General Components Industry Corporation

Sealed Power Inductor

GAHP252012RA-SERIES

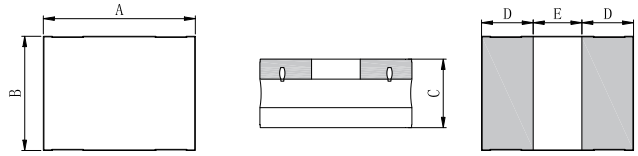
1. Features

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)
GAHP252012RA	2.00±0.20	1.60±0.20	0.90±0.10	0.65±0.20	0.75±0.20

3. Part Numbering

GAHP	252012	RA	-	R24	M
A	B	C		D	E

A: Series
B: Dimension
C: Lead Free — Material
D: Inductance — R24=0.24uH
E: Inductance Tolerance — M=±20%

4. Specification

Part Number	Inductance (uH)	I rms (A)	I sat (A)	DCR (Ω) typ.	DCR (Ω) Max.
GAHP252012RA-R24M	0.24	5.50（1） 6.00（2）	8.00	0.018	0.022
GAHP252012RA-R33M	0.33	5.10（1） 5.60（2）	7.00	0.023	0.028
GAHP252012RA-R47M	0.47	4.80（1） 5.30（2）	6.00	0.027	0.035
GAHP252012RA-R68M	0.68	4.00（1） 4.50（2）	5.00	0.036	0.045
GAHP252012RA-1R0M	1.00	3.50（1） 3.80（2）	4.30	0.045	0.058
GAHP252012RA-1R5M	1.50	3.10（1） 3.50（2）	3.50	0.060	0.072
GAHP252012RA-2R2M	2.20	2.50（1） 2.80（2）	3.10	0.090	0.108
GAHP252012RA-3R3M	3.30	2.10（1） 2.50（2）	2.20	0.125	0.150
GAHP252012RA-4R7M	4.70	1.70（1） 1.90（2）	2.00	0.190	0.220
GAHP252012RA-6R8M	6.80	1.20（1） 1.30（2）	1.80	0.300	0.360
GAHP252012RA-100M	10.0	1.00（1） 1.10（2）	1.40	0.420	0.475

Note:

Inductance Test Frequency 1MHz/1V

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.

Irms Testing

emperature rise is highly dependent on many factors including pcb land pattern，Circuit design,component placement,frequency,cooling system,trace size，and proximity to other components.....etc，There fore temperature rise should be verified in application conditions。

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

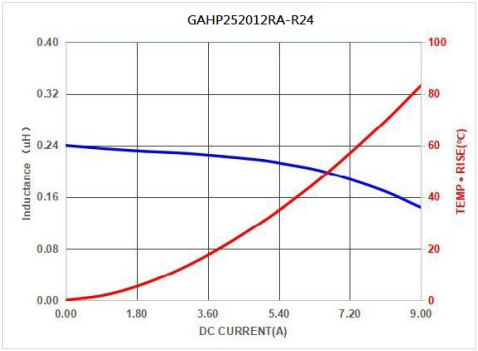
Material: FR4

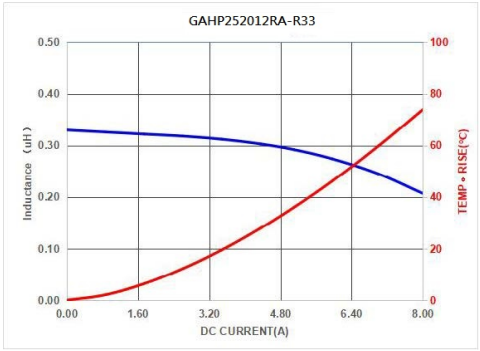
Board dimensions : 100 X 50 X 1.6t mm

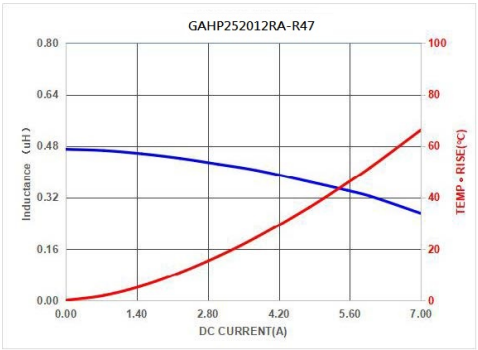
Pattern dimensions: 45 X 45 mm (Double side board)

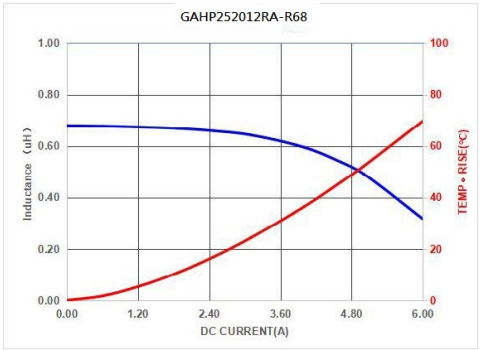
Pattern thickness : 70 μm

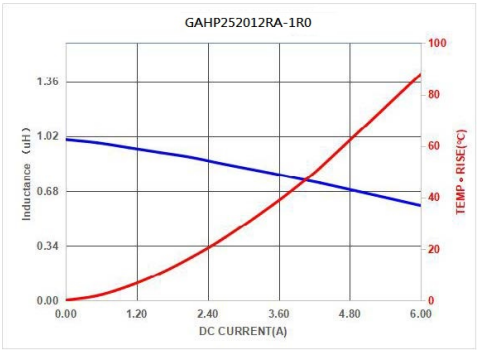
5. Typical Performance Curves

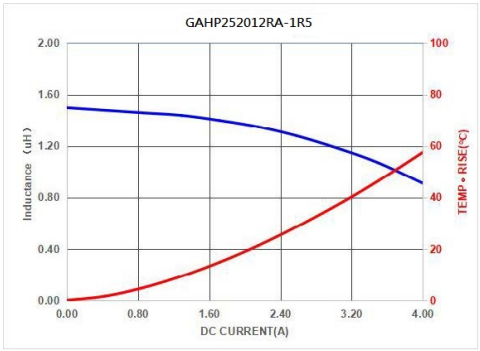


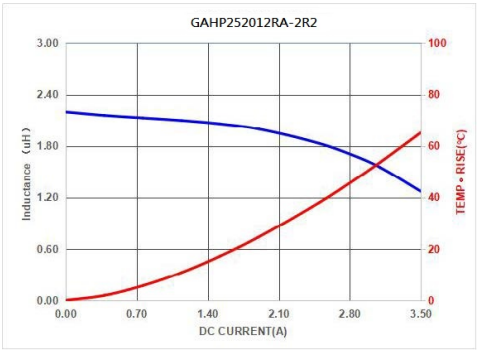


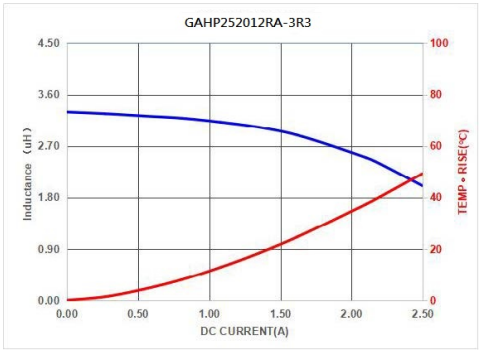


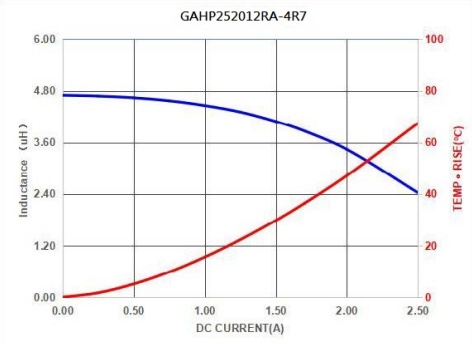


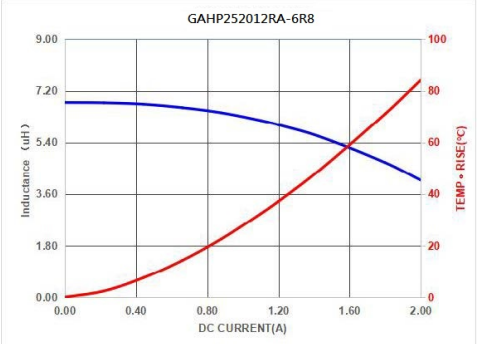


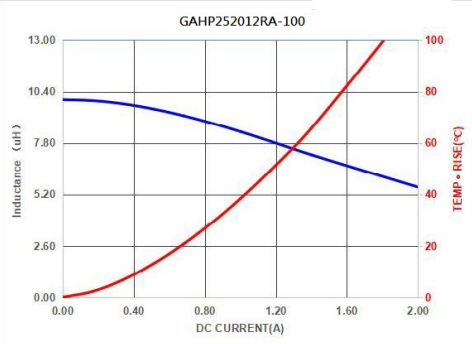












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