67.6	118	7940	5000	3800	
EI35	0.587	67.7	115	7800		3400	
EI40	0.551	77.0	140	10800	6200	4000	
EIF14	1.15	16.7	14.5	242			1300
EIF18	0.514	20.3	39.5	801			3000
EIF22	0.332	26.1	78.5	2050			5000
EIF32	0.271	35.1	130	4560			7000
EIF38	0.224	43.5	194	8450			8600
EIF64	0.136	69.7	511	35700			15000



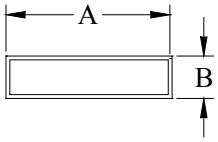
例：F 19 / 16 / 5

型号　尺寸A　尺寸A1　尺寸F



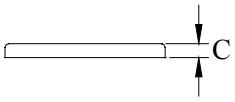
Sample: F 19 / 16 / 5

Type　Dimension A　Dimension A1　Dimension F



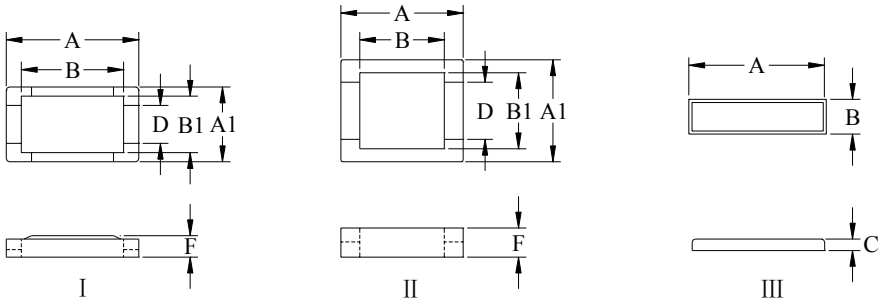
例：I 19 / 3 / 6

型号　尺寸A　尺寸C　尺寸B



Sample: I 19 / 3 / 6

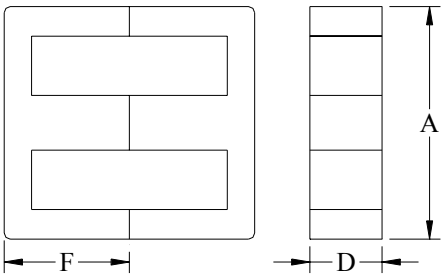
Type　Dimension A　Dimension C　Dimension B



型号	形状	尺寸 Dimensions (mm)							重量(克/付)
Type	Shape	A	A1	B	B1	C	D	F	W(g/set)
F 20/15/5	**II**	19.7±0.3	14.8±0.25	15.6±0.15	11.4±0.2			4.6±0.1	3.5
I 20/3/5.5	**III**	19.9±0.3		5.45±0.15		2.5±0.05			
F 21/12/4	**I**	$21.0^{+0.2}_{-0.3}$	11.8±0.25	$16.2^{+0.7}_{-0.1}$	8.9±0.2		7.0±0.4	5.5±0.2	2.43
I 22/2/6	**III**	21.8±0.3		5.5±0.2		1.8±0.1			
F 24/10/3.5	**I**	23.8±0.3	9.8±0.2	19.2±0.3	7.3±0.2			3.5±0.05	2.4
I 25/2.2/4	**III**	24.7±0.3		4.4±0.2		2.15±0.05			
F 27/9/3.8	**I**	26.7±0.7	9.0±0.3	19.7±0.6	6.5±0.2			3.8±0.2	2.8
I 28/3.8/2.3	**III**	28.0±0.5		2.3±0.1		3.8±0.1			

电感因数 A_L-value(nH/N^2±25%): 10kHz, 100Ts, 25℃

型号	等效参数 Effective Parameter				A_L
Type	C_1(mm^{-1})	le(mm)	Ae(mm^2)	Ve(mm^3)	JP4B
F 20/15/5	3.29	46	14	655	500
I 20/3/5.5					
F 21/12/4	5.06	40	7.9	312	400
I 22/2/6					
F 24/10/3.5	6.03	45.8	7.6	348	370
I 25/2.2/4					
F 27/9/3.8	5.56	50	9.0	504	350
I 28/3.8/2.3					



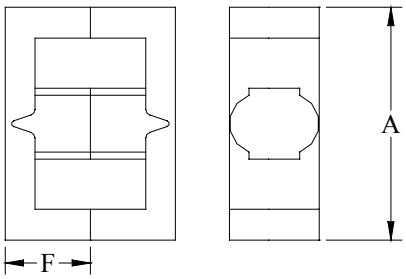
EE EF

例：EE 19 / 8 / 5

型号　尺寸A　尺寸F　尺寸D

Sample: EE 19 / 8 / 5

Type　Dimension A　Dimension F　Dimension D



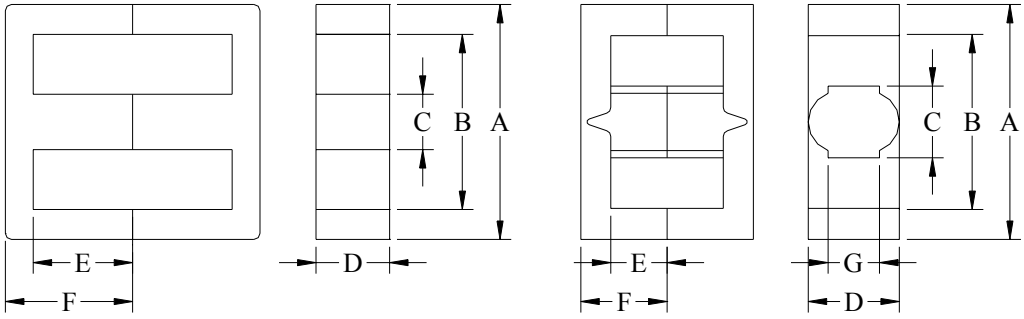
EED

例：EED 28 / 10

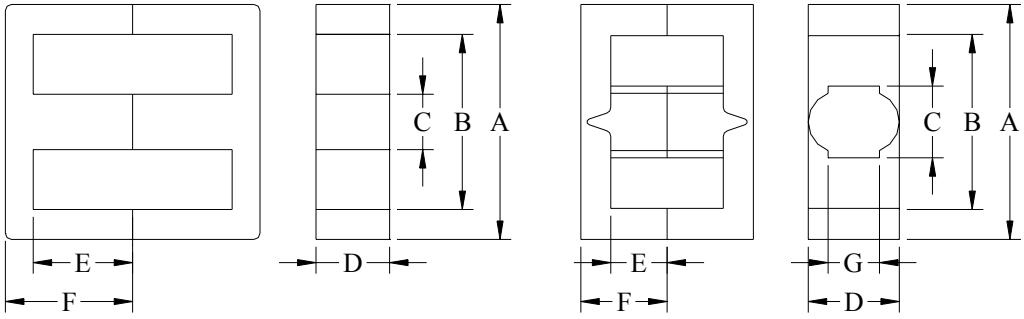
型号　尺寸A　尺寸F

Sample: EED 28 / 10

Type　Dimension A　Dimension F



型号	尺寸 Dimensions (mm)							重量(克/付)
Type	A	B	C	D	E	F	G	W(g/set)
EE5/3	5.25±0.1	3.8min	1.35±0.1	1.95±0.1	2.0±0.075	2.65±0.075		0.16
EE6/4	6.25±0.15	$4.7^{+0.3}_{0}$	1.2±0.15	1.2±0.15	3.3±0.15	4.2±0.15		0.18
EE10/5.5	10.2±0.3	7.6min	2.4±0.15	9.8±0.2	4.3±0.15	5.5±0.15		3.0
EE13/6	13.0±0.3	10.0min	2.7±0.2	6.1±0.2	4.75±0.25	6.2±0.2		2.6
EF16/6	16.1±0.6	11.3min	4.5±0.2	7.2±0.2	3.75±0.15	6.25±0.15		4.8
EF16/6/5	16.1±0.6	$11.3^{+0.6}_{0}$	$4.7^{0}_{-0.3}$	4.7±0.2	$3.6^{+0.3}_{0}$	$6.1^{+0.3}_{0}$		3.2
EE16/7	16.0±0.3	11.7min	4.0±0.2	4.9±0.2	5.3±0.2	7.3±0.2		3.5
EE16/7/12	16.0±0.3	9.0±0.3	7.0±0.2	11.7±0.3	3.5±0.15	6.9±0.1		11
EE16/7/18	16.0±0.3	9.0±0.3	7.0±0.2	17.7±0.3	3.5±0.15	6.9±0.1		16.8
EF16/8	16.1±0.6	11.3min	4.55±0.15	4.5±0.2	6.0±0.2	8.15±0.15		3.8
EE16/12	16.0±0.3	11.7min	4.0±0.2	4.75±0.25	10.25±0.25	12.25±0.2		5.0
EE19/8/5	19.15±0.5	14.2min	4.65±0.25	5.0±0.25	$5.7^{+0.25}_{-0.15}$	8.05±0.25		4.6
EE19/8/5A	19.1±0.3	14.1min	4.85±0.25	4.85±0.25	5.75±0.15	8.0±0.2		4.5
EE19/14	19.0±0.3	13.7min	4.85±0.25	4.85±0.25	11.3±0.3	13.55±0.3		7.4
EE19.5/14	19.5±0.4	14.3min	4.85±0.25	4.85±0.25	11.3±0.3	13.55±0.3		7.3
EF20/9/6	20.15±0.65	14.1min	5.7±0.2	5.65±0.25	6.4±0.2	9.2±0.2		6.7
EF20/9/11	20.15±0.65	14.1min	5.7±0.2	10.75±0.25	6.4±0.2	9.2±0.2		13.2
EF20/10	20.05±0.55	14.1min	5.7±0.2	5.65±0.25	7.05±0.15	9.85±0.15		7.5
EE20/11	20.5±0.7	13.5min	5.0±0.35	7.0±0.3	7.0±0.2	10.7±0.3		10
EE22/9	22.0±0.4	16.0min	5.75±0.25	5.75±0.25	5.65±0.2	9.65±0.25		8
EE22/15	22.0±0.6	16.2min	5.7±0.3	5.7±0.3	11.3±0.2	15.3±0.2		11
EE24/8	24.0±0.5	17.1min	6.55±0.2	7.65±0.2	4.75±0.2	8.0±0.2		10
EE24/11	24.0±0.6	17.1min	6.6±0.3	7.7±0.6	7.8±0.3	11.1±0.3		13



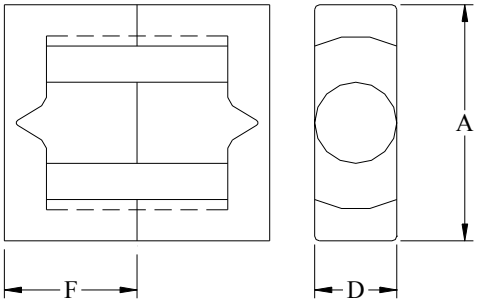
型号 Type	尺寸 Dimensions (mm)							重量(克/付) W(g/set)
	A	B	C	D	E	F	G	
EE25/10	25.3±0.5	19.0min	6.25±0.2	6.2±0.25	6.75±0.25	9.9±0.25		9.4
EE25/10B	25.6±0.5	18.8min	6.5±0.2	6.4±0.2	6.65min	9.9±0.25		10.2
EF25/13	25.1±0.8	17.5min	7.25±0.25	7.2±0.3	9.0±0.3	12.6±0.3		15
EE25/16	25.4±0.4	18.7min	6.35±0.3	6.35±0.3	12.7±0.3	15.85±0.3		15
EE26/10/6	25.9±0.4	19.0min	6.5±0.2	6.45±0.25	6.55±0.25	9.9±0.3		10
EE26/10/11	26.1±0.4	18.6min	7.25±0.25	10.7±0.3	6.45±0.15	10.2±0.25		19
EE26.5/17	26.5±0.5	18.5min	7.0±0.3	8.0±0.3	13.5±0.3	17.3±0.3		23
EE27/9	27.25±0.5	18.45min	8.4±0.2	9.75±0.2	4.75±0.2	8.85±0.15		17
EE28/11/10	28.0±0.5	18.6min	7.25±0.25	10.7±0.3	6.3±0.2	10.5±0.3		22
EE28/11/11	28.0±0.75	18.55min	7.7±0.25	11.15±0.25	5.7±0.3	10.5±0.3		23
EE30/14	29.8±0.5	20.9min	8.1±0.2	10.65±0.2	9.9±0.2	13.9±02		29
EE30/15	30.0±0.7	19.5min	6.95±0.25	7.05±0.25	10.0±0.3	15.0±0.2		19.4
EE31/13	30.65±0.65	21.8min	9.4±0.25	9.4±0.3	8.75±0.25	13.2±0.2		25
EF32/16	32.1±0.8	22.7min	9.2±0.3	9.15±0.35	11.6±0.3	16.1±0.3		30
EF35/14	35.0±0.5	24.5min	10.0±0.3	9.53±0.25	9.68±0.25	14.43±0.25		32
EE36/22	36.0±0.7	23.3min	10.2±0.5	12.0±0.6	15.75±0.6	21.75±0.4		64
EE40/22	40.0±0.7	26.8min	11.75±0.3	11.75±0.3	15.25±0.3	22.25±0.3		74
EE41/17	41.3±0.8	28.0min	12.7±0.25	12.7±0.25	10.5±0.3	16.85±0.3		69
EE42/21/12	42.15±0.85	29.5min	11.85±0.35	11.85±0.35	15.1±0.3	21.2±0.4		69
EE42/21/15	42.15±0.85	29.5min	11.85±0.35	14.85±0.35	15.1±0.3	21.2±0.4		86
EE42/21/20	42.15±0.85	29.5min	11.85±0.35	19.85±0.35	15.1±0.3	21.2±0.4		115
EE55/28/17	55.15±1.05	37.5min	16.95±0.25	16.75±0.25	18.9±0.4	27.5±0.3		174
EE55/28/21	55.15±1.05	37.5min	16.95±0.25	20.75±0.55	18.9±0.4	27.5±0.3		219
EED28/10	27.9±0.5	20.5min	8.5±0.2	11.9±0.2	6.65±0.2	10.2±0.2	7.2±0.2	23
EED29/15	29.3±0.3	21.6min	8.4±0.2	11.6±0.2	11.0±0.2	14.6±0.2	7.0±0.2	31

电感因数 A_L-value(nH/N²±25%): 1kHz, 100Ts, 25℃

型号 Type	等效参数 Effective Parameter				A_L		
	$C_1(mm^{-1})$	le(mm)	$Ae(mm^2)$	$Ve(mm^3)$	JP3	JP4A	JH7
EE5/3	4.85	12.6	2.6	32.9		300	
EE6/4	11.5	18.9	1.64	31.1		185	
EE10/5.5	1.14	26.4	23.1	621		1460	
EE13/6	1.84	31.0	16.8	521	900min		
EF16/6	0.873	29.5	33.6	991	2000		
EF16/6/5	1.34	29.5	22.0	649	1300		
EE16/7	1.81	35.5	19.6	695	850min		2000
EE16/7/12	0.335	26.8	79.9	2144		5600	
EE16/7/18	0.218	26.8	123	3298		8000min	
EF16/8	1.89	38.0	20.1	762	1160		
EE16/12	2.91	55.3	19.0	1050	600min		1800
EE19/8/4.8	1.79	39.5	22.1	872	900min		3600
EE19/8/4.9	1.75	39.8	22.7	903	900min		2400
EE19/14	2.64	61.7	23.4	1440	670min	850	2000
EE19.5/14	2.68	62.3	23.2	1445		850	
EF20/9/6	1.35	43.2	32.0	1384	1500		
EF20/9/11	0.709	432	60.9	2634	3125		
EF20/10	1.44	45.8	31.8	1458	1380		
EE20/11	1.12	46.4	41.5	1927	1900		5800
EE22/9	1.17	43.1	37	1590	1600min		
EE22/15	1.93	65.6	34.0	2232	1250		
EE24/8	0.811	40.2	49.6	2000	2090		
EE24/11	1.05	52.5	50.0	2630	2100		

电感因数 A_L-value(nH/N^2±25%): 1kHz, 100Ts, 25℃

型号 Type	等效参数 Effective Parameter				A_L			
	C_1(mm^{-1})	le(mm)	Ae(mm^2)	Ve(mm^3)	JP3	JP4A	JH7	JH15
EE25/10	1.32	49.9	37.9	1890			4000	
EE25/10B	1.22	49.8	40.7	2026				8300min
EF25/13	1.18	58.1	49.4	2870	2140			
EE25/16	1.83	73.5	40.1	2950			3160	
EE26/10/6	1.19	49.5	41.5	2054	2000		3500	
EE26/10/11	0.640	49.0	76.6	3760	3500			
EE26.5/17	1.36	77.6	57.1	4430		1150		
EE27/9	0.535	42.5	79.5	3382	3700	2900		
EE28/11/10	0.582	49.7	85.4	4240	3900	3100		
EE28/11/11	0.506	48.1	94.9	4560	3000			
EE30/14	0.766	65.6	85.8	5620		3000		
EE30/15	1.13	65.9	58.2	3840		2000		
EE31/13	0.761	61.7	81.1	5000		3060		
EF32/16	0.932	74.7	80.2	5990	2500			
EF35/14	0.747	69.0	92.3	6370	2800			
EE36/22	0.710	94.4	133	12600	2650			
EE40/22	0.664	96.9	146	14100	3810			
EE41/17	0.490	78.0	159	12400	4680	4200		
EE42/21/12	0.698	97.7	140	13700	3700			
EE42/21/15	0.555	97.7	176	17200	4100			
EE42/21/20	0.415	97.8	235	23000	5500			
EE55/28/17	0.440	124	282	34900	5300			
EE55/28/21	0.355	124	349	43200	6600			
EED28/10	0.559	50.3	90.0	4530	4000	3800		
EED29/15	0.769	69.2	90.0	6230	2900	2750		

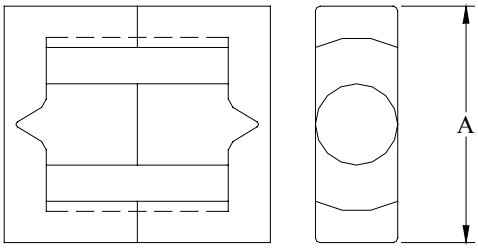


例：EC 30 / 8 / 20

型号　尺寸A　尺寸F　尺寸D

Sample: EC 30 / 8 / 20

Type　Dimension A　Dimension F　Dimension D

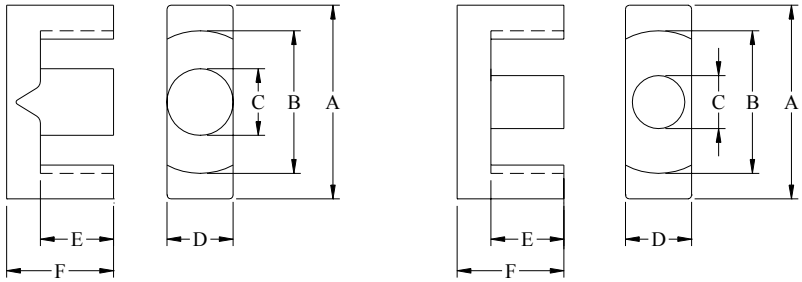


例：ETD 29

型号　尺寸A

Sample: ETD 29

Type　Dimension A

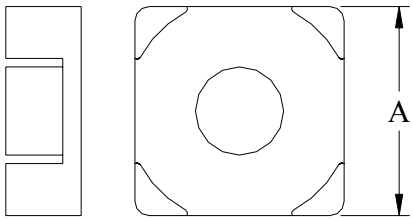


I　　II

型号 Type	形状 Shape	尺寸 Dimensions (mm)						重量(克/付) W(g/set)
		A	B	C	D	E	F	
EC9.35/1.7	**II**	9.35±0.2	$7.7^{+0.3}_{-0.05}$	3.0±0.15	4.6±0.1	0.975±0.1	1.675±0.1	0.38
EC24/9	**II**	24.0±0.5	18.5±0.4	9.5±0.25	11.0±0.3	5.65±0.15	8.9±0.1	15.1
EC28/11/11	**II**	28.55±0.5	21.75±0.5	9.9±0.25	11.4±0.25	6.6±0.15	10.95±0.2	22.1
EC28/14	**II**	28.55±0.55	21.2min	9.9±0.25	11.4±0.25	9.9±0.3	14.3±0.5	28
EC29/17	**II**	29.4±0.5	22.0min	9.9±0.35	11.4±0.4	12.5±0.3	17.0±0.3	31
EC30/8/20	**II**	30.0±0.5	25.6min	11.0±0.2	20.0±0.3	5.4±0.2	8.0±0.2	27
EC30/9.5/20	**II**	30.0±0.5	25.0min	13.4±0.2	20.0±0.3	$6.5^{+0.4}_{-0}$	$9.5^{+0.4}_{-0}$	34
EC35/21	**I**	35.0±0.5	25.6min	11.3±0.3	11.3±0.3	14.7±0.3	20.7±0.3	51
EC36/22	**I**	36.0±0.6	26.5min	11.3±0.3	11.3±0.3	15.6±0.4	21.6±0.4	52
EC40/21	**II**	40.3±0.7	30.7min	14.0±0.3	15.0±0.3	15.4±0.3	21.4±0.3	77
EC40/22	**I**	40.0±1.0	28.75min	13.3±0.4	13.3±0.4	15.4±0.3	22.4±0.3	78.4
EC42/21	**I**	42.0±0.8	31.8min	17.3±0.3	19.6±0.4	15.3±0.3	21.2±0.3	109
EC42/22/15	**I**	42.0±0.8	30.6min	15.0±0.3	15.0±0.3	15.4±0.3	22.4±0.3	96
EC42/22/16	**II**	42.0±0.8	29.2min	15.5±0.35	15.5±0.4	15.4±0.3	22.4±0.3	98
EC43/22	**I**	43.0±0.8	29.4min	15.0±0.3	15.0±0.4	16.0±0.3	22.4±0.3	94
EC43/22A	**I**	43.0±1.3	30.0min	15.0±0.3	15.0±0.4	15.4±0.3	22.4±0.3	94
EC50/28	**I**	50.0±1.0	36.8min	17.2±0.4	17.2±0.4	19.0±0.4	27.8±0.4	155
EC54/20	**II**	53.5±1.0	41.9min	17.9±0.4	17.95±0.35	13.3±0.3	20.3±0.3	118
EC55/25	**I**	54.8±1.0	41.8min	18.9±0.4	18.9±0.4	18.8±0.3	26.8±0.3	171
EC55/29	**II**	55.0±1.0	43.0min	20.5±0.4	24.5±0.4	20.0±0.35	29.0±0.3	225
ETD29	**I**	29.8±0.8	22.0min	9.5±0.3	9.5±0.3	11.4±0.3	15.8±0.3	28
ETD34	**I**	34.2±0.8	25.5min	10.8±0.3	10.8±0.4	12.1±0.3	17.3±0.3	40
ETD39	**I**	39.1±0.9	29.3min	12.5±0.3	12.5±0.3	14.6±0.6	19.8±0.3	60
ETD44	**I**	44.0±1.0	32.5min	14.8±0.4	14.8±0.4	16.5±0.4	22.3±0.3	94
ETD49	**I**	48.7±1.1	36.1min	16.3±0.4	16.4±0.5	18.1±0.4	24.7±0.3	120

电感因数 A_L-value(nH/N²±25%): 1kHz, 100Ts, 25℃

型号	等效参数 Effective Parameter				A_L		
Type	C_1(mm^{-1})	le(mm)	Ae(mm^2)	Ve(mm^3)	JP3	JP4A	JP4B
EC9.35/1.7	1.64	11.15	6.8	75.87			
EC24/9	0.591	42.2	71.3	3010		3700	
EC28/11/11	0.591	51.1	86.4	4414		3200	
EC28/14	0.755	64.3	85.4	5470	2500		
EC29/17	0.886	75.5	85.2	6430	2370	2900	
EC30/8/20	0.456	48.1	105	5087			4500
EC30/9.5/20	0.362	48.5	134	6504			5300
EC35/21	0.842	92.1	109	10100	2600		
EC36/22	0.871	94.9	109	10300	2500	2700	
EC40/21	0.616	97.1	158	15300	3400		
EC40/22	0.651	98.5	151	14900	3870		
EC42/21	0.418	95.5	228	21800	5100		
EC42/22/15	0.540	98.8	183	18100	3900		
EC42/22/16	0.489	97.6	200	19500	5060		
EC43/22	0.525	99.5	189	18900	3900		
EC43/22A	0.524	99.1	189	18700	4000		
EC50/28	0.494	121	246	29700	4000		
EC54/20	0.426	100	235	23500	6200		
EC55/25	0.433	117	271	31900	4400		
EC55/29	0.366	128	350	44900	5100		
ETD29	0.952	70.9	74.5	5290	2300		
ETD34	0.829	79.2	95.5	7560	2850		
ETD39	0.756	92.8	123	11400	3240	3000	
ETD44	0.610	104	170	17700	4110		
ETD49	0.549	115	209	24000	4200		

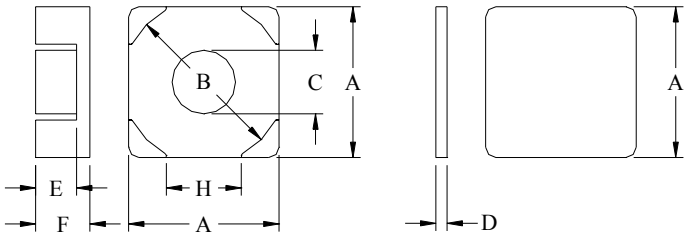


例：　ECF 13

型号　　尺寸A

Sample:　ECF 13

Type　　Dimension A

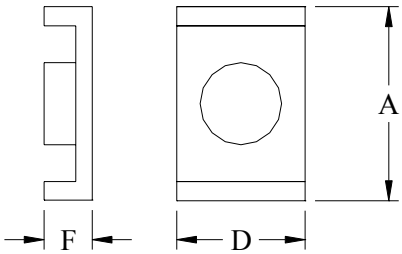


ECF - E　　ECF - I

型号	尺寸 Dimensions (mm)							重量(克/付)
Type	A	B	C	D	E	F	H	W(g/set)
ECF13	12.75±0.25	13.5±0.25	4.95±0.15	1.2±0.1	2.8±0.1	4.0±0.1	6.85±0.25	2.4
ECF15	14.7±0.3	15.85±0.3	6.2±0.15	1.1±0.1	4.0±0.15	5.3±0.1	7.3±0.25	4.2

电感因数 A_L-value(nH/N^2±25%): 1kHz, 100Ts, 25℃

型号	等效参数 Effective Parameter				A_L
Type	C_1(mm^{-1})	le(mm)	Ae(mm^2)	Ve(mm^3)	JP4A
ECF13	0.91	20.5	22.6	463	2250
ECF15	0.84	26.4	31.3	828	2400

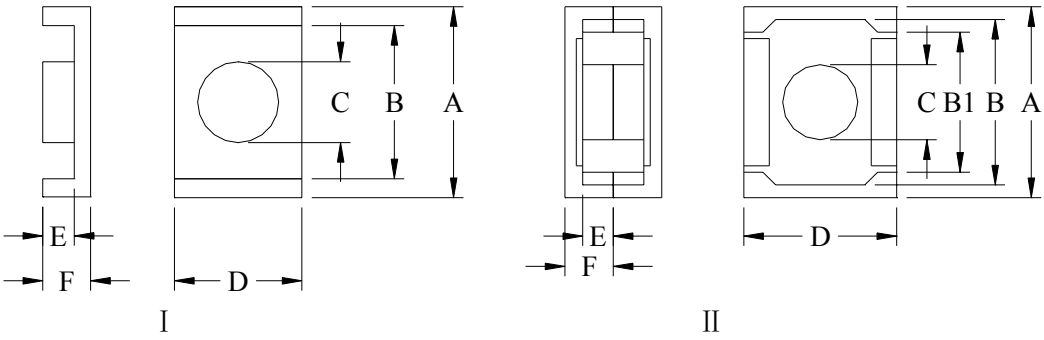


例：ER 22 / 6 / 15

型号　尺寸A　尺寸F　尺寸D

Sample: ER 22 / 6 / 15

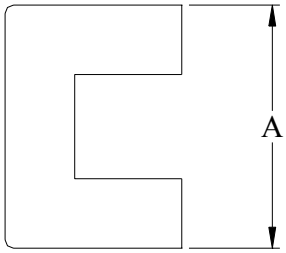
Type　Dimension A　Dimension F　Dimension D



型号	形状	尺寸 Dimensions (mm)							重量(克/付)
Type	Shape	A	B	B1	C	D	E	F	W(g/set)
ER22/6/15	**I**	22.8±0.5	18.3±0.35		9.65±0.25	15.2±0.3	3.75±0.1	5.7±0.1	10.9
ER30/8/24	**II**	30.0±0.5	25.5min	22.0±0.5	11.8±0.2	24.0±0.4	4.8±0.2	7.6±0.2	28

电感因数 A_L-value(nH/N^2±25%): 1kHz, 100Ts, 25℃

型号	等效参数 Effective Parameter				A_L
Type	C_1(mm^{-1})	le(mm)	Ae(mm^2)	Ve(mm^3)	JP4A
ER22/6/15	0.525	32.8	62.5	2147	3800
ER30/8/24	0.37	44.6	121	5458	5600

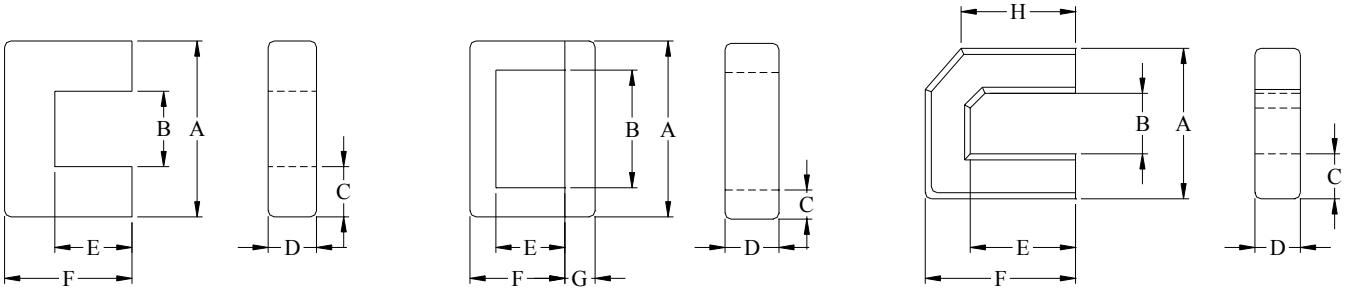


例：　UF 11 B

型号　尺寸A　标识字母

Sample:　UF 11 B

Type　Dimension A　Mark

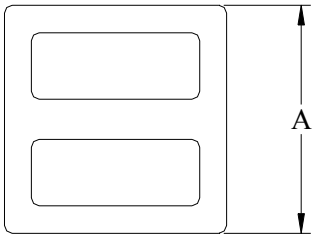


UF　　UI　　UF6

型号	尺寸 Dimensions (mm)								重量(克/付)
Type	A	B	C	D	E	F	G	H	W(g/set)
UF3.5	$3.5^{+0.1}_{-0.2}$	$1.5^{+0.2}_{-0.1}$		$10.0^{+0.1}_{-0.5}$	$3.0^{+0.2}_{-0.1}$	$4.0^{+0.2}_{-0.1}$			0.9
UF6	6.0±0.15	3.2±0.1	1.4±0.1	1.4±0.15	4.7±0.15	6.1±0.1	1.4±0.1	3.6±0.1	0.38
UF9.8	9.8±0.2	4.0min	2.8±0.1	2.7±0.2	4.25±0.15	7.1±0.15			1.3
UF10	10.0±0.25	4.15min		2.9±0.15	$5.0^{+0.3}_{-0}$	$8.3^{+0}_{-0.4}$			1.6
UF11	10.7±0.3	5.3min	2.6±0.15	5.45±0.2	5.8±0.2	7.95±0.15			2.7
UF11B	10.5±0.3	5.2min	2.5±0.2	5.0±0.2	5.25±0.25	7.8±0.3			2.5
UF15	15.0±0.3	5.2min	4.8±0.2	6.4±0.2	6.5±0.2	11.4±0.3			8
UF16	16.1±0.3	6.7min	4.5±0.2	5.9±0.2	6.2±0.25	10.5±0.2			6.7
UF16A	16.0±0.3	6.7min	4.6±0.2	6.0±0.2	6.0±0.15	10.0±0.2			6.5
UF17A	17.0±0.35	10.1±0.25	3.5±0.2	8.5±0.2	6.25±0.2	9.75±0.2			9
UF17B	17.8±0.4	8.5min	4.5±0.2	6.0±0.2	$10.6^{+0.3}_{-0.1}$	15.0±0.2			10
UI17	16.3±0.3	10.6min	2.7±0.2	5.0±0.2	6.4±0.3	8.8±0.3	2.8±0.2		3
UI21	20.9±0.4	16.5±0.3		5.5±0.15	1.8±0.15	3.5±0.15	1.7±0.1		2.1
UI25	25.0±0.4	12.7min	6.0±0.2	6.5±0.2	10.25±0.25	16.25±0.25	6.15±0.15		13

电感因数 A_L-value(nH/N^2): 1kHz, 100Ts, 25℃

型号 Type	等效参数 Effective Parameter				A_L			
	C_1(mm^{-1})	le(mm)	Ae(mm^2)	Ve(mm^3)	JP3	JP4A	JH5	JH7
UF3.5	1.95	18.4	9.43	173		1000±25%		
UF6	14.9	27.7	1.86	51.4		180±25%		
UF9.8	4.50	34.3	7.61	261			800 min	1220 min
UF10	4.61	38.4	8.3	319	540±25%			1000±25%
UF11	3.17	41.6	13.1	545				1800 min
UF11B	3.17	39.9	12.6	503				1350 min
UF15	1.69	52.2	30.9	1620	1000 min		1900 min	3000 min
UF16	2.02	52.6	26.1	1370	850 min		2010 min	2775 min
UF16A	1.98	51.3	26.0	1330			1875 min	
UF17A	1.9	56.1	29.5	1656		1270±25%		
UF17B	2.77	73.6	26.6	1957			2050±25%	
UI17	3.26	42.8	13.1	560			1100	1540 min
UI21	4.40	42.48	9.66	410.34	470±25%			
UI25	1.67	65.5	39.3	2570			2700 min	3685 min

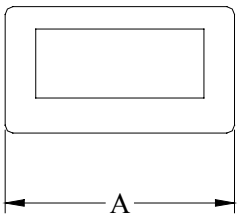


例：　ET 24 A

型号　尺寸A　　标识字母

Sample:　ET 24 A

Type　　Dimension A　　Mark

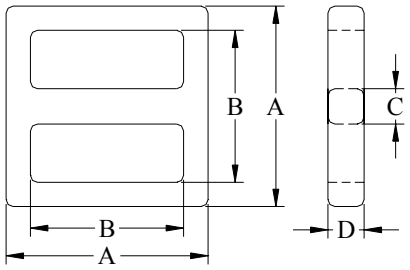


例：　FT 20

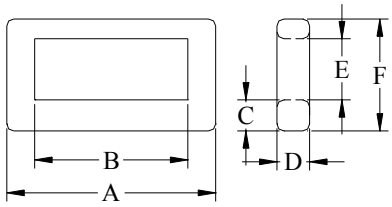
型号　尺寸A

Sample:　FT 20

Type　　Dimension A



ET

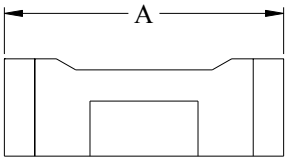


FT

型号 Type	尺寸 Dimensions (mm)						重量(克/付) W(g/set)
	A	B	C	D	E	F	
ET24	$24.2^{+0.6}_{-0.5}$	19.0 min	4.0±0.3	4.5±0.3			6
ET24A	$24.2^{+0.6}_{-0.5}$	19.0 min	4.0±0.3	4.0±0.3			5.6
ET28	$28.7^{+0.3}_{-0.8}$	22.2 min	5.0±0.3	5.0±0.3			9.6
ET29	29.0±0.5	22.0 min	5.1±0.3	5.2±0.3			11
ET35	35.3±0.6	26.8 min	7.5±0.3	7.5±0.3			25.8
FT17.5	17.5±0.4	11.5±0.3	3.7±0.2	3.7±0.25	6.6±0.2	15.0±0.3	2.8
FT20	20.6±0.3	15.7 min	4.2±0.2	4.6±0.2	7.35 min	14.1±0.3	3.8
FT30	30.0±0.3	21.9 min	4.5	4.7±0.3	7.7±0.3	16.2±0.3	7

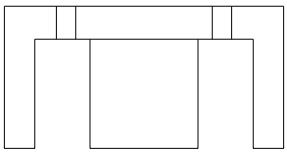
电感因数 A_L-value(nH/N^2 min): 1kHz , 10Ts , 25℃

型号 Type	等效参数 Effective Parameter				A_L		
	C_1(mm^{-1})	le(mm)	Ae(mm^2)	Ve(mm^3)	JH5	JH7	JH8A
ET24	3.09	61.4	19.8	1220		2000	
ET24A	3.4	60.3	17.5	1050		2000	
ET28	2.70	70.0	27.0	1890		2450	
ET29	2.33	71.1	30.5	2170		2850	
ET35	1.46	85.2	58.3	4960		4600	
FT17.5	3.31	43	13	558			1800
FT20	4.49	53.2	11.8	629		1540	
FT30	3.60	69.1	19.2	1330	1593		



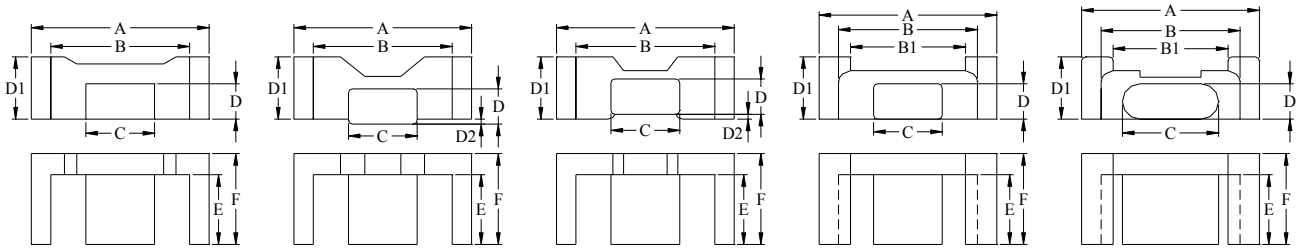
例：EFD 12

型号　尺寸A



Sample: EFD 12

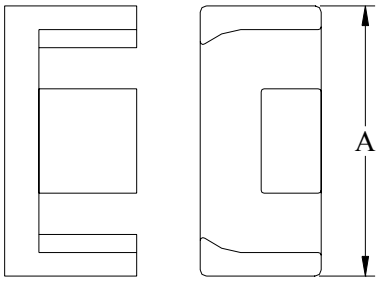
Type　Dimension A



型号	形状	尺寸 Dimensions (mm)								
Type	Shape	A	B	B1	C	D	D1	D2	E	F
EFD12	**I**	11.9±0.2	9.3±0.2		4.6±0.2	2.35±0.15	4.15±0.2		4.65±0.1	6.05±0.1
EFD15	**II**	15.0±0.3	11.0±0.25		5.3±0.15	2.3±0.1	4.6±0.15	0.2±0.1	5.5±0.15	7.5±0.2
EFD25	**III**	25.0±0.65	18.7±0.6		11.4±0.2	5.1±0.15	9.1±0.2	0.6±0.1	9.3±0.25	12.5±0.2
EPC13	**IV**	13.2±0.25	10.7±0.2	8.4±0.2	5.6±0.1	2.1±0.1	4.6±0.15		4.6±0.2	6.6±0.2
EPC17	**V**	17.6±0.4	14.0min	12.0±0.5	7.7±0.2	2.8±0.15	6.0±0.2		6.05±0.2	8.55±0.2
EPC19	**V**	19.1±0.5	15.8min	13.6±0.5	8.5±0.2	2.5±0.15	6.0±0.2		7.25±0.2	9.75±0.2
EPC27	**V**	26.8±0.5	22.5min	18.0±0.5	$13.3^{+0.1}_{-0.2}$	6.2±0.2	10.65±0.05		9.9±0.2	14.1±0.3
EPC28	**V**	28.6±0.5	23.2min	16.5	12.0±0.25	7.4±0.2	12.4±0.25		12.6±0.3	16.9±0.25

电感因数 A_L-value(nH/N^2±25%): 1kHz, 100Ts, 25℃

型号	等效参数 Effective Parameter				重量(克/付)	A_L	
Type	C_1(mm^{-1})	le(mm)	Ae(mm^2)	Ve(mm^3)	W(g/set)	JP4A	JP4B
EFD12	2.50	27.7	11.1	307	1.5	850	
EFD15	2.27	34.0	15.0	510	2.8	880	
EFD25	1.00	57.0	58.0	3300	16	2150	
EPC13	2.45	30.6	12.5	383	2.1	870	
EPC17	1.76	40.2	22.8	917	4.5	1200	
EPC19	2.03	46.1	22.7	1046	5.3	1000	
EPC27	0.924	64.5	69.8	4500	24	2300	
EPC28	1.09	73.4	87.4	6415	33		2800

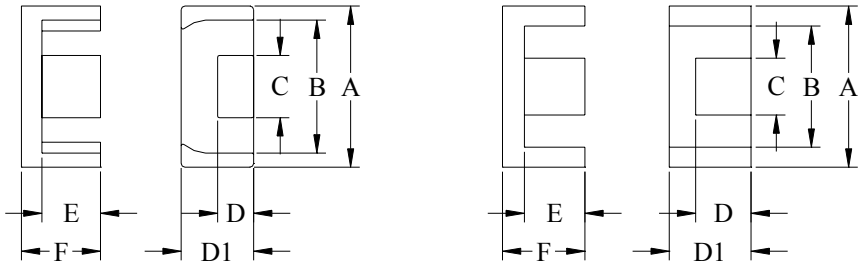


例：EV 22

型号　尺寸A

Sample: EV 22

Type　Dimension A

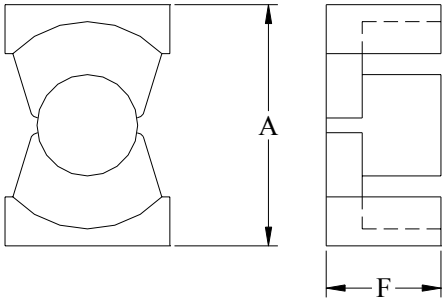


I　　II

型号 Type	形状 Shape	尺寸 Dimensions (mm)							重量(克/付) W(g/set)
		A	B	C	D	D1	E	F	
EV21	**II**	21.2±0.4	16.2±0.4	9.4±0.2	3.3±0.1	5.9±0.15	9.9±0.2	12.5±0.2	8.3
EV22	**I**	$22.0^{+0.4}_{-0.3}$	17.9min	8.5±0.2	5.5±0.15	9.9±0.2	8.0±0.15	10.8±0.15	9.9
EV23	**II**	23.1±0.4	17.1±0.4	10.2±0.3	3.5±0.15	6.0±0.2	9.1±0.2	12.2±0.2	10.2
EV25	**II**	$25.0^{+0.7}_{-0.6}$	$18.8^{+0.95}_{-0}$	8.8±0.25	$8.6^{+0}_{-0.6}$	$12.7^{+0}_{-0.5}$	$9.4^{+0.4}_{-0}$	$12.8^{+0}_{-0.4}$	22
EV37	**II**	37.0±0.4	26.1±0.4	18.8±0.2	3.8±0.15	6.7±0.15	$14.4^{+0.3}_{-0}$	19.8±0.2	31

电感因数 A_L-value(nH/N^2±25%): 1kHz, 100Ts, 25℃

型号 Type	等效参数 Effective Parameter				A_L	
	C1(mm^{-1})	le(mm)	Ae(mm^2)	Ve(mm^3)	JP3	JP4A
EV21	1.90	56.1	29.5	1656		925
EV22	1.04	45.2	43.4	1962		1850
EV23	1.51	54.5	36.1	1970		1400
EV25	0.8	59	74	4370	2600	2500
EV37	1.18	85	72	6170		1900

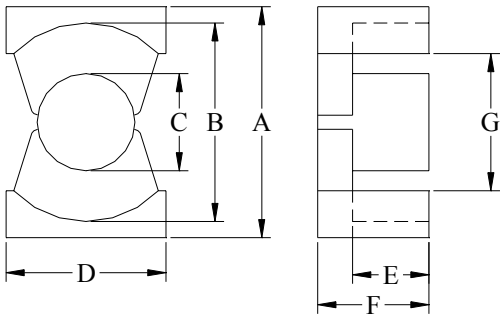


例：PQ 20 / 16

型号　　尺寸A　　2×尺寸F

Sample: PQ 20 / 16

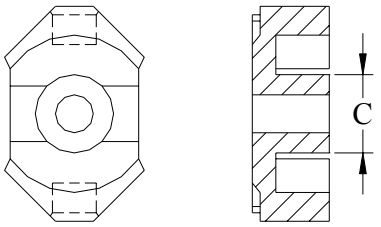
Type　　Dimension A　　2×Dimension F



型号 Type	尺寸 Dimensions (mm)							重量(克/付) W(g/set)
	A	B	C	D	E	F	G	
PQ 20/16	20.5±0.4	18.0±0.4	$9.0^{+0}_{-0.4}$	14.0±0.4	$5.0^{+0.3}_{-0}$	$8.2^{+0}_{-0.2}$	12.0min	13
PQ 20/20	20.5±0.4	18.0±0.4	$9.0^{+0}_{-0.4}$	14.0±0.4	$7.0^{+0.3}_{-0}$	$10.2^{+0}_{-0.2}$	12.0min	15
PQ 26/20	26.5±0.45	22.5±0.45	$12.2^{+0}_{-0.4}$	19.0±0.45	$5.6^{+0.3}_{-0}$	$10.2^{+0}_{-0.25}$	15.5min	31
PQ 26/25	26.5±0.45	22.5±0.45	$12.2^{+0}_{-0.5}$	19.0±0.45	$7.9^{+0.3}_{-0}$	$12.5^{+0}_{-0.25}$	15.5min	36
PQ 32/20	32.0±0.5	27.5±0.5	$13.7^{+0}_{-0.5}$	22.0±0.5	$5.6^{+0.2}_{-0}$	$10.4^{+0}_{-0.25}$	19.0min	42
PQ 32/30	32.0±0.5	27.5±0.5	$13.7^{+0}_{-0.5}$	22.0±0.5	$10.5^{+0.3}_{-0}$	$15.3^{+0}_{-0.25}$	19.0min	55
PQ 35/35	35.0±0.5	32.0±0.5	$14.6^{+0}_{-0.5}$	26.0±0.5	$12.35^{+0.3}_{-0}$	$17.5^{+0}_{-0.25}$	23.5min	73
PQ 40/40	$40.0^{+1.4}_{-0.4}$	37.0±0.6	$15.2^{+0}_{-0.6}$	28.0±0.5	$14.6^{+0.3}_{-0}$	$20.0^{+0}_{-0.25}$	27.5min	95

电感因数 A_L-value(nH/N^2±25%): 1kHz, 100Ts, 25℃

型号 Type	等效参数 Effective Parameter				A_L	
	C_1(mm^{-1})	le(mm)	Ae(mm^2)	Ve(mm^3)	JP3	JP4A
PQ 20/16	0.605	37.4	62.0	2310	3880	
PQ 20/20	0.738	45.4	62.0	2790	3310	2900
PQ 26/20	0.391	46.3	119	5490	6170	
PQ 26/25	0.471	55.5	118	6530	5250	4650
PQ 32/20	0.326	55.5	170	9420	7310	
PQ 32/30	0.464	74.6	161	12000	5140	4500
PQ 35/35	0.448	87.9	196	17300	4860	5000
PQ 40/40	0.580	102	201	20500	4300	

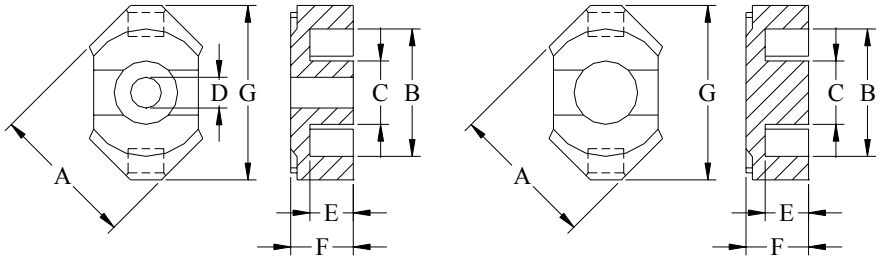


例：　RM 5

型号　　尺寸C

Sample: RM 5

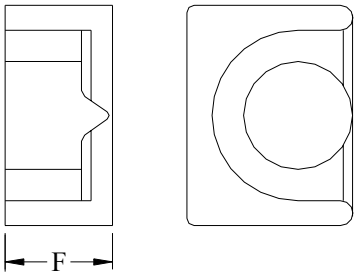
Type　　Dimension C



型号 Type	形状 Shape	尺寸 Dimensions (mm) A	B	C	D	E	F	G	重量(克/付) W(g/set)
RM5	**I**	$12.3^{\ 0}_{-0.5}$	$10.2^{+0.4}_{\ 0}$	$4.9^{\ 0}_{-0.2}$	$2.0^{+0.1}_{\ 0}$	$3.15^{+0.1}_{\ 0}$	$5.25^{\ 0}_{-0.5}$	$14.9^{\ 0}_{-0.5}$	3.0
RM6	**I**	$14.7^{\ 0}_{-0.6}$	$12.4^{+0.5}_{\ 0}$	$6.4^{\ 0}_{-0.2}$	$3.0^{+0.1}_{\ 0}$	$4.2^{+0.2}_{\ 0}$	$6.25^{\ 0}_{-0.1}$	$17.9^{\ 0}_{-0.6}$	4.5
RM6	**II**	$14.7^{\ 0}_{-0.6}$	$12.4^{+0.5}_{\ 0}$	$6.4^{\ 0}_{-0.2}$		$4.2^{+0.2}_{\ 0}$	$6.25^{\ 0}_{-0.1}$	$17.9^{\ 0}_{-0.6}$	4.9
RM8	**I**	$19.7^{\ 0}_{-0.8}$	$17.0^{+0.6}_{\ 0}$	$8.55^{\ 0}_{-0.3}$	$4.4^{+0.2}_{\ 0}$	$5.4^{+0.2}_{\ 0}$	$8.25^{\ 0}_{-0.1}$	$23.2^{\ 0}_{-0.9}$	10.9
RM8	**II**	$19.7^{\ 0}_{-0.9}$	$17.0^{+0.6}_{\ 0}$	$8.55^{\ 0}_{-0.3}$		$5.5^{+0.4}_{\ 0}$	$8.3^{\ 0}_{-0.3}$	$23.2^{\ 0}_{-0.9}$	13
RM10	**II**	$24.7^{\ 0}_{-1.1}$	$21.2^{+0.9}_{\ 0}$	$10.9^{\ 0}_{-0.4}$		$6.2^{+0.3}_{\ 0}$	$9.35^{\ 0}_{-0.1}$	$28.5^{\ 0}_{-1.3}$	23

电感因数 A_L-value(nH/N^2±25%): 1kHz, 100Ts,25℃

型号 Type	形状 Shape	等效参数 Effective Parameter C_1(mm^{-1})	le(mm)	Ae(mm^2)	Ve(mm^3)	A_L JP2	JP3	JP4A	JH7
RM5	**I**	1.02	21.4	21.0	450	1800	1750	1800	5300
RM6	**I**	0.860	27.0	31.0	840	2350			6200
RM6	**II**	0.783	28.6	36.6	1050	2350	2200	2350	6200
RM8	**I**	0.683	35.5	52.0	1850	3250			9700
RM8	**II**	0.604	38.4	63.0	2440	3250	2900	3250	9700
RM10	**II**	0.462	44.6	96.6	4310	4400	4500	4400	12750

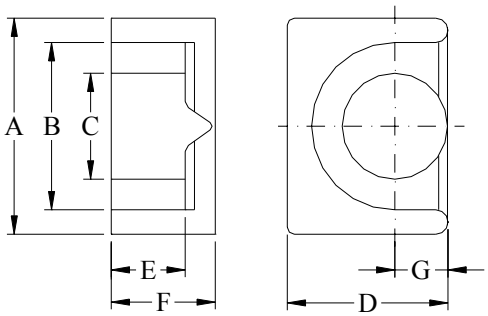


例：　EP　7

型号　　2×尺寸F

Sample: EP 7

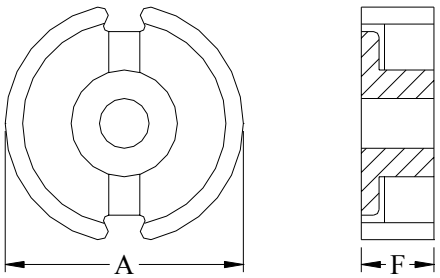
Type　2×Dimension F



型号 Type	尺寸 Dimensions (mm)							重量(克/付) W(g/set)
	A	B	C	D	E	F	G	
EP7	$9.40^{+0}_{-0.4}$	$7.2^{+0.4}_{-0}$	$3.40^{+0}_{-0.2}$	$6.50^{+0}_{-0.3}$	$2.50^{+0.2}_{-0}$	$3.80^{+0}_{-0.1}$	1.80	1.4
EP10	$11.8^{+0}_{-0.6}$	$9.20^{+0.4}_{-0}$	$3.45^{+0}_{-0.3}$	$7.85^{+0}_{-0.4}$	$3.60^{+0.2}_{-0}$	$5.20^{+0}_{-0.2}$	1.85±0.1	2.8
EP13	12.5±0.3	10.0±0.3	$4.50^{+0}_{-0.3}$	8.80±0.2	$4.50^{+0.3}_{-0}$	6.5±0.15	2.4	5.0
EP17	18.0±0.4	12.0±0.4	$5.85^{+0}_{-0.4}$	$11.25^{+0}_{-0.5}$	$5.50^{+0.4}_{-0}$	8.50±0.2	3.25	12.0
EP20	24.0±0.5	16.5±0.4	$9.0^{+0}_{-0.5}$	$15.3^{+0}_{-0.7}$	$7.0^{+0.4}_{-0}$	$10.8^{+0}_{-0.2}$	4.4	28.0
EP30	$31.5^{+0}_{-1.0}$	$23.6^{+0.8}_{-0}$	$14.8^{+0}_{-0.5}$	23.1±0.5	$11.6^{+0.4}_{-0}$	15.0±0.15	7.6±0.25	75.0

电感因数 A_L-value(nH/N^2±25%): 1kHz, 100Ts,25℃

型号 Type	等效参数 Effective Parameter				A_L			
	C_1(mm^{-1})	le(mm)	Ae(mm^2)	Ve(mm^3)	JP3	JH5	JH7	JH10
EP7	1.45	15.5	10.7	165	1100	2700	4000	
EP10	1.70	19.2	11.3	217	1100	2600	3600	
EP13	1.24	24.2	19.5	472	1600	3500	5000	5600
EP17	0.870	29.5	33.7	999	2400	5500	8000	9500
EP20	0.520	41.1	78.7	3230	4000	9000	13500	17000
EP30	0.350	62.6	179	11200	5800	13000	18000	

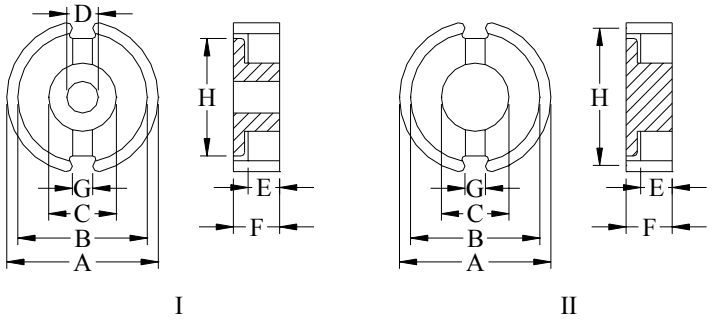


例： G 14 / 8

型号 尺寸A 2×尺寸F

Sample: G 14 / 8

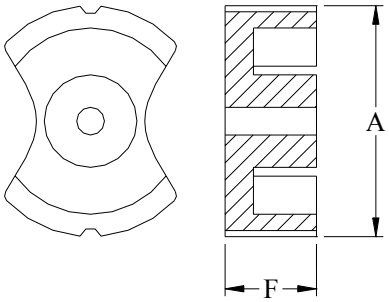
Type Dimension A 2×Dimension F



型号 Type	形状 Shape	尺寸 Dimensions (mm) A	B	C	D	E	F	G	H
G14/8	I	$14.4^{\ 0}_{-0.9}$	$11.4^{+0.8}_{\ 0}$	$6.2^{\ 0}_{-0.6}$	$2.9^{+0.3}_{\ 0}$	$2.8^{+0.3}_{\ 0}$	$4.3^{\ 0}_{-0.2}$	$2.3^{+1.8}_{\ 0}$	10.4
		$14.3^{\ 0}_{-0.5}$	$11.6^{+0.4}_{\ 0}$	$6.0^{\ 0}_{-0.6}$	$3.0^{+0.2}_{\ 0}$	$2.8^{+0.2}_{\ 0}$	$4.25^{\ 0}_{-0.15}$	$2.3^{+1.8}_{\ 0}$	10.4
G18/11	I	$18.6^{\ 0}_{-1.2}$	$14.6^{+0.9}_{\ 0}$	$7.8^{\ 0}_{-0.6}$	$2.9^{+0.3}_{\ 0}$	$3.6^{+0.3}_{\ 0}$	$5.5^{\ 0}_{-0.2}$	$2.7^{+1.7}_{\ 0}$	14.0
		$18.4^{\ 0}_{-0.8}$	$14.9^{+0.5}_{\ 0}$	$7.6^{\ 0}_{-0.3}$	$3.0^{+0.2}_{\ 0}$	$3.6^{+0.2}_{\ 0}$	$5.35^{\ 0}_{-0.15}$	$2.7^{+1.7}_{\ 0}$	14.0
G18/11	II	$18.6^{\ 0}_{-1.2}$	$14.6^{+0.9}_{\ 0}$	$7.8^{\ 0}_{-0.6}$		$3.6^{+0.3}_{\ 0}$	$5.5^{\ 0}_{-0.2}$	5.7	15.5
G22/13	I	$22.2^{\ 0}_{-1.2}$	$17.6^{+1.2}_{\ 0}$	$9.5^{\ 0}_{-0.6}$	$4.2^{+0.5}_{\ 0}$	$4.6^{+0.3}_{\ 0}$	$6.9^{\ 0}_{-0.2}$	$3.0^{+1.4}_{\ 0}$	16.5
		$22.2^{\ 0}_{-0.8}$	$17.9^{+0.6}_{\ 0}$	$9.4^{\ 0}_{-0.3}$	$4.4^{+0.3}_{\ 0}$	$4.6^{+0.2}_{\ 0}$	$6.8^{\ 0}_{-0.2}$	$3.0^{+1.4}_{\ 0}$	16.5
G22/13	II	$22.2^{\ 0}_{-1.2}$	$17.6^{+1.2}_{\ 0}$	$9.5^{\ 0}_{-0.6}$		$4.6^{+0.3}_{\ 0}$	$6.9^{\ 0}_{-0.2}$	6.2	19.0
G26/16	I	$26.2^{\ 0}_{-1.5}$	$21.0^{+1.2}_{\ 0}$	$11.7^{\ 0}_{-0.8}$	$5.2^{+0.5}_{\ 0}$	$5.5^{+0.4}_{\ 0}$	$8.2^{\ 0}_{-0.2}$	$3.0^{+1.4}_{\ 0}$	20.0
		$26.0^{\ 0}_{-1.0}$	$21.2^{+0.8}_{\ 0}$	$11.5^{\ 0}_{-0.4}$	$5.4^{+0.4}_{\ 0}$	$5.5^{+0.2}_{\ 0}$	$8.15^{\ 0}_{-0.2}$	$3.0^{+1.4}_{\ 0}$	20.0
G30/19	I	$30.8^{\ 0}_{-1.6}$	$24.6^{+1.5}_{\ 0}$	$13.7^{\ 0}_{-0.9}$	$5.2^{+0.5}_{\ 0}$	$6.5^{+0.4}_{\ 0}$	$9.7^{\ 0}_{-0.3}$	$3.5^{+1.8}_{\ 0}$	23.0
		$30.5^{\ 0}_{-1.0}$	$25.0^{+0.8}_{\ 0}$	$13.5^{\ 0}_{-0.4}$	$5.4^{+0.3}_{\ 0}$	$6.5^{+0.2}_{\ 0}$	$9.5^{\ 0}_{-0.2}$	$3.5^{+1.8}_{\ 0}$	23.0
G36/22	I	$36.5^{\ 0}_{-1.9}$	$29.5^{+1.8}_{\ 0}$	$16.3^{\ 0}_{-0.9}$	$5.2^{+0.5}_{\ 0}$	$7.3^{+0.4}_{\ 0}$	$11.1^{\ 0}_{-0.3}$	$4.0^{+1.6}_{\ 0}$	27.2
		$36.2^{\ 0}_{-1.2}$	$29.9^{+1.0}_{\ 0}$	$16.2^{\ 0}_{-0.6}$	$5.4^{+0.3}_{\ 0}$	$7.3^{+0.2}_{\ 0}$	$11.0^{\ 0}_{-0.3}$	$4.0^{+1.6}_{\ 0}$	27.2

电感因数 A_L-value(nH/N^2): 1kHz,100Ts,25℃

型号 Type	形状 Shape	等效参数 Effective Parameter C_1(mm^{-1})	le(mm)	Ae(mm^2)	Ve(mm^3)	A_L JP3	JL2	JH7	重量(克/付) W(g/set)
G14/8	I	0.800	20.0	25.0	500	2250±25%	1680 min	6000 min	3
G18/11	I	0.587	25.8	43.3	1120	3450±25%	2370 min	7000 min	5.5
G18/11	II	0.587	27.1	46.2	1250	2500 min	2370 min	7000 min	7
G22/13	I	0.482	31.8	63.2	1990	4200±25%	2900 min	8000 min	10
G22/13	II	0.482	33.8	70.0	2367	3000 min	2900 min	8000 min	13.5
G26/16	I	0.40	37.6	93.9	3460	5300±25%		10000 min	20
G30/19	I	0.330	45.0	136	6100	6800 min	4200 min	15000 min	30
G36/22	I	0.260	52.0	202	10600	8900±25%		20000 min	53

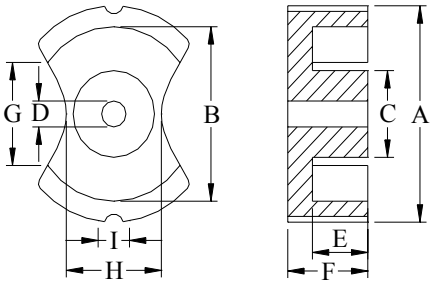


例：PM 50 / 39

型号　尺寸A　　2×尺寸F

Sample: PM 50 / 39

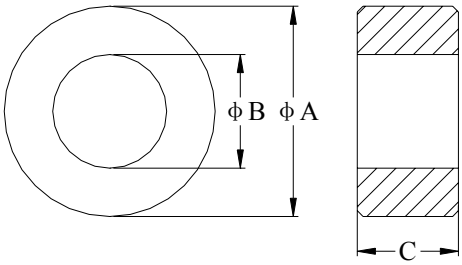
Type　Dimension A　2×Dimension F



型号 Type	尺寸 Dimensions (mm)								
	A	B	C	D	E	F	G	H	I
PM50/39	$50.0^{\ 0}_{-1.7}$	$39.0^{+1.3}_{\ 0}$	$20.0^{\ 0}_{-0.6}$	$5.4^{+0.1}_{\ 0}$	$13.2^{+0.4}_{\ 0}$	$19.5^{\ 0}_{-0.2}$	23.4min	23.0max	$5.0^{\ 0}_{-0.4}$
PM62/49	$62.0^{\ 0}_{-2.0}$	$48.8^{+1.5}_{\ 0}$	$25.5^{\ 0}_{-0.8}$	$5.1^{+0.3}_{\ 0}$	$16.7^{+0.4}_{\ 0}$	$24.5^{\ 0}_{-0.3}$	29.0min	30.5max	$4.0^{+1.0}_{\ 0}$
PM87/70	$87.0^{\ 0}_{-3.0}$	$67.1^{+2.1}_{\ 0}$	$31.7^{\ 0}_{-1.0}$	$8.5^{+0.3}_{\ 0}$	$24.0^{+0.4}_{\ 0}$	$35.0^{\ 0}_{-0.4}$	39.4min	36.0max	$5.0^{\ 0}_{-0.4}$
PM114/93	$114.0^{\ 0}_{-4.5}$	$88.0^{+3.7}_{\ 0}$	$43.0^{\ 0}_{-1.4}$	$5.4^{+0.4}_{\ 0}$	$31.5^{+0.8}_{\ 0}$	$46.5^{\ 0}_{-0.5}$	52.0min	45.0max	$5.3^{+0.4}_{\ 0}$

电感因数 A_L-value(nH/N^2±25%): 1kHz, 100Ts,25℃

型号 Type	等效参数 Effective Parameter				重量(克/付) W (g/set)	A_L JP3
	C_1(mm^{-1})	le(mm)	Ae(mm^2)	Ve(mm^3)		
PM50/39	0.227	84.0	370	31000	140	9800
PM62/49	0.191	109	570	62000	280	12000
PM87/70	0.161	146	910	133000	770	15000
PM114/93	0.116	200	1720	344000	1940	18400

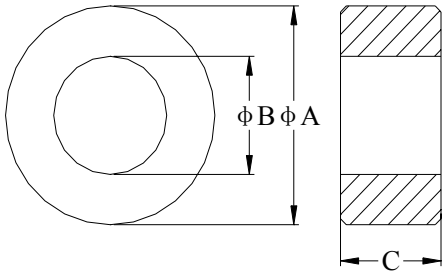


例：H 9 / 5 /4

型号　尺寸A　尺寸B　尺寸C

Sample: H 9 / 5 /4

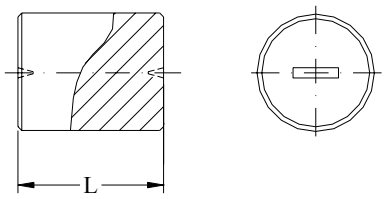
Type　Dimension A　Dimension B　Dimension C

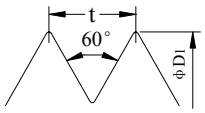


型号	尺寸 Dimensions (mm)			等效参数 Effective Parameter				重量(克/付)
Type	A	B	C	$C_1(mm^{-1})$	le(mm)	$Ae(mm^2)$	$Ve(mm^3)$	W(g/set)
H5/3/5	5.0±0.3	2.7±0.6	4.8±0.6	2.21	11.4	5.14	58.4	0.3
H6/3/3	6.0±0.4	3.0±0.3	3.0±0.3	3.02	13.1	4.32	56.5	0.3
H9/5/4	9.0±0.4	5.0±0.3	4.0±0.3	2.75	20.8	7.57	157	0.8
H10/6/3.9	10.0±0.3	6.0±0.2	3.9±0.1	3.24	24.1	7.43	179	0.9
H10/6/5	10.0±0.5	6.0±0.4	5.0±0.4	2.51	24.1	9.59	230	1.2
H12/6/4	12.0±0.4	6.0±0.3	4.0±0.3	2.31	26.1	11.3	296	1.5
H12.7/7.9/6	12.7±0.2	7.92±0.2	6.35±0.2	2.13	31.2	14.7	458	2.3
H14/7/7	14.0±0.5	7.0±0.4	7.0±0.4	1.31	30.5	23.3	711	3.6
H14/8/7	14.0±0.4	8.0±0.3	7.0±0.3	1.62	32.8	20.3	665	3.3
H14/9/5	14.0±0.4	9.0±0.3	5.0±0.3	2.89	35.0	12.1	423	2
H16/12/8	16.0±0.2	12.0±0.2	8.0±0.2	2.77	43.4	15.7	680	3.4
H17.5/9.5/10	17.5±0.3	9.5±0.3	10.0±0.3	1.03	39.9	38.6	1540	8
H18/8/5	18.0±0.5	8.0±0.4	5.0±0.4	1.56	36.7	23.5	861	4.3
H19/12/4.5	19.0±0.5	12.0±0.4	4.5±0.3	3.08	47.0	15.3	718	3.5
H19/13/6	19.0±0.5	13.0±0.4	6.0±0.3	2.79	49.1	17.6	862	4
H20/10/10	20.0±0.3	10.0±0.3	10.0±0.3	0.910	43.6	47.8	2080	11
H25/15/7	25.0±0.5	15.0±0.5	7.0±0.3	1.77	60.2	34.0	2050	10
H25/15/9	25.0±0.3	15.0±0.3	9.0±0.3	1.37	60.2	43.8	2640	13
H25/15/12	25.0±0.5	15.0±0.5	12.0±0.3	1.03	60.2	58.5	3520	18
H31/17/13	31.0±0.6	17.0±0.4	13.0±0.5	0.806	71.0	88.1	6260	31
H31/19/7	31.0±0.6	19.0±0.4	7.0±0.3	1.84	75.5	41.0	3090	16
H36/16/12	36.0±0.4	16.0±0.4	12.0±0.3	0.647	73.4	113	8320	41
H38/19/15	38.0±1.0	19.0±0.8	15.0±0.5	0.605	82.7	136.7	11300	56
H38/19/18	38.0±1.0	19.0±0.6	18.0±0.5	0.504	82.7	164	13600	68
H38/19/22	38.0±1.0	19.0±0.8	22.0±0.5	0.412	82.7	201	16600	90
H40/22/22	40.0±1.0	22.0±0.8	22.0±0.5	0.478	91.8	192	17600	88
H40/22/25	40.0±1.0	22.0±0.8	25.0±0.5	0.421	91.8	218	20000	100
H50/25/20	50.0±1.2	25.0±0.6	20.0±0.4	0.454	108.9	240	26100	131

电感因数 A_L-value(nH/N^2±25%): 1kHz , 25℃

型号 Type	A_L								
	JP3	**JP4A**	**JV2A**	**JL2**	**JH5**	**JH5A**	**JH7**	**JH7A**	**JH10**
H5/3/5	875 min				1333 min				
H6/3/3	900								3000 min
H9/5/4		1100							
H10/6/3.9						2000			
H10/6/5	850		800 min		2810		3570		5100
H12/6/4							3880		
H12.7/7.9/6							4200		6000
H14/7/7				1500 min					
H14/8/7		1800							
H14/9/5							3060		
H16/12/8							3200		
H17.5/9.5/10								7653	
H18/8/5	1400 min			1200 min	3000 min				
H19/12/4.5							2900		
H19/13/6							2400 min		
H20/10/10			2770				9600		
H25/15/7					2600 min				
H25/15/9			1840				3850		
H25/15/12			2450				7900	6510 min	
H31/17/13			2810						
H31/19/7							3600 min		
H36/16/12			3890						
H38/19/15			3100 min						
H38/19/18			3740 min						
H38/19/22			4570 min						
H40/22/22			5260						
H40/22/25			5980						
H50/25/20							11600		



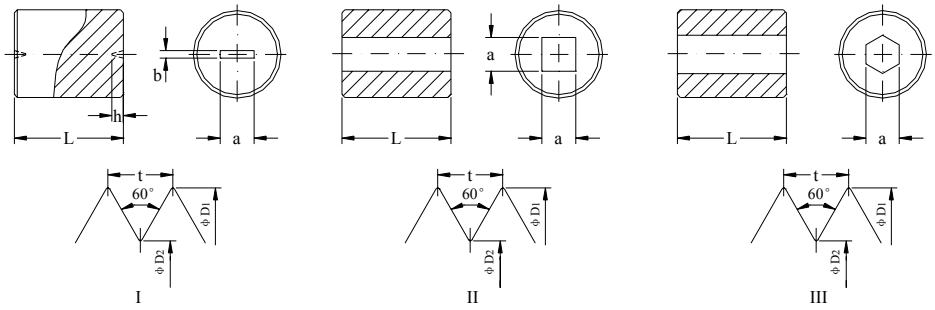


例：M 4 / 0.7 /8

型号　尺寸D1　尺寸t　尺寸L

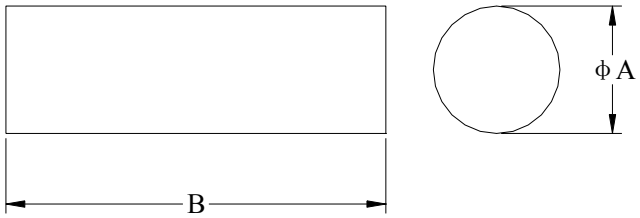
Sample: M 4 / 0.7 /8

Type　Dimension D1　Dimension t　Dimension L



● 螺纹磁芯　Threaded Cores

型号 Type	形状 Shape	材料 Material	尺寸 Dimensions (mm)						
			L	D_1	D_2	t	a	b	h
M4/0.7/8	**I**	JR10 JR40	8.0±0.5	$4.0^{-0.10}_{-0.25}$	$3.3^{0}_{-0.4}$	0.7±0.03	$1.7^{+0.3}_{0}$	0.7±0.1 0.5±0.1	$1.2^{+0.4}_{-0.1}$
M4/0.7/12	**I**	JL2	12.0±0.8	$4.0^{-0.10}_{-0.25}$	$3.3^{0}_{-0.4}$	0.7±0.03	$1.7^{+0.3}_{0}$	1.0±0.2 0.5±0.1	$1.2^{+0.4}_{0}$
M4.5/0.75/8	**I**	JR40	8.0±0.5	4.5±0.05		0.75±0.03			
M6/0.75/16	**I**	JP2	16.0±0.5	$6.0^{-0.08}_{-0.24}$	$5.3^{0}_{-0.4}$	0.75±0.03	3.0	1.5	1.5
M6/0.75/23	**I**	JP2	$23.0^{0}_{-0.3}$	$5.7^{-0.10}_{-0.25}$	$5.25^{0}_{-0.4}$	0.75±0.03	2.8±0.3	1.6±0.2	2.6±0.2
M4/0.75/4.1	**II**	JR40	4.1±0.1	$3.8^{-0.10}_{-0.25}$	$3.4^{0}_{-0.4}$	0.75±0.03	2.8±0.3	1.6±0.2	2.6±0.2
M4/0.75/4.2	**II**	JR40	4.0±0.2	$4.0^{-0.10}_{-0.25}$	$3.3^{0}_{-0.4}$	0.75±0.03	$1.5^{+0.2}_{0}$		
M4/0.75/4.5	**II**	JR40	4.5±0.1	$4.0^{-0.10}_{-0.25}$	$3.3^{0}_{-0.4}$	0.75±0.03	$1.5^{+0.2}_{0}$		
M6/0.75/12	**II**	JR20 JR250	12.4±0.6	$6.0^{-0.08}_{-0.24}$	$5.3^{0}_{-0.4}$	0.75±0.03	$2.15^{+0.4}_{0}$		
M6/0.75/16	**II**	JR250	16.0±0.6	$6.0^{-0.08}_{-0.24}$	$5.3^{0}_{-0.4}$	0.75±0.03	$2.15^{+0.3}_{0}$		
M6/0.75/20	**III**	JR250	20.0±0.6	$6.0^{-0.08}_{-0.24}$	$5.3^{0}_{-0.4}$	0.75±0.03	$2.15^{+0.3}_{0}$		
M6/1/15	**III**	JR250	15.0±0.5	6.0±0.03		1.0±0.03	$2.65^{+0.15}_{-0.05}$		
M6/1/25	**III**	JR250 JP2	25.0±0.5	5.9±0.5		1.0±0.03	2.2±0.1		

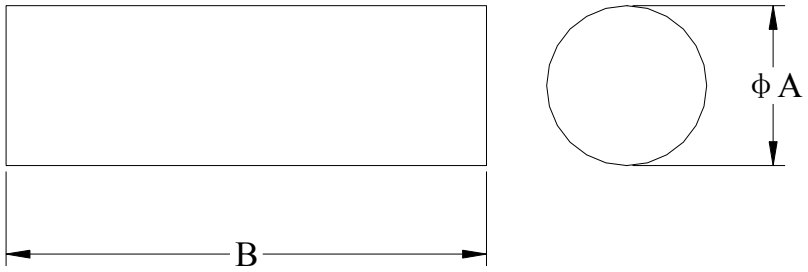


例：　Φ 1.7 / 14

型号　尺寸A　尺寸B

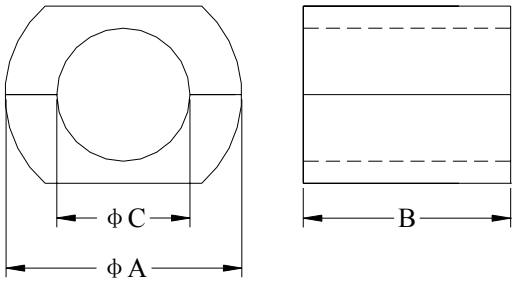
Sample: Φ 1.7 / 14

Type　Dimension A　Dimension B



- 棒型磁芯 Cylindrical Cores

型号 Type	尺寸 Dimensions (mm)	
	A	B
Ø1.7/14	1.7±0.1	14.0±0.5
Ø2.8/12	2.8±0.2	12.0±0.5
Ø3/12	3.0±0.2	12.0±0.5
Ø3.8/16	3.8±0.2	16.0±0.5
Ø4/18	$4.0^{0}_{-0.3}$	18.0±0.5
Ø5.4/21	$5.4^{0}_{-0.3}$	21.0±0.5
Ø6/15	$6.0^{+0.2}_{-0.3}$	15.0±0.5
Ø6/20	$6.0^{+0.2}_{-0.3}$	20.0±0.5
Ø6/25	$6.0^{+0.2}_{-0.3}$	25.0±0.5
Ø6/30	$6.0^{+0.2}_{-0.3}$	30.0±0.5
Ø8/20	8.0±0.2	20.0±0.5
Ø8/30	8.0±0.2	30.0±0.5
Ø10/24	9.75±0.25	24.0±0.5
Ø10/30	10.0±0.2	30.0±0.5

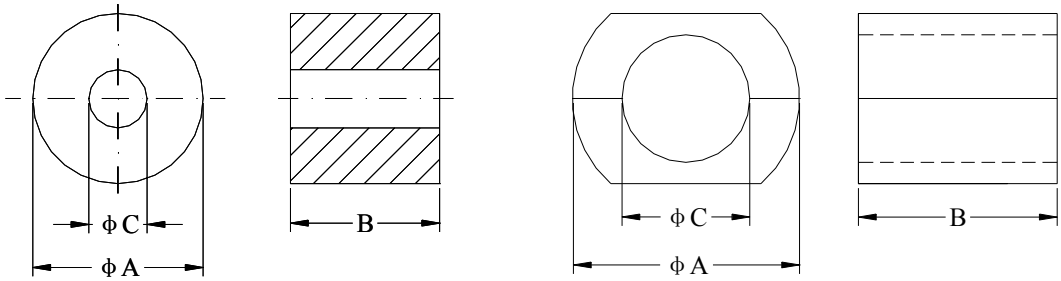


例：BB 3.5 / 3 / 1.2

型号　尺寸A　尺寸B　尺寸C

Sample: BB 3.5 / 3 / 1.2

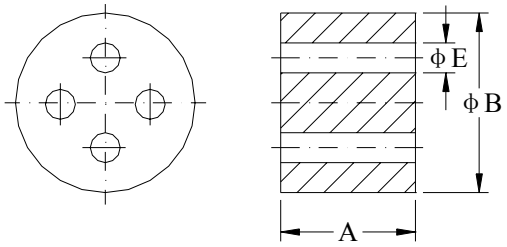
Type　Dimension A　Dimension B　Dimension C



I　　II

- EMI 抑制用磁芯　Cores for EMI Suppressor

型号 Type	形状 Shape	材料 Material	尺寸 Dimensions (mm) A	B	C
BB3.5/3/1.2	**I**	JR1.5K	3.5±0.15	3.0±0.15	1.2±0.1
BB3.5/6/1.2	**I**	JR1.5K	3.5±0.15	6.0±0.3	1.2±0.1
BB4.5/5/1.6	**I**	JR1.5K	4.5±0.2	5.0±0.2	1.6±0.1
BB17.5/6.35/9.5	**I**	JR750	17.5	6.35	9.5
T4.4/1.22/2.8	**I**	JR1.5K	4.4±0.15	1.22±0.1	2.8±0.15
T4.4/2.54/2.8	**I**	JR1.5K	4.4±0.15	2.54±0.1	2.8±0.15
T8/4/4	**I**	JR1K	8.0±0.2	4.0±0.2	4.0±0.2
T16/8/12	**I**	JR750	16.0	8.0	12.0
T20/10/10	**I**	JR750	20.0	10.0	10.0
T22.5/6.4/13.8	**I**	JR750	22.5	6.4	13.8
T22.5/12.7/13.8	**I**	JR750	22.5	12.7	13.8
RH10.3/10/5.8	**I**	JR750	10.3	10.0	5.8
RH12/20/5.6	**I**	JR250	12.0	20.0	5.6
RH12/15/7.3	**I**	JR750	12.0	15.0	7.3
RH14.3/28.6/6.35	**I**	JR750	14.3	28.6	6.35
RH15.5/28.5/7.3	**I**	JR750	15.5	28.5	7.3
RH17.5/12.7/9.5	**I**	JR750	17.5	12.7	9.5
RH17.5/28.5/9.5	**I**	JR750	17.5	28.5	9.5
RU16/28/9	**II**	JR1.5K	16.0	28.0	9.0
RU26/29/13	**II**	JR1.5K	26.0	29.0	13.0

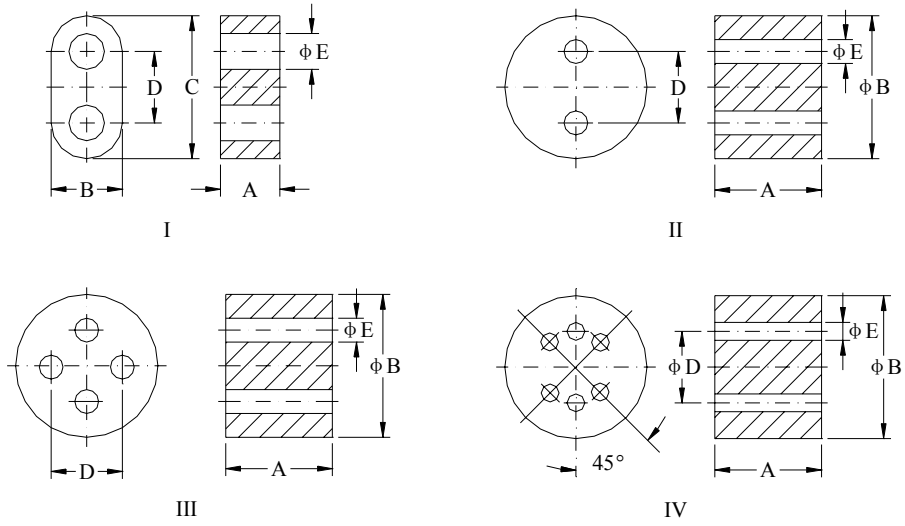


例： KD 1.5 / 5.5 / 7

型号　尺寸E　尺寸A　尺寸B

Sample: KD 1.5 / 5.5 / 7

Type　Dimension E　Dimension A　Dimension B



● 双孔及多孔磁芯 Double–Aperture Cores and Multi–Aperture Cores

型号 Type	形状 Shape	材料 Material	尺寸 Dimensions (mm)				
			A	B	C	D	E
KS1.5/3	**I**	JR1K , JR1.5K	3.0±0.3	3.5±0.3	6.0±0.3		1.5±0.15
KS2.4/3.5	**I**	JR250 , JR1K	3.5±0.3	4.0±0.3	7.5±0.3		2.4±0.15
KS4/7	**I**	JR100A , JR250	7.0±0.4	7.6±0.3	13.4±0.5	6.0	$4.2^{-0.4}_{-0.2}$
KS3.8/4	**I**	JR250	4.0±0.3	6.5±0.3	12.0±0.5	5.5	3.8±0.25
KD1.5/5.5/7	**II**	JR250	5.5±0.3	7.0±0.3			1.5±0.15
KD1.5/5.5/8	**III**	JR100A , JR250	5.5±0.3	8.0±0.3			1.5±0.15
KD0.8/10/6	**IV**	JR250	10.0±0.3	6.0±0.2		3.3	0.8±0.15

与我公司 JP、JV 和 JH 材料系列性能和用途相对应的国外主要厂商材料牌号参见下表。

Shown below are the material brands of main international manufacturers, which characteristics and application scopes correspond to those of our JP, JV and JH material series.

JSM	TDK	FDK	TOKIN	TOMITA	FERROXCUBE	EPCOS
JP3	PC30	6H10	2500B		3C85	N27
JP4A	PC40	6H20	BH2	2G8	3C90/3C94	N67/N87
JP4B	PC44	6H40	BH1		3C96	
JP5	PC50	7H10/7H20	B40		3F35	N49
JV2A	HV22	5H20			3C15	N62/N53
JV4	HV45	5H40			3C30	
JH5B	DN50		5000B	2G4		
JH5/JH5A	HS52	2H06	5H	2H4A	3E4	T35
JH7/JH7A	H5B2/HS72	2H07	7H	2G1	3E25/3E27	T37/T44
JH10	H5C2/HS10	2H10	10H	2E2B	3E5	T38/T42
JH15	H5C3	2H15	15H	2H1	3E7	T46

JSM	HITACHI	NICERA	KAWATETSU	SAMWHA	MMG	TPC
JP3		2M		PL-5	F44	B1
JP4A	ML24D	NC-2H	MB3	PL-7	F45	B2/F1
JP4B	ML25D	2HM5/2HM4	MB4	PL-9		F2
JP5	ML12D	5M				F4
JV2A				SM-19B		B3/B5
JV4				SM-19C		B7
JH5B	MQ53D				F9C	
JH5/JH5A		NC-5Y	MA055	SM-50	F10	A4/A5
JH7/JH7A	MP70D	NC-7	MA07A	SM-70S		A3
JH10	MP10T/MQ10T	NC-10H	MA100	SM-100/SM-100S	F39	A2
JH15	MP15T	15H		SM-150		

JSM	MAGNETICS	ACME	KASCHKE	ISKRA	VOGT	ISU
JP3	F	P5	K2006	15G	Fi322	PM2/PM2A
JP4A	P/R	P4	K2008	45G	Fi324	PM5/PM7
JP4B		P41				
JP5			K2001	75G		
JV2A						
JV4						
JH5B						
JH5/JH5A		A05	K5000			
JH7/JH7A	J	A07	K6000	22G	Fi360	HM3/HM3A
JH10	W	A10	K10000	12G	Fi410	HM5A
JH15			K15000	52G		

JSM
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