

Power Inductor

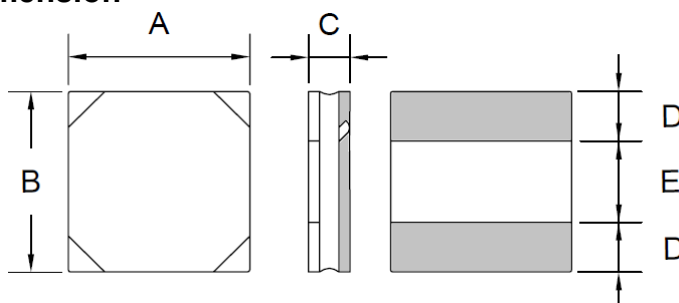
AHP4012HV-SERIES

1. Features

1. This specification applies Low Profile Power Inductors.
2. 100% Lead(Pb) & Halogen-Free and RoHS compliant.
3. High reliability -Reliability test comply with AEC-Q200
4. Operating temperature -55~+125°C (Including self - temperature rise)



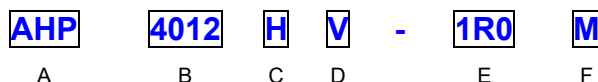
2. Dimension



Series	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)
AHP4012HV	4.0±0.2	4.0±0.2	1.2 max.	1.4±0.25	1.2±0.25

Units: mm

3. Part Numbering



A: Series

B: Dimension

C: Lead Free

D: Category Code

E: Inductance

F: Inductance Tolerance

V=Vehicle

1R0=1.0uH

M=±20%

4. Specification

TAI-TECH Part Number	Inductance (uH)	Tolerance (%)	Test Frequency (Hz)	DCR (Ω) typ.	DCR (Ω) Max.	I sat (A)typ.	I sat (A)Max.	I rms (A)typ.	I rms (A)Max.
AHP4012HV-R47M	0.47	±20%	1V100K	0.028	0.033	10.00	8.00	6.00	5.00
AHP4012HV-R68M	0.68	±20%	1V100K	0.036	0.043	8.00	7.00	5.00	4.00
AHP4012HV-1R0M	1.0	±20%	1V100K	0.040	0.050	6.50	5.50	3.80	3.50
AHP4012HV-1R5M	1.5	±20%	1V100K	0.050	0.060	5.60	4.70	3.70	3.30
AHP4012HV-2R2M	2.2	±20%	1V100K	0.065	0.078	4.50	4.00	3.40	3.00
AHP4012HV-3R3M	3.3	±20%	1V100K	0.100	0.120	4.00	3.30	2.80	2.50
AHP4012HV-4R7M	4.7	±20%	1V100K	0.125	0.145	3.00	2.70	2.30	2.00
AHP4012HV-6R8M	6.8	±20%	1V100K	0.150	0.180	2.20	1.90	2.10	1.80
AHP4012HV-100M	10.0	±20%	1V100K	0.280	0.330	2.00	1.70	1.60	1.40

Note:

Isat : Based on inductance change ($\Delta L/L0 : \leq 30\%$) @ ambient temp. 25°C

Irms : Based on temperature rise ($\Delta T : 40^\circ\text{C}.$) Max

Measurement board data

Material : FR4

Board dimensions : 100 X 50 X 1.6t mm

Pattern dimensions: 45 X 30 mm (Double side board)

Pattern thickness : 50 μm

