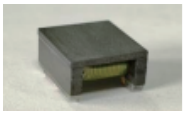
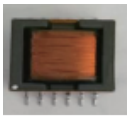
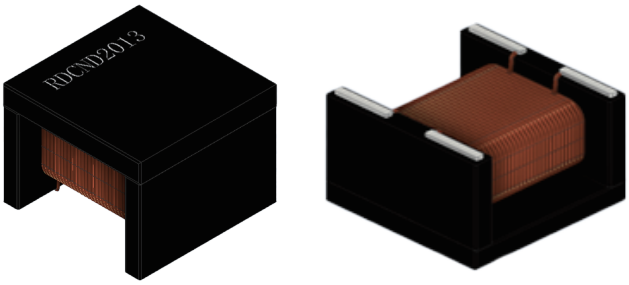
翠鸟驱动变压器系列与传统驱动变压器对比表

Comparison table of kingfisher drive transformer series and traditional drive transformer

对比项目Contrast items	翠鸟系列变压器 Kingfisher series transformer	传统系列变压器 Traditional series transformer
Picture		
骨架 bobbin	无 None	有 Yes
产品高度 Product height	13mm	13.5mm
横向尺寸 Horizontal dimension	20mm	30mm
EMI	绕制结构紧凑，分布参数小 抗电磁干扰性强 The winding system has compact structure, small distribution parameters and strong anti-electromagnetic interference	分布参数大， 抗电磁干扰性弱 The distribution parameter is large and the anti-electromagnetic interference is weak
管脚平整度 PIN flatness	无需修整管脚 No need to trim pin	人工修整管脚 Artificial trimming pin
客户后续安装 Customer follow-up installation	顶部平整，更适合SMT自动化 Flat Top for SMT automation	需人工上料 Manual feeding is required
产品一致性 Product consistency	产品一致性高 High product consistency	产品一致性低 High product consistency
自动化 automation	适合全自动化生产 所用人工工时少 Suitable for fully automated production of less manual hours	半自动化生产 所用人工工时多 Semi-automatic production uses more man-hours
成本 Cost	无骨架成本，无需修整管脚 所用人工工时少，成本低 The cost has no skeleton cost, no need to repair the foot manual hours less, the cost is low	有骨架成本，人工修整管脚 所用人工工时多，成本高 Has the skeleton cost, the artificial repair pin uses the artificial labor hour to be many, the cost is high

特点
Characteristics

□产品小巧、精致、高效、智能
Products are small, delicate, efficient andintelligent
□噪声低、稳定性高
Low noise,high stability
□系统性能优化
Optimize system performance

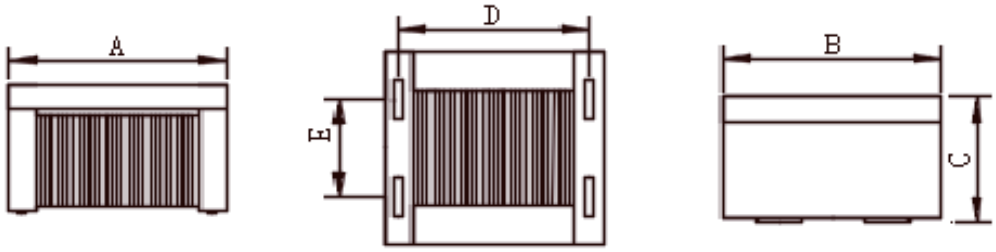


系列产品参数
Series product parameters

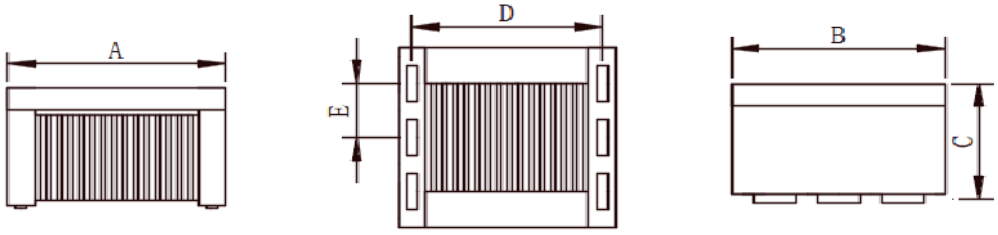
序号	型号	封装尺寸 A(mm)	B (mm)	C (mm)	D(mm)	E(mm)	封装	电参数 驱动电压15V 工作频率(KHz)	匝比 (TS)	电感量	介质耐压
1	RDCND6505	6.5	5.5	5	5	1.5	A	400	27:27	180uH min	绕组间，绕组与磁材 DC2KV,5mA 5Sec
2	RDCND8507	8.5	10	7	7	5	A	100-400	44:44	1.42mH min	
3	RDCND8507-1	8.5	10	7	7	2.5	B	200-400	28:28:28	585uH min	
4	RDCND13509	13.5	13	9	11	4	B	200-400	20:20:20	330uH min	
5	RDCND13125	13	13	12.5	11.5	3	A	300-400	25:25	510uH min	
6	RDCND13125-1	13	13	12.5	11.5	5	B	400	18:18:18	270uH min	
7	RDCND1385	13	15	8.5	11	8	A	100-400	35:35	1.12mH min	
8	RDCND1385-1	13	15	8.5	11	5	B	200-400	23:23:23	470uH min	
9	RDCND2013	20	20	13	18	9	A	100-400	42:42	1.87mH min	
10	RDCND2013-1	20	20	13	18	6	B	200-400	26:26:26	670uH min	

封装图
Package drawing

产品封装A



产品封装B



产品特性
Product characteristics

一、驱动变压器的基本概念和应用场景
Basic concepts and application scenarios of the drive transform

驱动变压器是一种常用于电力电子转换器中的电子元器件，用于隔离、升降压和普通变压器相同的功能，同时还具有能够承受高频脉冲的特点。驱动变压器主要应用于开关电源、DC/AC逆变器、磁化逆变器、电池充电器等电源设备中。

Drive transformer is a kind of electronic components commonly used in power electronic converter, which is used for isolation, lifting and lowering of the same function as ordinary transformer, but also can withstand high frequency pulse characteristics. Drive transformer is mainly used in switching power supply, DC / AC inverter, magnetized inverter, battery charger and other power supply equipment.

二、驱动变压器的设计要点和流程
Design points and process of drive transformer

1. 确定驱动变压器的额定电压

Determine the rated voltage of the drive transformer

驱动变压器的额定电压是参考转换器中MOS管的最大电源电压和保证输出电流正常工作的最小开关周期计算得到的。通常，驱动变压器的额定电压要比MOS管的电源电压略高一些，这可以保证驱动电路的工作稳定性。

The rated voltage of the drive transformer is calculated with reference to the maximum power supply voltage of the MOS tube in the converter and the minimum switching cycle guaranteeing the normal operation of the output current. Generally, the rated voltage of the drive transformer is slightly higher than the power supply voltage of the MOS tube, which ensures the working stability of the drive circuit.

2. 计算驱动变压器的变比

Calculate the transformer ratio of the drive transformer

在确定驱动变压器的变比时，需要考虑转换器中MOS管的开关频率和电路负载的变化范围。一般而言，驱动变压器的变比应该设为MOS管和输出端之间的最大电压之比。

When determining the variable ratio of the drive transformer, the switching frequency of the MOS tube and the variation range of the circuit load. Generally speaking, the transformer ratio of the drive transformer should be set as the maximum voltage ratio between the MOS tube and the output end.

3. 设计驱动变压器的尺寸和磁芯材料

Design the size and magnetic core material of the drive transformer

驱动变压器的尺寸和磁芯材料的选择根据其输出功率和电路的频率范围而定。通常，高频驱动变压器的磁芯材料要选择高导磁性和高品质的磁材料，以保证输出功率和电路的稳定性。

The size of the drive transformer and the selection of the core material are based on their output power and the frequency range of the circuit. Usually, the magnetic core material of high frequency drive transformer should choose high magnetic conductivity and high quality magnetic material to ensure the output power and circuit stability.

三、驱动变压器的作用
The role of the drive transformer

驱动变压器是一种特殊的变压器，它的主要作用是将较大的电流转化成较小的电流，在通信、自动化、电力控制系统等领域中得到广泛应用。驱动变压器可以将输入信号转换成输出信号，它对信号进行隔离，并可以通过信号负载的变化来实现一些特殊控制。

Drive transformer is a special transformer, its main function is to convert a large current into a small current, which is widely used in communication, automation, power control system and other fields. The drive transformer can convert the input signal into the output signal, which isolthe signal and can realize some special control through the change of signal load.

四、驱动变压器的应用场景
Application scenarios of the drive transformer

1. 电力系统
Electric Power system

驱动变压器是电力系统中的重要部件之一，它常被用于输电线路和变电站的保护与控制。例如，在超高压输电线路上，保护系统需要对线路上的故障进行监测，在这个过程中需要使用驱动变压器来进行信号的传递和转换，从而实现对故障的检测和定位。

Drive transformer is one of the important components in the power system, which is often used in the protection and control of transmission lines and substations. For example, on the ultra-high voltage transmission line, the protection system needs to monitor the faults on the line, and in this process, the drive transformer is used to conduct signal transmission and conversion, so as to realize the detection and positioning of the faults.

2. 工业自动化领域
Industrial automation field

在工业自动化控制系统中，驱动变压器同样扮演着重要的角色。例如，在PLC控制系统中，驱动变压器一般被用来将输入信号转换成PLC能够读取的信号，同时还可以将PLC的输出信号进行放大，以实现对一些重要设备的精确控制。

In the industrial automation control system, the drive transformer also plays an important role. For example, in a PLC control system, the drive transformer is generally used to convert the input signal into a signal that the PLC can read, while the PLC output signal can also be amplified to achieve precise control of some important equipment.

3. 通信系统
Communication system

在通信系统中，驱动变压器可以用来隔离输入和输出信号，防止噪声和干扰影响通信质量。它可以把低电平信号转化成高电平信号，从而提高信号质量和传输效率。

In a communication system, drive transformers can be used to isolate input and output signals to prevent noise and interference from affecting the communication quality. It can convert the low level signal into the high level signal, thus improving the signal quality and transmission efficiency.

综上所述，驱动变压器在现代工业中得到广泛应用，它的功能和应用场景非常多样化，在电力、工业自动化和通信系统等领域都具有非常重要的作用。

To sum up, the drive transformer has been widely used in modern industry, and its functions and application scenarios are very diversified, and it plays a very important role in the fields of electric power, industrial automation and communication systems.