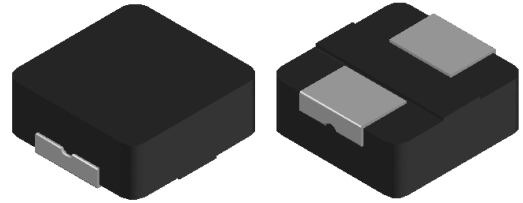


# CMI-CMMPP5020HL-SERIES

## Features

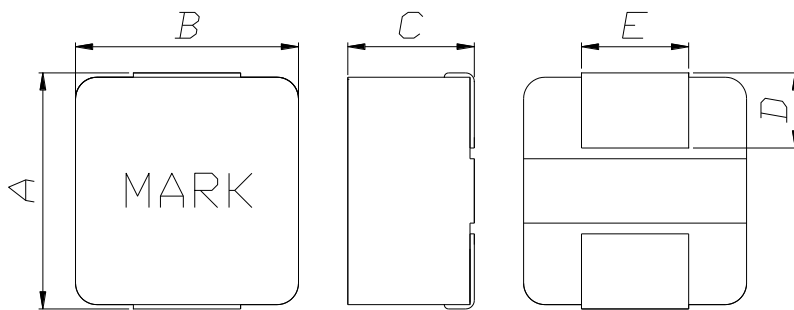
- ▶ High current and low profile
- ▶ Metal powder molding type for EMC protection.
- ▶ Available tape and reel for auto insertion.
- ▶ Halogen-Free / RoHS compliant.
- ▶ AEC-Q200 qualified.



## Applications

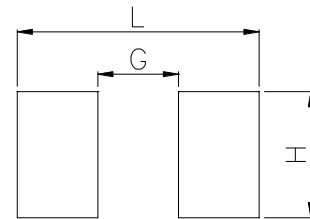
- ▶ Equipment using for automobiles (ECM, Airbags, Headlights, Electronic Power steering, Motors, ABS, other)

**Dimension (Unit:mm)**



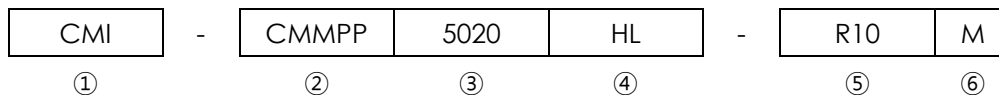
| A        | B        | C       | D       | E       |
|----------|----------|---------|---------|---------|
| 5.4±0.35 | 5.2±0.25 | 2.0 Max | 1.5±0.2 | 2.5±0.2 |

**Land Pattern (Unit:mm)**



| L   | G   | H   |
|-----|-----|-----|
| 6.0 | 2.2 | 3.0 |

## Regulation of part number



- ① CoilMaster's initial
- ② Series Name : Car Metal Molded Pin type Power inductor
- ③ Core Size (unit:mm)
- ④ Material
- ⑤ Typical inductance value (0.1 uH)
- ⑥ Inductance tolerance (±20%)

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## Specifications

| Part Number          | Inductance<br>(uH) ±20% | DCR(mohm)<br>Max.(Typ.) | Isat(A)<br>Max.(Typ.) | Irms(A)<br>Max.(Typ.) | Test<br>Frequency<br>(Hz) |
|----------------------|-------------------------|-------------------------|-----------------------|-----------------------|---------------------------|
| CMI-CMMPP5020HL-R10M | 0.1                     | 3.0(2.5)                | 30.00(35.00)          | 23.00(25.00)          | 1M                        |
| CMI-CMMPP5020HL-1R0M | 1.0                     | 20.0(18.0)              | 9.50(10.50)           | 6.00(6.50)            | 1M                        |
| CMI-CMMPP5020HL-2R2M | 2.2                     | 34.5(29.0)              | 6.30(7.00)            | 4.50(5.00)            | 1M                        |
| CMI-CMMPP5020HL-4R7M | 4.7                     | 66.0(55.0)              | 4.50(5.00)            | 3.50(4.00)            | 1M                        |
| CMI-CMMPP5020HL-5R6M | 5.6                     | 90.0(75.0)              | 4.20(4.70)            | 3.00(3.50)            | 1M                        |
| CMI-CMMPP5020HL-6R8M | 6.8                     | 132(110)                | 4.00(4.50)            | 2.70(2.90)            | 1M                        |
|                      |                         |                         |                       |                       |                           |
|                      |                         |                         |                       |                       |                           |
|                      |                         |                         |                       |                       |                           |
|                      |                         |                         |                       |                       |                           |
|                      |                         |                         |                       |                       |                           |
|                      |                         |                         |                       |                       |                           |
|                      |                         |                         |                       |                       |                           |
|                      |                         |                         |                       |                       |                           |
|                      |                         |                         |                       |                       |                           |
|                      |                         |                         |                       |                       |                           |
|                      |                         |                         |                       |                       |                           |
|                      |                         |                         |                       |                       |                           |
|                      |                         |                         |                       |                       |                           |
|                      |                         |                         |                       |                       |                           |
|                      |                         |                         |                       |                       |                           |
|                      |                         |                         |                       |                       |                           |
|                      |                         |                         |                       |                       |                           |
|                      |                         |                         |                       |                       |                           |
|                      |                         |                         |                       |                       |                           |

- Isat: When based on the inductance change rate (approximately 30% below in the initial value)
- Irms: When based on the temperature increase (Temperature increase of approximately 40°C by self heating)
- Operating Temperature Range(including self temperature) : -40°C ~ +165 °c

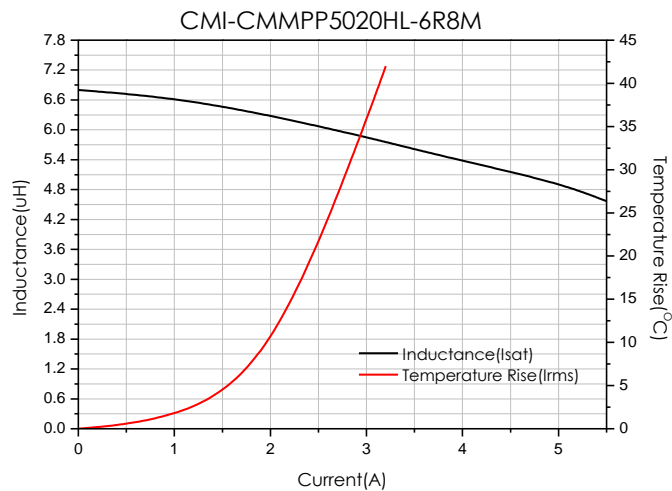
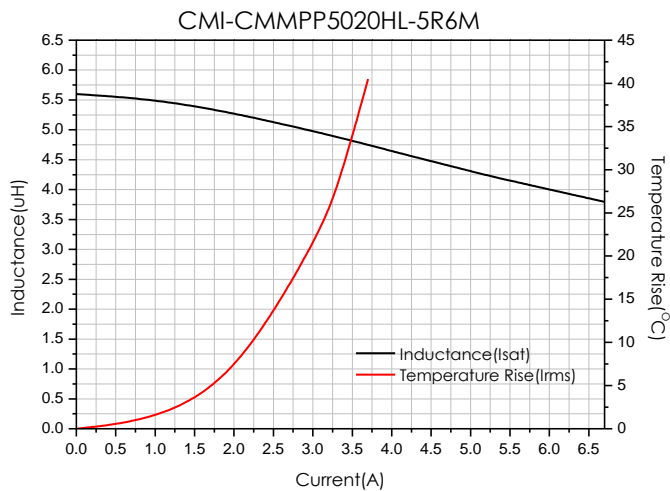
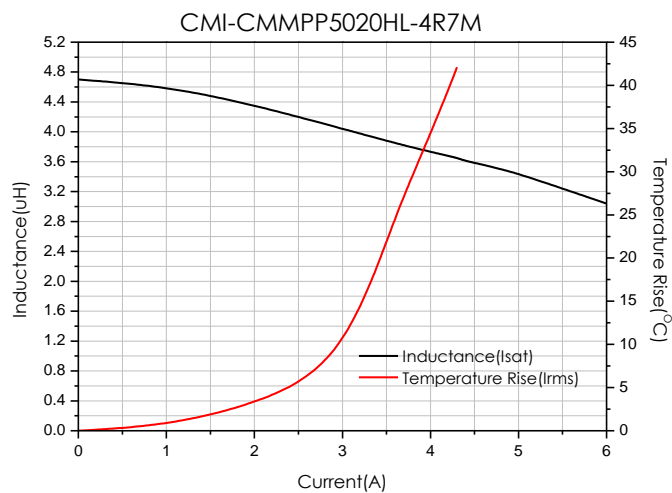
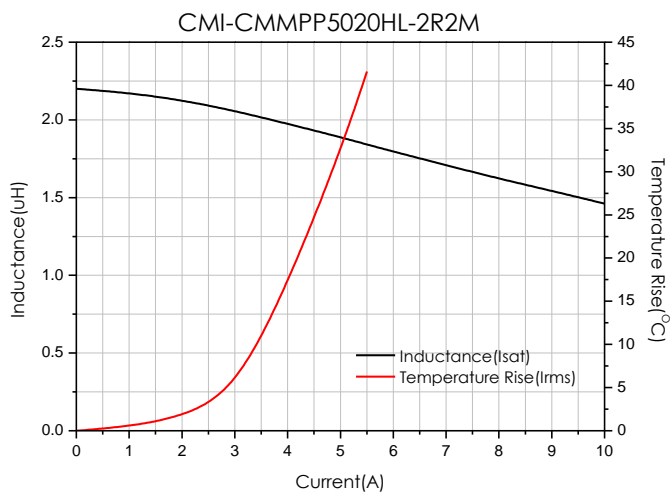
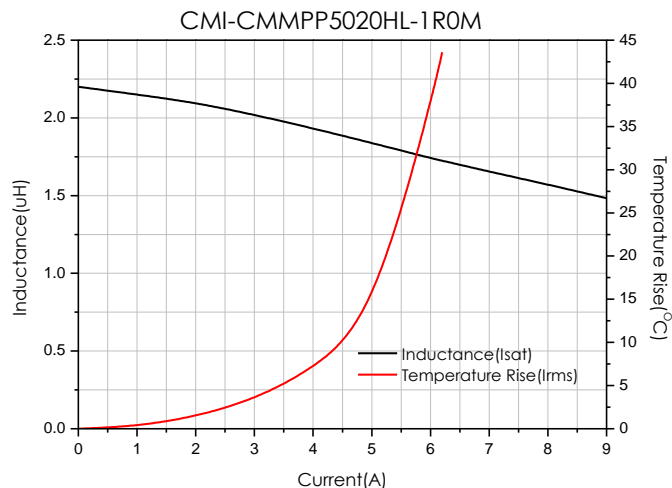
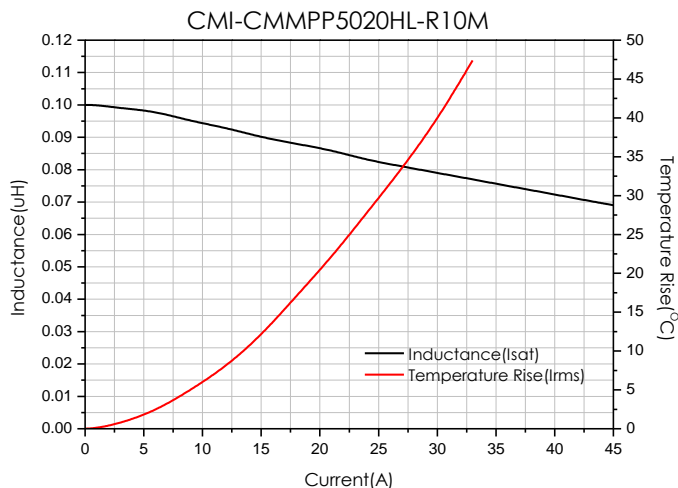
Note 1 : Circuit design, component placement, PCB trace size and thickness, airflow and other cooling. Provision all affect the part Temperature. Part temperature should be verified in the end application.

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## Electrical characteristics

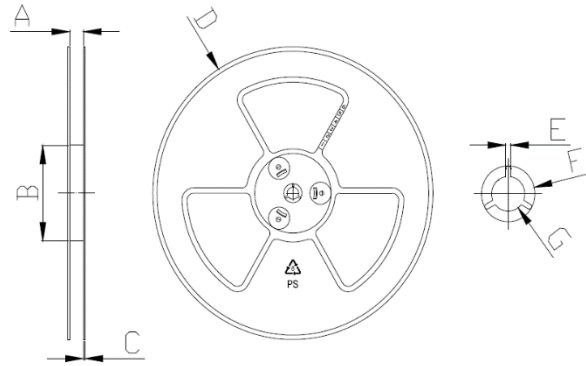


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## Packaging

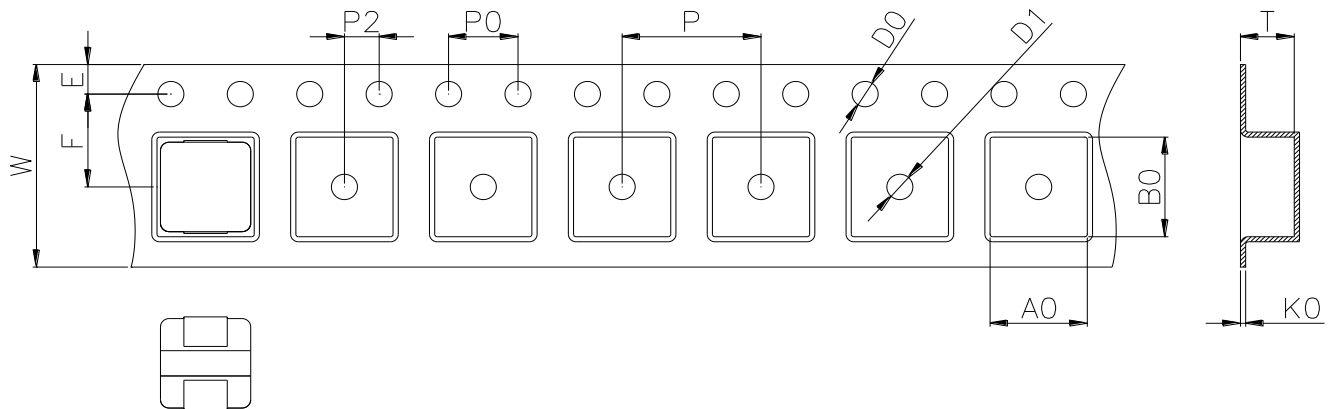
(1) Package quantity : 3,000 (pcs/reel)

(2) Reel Dimensions (unit:mm)



| A     | B     | C     | D     | E     | F     | G     |
|-------|-------|-------|-------|-------|-------|-------|
| 12.50 | 100.0 | 2.00  | 330.0 | 1.90  | 21.00 | 13.00 |
| +1.00 | +1.50 | +0.10 | +1.00 | +0.40 | +0.40 | +0.40 |
| -1.00 | -1.50 | -0.10 | -1.00 | -0.40 | -0.40 | -0.40 |

(3) Tape Dimensions



| W     | A0    | B0    | K0    | E     | F     | P     | P0    | P2    | D0/D1 | T     |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 12.00 | 5.50  | 5.70  | 2.20  | 1.75  | 5.50  | 8.00  | 4.00  | 2.00  | 1.50  | 0.30  |
| +0.30 | +0.10 | +0.10 | +0.10 | +0.10 | +0.10 | +0.10 | +0.10 | +0.10 | +0.10 | +0.05 |
| -0.10 | -0.00 | -0.00 | -0.10 | -0.10 | -0.10 | -0.10 | -0.10 | -0.10 | -0.00 | -0.05 |

Ilisan Sales Office (KOREA) +82)31-904-1444  
 China Sales Office (CHINA) +86)758-278-7031  
 Hungary Sales office (EUROPE) +36)30-913-7706

H.K Sales Office (HONGKONG) +852)2711-5551  
 LA Sales Office (USA) +1)866-446-3586

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