

Power Inductor

HPC3015BMV-SERIES

1、 Features

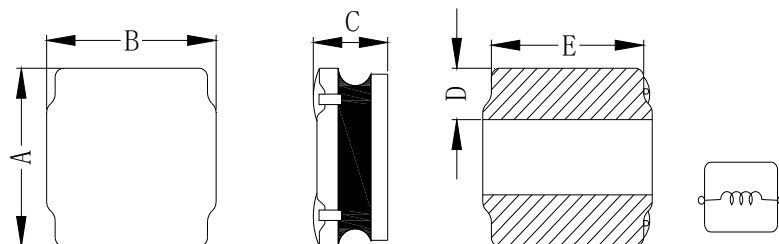
1. This specification applies Low Profile Power Inductors.
2. 100% Lead(Pb) & Halogen-Free and RoHS compliant.
3. High reliability -Reliability tests comply to AEC-Q200.



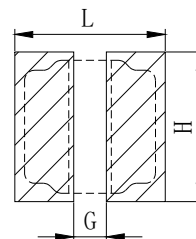
2、 Applications

Automotive applications.

3、 Dimension



Recommended Land pattern



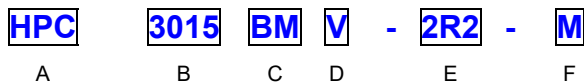
Series	*A(mm)	*B(mm)	*C(mm)	D(mm)	E(mm)
HPC3015MBV	3.0±0.2	3.0±0.2	1.3±0.2	0.9±0.3	2.7±0.3

L(mm)	G(mm)	H(mm)
3.5	0.9	3.5

*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
HPC3015BMV-R24M	0.24	5.00	4.50	6.00	5.50	13	16
HPC3015BMV-R47M	0.47	3.70	3.30	4.30	4.00	18	22
HPC3015BMV-R68M	0.68	3.50	3.20	3.80	3.50	23	28
HPC3015BMV-1R0M	1.00	3.00	2.70	3.00	2.70	30	36
HPC3015BMV-1R5M	1.50	2.70	2.50	2.40	2.10	36	43
HPC3015BMV-2R2M	2.20	2.50	2.30	2.10	1.90	60	72
HPC3015BMV-3R3M	3.30	2.20	2.00	1.70	1.50	80	96
HPC3015BMV-4R7M	4.70	1.90	1.70	1.50	1.30	112	134
HPC3015BMV-5R6M	5.60	1.80	1.60	1.40	1.20	135	162
HPC3015BMV-6R8M	6.80	1.70	1.50	1.30	1.10	172	206
HPC3015BMV-100M	10.0	1.50	1.30	1.00	0.90	220	264
HPC3015BMV-150M	15.0	1.20	1.00	0.85	0.72	310	372
HPC3015BMV-180M	18.0	1.10	0.92	0.73	0.65	380	456
HPC3015BMV-220M	22.0	1.00	0.85	0.68	0.59	450	540
HPC3015BMV-330M	33.0	0.85	0.75	0.57	0.51	780	940
HPC3015BMV-470M	47.0	0.70	0.60	0.46	0.41	1200	1440
HPC3015BMV-101M	100	0.40	0.35	0.33	0.30	3400	4080

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 (Irms) will cause the coil temperature rise approximately ΔT 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

