



# 深圳市佑驰电子有限公司

## Specification for Approval

产品名称: 大电流扁线电感

规格型号: HSB-1050-XXX-M

产品编号:

日 期: 2024-02-20

- 1、本承认书的内容更改需经过双方确认，任一方单独的修改均视为无效。
- 2、本承认书在送达客户后，请给予承认并即签回，如无签回下订单的，我司有权以此承认书标准生产，并表示购买方默认许可。

|    |       |     |
|----|-------|-----|
| 核准 | 审核    | 制作  |
|    | Aaron | Ada |

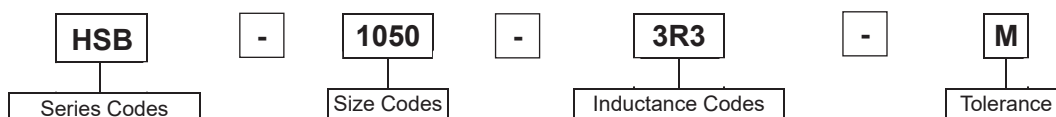
## HSB SERIES

### Product description:

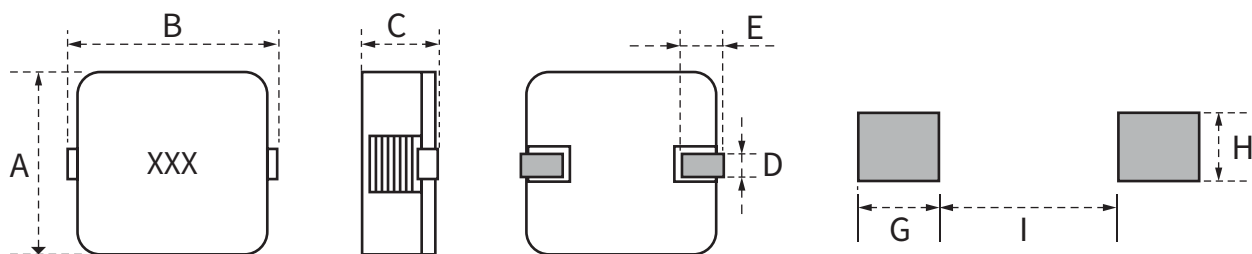
- High current, low loss of iron powder core.
- Low profile for machine placement.
- Minimize electromagnetic interference.
- Suppress common mode noise.
- Prevent EMI effect via precise impedance.
- Custom design available.



### Explanation of part numbers:



### Boundary dimension:



|          |      | (unit: mm) |          |        |         |         |     |     |
|----------|------|------------|----------|--------|---------|---------|-----|-----|
| series   | size | A          | B        | C      | D       | E       | G   | H   |
| HSB-1050 |      | 10.2±0.5   | 10.5±0.5 | 5.0Max | 2.0±0.5 | 2.5±0.5 | 3.5 | 4.0 |
|          |      |            |          |        |         |         |     |     |

## Electrical characteristics:

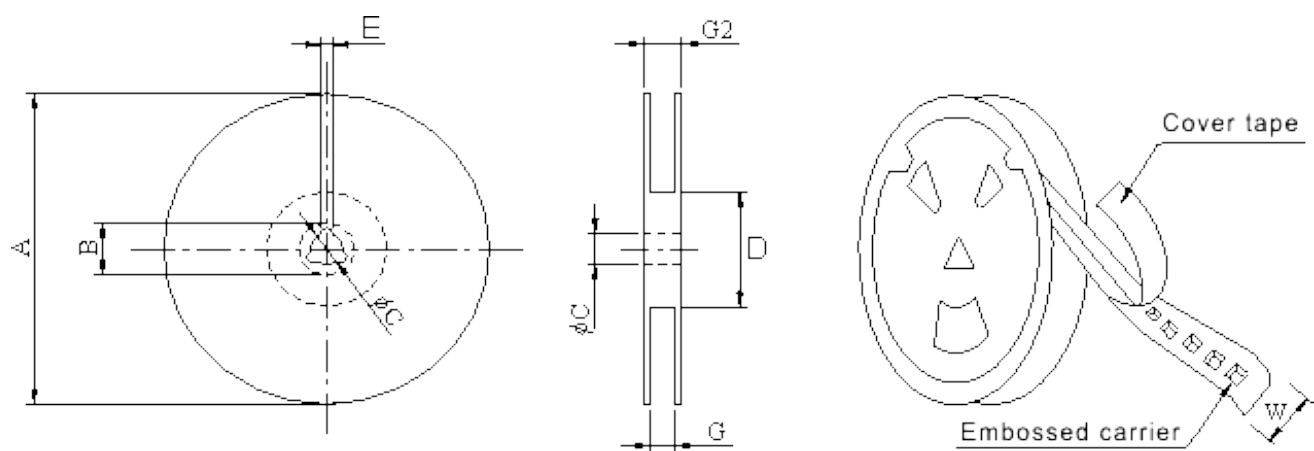
Test condition: at 25℃ 100KHz/0.1V

| PART NO.       | L(0A)(μH)<br>(±20%) | I <sub>rms</sub> (A)<br>(Typ.) | I <sub>sat</sub> (A)<br>(Typ.) | DCR(mΩ)<br>(Typ.) | DCR(mΩ)<br>Max. |
|----------------|---------------------|--------------------------------|--------------------------------|-------------------|-----------------|
| HSB-1050-R16-M | 0.16                | 25                             | 58                             | 0.51              | 0.56            |
| HSB-1050-R40-M | 0.4                 | 24                             | 37                             | 0.67              | 0.74            |
| HSB-1050-R72-M | 0.72                | 22                             | 35                             | 1.3               | 1.43            |
| HSB-1050-1R2-M | 1.2                 | 20                             | 25                             | 1.8               | 1.98            |
| HSB-1050-1R8-M | 1.8                 | 16                             | 18                             | 3.5               | 3.85            |
| HSB-1050-2R4-M | 2.4                 | 14                             | 17                             | 4.75              | 5.23            |
| HSB-1050-3R3-M | 3.3                 | 12                             | 15                             | 5.9               | 6.49            |
| HSB-1050-4R2-M | 4.2                 | 11                             | 14                             | 7.1               | 7.81            |
| HSB-1050-5R5-M | 5.5                 | 10                             | 12                             | 10.3              | 11.33           |
| HSB-1050-6R5-M | 6.5                 | 8.4                            | 10                             | 12.5              | 13.75           |
| HSB-1050-7R8-M | 7.8                 | 8.0                            | 9.5                            | 13.6              | 14.96           |
| HSB-1050-100-M | 10                  | 7.2                            | 8.5                            | 16.3              | 17.93           |
| HSB-1050-160-M | 16                  | 5.0                            | 6.5                            | 34.5              | 37.95           |
|                |                     |                                |                                |                   |                 |

### NOTE:

- All test data is referenced to 25℃ ambient.
- I<sub>rms</sub>: DC current(A) that will cause an approximate  $\Delta T$  of 50℃.
- I<sub>sat</sub>: DC current(A) that will cause L<sub>o</sub> to drop approximate 30%.
- Operating temperature range is -40℃ to 125℃.
- The part temperature(ambient and temp rise) should not exceed 125℃ under worse case operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provision all affect the part temperature. Part temperature should be verified in the end application.

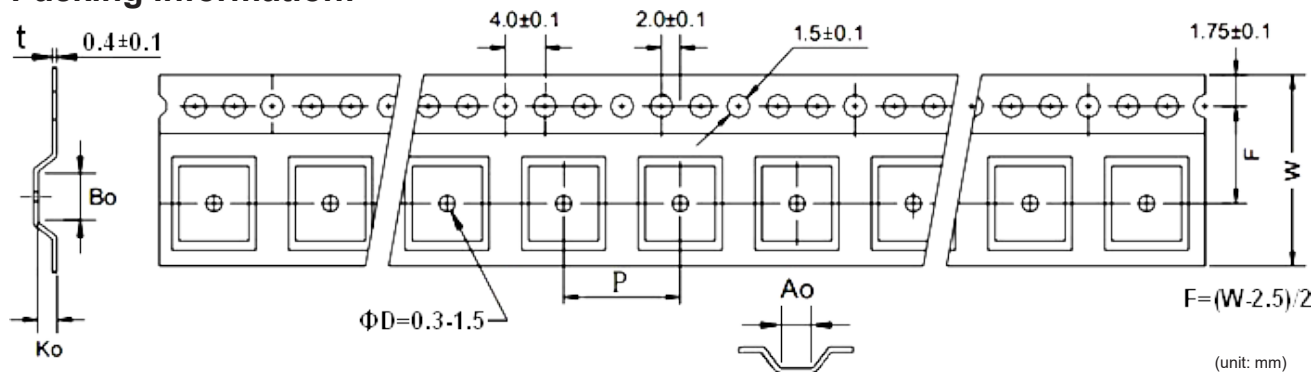
### Packing Information:



(unit: mm)

| Series   | TYPE     | A(Ref.) | B(Ref.) | C(Ref.) | D(Ref.) | E(Ref.) | G(Ref.)  | G2(Ref.) |
|----------|----------|---------|---------|---------|---------|---------|----------|----------|
| HSB-1050 | 13"*24mm | 330±1   | 20±0.8  | 13±0.5  | 100±1   | 2.0±0.5 | 24.5±0.5 | 28.5±0.5 |
|          |          |         |         |         |         |         |          |          |

### Packing Information:



| Series   | QTY (Pcs/Reel) | Ao   | Bo   | Ko  | W  | P  |
|----------|----------------|------|------|-----|----|----|
| HSB-1050 | 800            | 10.8 | 11.3 | 5.2 | 24 | 16 |

### Typical Pulling Force: 10-130 grams

