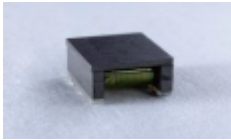
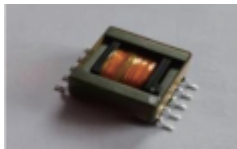


翠鸟系列反激变压器与传统反激变压器对比表

Kingfisher series flyback transformer and traditional flyback transformer comparison table

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
图片 Picture		
骨架 bobbin	无 None	有 Yes
产品高度 Product height	7mm	7.2mm
横向尺寸 Horizontal dimension	14mm	20mm
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

□超薄设计、重量轻、抗干扰能力强

Ultra-thin design, light weight and strong anti-interference ability

□高效率、低功耗、低成本

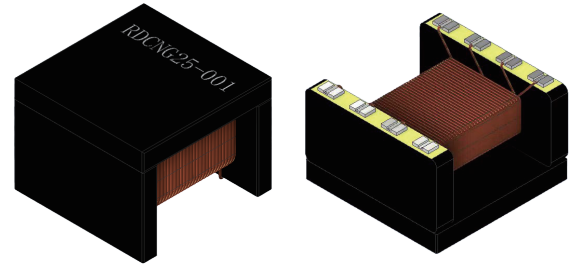
High efficiency, low power consumption and low cost

□自身散热效果良好,不会因为额外的损耗而产生过多的热量

Its own heat dissipation effect is good, will not produce too much heat because of additional loss

□工作温度: -25°C~125°C

Working temperature: -25°C~125°C



■ 系列产品参数

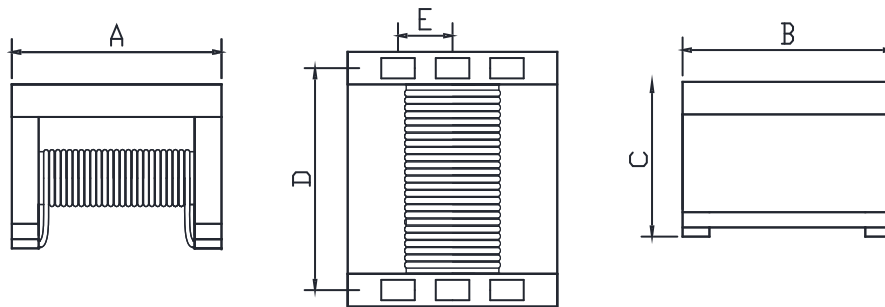
Series product parameters

序号	型号	封装尺寸						电参数			
		A(mm)	B (mm)	C (mm)	D(mm)	E(mm)	封装	工作频率(KHZ)	功率 (W)	匝比 (TS)	初级电感量
1	RDCNG8.1-001	8.1	10.2	7.5	8	2.5	B	100-500	10	5:5:4:2	20μH±2uH
2	RDCNG8.1-002	8.1	10.2	7.5	8	2.5	A	100-500	10	6:08:08	45.8μH±2uH
3	RDCNG11.6-001	11.6	13.3	8.5	10	3.5	B	100-500	10	5:5:11:4	20μH±2uH
4	RDCNG11.6-002	11.6	13.3	8.5	10	3.5	A	100-500	12	6:05:11	4.5μH~5uH
5	RDCNG11.6-003	11.6	13.3	8.5	10	2.5	B	100-500	30	19:20:31:19	100μH±5uH
6	RDCNG11.6-004	11.6	13.3	8.5	10	2	B	100-500	20	20:19:18:29	100±5uH uH
7	RDCNG12-001	12	15	10	10	4.5	B	100-500	30	241:27:14	2.3±3% mH
8	RDCNG12-002	12	15	10	10	4	B	100-500	12	52:20:20	160uH±10uH
9	RDCNG13-001	13	13	12.6	11	4	B	100-500	12	5:9:7:11	10μH±0.5uH
10	RDCNG20-001	20	20	13	17.5	5	B	100-500	12	20:19:18:29	100μH±5uH
11	RDCNG19.5-001	19	19.5	12.5	17	4.5	B	100-500	10	37:15:15:15	840±10% uH
12	RDCNG25-001	25	25	16	22	6.5	B	100-500	10	37:22:22:28	600±10% uH

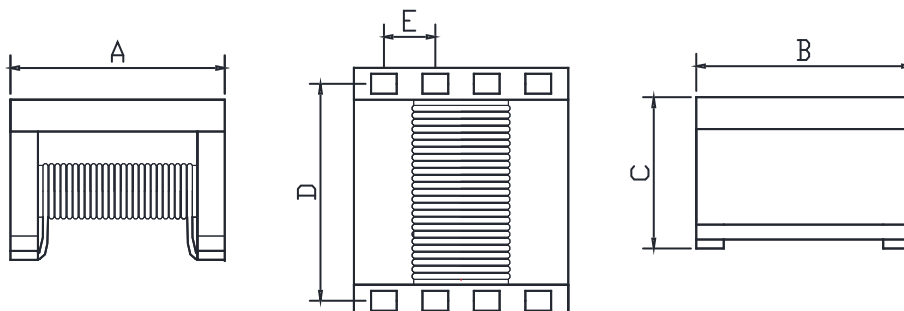
■ 封装图

Package drawing

产品封装A



产品封装B



■ 产品特性

Product characteristics

(1) 电流密度高 High current density

变压器有极好的温升特性设计。因为这些特性，所以它能在很小的封装体积内达到很高的电流密度，由于它的结构特点，完全满足高频电流的工作特性，所以适合在高频率的场合使用。

The transformer has an excellent temperature rise characteristic design. Because of these characteristics, it can achieve a very high current density in a very small packaging volume. Due to its structural characteristics, it fully meets the working characteristics of high frequency current, so it is suitable for use in high frequency occasions.

(2) 高效率 High efficiency

低漏电感，使它能具有很快的开关时间，很低的交叉损耗，就能使它达到很高的效率。这种变压器副边绕组和原边绕组间因为接触非常紧密，就具有很高的耦合系数，所以它的效率高、损耗很小。

Low leakage sense, so that it can have a very fast switching time, very low cross loss, it can make it to achieve a very high efficiency. The contact between the transformer secondary side winding and the original side winding is very close, so it has a very high coupling coefficient, so it has high efficiency and very small loss.

(3) 功率密度高 High power density

因为变压器元件的尺寸很小，它具有极好的温度耗散特性，所以能和有关半导体器件和电感紧密地封装在一起，实现的电流密度可做到 $30\text{A}/\text{mm}^2$

Because of the small size of the transformer element, it has excellent temperature dissipation characteristics, so it can be closely packaged together with the relevant semiconductor devices and inductors, and the realized current density can achieve $30\text{A}/\text{mm}^2$.

(4) 热耗散特性好 Good heat dissipation characteristics

变压器是具有很高的表体面积比、很短的热通道的元器件。这种结构有利于散热。原边和副边绕组之间的匝间损耗很小，磁芯的功率损耗较小，所以它能做到高磁通密度。它可在 $-55^{\circ}\text{C} \sim 125^{\circ}\text{C}$ 之间工作。

Transformer is a component with a very high surface area ratio and a very short thermal channel. This structure is favorable for the heat dissipation. The inter-turn loss between the original side and the secondary side winding is very small, and the power loss of the magnetic core is relatively small, so it can achieve high magnetic flux density. It works between -55°C and 125°C .

(5) 漏感小 The leakage inductance is low

绕组和绕组之间的良好耦合，就能使绕组匝间的漏电感保持在最小值。输出端到辅助部件的连线很短而且是紧配合，所以绕组上的漏电感最小。漏电感小意味着变压器的EMI指标更好，对开关功率器件的损害最小。

The good coupling between the winding and the winding can keep the leakage sense between the winding turns at a minimum value. The connection between the output to the auxiliary parts is short and tight, so the leakage sense on the winding is minimal. Small leakage sense means that the transformer EMI index is better, and the damage to the switching power devices is minimal.

(6) 结构简单适宜表贴 Simple structure is suitable for table stickers

变压器是由少量部件和最少的绕组构成的，这种模块在自动化装配中特别适用，而且它的外形天生就注定它适合表面贴装及大规模的流水线生产。

The transformer is made up of a small number of components and the least windings. This module is particularly suitable in automatic assembly, and its shape is naturally destined to be suitable for surface mounting and large-scale pipeline production.

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 isolates the 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.