

Power Inductor

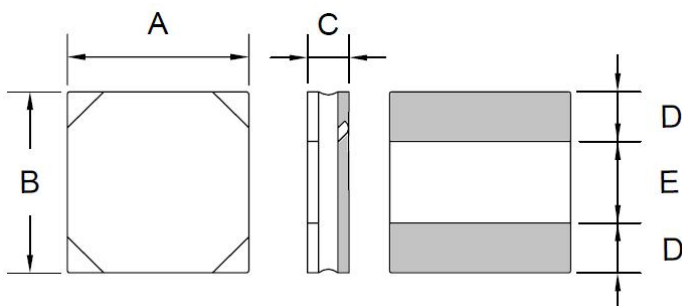
AHP3012HF-SERIES

1. Features

1. This specification applies Low Profile Power Inductors.
2. 100% Lead(Pb) & Halogen-Free and RoHS compliant.
3. Operating temperature : -40~+125°C (Including self - temperature rise).



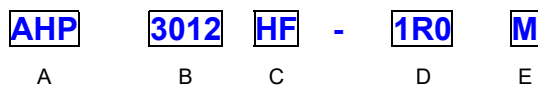
2. Dimension



Series	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)
AHP3012HF	3.0±0.2	3.0±0.2	1.2max.	1.0 ref.	1.0 ref.

Units: mm

3. Part Numbering



- A: Series
- B: Dimension
- C: Lead Free
- D: Inductance 1R0=1.0uH
- E: Inductance Tolerance M=±20%

4. Specification

TAI-TECH Part Number	Inductance (uH)	Tolerance (%)	Test Frequency (Hz)	DCR (Ω) typ.	DCR (Ω) Max.	I sat (A)	I rms (A)
AHP3012HF-R33M	0.33	$\pm 20\%$	1V/1M	0.020	0.024	9.00	5.50
AHP3012HF-R47M	0.47	$\pm 20\%$	1V/1M	0.025	0.030	7.50	5.20
AHP3012HF-R68M	0.68	$\pm 20\%$	1V/1M	0.032	0.038	6.50	4.50
AHP3012HF-1R0M	1.0	$\pm 20\%$	1V/1M	0.042	0.049	5.20	4.00
AHP3012HF-1R5M	1.5	$\pm 20\%$	1V/1M	0.060	0.072	4.50	3.50
AHP3012HF-2R2M	2.2	$\pm 20\%$	1V/1M	0.090	0.108	3.60	2.80
AHP3012HF-3R3M	3.3	$\pm 20\%$	1V/1M	0.130	0.156	3.00	2.10
AHP3012HF-4R7M	4.7	$\pm 20\%$	1V/1M	0.180	0.216	2.60	1.80
AHP3012HF-6R8M	6.8	$\pm 20\%$	1V/1M	0.250	0.300	2.20	1.50
AHP3012HF-100M	10.0	$\pm 20\%$	1V/1M	0.290	0.350	1.50	1.40

Note:

Isat : Saturation Current (Isat) will cause L0 to drop approximately 30%.

Irms : Heat Rated Current (Irms) will cause the coil temperature rise approximately ΔT of 40°C.

Rated DC Current : The less value which is Irms or Isat.

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 μ m

5. Typical Performance Curves

