

## YT1050 Series

### Introduction

- ROHS, Halogen Free and REACH compliance
- High rated current
- 125°C maximum total temperature operation
- 11.5×10.3×5.0mm maximum surface mount package
- Low core loss
- Ultra low buzz noise due to molding construction

### Applications

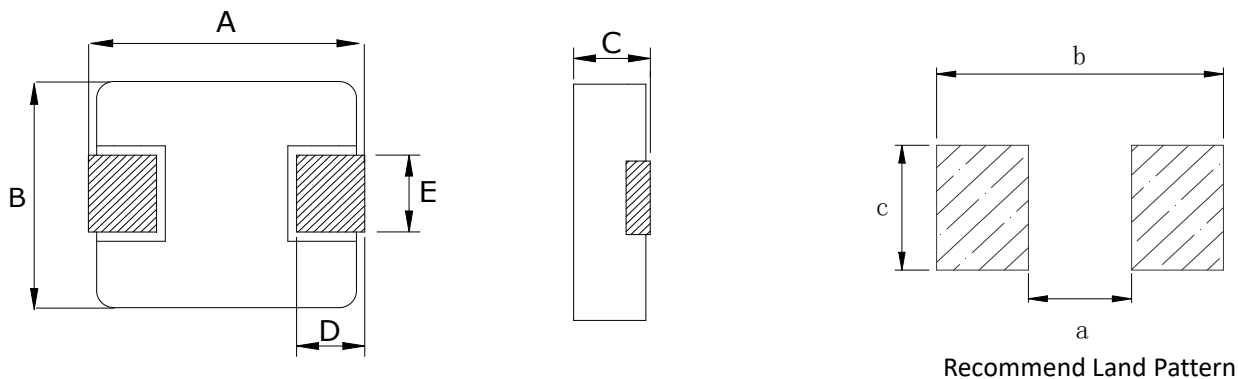
- Laptops and PCs
- Switch and servers
- Base stations
- DC/DC converters
- Battery powered devices
- SSD modules

### Product Identification

YT      1050      --1R5      M  
 ①          ②          ③          ④

- ① YT ----- Series name
- ② 1050 ----- Dimension
- ③ 1R5 ----- Inductance Value (1R5 = 1.5μH)
- ④ M -----Inductance Tolerance ( M= ± 20% )

### Dimensions-mm



| A       | B        | C       | D       | E       | a typ | b typ | c typ |
|---------|----------|---------|---------|---------|-------|-------|-------|
| 11.5MAX | 10.0±0.3 | 4.8±0.2 | 2.0±0.5 | 3.0±0.5 | 5.4   | 13.6  | 4.1   |

| Part No.    | Inductance         | DC Resistance | Saturation Current | Heating Rating Current |
|-------------|--------------------|---------------|--------------------|------------------------|
|             | L0 (μH)            | DCR (mΩ)      | Isat (A)           | Irms (A)               |
|             | ±20 %, 100 kHz, 1V | MAX.          | TYP.               | TYP.                   |
| YT1050-R22M | 0.22               | 0.8           | 65                 | 37                     |
| YT1050-1R0M | 1.0                | 3             | 30                 | 23                     |
| YT1050-1R5M | 1.5                | 3.8           | 25                 | 21                     |
| YT1050-2R2M | 2.2                | 6             | 19                 | 15                     |
| YT1050-3R3M | 3.3                | 10            | 16                 | 13                     |
| YT1050-4R7M | 4.7                | 14            | 15                 | 11                     |
| YT1050-5R6M | 5.6                | 17            | 14                 | 9.5                    |
| YT1050-6R8M | 6.8                | 18.5          | 14                 | 9                      |
| YT1050-100M | 10                 | 28            | 10                 | 8                      |
| YT1050-150M | 15                 | 42            | 7.5                | 6.5                    |
| YT1050-220M | 22                 | 50            | 6                  | 5.5                    |
| YT1050-330M | 33                 | 86            | 5.2                | 4.8                    |
| YT1050-470M | 47                 | 127           | 4.5                | 3.7                    |
| YT1050-101M | 100                | 290           | 2.8                | 2.1                    |

#### Notes

1. All test data is referenced to 25 °C ambient.
2. Operating temperature range - 55 °C to + 125 °C.
3. Irms (A):DC current (A) that will cause an approximate ΔT of 40 °C(reference ambient temperature is 25 °C).
4. Isat(A):DC current (A) that will cause L0 to drop approximately 30 %.
5. The part temperature (ambient + temp rise) should not exceed 125 °C under worst case operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.