Power Inductor

AHP252012FA-SERIES

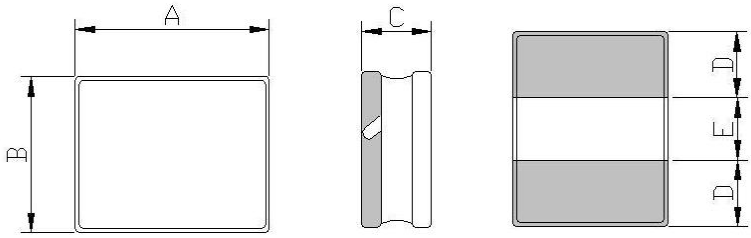
1. Features

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

Halogen-free

RoHS

2. Dimension



Series	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)
AHP252012FA	2.5 -0.1/+0.2	2.0 -0.1/+0.2	1.2Max	0.75 ref.	1.00 ref.

3. Part Numbering

AHP	252012	FA	-	1R0	M
A	B	C		D	E

A: Series
B: Dimension
C: Lead Free Material
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)
AHP252012FA-R24M	0.24	±20	1V/1M	0.0145	0.019	8.40	6.00(1) 7.00(2)
AHP252012FA-R33M	0.33	±20	1V/1M	0.016	0.021	8.00	5.50(1) 6.50(2)
AHP252012FA-R47M	0.47	±20	1V/1M	0.017	0.023	7.40	5.00(1) 6.00(2)
AHP252012FA-R68M	0.68	±20	1V/1M	0.027	0.032	5.50	4.30(1) 5.00(2)
AHP252012FA-1R0M	1.0	±20	1V/1M	0.034	0.040	5.30	3.90(1) 4.50(2)
AHP252012FA-1R5M	1.5	±20	1V/1M	0.050	0.060	4.50	3.50(1) 4.00(2)
AHP252012FA-2R2M	2.2	±20	1V/1M	0.070	0.084	3.40	2.60(1) 3.00(2)
AHP252012FA-3R3M	3.3	±20	1V/1M	0.085	0.100	1.50	1.40(1) 1.60(2)

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℃.

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

Measurement board data

Irms1

Material : FR4

Board dimensions : 100 X 50 X 1.6t mm

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

Pattern thickness : 50 μm

Irms2

Material : FR4

Board dimensions : 100 X 50 X 1.6t mm

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

Pattern thickness : 70 μm

5.Typical Performance Curves