

# Power Inductor

**HPC201610BMV-SERIES**

## 1、 Features

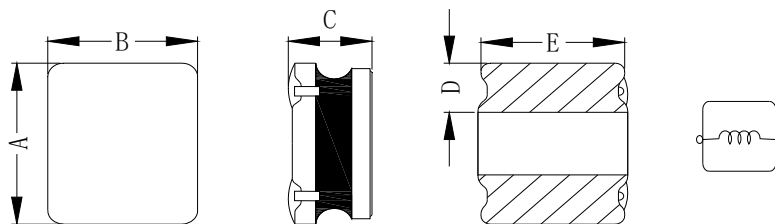
1. This specification applies Low Profile Power Inductors.
2. 100% Lead(Pb) & Halogen-Free and RoHS compliant.
3. High reliability -Reliability tests comply to AEC-Q200.



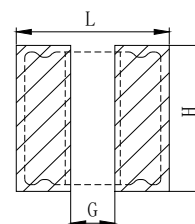
## 2、 Applications

Automotive applications.

## 3、 Dimension



### Recommended Land pattern



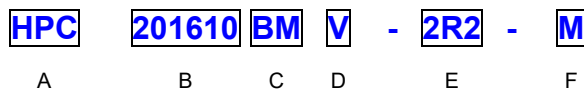
Series	*A(mm)	*B(mm)	*C(mm)	D(mm)	E(mm)
HPC201610BMV	2.0±0.2	1.6±0.2	0.9±0.1	0.7±0.3	1.6±0.2

L(mm)	G(mm)	H(mm)
2.5	0.5	2.1

\*Dimensions are not including the termination. For maximum overall dimensions with termination , add 0.1mm.

Note: 1. The above PCB layout reference only.  
2. Recommend solder paste thickness at 0.10mm and above.

## 4、 Part Numbering



- A: Series
- B: Dimension
- C: Lead Free
- D: Code                                      V=Vehicle
- E: Inductance                                2R2=2.2uH
- F: Inductance Tolerance                    K=± 10%, L=± 15%,M=± 20%,Y=± 30%.

## 5、Specification

TAI-TECH Part Number	Inductance L0 A(uH)	I rms (A)		I sat (A)		DCR (mΩ)	
		Typ	max	typ	max	typ	max
HPC201610BMV-R24M	0.24	5.20	4.80	4.10	3.80	20	24
HPC201610BMV-R33M	0.33	4.60	4.00	3.30	3.00	29	34.8
HPC201610BMV-R47M	0.47	4.00	3.70	2.90	2.70	37	45
HPC201610BMV-R68M	0.68	3.60	3.30	2.50	2.30	50	60
HPC201610BMV-1R0M	1.00	3.10	2.80	2.00	1.80	67	80.4
HPC201610BMV-1R5M	1.50	2.50	2.10	1.60	1.40	98	118
HPC201610BMV-2R2M	2.20	2.10	1.90	1.30	1.10	140	168
HPC201610BMV-3R3M	3.30	1.70	1.40	1.10	0.95	210	252
HPC201610BMV-4R7M	4.70	1.30	1.10	0.90	0.80	395	474
HPC201610BMV-5R6M	5.60	1.10	0.90	0.85	0.77	415	498
HPC201610BMV-6R8M	6.80	0.90	0.80	0.80	0.75	480	576
HPC201610BMV-8R2M	8.20	0.80	0.70	0.70	0.65	630	756
HPC201610BMV-100M	10.0	0.72	0.67	0.62	0.57	700	840
HPC201610BMV-150M	15.0	0.60	0.55	0.46	0.43	1200	1440
HPC201610BMV-220M	22.0	0.50	0.45	0.38	0.35	1800	2160

Note:

1. Test frequency : Ls : 100KHz /1.0V.
2. All test data referenced to 25°C ambient.
3. Testing Instrument(or equ) : Agilent 4284A,E4991A,4339B,KEYSIGHT E4980A/AL,chroma3302,3250,16502.
4. Heat Rated Current (I rms) will cause the coil temperature rise approximately Δ T of 40°C
5. Saturation Current (Isat) 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. I rms 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 I rms and Isat.

### 11、Typical Performance Curves

