

# SMD Power Inductor

TMPC0518HP-Series(G)-D

## 1. Features

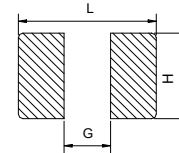
1. Carbonyl Powder.
2. Compact design.
3. High current, low DCR, high efficiency.
4. Very low acoustic noise and very low leakage flux noise.
5. High reliability.
6. 100% Lead(Pb)-Free and RoHS compliant.
7. Operating temperature -40~+125°C(Including self - temperature rise)



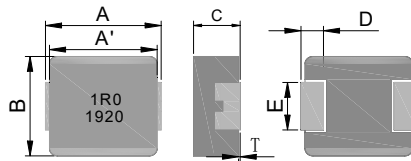
## 2. Applications

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

## Recommend PC Board Pattern



## 3. Dimensions



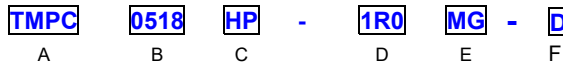
L(mm)	G(mm)	H(mm)
6.2	2.2	2.8

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

Series	A(mm)	A'(mm)	B(mm)	C(mm)	D(mm)	E(mm)	T(mm)	F(mm)	G(mm)	G'(mm)
TMPC0518HP	5.7±0.3	5.3±0.3	5.2±0.2	1.6±0.2	1.1±0.3	2.5±0.3	0~+0.2	0.85±0.3	0.4±0.2	0.45±0.2

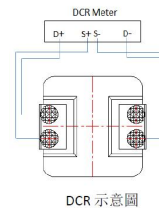
F: 電極高度 G:爬錫高度 G':未爬錫高度

## 4. Part Numbering



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

BxC  
H:Carbonyl Powder,P:PAD broaden.  
1R0=1.00uH  
M=±20%  
Marking: Black.1R0 and 1920(19 YY, 20 WW, follow production date).



D+:電流驅動端子,高電位端.  
D-:電流驅動端子,低電位端.  
S+:電位偵測端子,高電位端.  
S-:電位偵測端子,低電位端

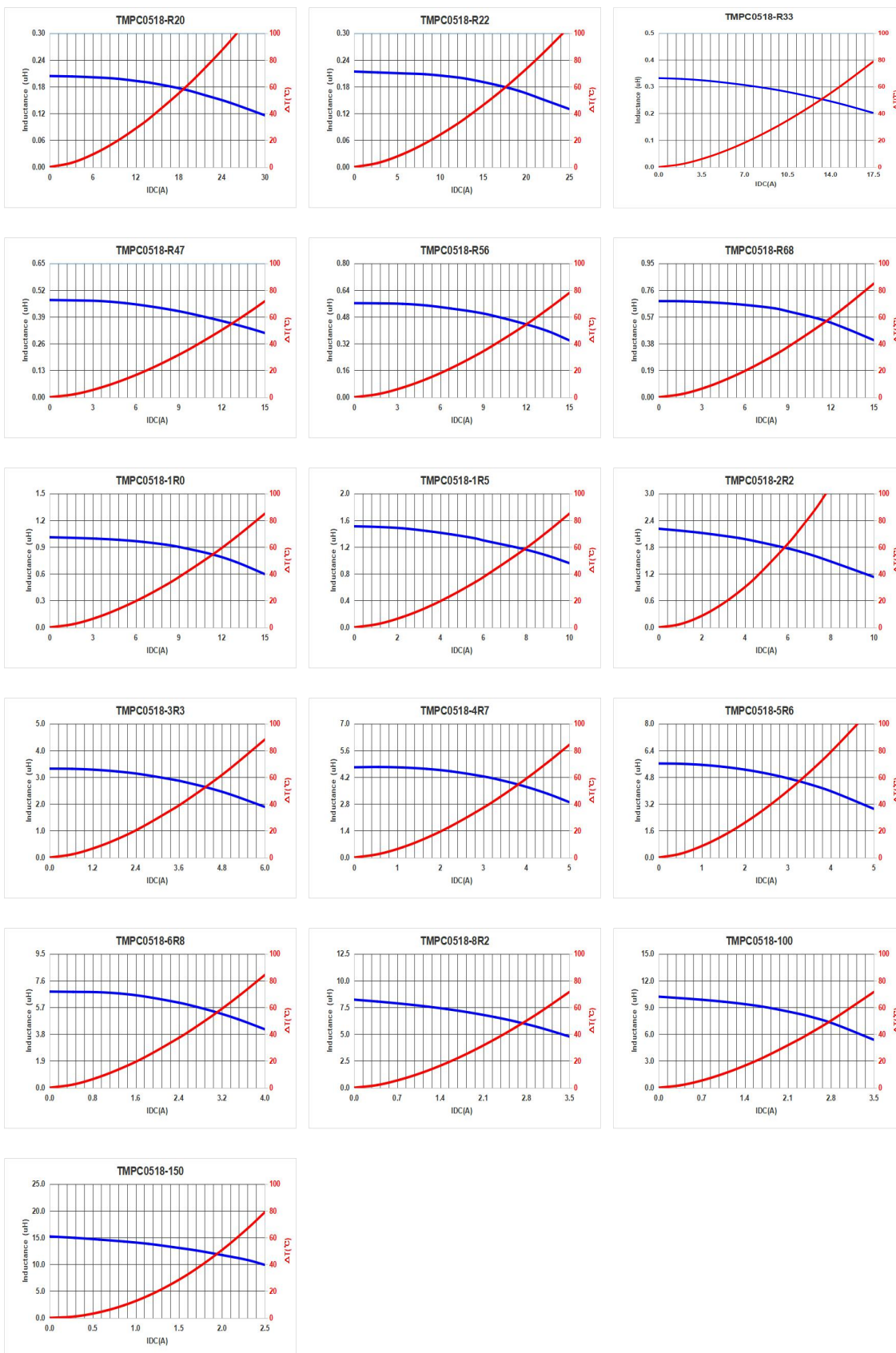
## 5. Specification

Part Number	Inductance L0 (uH)±20%	I rms ( A ) Typ	I sat ( A ) Typ	DCR(mΩ) Typ.@25℃	DCR(mΩ) Max.@25℃
TMPC0518HP-R20YG-D	0.20±30%	14	25	3.6	4.1
TMPC0518HP-R20MG-D	0.20	14	25	3.6	4.1
TMPC0518HP-R22MG-D	0.22	13	22	4.2	5.0
TMPC0518HP-R33MG-D	0.33	11	15	7.5	8.6
TMPC0518HP-R47MG-D	0.47	10	14	9.8	11.3
TMPC0518HP-R56MG-D	0.56	9.5	13.5	11	13
TMPC0518HP-R68MG-D	0.68	9	13	12.4	14.3
TMPC0518HP-1R0MG-D	1.0	6.8	10	18.2	21
TMPC0518HP-1R5MG-D	1.5	6.0	9.0	26	30
TMPC0518HP-2R2MG-D	2.2	4.5	7.5	42	48.3
TMPC0518HP-3R3MG-D	3.3	3.5	5.0	60	69
TMPC0518HP-4R7MG-D	4.7	3.0	4.5	85	98
TMPC0518HP-5R6MG-D	5.6	2.5	4.0	110	127
TMPC0518HP-6R8MG-D	6.8	2.4	3.5	118	137
TMPC0518HP-8R2MG-D	8.2	2.3	3.0	143	165
TMPC0518HP-100MG-D	10	2.3	2.8	165	190
TMPC0518HP-150MG-D	15.0	1.7	2.3	275	318

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 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. Special inquiries besides the above common used types can be met on your requirement.

### 10. Typical Performance Curves



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