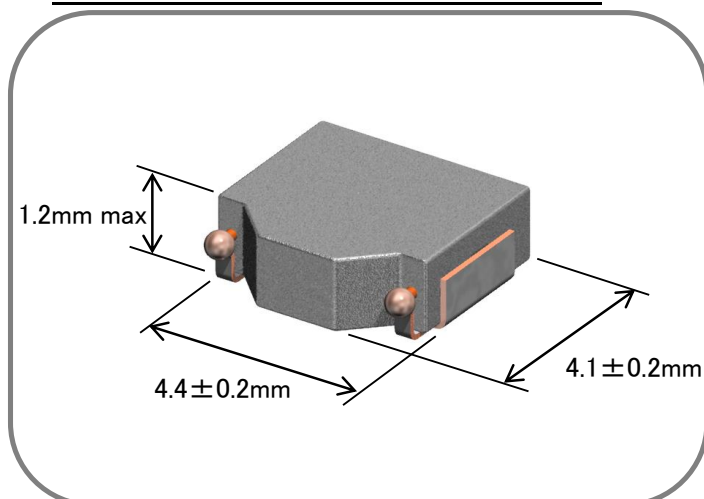


### Component Image & Dimension



### Features

- a) Small Footprint and Low Profile Design :  
Footprint : 4.4 x 4.1 mm Typ.  
Height : 1.2mm Max.
- b) High Power Handling Capability :  
Small Copper Loss  
Using Large Saturation Induction of Fe- based metals
- c) Wide Range Operating Temperature due to High Curie Temperature of metal core
- d) Automatic Mounting in Tape&Reel Package.

### Applications

Note Book & Mobile Computer, VRM,  
Cellular Phone, HDD etc.

### Electrical Specification

| TDK Identification | Inductance    |             | Test Freq.<br>(kHz) | DC Resistance    |                 | Rated DC Current  |                   |                   |
|--------------------|---------------|-------------|---------------------|------------------|-----------------|-------------------|-------------------|-------------------|
|                    | at 0A<br>(uH) | Tol.<br>(%) |                     | Spec.<br>(m-Ohm) | Typ.<br>(m-Ohm) | Idc 1<br>(A) max. | Idc 1<br>(A) typ. | Idc 2<br>(A) typ. |
| SPM4012T- R47M-CA  | 0.47          | +/-20%      | 100                 | 25 max           | 23              | 6.0               | 8.0               | 5.6               |
| SPM4012T- 1R0M-CA  | 1.0           | +/-20%      | 100                 | 45 max           | 38              | 4.8               | 6.0               | 4.3               |
| SPM4012T- 1R5M-CA  | 1.5           | +/-20%      | 100                 | 70 max           | 59              | 3.5               | 4.8               | 3.5               |
| SPM4012T- 2R2M-CA  | 2.2           | +/-20%      | 100                 | 95 max           | 82              | 3.3               | 4.4               | 2.9               |
| SPM4012T- 3R3M-CA  | 3.3           | +/-20%      | 100                 | 145 max          | 123             | 2.8               | 3.5               | 2.4               |
| SPM4012T- 4R7M-CA  | 4.7           | +/-20%      | 100                 | 205 max          | 178             | 2.0               | 2.5               | 2.0               |

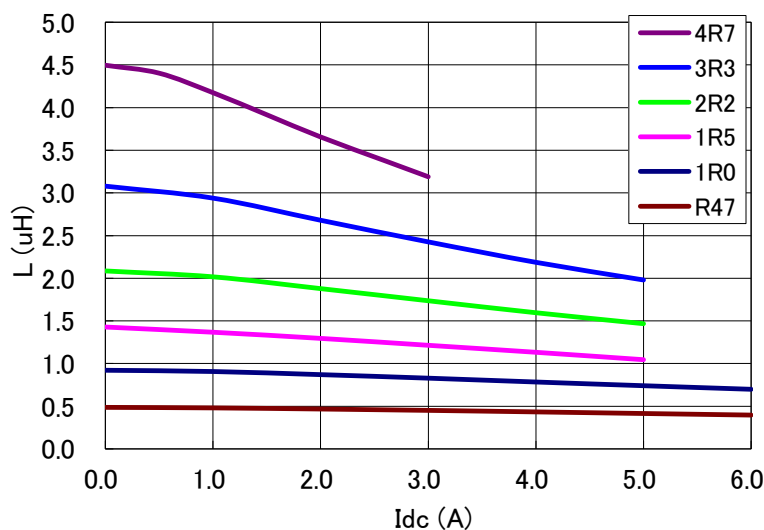
Note. Idc 1 : Based on the inductance change.( -30% Reduction from Nominal L Value )

Idc 2 : Based on the self temperature rise. (+40 deg typ.)

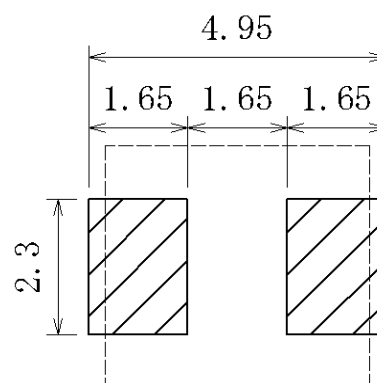
Operating Temperature Range: -40 °C ~ +125 °C (including self temperature rise)

**Caution: Please contact our sales person when you consider organic solvent or aqueous cleaning.**

### Inductance vs.DC Superposition



### Recommended pad layout



# Mouser Electronics

Authorized Distributor

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[TDK:](#)

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[SPM4012T-1R5M-CA](#)