SMD Power Inductor

TMPC1002H-Series(G)-D

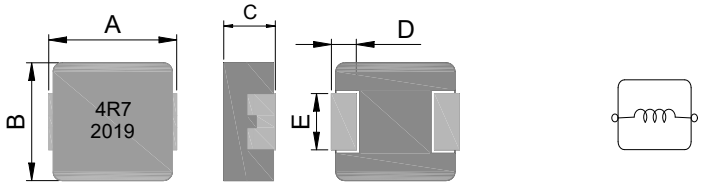
1. Features

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

2. Applications

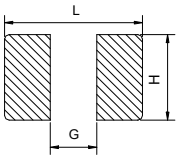
Commercial applications

3. Dimensions



Series	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)
TMPC1002H	11.0±0.5	10.0±0.3	1.8±0.2	2.3±0.3	3.0±0.3

Recommend PC Board Pattern



L(mm)	G(mm)	H(mm)
12.5	5.4	3.5

Note: 1. The above PCB layout reference only.
2. Recommend solder paste thickness at 0.15mm and above.

4. Part Numbering

TMPC	1002	H	-	4R7	MG	-	D
A	B	C		D	E		F

A: Series
B: Dimension — BxC
C: Type — Carbonyl Powder.
D: Inductance — 4R7=4.70uH
E: Inductance Tolerance — M=±20%
F: Code — Marking: Black.4R7 and 2019(20YY,19 WW,follow production date).

5. Specification

Part Number	Inductance (uH) ±20% @ 0 A DC	I rms (A)	I sat (A)	DCR (mΩ) Typ.	DCR (mΩ) Max.
TMPC1002H-R15MG-D	0.15	30.0	75.0	2.55	3.1
TMPC1002H-1R0MG-D	1.00	8.5	26.0	15	18
TMPC1002H-1R5MG-D	1.50	8.0	23.0	21	25
TMPC1002H-2R2MG-D	2.20	7.0	19.0	27	32
TMPC1002H-3R3MG-D	3.30	5.5	16.0	44	52
TMPC1002H-4R7MG-D	4.70	5.0	14.0	54	64
TMPC1002H-6R7MG-D	6.70	4.0	11.0	63	73
TMPC1002H-8R2MG-D	8.20	3.2	9.0	90	105

Note:

1. Test frequency : Ls : 100KHz /1.0V.
2. All test data referenced to 25℃ ambient.
3. Testing Instrument(or equ) : Agilent 4284A,E4991A,4339B,KEYSIGHT E4980A/AL,chroma3302,3250,16502.
4. Heat Rated Current (Irms) will cause the coil temperature rise approximately ΔT 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. Irms Testing : 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

6. Typical Performance Curves