

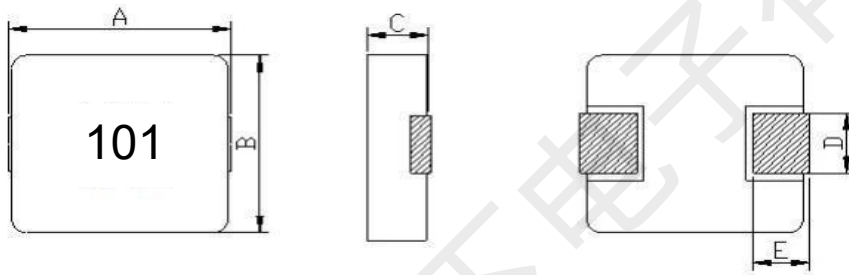
## 1.Features

- ①. High performance (Isat) realize by metal dust core.
- ②. Low profile: Thickness max.2.0~5.0mm.
- ③. Low loss and low resistance.
- ④. Capable of corresponding high frequency 1MHz~5MHz.
- ⑤. Ultra low buzz noise, due to composite construction.
- ⑥. The products contain no lead and also support lead-free soldering.

## 2.Applications area

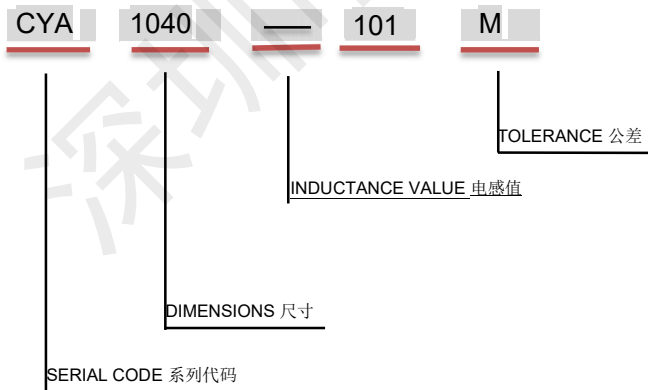
Ideally used in NB/Desktop/server/Graphic card, LCD TV/Projector, etc as DC-DC Converter.

## 3. Externl Dimensions (unit: mm)



UNIT: mm  
 A:11.6MAX  
 B:10.1±0.3  
 C:4.0MAX  
 D:2.5±0.5  
 E:3.0±0.5

## 4. Product Code



| Code 代码 | Tolerance 公差 |
|---------|--------------|
| J       | ±5%          |
| K       | ±10%         |
| L       | ±15%         |
| M       | ±20%         |
| P       | ±25%         |
| N       | ±30%         |

- 电感值Inductance Value  
 (1R0:1.0uH; 100: 10uH; 101:100uH)



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# 承 认 书

## SPECIFICATION FOR APPROVAL

客 户 Customer:

\_\_\_\_\_

产品名称 Project:

电感

\_\_\_\_\_

规格型号 Part No:

HX CYA1040-100UH

\_\_\_\_\_

### 贵公司承认印 Approval signatures

| 料 号/Part No. | 签 章/Signatures |
|--------------|----------------|
|              |                |

日期 Date:

|             |     |  |
|-------------|-----|--|
| 拟制/Drawn    | 黄彬  |  |
| 审核/Check    | 张伟  |  |
| 批准/Approved | 罗小春 |  |



## 5. Electrical Characteristics

### CYA1040 Series

#### Electrical Characteristics

| C.Y<br>PART NO | L0(uH)<br>Inductance<br>(uH) @ (0A) | Rdc (mΩ) @25°C |        | Heat Rating<br>Current DC<br>Amps. Idc<br>(A) | Saturation<br>Current DC<br>Amps. Isat<br>(A) | TEST FREQ<br>(KHZ) |
|----------------|-------------------------------------|----------------|--------|---|---|--------------------|
|                |                                     | Typ.           | Max.   |   |   |                    |
| CYA1040-R36M   | 0.36±20%                            | 1.05           | 1.20   | 34.00   | 42.00   | 100KHZ/1.0v        |
| CYA1040-R47M   | 0.47±20%                            | 1.53           | 1.68   | 28.00   | 38.00   | 100KHZ/1.0v        |
| CYA1040-R56M   | 0.56±20%                            | 1.60           | 1.80   | 27.00   | 32.00   | 100KHZ/1.0v        |
| CYA1040-R68M   | 0.68±20%                            | 2.10           | 2.40   | 23.00   | 30.00   | 100KHZ/1.0v        |
| CYA1040-1R0M   | 1.00±20%                            | 3.00           | 3.30   | 20.00   | 26.00   | 100KHZ/1.0v        |
| CYA1040-1R5M   | 1.50±20%                            | 3.80           | 4.20   | 16.00   | 22.00   | 100KHZ/1.0v        |
| CYA1040-2R2M   | 2.20±20%                            | 6.00           | 7.00   | 14.00   | 16.00   | 100KHZ/1.0v        |
| CYA1040-3R3M   | 3.30±20%                            | 10.80          | 11.80  | 11.00   | 13.00   | 100KHZ/1.0v        |
| CYA1040-4R7M   | 4.70±20%                            | 14.00          | 16.50  | 9.00  | 12.00   | 100KHZ/1.0v        |
| CYA1040-6R8M   | 6.80±20%                            | 22.50          | 25.00  | 8.00  | 10.00   | 100KHZ/1.0v        |
| CYA1040-8R2M   | 8.20±20%                            | 25.00          | 27.00  | 7.50  | 9.00  | 100KHZ/1.0v        |
| CYA1040-100M   | 10.0±20%                            | 27.00          | 30.00  | 6.50  | 7.00  | 100KHZ/1.0v        |
| CYA1040-150M   | 15.0±20%                            | 40.00          | 45.00  | 6.25  | 6.00  | 100KHZ/1.0v        |
| CYA1040-220M   | 22.0±20%                            | 60.00          | 66.00  | 5.00  | 5.50  | 100KHZ/1.0v        |
| CYA1040-330M   | 33.0±20%                            | 85.00          | 92.00  | 4.00  | 4.50  | 100KHZ/1.0v        |
| CYA1040-470M   | 47.0±20%                            | 129.00         | 150.00 | 3.00  | 4.00  | 100KHZ/1.0v        |
| CYA1040-680M   | 68.0±20%                            | 230.00         | 255.00 | 2.00  | 3.50  | 100KHZ/1.0v        |
| CYA1040-101M   | 100.0±20%                           | 260.00         | 300.00 | 0.70  | 1.00  | 100KHZ/1.0v        |

• Notes

1. All test data is reference to 25°C ambient.
2. I<sub>dc</sub>: DC current (A) that will cause an approximate  $\Delta T$  of 40°C
3. I<sub>sat</sub> : DC current (A) that will cause L<sub>0</sub> to drop approximately 30%
4. Operating Temperature Range -55°C to +125°C
5. The part temperature (ambient + temp rise ) should not exceed 125 °C under worse case operating conditions. Circuit design, component. PWB trace size and thickness airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the den application.
6. The rated current as listde is either the saturation current or the heating current depending on which value is lower.

6. Minimum Packaging and storage

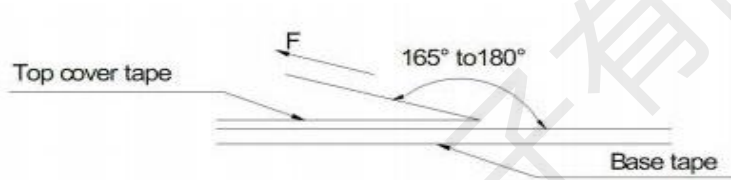
• 包装 Packing

| Tape Dimension |                      |              |               |              |                      |        |       |          |          |          |           |
|----------------|----------------------|--------------|---------------|--------------|----------------------|--------|-------|----------|----------|----------|-----------|
| Type           | Reel Dimensions (mm) |              |               |              | Tape Dimensions (mm) |        |       |          |          |          |           |
|                | A                    | N            | W             | C            | W                    | P      | P0    | A0       | B0       | H        | T         |
| CYA0420        | 330<br>+2/-0         | 100<br>+2/-0 | 12.4<br>+2/-0 | 13.2<br>±0.2 | 12±0.3               | 8±0.1  | 4±0.1 | 4.4±0.1  | 4.9±0.1  | 2.3±0.05 | 0.35±0.05 |
| CYA0530        | 330<br>+2/-0         | 100<br>+2/-0 | 12.4<br>+2/-0 | 13.2<br>±0.2 | 12±0.3               | 8±0.1  | 4±0.1 | 5.4±0.1  | 5.9±0.1  | 3.3±0.05 | 0.35±0.05 |
| CYA0618        | 330<br>+2/-0         | 100<br>+2/-0 | 16.4<br>+2/-0 | 13.2<br>±0.2 | 16±0.3               | 12±0.1 | 4±0.1 | 6.9±0.1  | 7.5±0.1  | 2.1±0.05 | 0.35±0.05 |
| CYA0624        | 330<br>+2/-0         | 100<br>+2/-0 | 16.4<br>+2/-0 | 13.2<br>±0.2 | 16±0.3               | 12±0.1 | 4±0.1 | 6.9±0.1  | 7.5±0.1  | 2.7±0.05 | 0.35±0.05 |
| CYA0630        | 330<br>+2/-0         | 100<br>+2/-0 | 16.4<br>+2/-0 | 13.2<br>±0.2 | 16±0.3               | 12±0.1 | 4±0.1 | 6.9±0.1  | 7.5±0.1  | 3.3±0.05 | 0.35±0.05 |
| CYA0650        | 330<br>+2/-0         | 100<br>+2/-0 | 16.4<br>+2/-0 | 13.2<br>±0.2 | 16±0.3               | 12±0.1 | 4±0.1 | 6.9±0.1  | 7.5±0.1  | 5.2±0.1  | 0.4±0.05  |
| CYA1040        | 330<br>+2/-0         | 100<br>+2/-0 | 24.4<br>+2/-0 | 13.2<br>±0.2 | 24±0.3               | 16±0.1 | 4±0.1 | 10.4±0.1 | 11.5±0.1 | 4.3±0.1  | 0.35±0.05 |
| CYA1250        | 330<br>+2/-0         | 100<br>+2/-0 | 24.4<br>+2/-0 | 13.2<br>±0.2 | 24±0.3               | 16±0.1 | 4±0.1 | 13.2±0.1 | 14.4±0.1 | 5.3±0.1  | 0.4±0.05  |
| CYA1265        | 330<br>+2/-0         | 100<br>+2/-0 | 24.4<br>+2/-0 | 13.2<br>±0.2 | 24±0.3               | 16±0.1 | 4±0.1 | 13.2±0.1 | 14.4±0.1 | 6.8±0.1  | 0.5±0.05  |

• **Tape Carrier Packaging:**

| Type    | Standard Quantity (pcs/reel) | Type    | Standard Quantity (pcs/reel) |
|---------|------------------------------|---------|------------------------------|
| CYA0420 | 3000                         | CYA1250 | 400                          |
| CYA5030 | 2000                         | CYA1265 | 400                          |
| CYA6030 | 1000                         |         |                              |
| CYA1040 | 1000                         |         |                              |
|         |                              |         |                              |

• **Tearing Off Force**



The force for tearing off cover tape is 15 to 60 grams in the arrow direction under the following conditions

| Room Temp. ( )°C | Room Humidity (%) | Room atm (hPa) | Tearing Speed mm/min |
|------------------|-------------------|----------------|----------------------|
| 5~35             | 45~85             | 860~1060       | 300                  |

• **Application Notice**

Storage Conditions To maintain the solderability of terminal electrodes:

1. Temperature and humidity conditions: Less than 30°C and 70% RH.
2. Recommended products should be used within 6 months form the time of delivery.
3. The packaging material should be kept where no chlorine or sulfur exists in the air.

Transportation

1. Products should be handled with care to avoid damage or contamination from perspiration and skin oils .
2. The use of tweezers or vacuum pick up is strongly recommended for individual components. Bulk handling should ensure that abrasion and mechanical shock are minimized.