# SMD Power Inductor

**TMPA606010SP-Series(N)-D**

## 1. Features

1. Shielded construction.
2. Capable of corresponding high frequency .
3. Low loss realized with low DCR.
4. High performance (Isat) realized by metal dust core.
5. Ultra low buzz noise, due to composite construction.
6. 100% Lead(Pb)-Free and RoHS compliant.
7. Operating temperature -40~+125℃(Including self - temperature rise)

Halogen-free

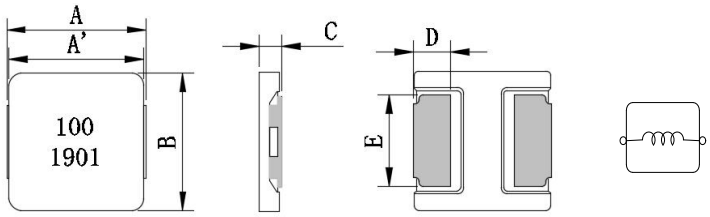
RoHS

## 2. Applications

Note PC power system，incl. IMVP-6

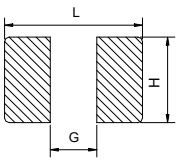
DC/DC converter .

## 3. Dimensions




| Series | A(mm) | A'(mm) | B(mm) | C(mm) | D(mm) | E(mm) |
|---|---|---|---|---|---|---|
| TMPA606010SP | 6.1±0.3 | 6.0±0.2 | 6.1±0.3 | 0.8±0.2 | 1.75±0.3 | 4.0±0.2 |

### Recommend PC Board Pattern




| L(mm) | G(mm) | H(mm) |
|---|---|---|
| 7.0 | 2.8 | 4.5 |

Note: 1. The above PCB layout reference only.
2. Recommend solder paste thickness at 0.12mm and above.

## 4. Part Numbering

| TMPA | 606010 | SP- | 100 | MN | - | D |
|---|---|---|---|---|---|---|
| A | B | C | D | E | | F |

A: Series
B: Dimension — BxC
C: Type — Standard.
D: Inductance — 100=10.0uH
E: Inductance Tolerance — M=±20%
F: Code — Marking: Black.100and 1901(19 YY, 01 WW,follow production date).

## 5. Specification

| Part Number | Inductance L0 (uH) ±20% | I rms ( A ) | I sat ( A ) | DCR (mΩ)Typ | DCR (mΩ)Max |
|---|---|---|---|---|---|
| TMPA606010SP-6R8MN-D | 6.80 | 2.1 | 2.5 | 164 | 197 |
| TMPA606010SP-100MN-D | 10.0 | 1.7 | 2.1 | 259 | 310 |

Note:

1. Test frequency : Ls : 100KHz /1.0V.
2. All test data referenced to 25℃ ambient.
3. Testing Instrument(or equ) : L: HP4284A,CH11025,CH3302,CH1320,CH1320S LCR METER / Rdc:CH16502,Agilent33420A MICRO OHMMETER.
4. Heat Rated Current (Irms) will cause the coil temperature rise approximately △T of 40℃
5. Saturation Current (Isat) will cause L0 to drop approximately 30%.
6. The part temperature (ambient + temp rise) should not exceed 125℃under worst case operating conditions.Circuit design,component,PCB trace size and thickness,airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
7. Special inquiries besides the above common used types can be met on your requirement.

# 6. Typical Performance Curves