

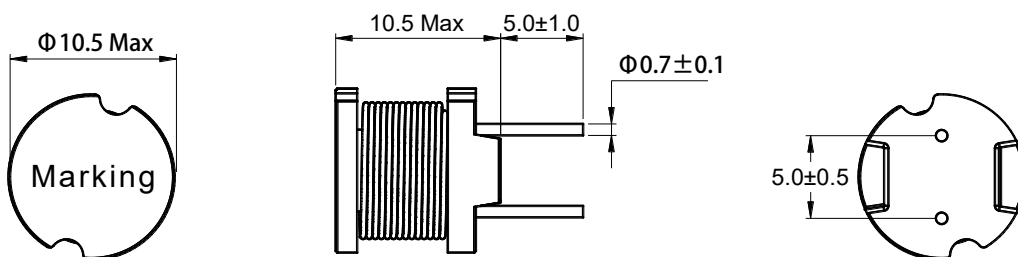
# **THNB Series** Through-hole Inductor Size 1010



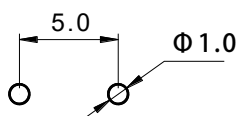
## **FEATURES**

- High reliability, high consistency inductance.
- High saturation current
- Lead free product, RoHS compliant.
- Widely used in power supply, DC-DC converter, computer and peripherals, air-condition, home electric appliance, and etc.
- Operating temperature : -40°C ~ +125°C (Including coil's temperature rise)
- Quantity : 200 pcs

## Dimensions: [mm]



## Land Pattern: [mm]



## Schematic:



## Electrical Properties:

| Part No.      | Inductance ( $\mu$ H)<br>$\pm 10\%$ | D.C.R. (m $\Omega$ ) |      | Saturation current (A) |      | Temperature rise current (A) |
|---------------|-------------------------------------|----------------------|------|------------------------|------|------------------------------|
|               |                                     | Typical              | Max  | Typical                | Max  | Typical                      |
| THNB1010-100K | 10.0                                | 20.1                 | 24.2 | 8.60                   | 6.88 | 5.17                         |
| THNB1010-120K | 12.0                                | 21.4                 | 25.7 | 8.00                   | 6.40 | 5.02                         |
| THNB1010-150K | 15.0                                | 29.6                 | 35.5 | 7.40                   | 5.92 | 4.27                         |
| THNB1010-180K | 18.0                                | 31.4                 | 37.7 | 7.00                   | 5.60 | 4.14                         |
| THNB1010-220K | 22.0                                | 35.5                 | 42.6 | 6.20                   | 4.96 | 3.88                         |
| THNB1010-270K | 27.0                                | 39.0                 | 46.8 | 6.00                   | 4.80 | 3.71                         |
| THNB1010-330K | 33.0                                | 52.8                 | 63.4 | 5.20                   | 4.16 | 3.22                         |
| THNB1010-390K | 39.0                                | 58.4                 | 70.1 | 4.90                   | 3.92 | 3.03                         |
| THNB1010-470K | 47.0                                | 77.7                 | 93.2 | 4.40                   | 3.52 | 2.63                         |

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|---------------|--------------------------------------------|-----------------------------|-------|------------------------|------|------------------------------|
|               |                                            | Typical                     | Max   | Typical                | Max  | Typical                      |
| THNB1010-560K | 56.0                                       | 89.7                        | 108   | 4.00                   | 3.20 | 2.45                         |
| THNB1010-680K | 68.0                                       | 115                         | 138   | 3.50                   | 2.80 | 2.16                         |
| THNB1010-820K | 82.0                                       | 133                         | 159   | 3.20                   | 2.56 | 2.02                         |
| THNB1010-101K | 100                                        | 148                         | 178   | 2.90                   | 2.32 | 1.91                         |
| THNB1010-121K | 120                                        | 160                         | 192   | 2.70                   | 2.16 | 1.83                         |
| THNB1010-151K | 150                                        | 210                         | 252   | 2.45                   | 1.96 | 1.60                         |
| THNB1010-181K | 180                                        | 233                         | 280   | 2.20                   | 1.76 | 1.52                         |
| THNB1010-221K | 220                                        | 284                         | 341   | 2.00                   | 1.60 | 1.38                         |
| THNB1010-271K | 270                                        | 376                         | 451   | 1.85                   | 1.48 | 1.20                         |
| THNB1010-331K | 330                                        | 423                         | 507   | 1.65                   | 1.32 | 1.13                         |
| THNB1010-391K | 390                                        | 545                         | 654   | 1.50                   | 1.20 | 0.99                         |
| THNB1010-471K | 470                                        | 606                         | 727   | 1.40                   | 1.12 | 0.94                         |
| THNB1010-561K | 560                                        | 731                         | 878   | 1.25                   | 1.00 | 0.86                         |
| THNB1010-681K | 680                                        | 900                         | 1,080 | 1.10                   | 0.88 | 0.77                         |
| THNB1010-821K | 820                                        | 1,051                       | 1,262 | 1.05                   | 0.84 | 0.72                         |
| THNB1010-102K | 1,000                                      | 1,478                       | 1,773 | 0.92                   | 0.74 | 0.60                         |
| THNB1010-222K | 2,200                                      | 2,850                       | 3,420 | 0.64                   | 0.51 | 0.40                         |

All data is tested based on 25°C ambient temperature.

Inductance measure condition at 1kHz, 0.25V

Saturation current: the value of DC current when the inductance decrease 20% of its initial value.

Temperature rise current: the actual value of DC current when the temperature rise is  $\Delta T 40^\circ\text{C}$  ( $T_a = 25^\circ\text{C}$ ).

## Typical Electrical Characteristics:

### Saturation current VS temperature rise current curve

