

1. Features

1. Magnetic-resin shielded construction reduces buzz noise to ultra-low levels
2. Metallization on ferrite core results in excellent shock resistance and damage-free durability
3. Closed magnetic circuit design reduces leakage flux and Electro Magnetic Interference (EMI)
4. 30% higher current rating than conventional inductors of equal size
5. Takes up less PCB real estate and save more power
6. High reliability-complied with AEC-Q200.
7. 100% Lead(Pb)-Free & Halogen-Free and RoHS compliant.



AEC-Q200

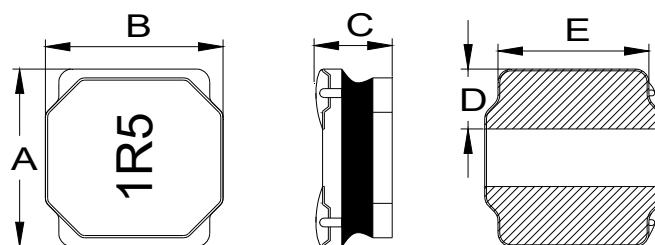
2. Applications

For automotive applications.

3. Applications

1. LED Lighting
2. Next-generation mobile devices with multifunction such as mobile TV and digital movie cameras
3. Flat-screen TVs, blue-ray disc recorders, set top box
4. Notebooks, desktop computers, servers, graphic cards cards
5. Portable gaming devices, personal navigation systems, personal multimedia devices
6. Automotive systems
7. Telecomm base stations

4. Dimension

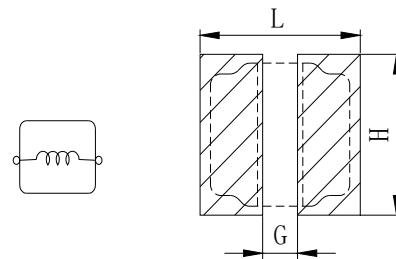


| *A | *B | *C | D | E |
|---------|---------|---------|----------|---------|
| 4.0±0.2 | 4.0±0.2 | 2.8±0.2 | 1.35±0.3 | 3.4±0.4 |

Unit:mm

*Termination are not included in dimension. For maximum overall dimensions with termination, add 0.1mm.

Recommendend Land pattern



| L | G | H |
|-----|-----|-----|
| 4.5 | 1.5 | 4.5 |

Note:

1. PCB layout is referred to IPC-7351B standard
2. The above PCB layout is for reference only.

5. Part Numbering

THPC 4030 NV - 1R5 M

A B C D E

A: Series

B: Dimension

C: Type

D: Inductance

E: Inductance Tolerance

A/B*C

1R5=1.50uH

M=±20%

Anti-static packaging

marking direction cannot decide polarity. Color: Black, unidirectional.
magnetic shielding

6. Specification

| Part Number | Inductance (uH) ±20% @ 0 A DC | I rms (A) | | I sat (A) | | DCR (mΩ) ±20% |
|-----------------|--|-----------|------|-----------|------|------------------|
| | | Typ | Max | Typ | Max | |
| THPC4030NV-R68M | 0.68 | 4.60 | 4.00 | 6.80 | 5.80 | 10 |
| THPC4030NV-1R0M | 1.00 | 4.20 | 3.50 | 5.30 | 4.60 | 14 |
| THPC4030NV-1R5M | 1.50 | 3.40 | 2.90 | 4.90 | 4.00 | 20 |
| THPC4030NV-2R2M | 2.20 | 3.00 | 2.50 | 4.20 | 3.60 | 30 |
| THPC4030NV-3R3M | 3.30 | 2.40 | 2.10 | 3.30 | 2.70 | 40 |
| THPC4030NV-4R7M | 4.70 | 2.05 | 1.80 | 2.90 | 2.40 | 60 |
| THPC4030NV-5R6M | 5.60 | 1.95 | 1.60 | 2.70 | 2.10 | 65 |
| THPC4030NV-6R8M | 6.80 | 1.80 | 1.50 | 2.40 | 2.00 | 90 |
| THPC4030NV-8R2M | 8.20 | 1.60 | 1.40 | 2.10 | 1.80 | 95 |
| THPC4030NV-100M | 10.0 | 1.50 | 1.30 | 2.00 | 1.70 | 100 |
| THPC4030NV-120M | 12.0 | 1.30 | 1.20 | 1.80 | 1.60 | 135 |
| THPC4030NV-150M | 15.0 | 1.20 | 1.10 | 1.70 | 1.40 | 190 |
| THPC4030NV-180M | 18.0 | 1.10 | 1.00 | 1.50 | 1.25 | 200 |
| THPC4030NV-220M | 22.0 | 1.00 | 0.90 | 1.30 | 1.15 | 225 |
| THPC4030NV-330M | 33.0 | 0.85 | 0.80 | 1.10 | 0.85 | 330 |
| THPC4030NV-470M | 47.0 | 0.72 | 0.65 | 0.95 | 0.75 | 445 |

Note:

1. Test frequency : Ls : 100KHz / 1.0V.
2. All test data are tested to 25°C ambient.
3. Testing Instrument (or eq.): Agilent 4284A,E4991A,4339B,KEYSIGHT E4980A/AL,chroma3302,3250,16502.
4. Heat rated current (Irms): current that cause temperature to rise approximately ΔT of 40°C.
5. Saturation current (Isat): current that cause L0 to drop approximately 30%.
6. The part temperature (ambient + temp. rise) should not exceed 125°C under worst case operating conditions. Circuit design, PCB trace and thickness, airflow and other cooling conditions all affect the part temperature. Part temperature should be verified in the end application.
7. Irms Test : temperature rise is highly dependent on many factors including pcb land pattern, trace size, and proximity to other components. Therefore temperature rise should be verified in application conditions.
8. Rated DC current: the lower value of Irms and Isat.

7. Typical Performance Curve

