

**SMD Power Inductor** TMPC1206HPV-Series(G)-D

**1. Features**

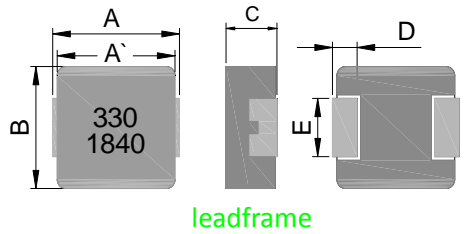
1. Magnetic metal powder inductor.
2. Compact design.
3. High current , low DCR , high efficiency.
4. Very low acoustic noise and very low leakage flux noise.
5. High reliability.
6. 100% Lead(Pb)-Free and RoHS compliant.
7. High reliability -Reliability test complied to AEC-Q200
8. Operating temperature: -55~+125℃ (Including self-temperature rise)



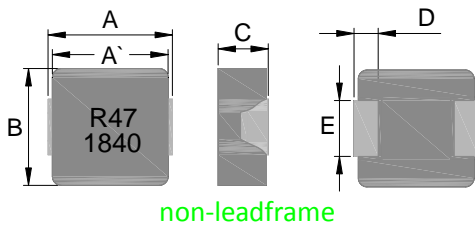
**2. Applications**

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

**3. Dimensions**



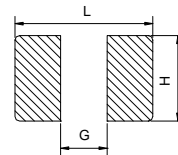
leadframe



non-leadframe



**Recommend PC Board Pattern**

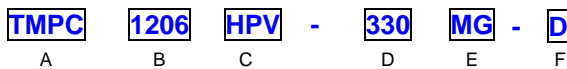


Series	A(mm)	A'(mm)	B(mm)	C(mm)	D(mm)	E(mm)
TMPC1206HP	13.5±0.5	12.5±0.3	12.5±0.3	5.7±0.3	2.3±0.3	4.7±0.3

L(mm)	G(mm)	H(mm)
14.2	8.0	5.0

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

**4. Part Numbering**



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

BxC  
 HP:H: Carbonyl Powder,P:PAD broaden. V: Vehicle.  
 330=33uH  
 M=±20%  
 印字:黑色.330 及 D/C 1840 (18 年,40 週期,依實際生產週期而定)

## 5. Specification

Part Number	Inductance L0 (uH)±20% @ 0 A	I rms (A) Typ.	I sat 1 (A) Typ.	I sat 2 (A) Typ.	DCR (mΩ) Typ. @25°C	DCR (mΩ) Max. @25°C	Type
TMPC1206HPV-R47MG-D	0.47	38	60	64	0.92	1.3	non-leadframe
TMPC1206HPV-R56MG-D	0.56	35	56	60	1.15	1.5	non-leadframe
TMPC1206HPV-R68MG-D	0.68	33	53	57	1.33	1.7	non-leadframe
TMPC1206HPV-1R0MG-D	1.00	29	45	53	1.8	2.4	non-leadframe
TMPC1206HPV-1R2MG-D	1.20	28	44	51	2.1	2.8	non-leadframe
TMPC1206HPV-1R5MG-D	1.50	26	43	50	2.7	3.2	non-leadframe
TMPC1206HPV-1R9MG-D	1.90	22	36	44	3.7	4.3	leadframe
TMPC1206HPV-2R2MG-D	2.20	21	34	43	4.0	4.7	leadframe
TMPC1206HPV-2R7MG-D	2.70	19	31	40	4.6	5.4	leadframe
TMPC1206HPV-3R3MG-D	3.30	17	28	35	5.8	7.1	leadframe
TMPC1206HPV-4R7MG-D	4.70	16	25	30	9.5	11.5	leadframe
TMPC1206HPV-5R6MG-D	5.60	15.5	22	28	10.8	12.6	leadframe
TMPC1206HPV-6R8MG-D	6.80	15	19	25	12	13.8	leadframe
TMPC1206HPV-8R2MG-D	8.20	11	17	23	13.6	16	leadframe
TMPC1206HPV-100MG-D	10.0	11	15.5	21	18	20.7	leadframe
TMPC1206HPV-120MG-D	12.0	9.5	13.5	18	20	23	leadframe
TMPC1206HPV-150MG-D	15.0	9.0	13	16	25	29	leadframe
TMPC1206HPV-180MG-D	18.0	8.5	12	15	30	35	leadframe
TMPC1206HPV-220MG-D	22.0	8.0	11	14	34	39.5	leadframe
TMPC1206HPV-270MG-D	27.0	7.0	9.0	13	49	56	leadframe
TMPC1206HPV-330MG-D	33.0	6.0	8.0	12.0	65	75	leadframe
TMPC1206HPV-470MG-D	47.0	5.5	7.0	11.0	80	90	leadframe
TMPC1206HPV-560MG-D	56.0	5.3	6.5	10	101	118	leadframe
TMPC1206HPV-680MG-D	68.0	5.0	6.0	9.0	120	140	leadframe
TMPC1206HPV-820MG-D	82.0	4.5	5.5	8.5	138	161	leadframe
TMPC1206HPV-101MG-D	100	4.0	5.0	8.0	180	200	leadframe
TMPC1206HPV-121MG-D	120	3.5	4.5	7.0	210	235	leadframe
TMPC1206HPV-151MG-D	150	3.0	4.0	6.0	300	350	leadframe

### Note:

1. Test frequency : L : 100KHz /1.0V;
2. All test data referenced to 25°C ambient.
3. Testing Instrument : L: 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 of 40°C.
5. Saturation Current (I sat 1) will cause L0 to drop approximately 20%.  
Saturation Current (I sat 2) will cause L0 to drop approximately 30%
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

