



| Part number     | L0(μH)<br>Inductance<br>±20%<br>@0A(μH) | Rdc (mΩ) @25°C |        | Heat Rating<br>Current DC<br>Amps. Idc<br>(A) | Saturation<br>Current<br>DC Amps<br>Isat (A) |
|-----------------|-----------------------------------------|----------------|--------|-----------------------------------------------|----------------------------------------------|
|                 |                                         | Typ.           | Max.   |                                               |                                              |
| MCF-1040-R22-N2 | 0.22                                    | 0.90           | 1.00   | 35.00                                         | 50.00                                        |
| MCF-1040-R36-N2 | 0.36                                    | 1.05           | 1.20   | 30.00                                         | 50.00                                        |
| MCF-1040-R47-N2 | 0.47                                    | 1.53           | 1.68   | 25.00                                         | 40.00                                        |
| MCF-1040-R56-N2 | 0.56                                    | 1.60           | 1.80   | 25.00                                         | 33.00                                        |
| MCF-1040-R68-N2 | 0.68                                    | 2.10           | 2.40   | 23.00                                         | 30.00                                        |
| MCF-1040-1R0-N2 | 1.00                                    | 3.00           | 3.30   | 18.00                                         | 28.00                                        |
| MCF-1040-1R5-N2 | 1.50                                    | 3.80           | 4.20   | 15.00                                         | 26.00                                        |
| MCF-1040-1R8-N2 | 1.50                                    | 5.00           | 5.80   | 13.00                                         | 23.00                                        |
| MCF-1040-2R0-N2 | 2.00                                    | 6.00           | 6.90   | 12.00                                         | 20.00                                        |
| MCF-1040-2R2-N2 | 2.20                                    | 6.00           | 7.00   | 12.00                                         | 18.00                                        |
| MCF-1040-3R3-N2 | 3.30                                    | 10.80          | 11.80  | 10.00                                         | 16.00                                        |
| MCF-1040-4R7-N2 | 4.70                                    | 17.00          | 20.00  | 8.50                                          | 13.00                                        |
| MCF-1040-5R6-N2 | 5.60                                    | 20.00          | 23.00  | 8.00                                          | 11.00                                        |
| MCF-1040-6R8-N2 | 6.80                                    | 22.50          | 25.00  | 7.00                                          | 10.00                                        |
| MCF-1040-8R2-N2 | 8.20                                    | 25.00          | 27.00  | 7.00                                          | 9.00                                         |
| MCF-1040-100-N2 | 10.00                                   | 27.00          | 30.00  | 6.50                                          | 8.50                                         |
| MCF-1040-150-N2 | 15.00                                   | 40.00          | 45.00  | 6.25                                          | 7.00                                         |
| MCF-1040-220-N2 | 22.00                                   | 60.00          | 66.00  | 5.00                                          | 5.50                                         |
| MCF-1040-330-N2 | 33.00                                   | 85.00          | 92.00  | 4.00                                          | 4.50                                         |
| MCF-1040-470-N2 | 47.00                                   | 130.00         | 145.00 | 3.30                                          | 3.50                                         |
| MCF-1040-680-N2 | 68.00                                   | 195.00         | 210.00 | 2.00                                          | 3.00                                         |

※Note:

- All test data is reference to 25°C ambient.
- Test Condition: 100KHz, 1.0Vrms
- Idc: DC current (A) that will cause an approximate ΔT of 40°C
- Isat : DC current (A) that will cause L0 to drop approximately 30%
- Operat between temperature range -55°C to +125°C

The part temperature (ambient + temp rise ) should not exceed 125°C under the worst case operating conditions.Circuit design, component.PWB trace size and thickness, airflow and other cooling provision all affect the part temperature.Part temperature should be verified in the end application.

- The rated current as listed is either the saturation current or the heating current depending on which value is lower.

※ Regulation of Part number

$$\underset{\textcircled{1}}{MC} \underset{\textcircled{2}}{F} = \underset{\textcircled{3}}{1040} = \underset{\textcircled{4}}{2R2} = \underset{\textcircled{5}}{N} \underset{\textcircled{6}}{2}$$

① Molding Choke;

② Mold Categories:F;

③ Dimensions(unit:mm):10.0x10.0x4.0;

④ Inductance Value:2R2=2.2μH;

⑤ The Material Code;

⑥ Material Type;

※ Features

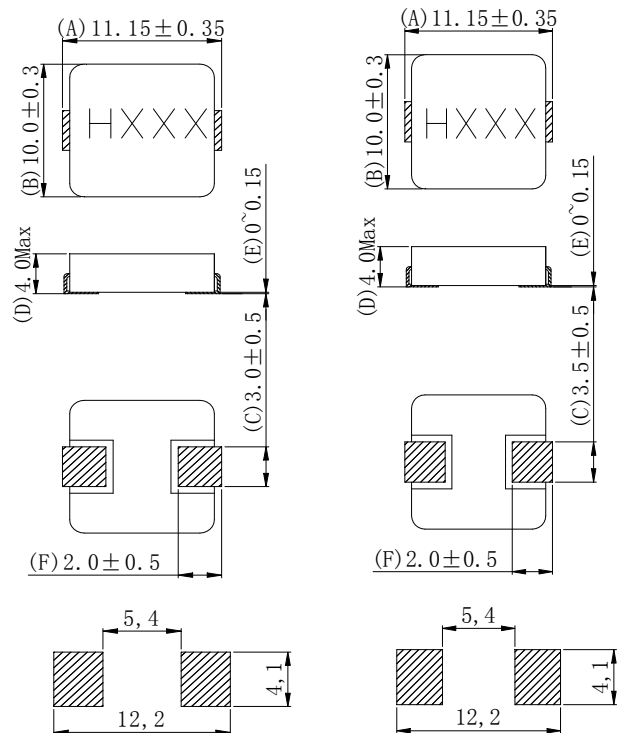
- High performance (Isat) realizde by metal dust core.
- Low profile:Thickness max.4.0mm
- Low loss and low resistance
- Capable of corresponding high frequency (1MHz)
- 100% lead (Pb) free meet RoHS s



※ Application

- DC/DC converters for laptop motherboards/CPU
- Thin type of on-board power supply module for Voltage regulator VRM for server

※ Dimensions in inches (unit:mm)



Suggested pad layout  
Dimensions are in mm

the diagram above applies to values 0.56uH and above

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Dimensions are in mm

the diagram above applies to values 0.56uH and below

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