

FEATURES

- Magnetic shield structure, closed magnetic circuit, strong antielectromagnetic interference, ultra low buzzer, high density installation.
- Small volume, large current, in high frequency and high temperature environment to maintain excellent temperature current and saturation current characteristics.
- Low loss alloy powder die casing, low resistance, Firm structure, high precision of products.

APPLICATIONS

- Netcom, security, mobile phone, smart home, Energy product,
- Infotainment System, LED Headlight
- PAD, Notebook, Server, audio,
- DC-DC conversion circuit etc.



PART NUMBERING

APH	0630	T	1R0	M	-	TC	□□
① Series Name	② External Dimensions	③ Feature Type	④ Nominal Inductance	⑤ Inductance Tolerance		⑥ Product Type	⑦ Design Code

① Series Name	
APH	Molding Power Inductors

④ Nominal Inductance	
Code (example)	Nominal Inductance [μH]
R68	0.68
1R0	1.0
4R7	4.7

② External Dimensions (mm)	
0420	4.1x4.1x2.1
0430	4.1x4.1x3.1
0530	5.5x5.3x3.1
0550	5.5x5.3x5.0
0630	6.76x6.56x3.1
0660	6.76x6.56x6.1

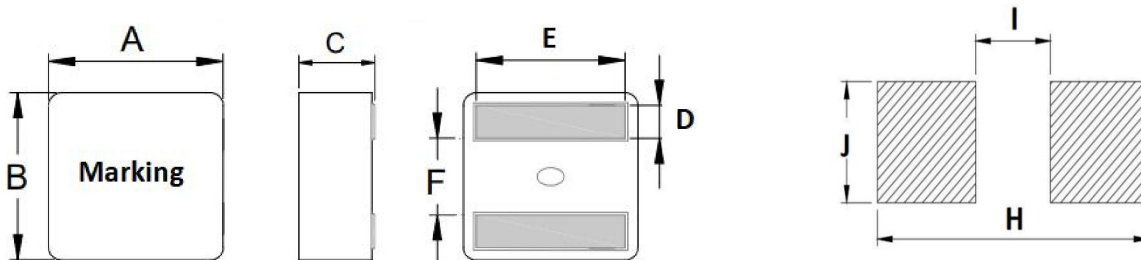
③ Feature Type	
T	

⑥ Product Type	
TC	T-Code Type

⑤ Inductance Tolerance	
M	±20%

⑦ Design Code	
□□	Standard product is blank

DIMENSIONS & RECOMMENDED LAND PATTERN



Recommended Land Pattern

DIMENSIONS & RECOMMENDED LAND PATTERN

Unit: mm

Series	A	B	C	D Typ.	E Typ.	F Typ.	H Typ.	I Typ.	J Typ.
APH0420-TC	4.1±0.3	4.1±0.3	2.1Max.	0.8	3.2	1.6	3.8	1.4	3.7
APH0430-TC	4.1±0.3	4.1±0.3	3.1Max.	0.8	3.2	1.6	3.8	1.4	3.7
APH0530-TC	5.5±0.3	5.3±0.3	3.1Max.	1.1	4.3	2.3	4.5	2.1	4.7
APH0550-TC	5.5±0.3	5.3±0.3	5.0Max.	1.1	4.3	2.3	4.5	2.1	4.7
APH0630-TC	6.76±0.3	6.56±0.3	3.1Max.	1.4	5.3	2.6	5.5	2.6	5.5
APH0660-TC	6.76±0.3	6.56±0.3	6.1Max.	1.4	5.3	2.6	5.5	2.6	5.5

ELECTRICAL CHARACTERISTICS

● APH0420-TC Series

Part Number	Inductance	DC Resistance		Saturation		Heat Rating	
		Current		Current		Current	
	@1MKHz,1V	Typ	Max	Typ	Max	Typ	Max
Units	μH	mΩ		A		A	
Symbol	L	DCR		Isat		Irms	
APH0420TR22M-TC	0.22	5.8	8.1	18.8	18.2	16.8	16.2
APH0420TR40M-TC	0.4	7.6	10.6	12.8	12.3	14.2	13.6
APH0420TR60M-TC	0.6	9.6	13.4	10.6	10.0	11.9	11.2
APH0420T1R0M-TC	1	13.3	18.6	9.0	8.4	9.4	8.6
APH0420T1R5M-TC	1.5	21.5	30.1	7.4	7.0	7.6	7.4
APH0420T2R2M-TC	2.2	35.2	49.3	5.8	5.4	5.7	5.4

● APH0430-TC Series

Part Number	Inductance	DC Resistance		Saturation		Heat Rating	
		Current		Current		Current	
	@1MKHz,1V	Typ	Max	Typ	Max	Typ	Max
Units	μH	mΩ		A		A	
Symbol	L	DCR		Isat		Irms	
APH0430T2R2M-TC	2.2	19.4	27.2	7.0	6.4	7.2	6.6
APH0430T3R3M-TC	3.3	26.0	36.4	5.9	5.4	6.6	6.2
APH0430T4R7M-TC	4.7	40.0	56.0	4.6	4.3	5.1	4.8
APH0430T6R8M-TC	6.8	67.5	94.5	3.6	3.3	3.9	3.6

● APH0530-TC Series

Part Number	Inductance	DC Resistance		Saturation		Heat Rating	
		Current		Current		Current	
	@1MKHz,1V	Typ	Max	Typ	Max	Typ	Max
Units	μH	mΩ		A		A	
Symbol	L	DCR		Isat		Irms	
APH0530TR15M-TC	0.15	2.0	2.7	32.5	31.0	22.2	21.2
APH0530TR33M-TC	0.33	3.0	4.2	26.0	25.0	19.2	18.6
APH0530TR60M-TC	0.6	3.9	5.4	20.0	19.2	17.5	17.0
APH0530TR82M-TC	0.82	4.9	6.9	17.5	17.2	12.9	12.4

ELECTRICAL CHARACTERISTICS

● APH0530-TC Series

Part Number	Inductance @1MKHz,1V	DC Resistance		Saturation Current		Heat Rating Curren	
		Typ	Max	Typ	Max	Typ	Max
Units	μH	$\text{m}\Omega$		A		A	
Symbol	L	DCR		Isat		Irms	
APH0530T1R0M-TC	1	6.4	9.0	14.3	13.8	12.0	11.0
APH0530T2R2M-TC	2.2	12.8	17.9	9.0	8.2	9.7	9.2
APH0530T3R3M-TC	3.3	20.5	28.7	8.7	8.2	8.1	7.4
APH0530T4R7M-TC	4.7	33.0	46.2	7.0	6.3	5.9	5.3

● APH0550-TC Series

Part Number	Inductance @1MKHz,1V	DC Resistance		Saturation Current		Heat Rating Curren	
		Typ	Max	Typ	Max	Typ	Max
Units	μH	$\text{m}\Omega$		A		A	
Symbol	L	DCR		Isat		Irms	
APH0550T5R6M-TC	5.6	22.0	30.8	6.5	6.2	7.2	6.4
APH0550T6R8M-TC	6.8	26.0	36.4	6.3	5.8	6.4	6.0
APH0550T8R2M-TC	8.2	29.3	41.0	5.8	5.4	6.1	5.8
APH0550T100M-TC	10	39.0	54.6	5.2	4.8	5.2	4.8

● APH0630-TC Series

Part Number	Inductance @1MKHz,1V	DC Resistance		Saturation Current		Heat Rating Curren	
		Typ	Max	Typ	Max	Typ	Max
Units	μH	$\text{m}\Omega$		A		A	
Symbol	L	DCR		Isat		Irms	
APH0630TR33M-TC	0.33	2.1	2.9	30.0	29.0	25.0	24.0
APH0630TR56M-TC	0.56	2.8	3.9	29.0	28.0	22.0	21.0
APH0630TR68M-TC	0.68	4.4	6.2	25.0	24.0	20.0	19.0
APH0630T1R0M-TC	1	5.4	7.5	23.0	22.0	18.0	17.0
APH0630T1R2M-TC	1.2	6.6	9.2	22.0	21.0	16.0	15.0
APH0630T1R5M-TC	1.5	8.0	11.2	20.0	19.0	15.0	14.0
APH0630T2R2M-TC	2.2	10.7	15.0	15.5	15.0	10.0	9.0
APH0630T3R3M-TC	3.3	18.5	25.9	11.0	10.5	8.0	7.0
APH0630T4R7M-TC	4.7	22.9	32.1	9.0	8.0	6.0	5.2

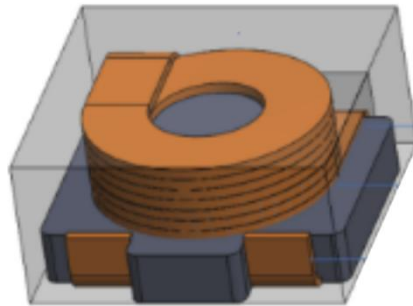
ELECTRICAL CHARACTERISTICS

● APH0660-TC Series

Part Number	Inductance @1MKHz,1V	DC Resistance		Saturation Current		Heat Rating Curren	
		Typ	Max	Typ	Max	Typ	Max
Units	μH	$\text{m}\Omega$		A		A	
Symbol	L	DCR		Isat		Irms	
APH0660T1R0M-TC	1	3.7	5.2	20.0	19.2	23.2	22.0
APH0660T2R2M-TC	2.2	6.1	8.5	16.0	15.0	18.1	17.0
APH0660T4R7M-TC	4.7	13.7	19.2	11.4	10.2	12.1	11.3
APH0660T6R8M-TC	6.8	21.0	29.4	8.4	8.0	9.8	9.2
APH0660T8R2M-TC	8.2	22.7	31.8	7.6	7.2	9.4	8.8

- All test data is referenced to 25 °C ambient.
- Irms: DC current that causes the temperature rise ($\Delta T=40^{\circ}\text{C}$) from 20°C ambient.
- Isat: DC current at which the inductance drops approximate 30% from its value without current;
- Operating Temperature Range -55°C to + 125°C .
- Rated current: Isat or Irms, whichever is smaller;

STRUCTURE



Note:

This series product is not applies in automotive or related products. Otherwise, we will shall not bear than the resulting all the problems of quality and responsibility.

Please be sure to request approval specifications that provide further details of the products. Kindly not that the content of these specifications are subject to change or may be discontinued without prior notice. This product may not be designed/used in medical or high risk applications without APV approval.