

Power Inductor

HPC3012BMV-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.

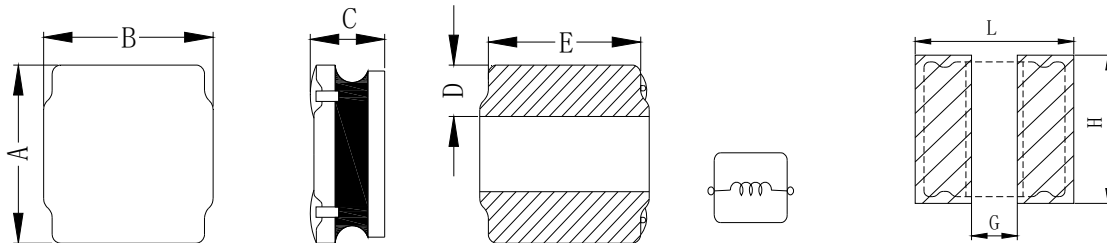


2、 Applications

Automotive applications.

Recommended Land pattern

3、 Dimension



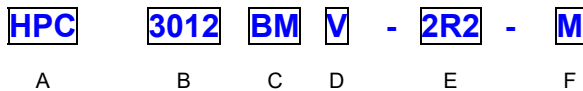
Series	*A(mm)	*B(mm)	*C(mm)	D(mm)	E(mm)
HPC3012BMV	3.0±0.2	3.0±0.2	1.0±0.2	0.9±0.3	2.7±0.3

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 (uH)	I rms (A)		I sat (A)		DCR (mΩ)	
		typ	max	typ	max	typ	max
HPC3012BMV-R22M	0.22	6.20	5.70	8.00	7.00	15	19
HPC3012BMV-R47M	0.47	5.20	4.80	4.80	4.40	24	29
HPC3012BMV-R68M	0.68	4.80	4.50	4.30	4.00	31	37
HPC3012BMV-1R0M	1.00	4.20	3.80	3.60	3.30	40	48
HPC3012BMV-1R2M	1.20	4.00	3.50	3.30	3.00	47	56
HPC3012BMV-1R5M	1.50	3.60	3.30	3.00	2.60	52	62
HPC3012BMV-2R2M	2.20	2.90	2.50	2.40	2.10	75	90
HPC3012BM-2R7M	2.70	2.60	2.30	2.10	1.90	95	114
HPC3012BMV-3R3M	3.30	2.40	2.10	1.80	1.60	108	130
HPC3012BMV-4R7M	4.70	2.10	1.70	1.50	1.30	140	168
HPC3012BMV-5R6M	5.60	1.90	1.60	1.40	1.20	200	240
HPC3012BMV-6R8M	6.80	1.70	1.40	1.30	1.10	210	252
HPC3012BMV-100M	10.0	1.50	1.20	1.10	0.90	288	345
HPC3012BMV-150M	15.0	1.20	1.00	0.80	0.70	400	480
HPC3012BMV-220M	22.0	0.90	0.80	0.70	0.63	700	840
HPC3012BMV-330M	33.0	0.80	0.70	0.61	0.56	1100	1320
HPC3012BMV-470M	47.0	0.65	0.60	0.52	0.47	1500	1800

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 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

