

SMD Power Choke Coil

TMPC0502HP-Series(G)-D

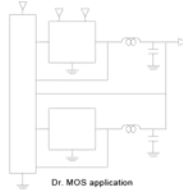
1. Features

1. Carbonyl powder inductor.
2. Compact design.
3. High current · low DCR · high efficiency.
4. Very low acoustic noise and very low leakage flux noise.
5. High reliability.
6. 100% Lead(Pb) & Halogen-Free and RoHS compliant.

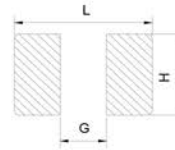
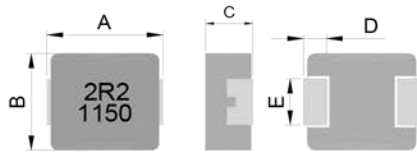


2. Applications

Note PC power system · incl. IMVP-6
DC/DC converter.



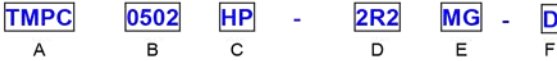
3. Dimensions


Recommend PC Board Pattern

L(mm)	G(mm)	H(mm)
6.2	2.2	2.8

Series	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)
TMPC0502HP	5.7±0.3	5.2±0.2	1.8±0.2	1.1±0.3	2.5±0.3

4. Part Numbering



- A: Series
B: Dimension
C: Type
D: Inductance
E: Inductance Tolerance
F: D/C

- BxC
H: Carbonyl powder, P: PAD broaden
2R2=2.2uH
M=±20%
印字:黑色, 2R2 及 D/C 1150 (D/C 前二碼是年份,後二碼是週期,依實際生產週期而定)

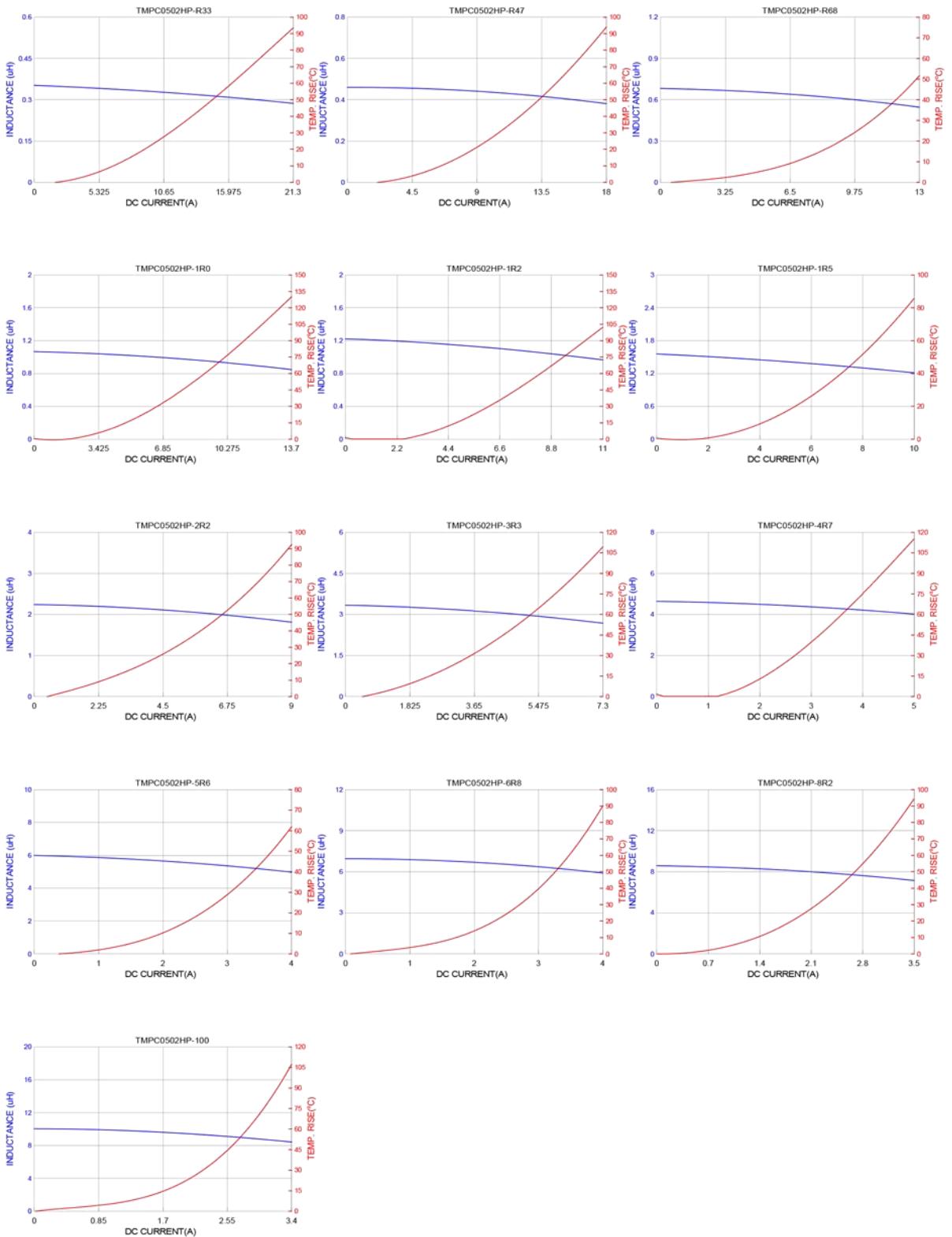
5. Specification

Part Number	Inductance L0 (uH) @ 0 A	I rms (A) typ.	I sat (A) typ.	DCR (mΩ) typ. @25°C	DCR (mΩ) max. @25°C
TMPC0502HP-R33MG-D	0.33±20%	12	21.3	6.3	7.3
TMPC0502HP-R47MG-D	0.47±20%	11.5	18	7.3	8.6
TMPC0502HP-R68MG-D	0.68±20%	10	12.8	11	12.4
TMPC0502HP-1R0MG-D	1.00±20%	7.0	13.7	17.5	20
TMPC0502HP-1R2MG-D	1.20±20%	6.2	11.0	23	28
TMPC0502HP-1R5MG-D	1.50±20%	5.5	9.8	26.5	30.5
TMPC0502HP-2R2MG-D	2.20±20%	4.2	9.0	42.0	50.0
TMPC0502HP-3R3MG-D	3.30±20%	3.3	7.3	66.0	76
TMPC0502HP-4R7MG-D	4.70±20%	2.8	5.0	103	116
TMPC0502HP-5R6MG-D	5.60±20%	2.5	4.0	112	122
TMPC0502HP-6R8MG-D	6.80±20%	2.4	3.8	130	150
TMPC0502HP-8R2MG-D	8.2±20%	2.3	3.5	148	171
TMPC0502HP-100MG-D	10±20%	2.3	3.4	180	199

Note:

1. Test frequency : L : 100KHz /1.0V
2. All test data referenced to 25°C ambient.
3. Testing Instrument : L/Q: HP4284A,CH11025,CH3302,CH1320 ,CH1320S LCR METER / Rdc:CH16502,Agilent33420A MICRO OHMMETER.
4. Heat Rated Current (I rms) will cause the coil temperature rise approximately Δt≤40°C (keep 1min.).
5. Saturation Current (I sat) will cause L0 to drop ≤ 20% typical. (keep quickly).
6. The part temperature (ambient + temp rise) should not exceed 125°C 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



SMD Power Choke Coil

TMPC0503H-Series(G)-D

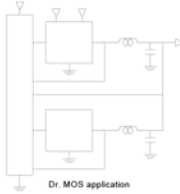
1. Features

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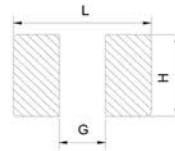
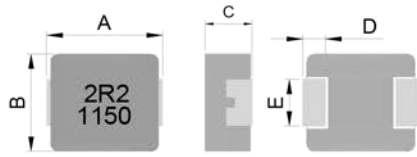


2. Applications

Note PC power system · incl. IMVP-6
DC/DC converter.



3. Dimensions


Recommend PC Board Pattern

L(mm)	G(mm)	H(mm)
6.5	2.5	1.8

Series	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)
TMPC0503H	5.7±0.3	5.2±0.2	2.8±0.2	1.1±0.3	1.5±0.2

4. Part Numbering

TMPC **0503** **H** - **2R2** **MG** - **D**
 A B C D E F

- A: Series
- B: Dimension
- C: Type
- D: Inductance
- E: Inductance Tolerance
- F: D/C
- BxC
- Carbonyl powder
- 2R2=2.2uH
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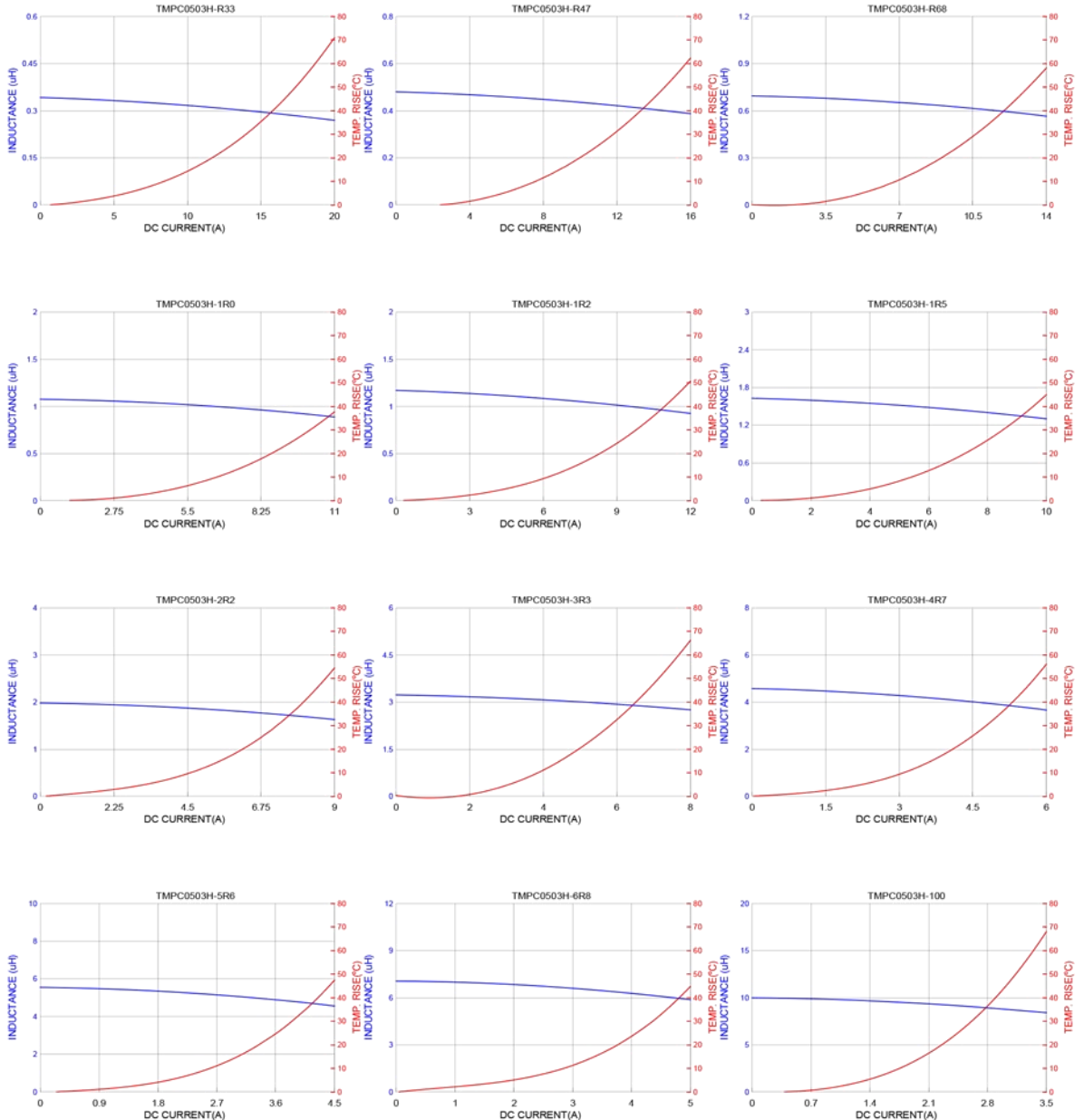
5. Specification

Part Number	Inductance L0 (uH) @ 0 A	I rms (A) typ.	I sat (A) typ.	DCR (mΩ) typ. @25°C	DCR (mΩ) max. @25°C
TMPC0503H-R33MG-D	0.33±20%	14	18	4.3	5.0
TMPC0503H-R47MG-D	0.47±20%	12	16	6.4	7.4
TMPC0503H-R68MG-D	0.68±20%	8.5	14	10	12
TMPC0503H-1R0MG-D	1.00±20%	7.0	11	13	14
TMPC0503H-1R2MG-D	1.20±20%	6.5	11	14	16
TMPC0503H-1R5MG-D	1.50±20%	6.0	10	16	25
TMPC0503H-2R2MG-D	2.20±20%	5.5	9.0	25	35
TMPC0503H-3R3MG-D	3.30±20%	5.0	8.0	32	38
TMPC0503H-4R7MG-D	4.70±20%	4.6	6.0	50	53
TMPC0503H-5R6MG-D	5.60±20%	4.25	4.50	55	63
TMPC0503H-6R8MG-D	6.80±20%	4.0	4.3	68	76.2
TMPC0503H-100MG-D	10.0±20%	2.75	3.50	110	128

Note:

1. Test frequency : L : 100KHz /1.0V
2. All test data referenced to 25°C ambient.
3. Testing Instrument : L/Q: HP4284A,CH11025,CH3302,CH1320 ,CH1320S LCR METER / Rdc:CH16502,Agilent33420A MICRO OHMMETER.
4. Heat Rated Current (I rms) will cause the coil temperature rise approximately Δt≤40°C (keep 1min.).
5. Saturation Current (I sat) will cause L0 to drop ≤ 20% typical. (keep quickly).
6. The part temperature (ambient + temp rise) should not exceed 125°C 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.
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6. Typical Performance Curves



SMD Power Choke Coil

TMPC0512HP-Series(G)-D

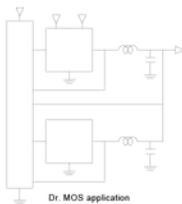
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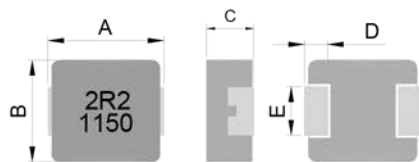
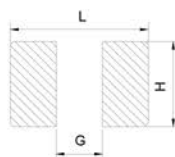


2. Applications

Note PC power system · incl. IMVP-6
DC/DC converter.



3. Dimensions


Recommend PC Board Pattern


L(mm)	G(mm)	H(mm)
6.2	2.2	2.8

Series	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)
TMPC0512HP	5.7±0.3	5.2±0.2	1.0±0.2	1.1±0.3	2.5±0.3

4. Part Numbering



A: Series

B: Dimension

C: Type

D: Inductance

E: Inductance Tolerance

F: D/C

BxC

H: Carbonyl powder, P: PAD broaden

2R2=2.2uH

M=±20% : Y=±30%

印字:黑色, 2R2 及 D/C 1150 (D/C 前二碼是年份, 後二碼是週期, 依實際生產週期而定)

5. Specification

Part Number	Inductance L0 (uH) @ 0 A	I rms (A) typ.	I sat (A) typ.	DCR (mΩ) typ. @25°C	DCR (mΩ) max. @25°C
TMPC0512HP-R10YG-D	0.10±30%	14	14.5	4.3	5.2
TMPC0512HP-R22YG-D	0.22±30%	10.7	14.0	5.5	6.7
TMPC0512HP-R33MG-D	0.33±20%	8.5	13.5	7.8	9.4
TMPC0512HP-R36MG-D	0.36±20%	8.0	13	10	11.5
TMPC0512HP-R47MG-D	0.47±20%	7.0	11	13.6	15.8
TMPC0512HP-R68MG-D	0.68±20%	6.0	9.0	21.5	24.5
TMPC0512HP-1R0MG-D	1.00±20%	5.0	6.0	26	30
TMPC0512HP-1R2MG-D	1.20±20%	4.5	5.5	33	40
TMPC0512HP-1R5MG-D	1.50±20%	4.0	5.0	38	44
TMPC0512HP-2R2MG-D	2.20±20%	3.5	4.0	65	75
TMPC0512HP-3R3MG-D	3.30±20%	3.0	3.8	75	86
TMPC0512HP-4R7MG-D	4.70±20%	2.5	3.2	100	115
TMPC0512HP-5R6MG-D	5.60±20%	2.4	3.2	175	201
TMPC0512HP-6R8MG-D	6.80±20%	2.0	3.0	193	222
TMPC0512HP-8R2MG-D	8.20±20%	1.7	2.8	327	378

Part Number	Inductance L0 (uH) @ 0 A	I rms (A) typ.	I sat (A) typ.	DCR (mΩ) typ. @25°C	DCR (mΩ) max. @25°C
TMPC0512HP-100MG-D	10.0±20%	1.5	1.8	335	385

Note:

1. Test frequency : L : 100KHz /1.0V
2. All test data referenced to 25°C ambient.
3. Testing Instrument : L/Q: HP4284A,CH11025,CH3302,CH1320 ,CH1320S LCR METER / Rdc:CH16502,Agilent33420A MICRO OHMMETER.
4. Heat Rated Current (Irms) will cause the coil temperature rise approximately $\Delta t \leq 40^\circ\text{C}$ (keep 1min.).
5. Saturation Current (Isat) will cause L0 to drop $\leq 20\%$ typical. (keep quickly).
6. The part temperature (ambient + temp rise) should not exceed 125°C 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.
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