SMD Power Inductor

TMPF0605AV-Series(N)-D

1. Features

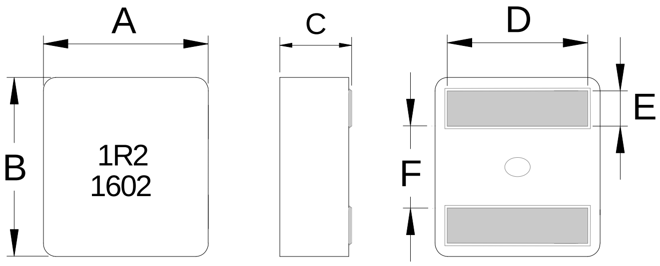
1. Soft saturation.
2. High current，low DCR，high efficiency.
3. Very low acoustic noise and very low leakage flux noise.
4. High reliability.
5. 100% Lead(Pb)-Free and RoHS compliant.
6. High reliability -Reliability test meet AEC-Q200.
7. Operating temperature: -55~+155℃(Including self - temperature rise)

2. Applications

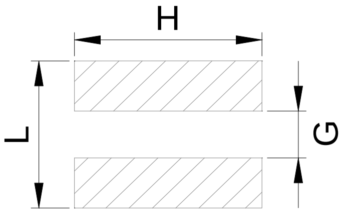
Note PC power system，incl. IMVP-6

DC/DC converter .

3. Dimensions



Recommend PC Bo ard Pattern



L(mm)	G(mm)	H(mm)
5.6 ref	2.5 ref	5.6 ref

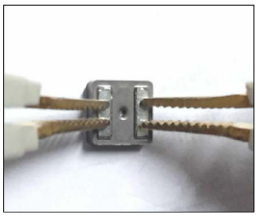
Note: 1、The above PCB layout reference only.
2、Recommend solder paste thickness at 0.15mm and above.

Series	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)
TMPF0605AV	6.6±0.2	6.4±0.2	4.8±0.2	See Spec	1.4±0.2	2.6±0.25

4. Part Numbering

TMPF	0605	AV	-	1R2	MN	-	D
A	B	C		D	E		F

A: Series	
B: Dimension	BxC
C: Type	Material. V: Vehicle
D: Inductance	1R2=1.20uH
E: Inductance Tolerance	M=±20%
F: Code	Marking: Black.1R2 and 1602(16 YY, 02 WW,follow production date).



DCR Test

5. Specification

Part Number	Inductance (uH) ±20% @ 0 A	I rms(A) Typ		I sat(A)		DCR (mΩ) Typ.	DCR (mΩ) Max.	D (mm) ±0.3
		20℃ rise	40℃ rise	Typ	Max			
TMPF0605AV-1R0MN-D	1.00	15	20	23.0	18.0	4.1	4.52	5.3
TMPF0605AV-1R2MN-D	1.20	14	18	22.0	16.0	5.3	5.83	5.3
TMPF0605AV-1R5MN-D	1.50	13	17	19.5	14.5	5.7	6.3	5.3
TMPF0605AV-1R8MN-D	1.80	12	16	18.5	13.5	6.4	7.1	5.3
TMPF0605AV-2R2MN-D	2.20	10	13	16.0	12.0	7.7	8.5	5.2
TMPF0605AV-3R3MN-D	3.30	8.5	11	12.5	10.0	11.2	12.5	5.2
TMPF0605AV-4R3MN-D	4.30	7.0	9.0	11.0	8.5	15.1	16.2	5.2
TMPF0605AV-4R7MN-D	4.70	6.5	8.5	10.5	8.0	16.7	18.4	5.2

Note:

1. Test frequency : L : 100KHz /0.1V.
2. All test data referenced to 25℃ ambient.
3. Testing Instrument : L: HP4284A,HP4395A,CH11025,CH3302,CH1320 ,CH1320S LCR METER / Rdc:CH16502,Agilent33420A MICRO OHMMETER,or EQU.
4. Current that causes the specified temperature rise from 25°C ambient.
5. Saturation Current (Isat) will cause L0 to drop approximately 30%.
6. The part temperature (ambient + temp rise) should not exceed 155℃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