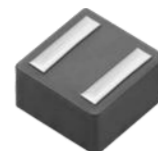


FEATURES 特征

- Metal material for large current and low loss, low DCR.
铁合金材料，高饱和电流，低损耗，低DCR
- Low buzz noise, good magnetic shield performance.
低噪声，磁屏蔽效果好
- Small parasitic capacitance.
寄生电容小
- Operating Temp : -55℃~+125℃(Including self heating)
工作温度范围:-55℃~+125℃(包括自身温度上升)



APPLICATIONS 用途

- 5G Communications
5G 通讯
- Internet of Things
物联网
- Security device
安防设备

PART NUMBERING 产品型号

APH	0660	C	-	100	M	-	TC	D5
①	②	③		④	⑤		⑥	⑦

① Series Name	
APH	T-Core Flat Coil High Current Inductor

③ Feature Type
C

② External Dimensions	
0420	4.1×4.1×1.9
0430	4.1×4.1×2.8
0520	5.5×5.3×1.9
0530	5.5×5.3×2.9
0550	5.5×5.3×4.8
0630	6.6×6.4×2.8/2.9
0650	6.6×6.4×4.8
0660	6.6×6.4×5.8
0720	7.8×7.6×1.85
0730	7.8×7.6×2.9
0770	7.8×7.6×6.7
0880	8.9×8.5×7.7
1031	11.9×11.0×2.9
1060	11.9×11.0×5.7
1010	11.9×11.0×9.7
1570	16.5×15.5×6.7
1580	16.5×15.5×7.7
1510	16.5×15.5×9.7
1513	16.5×15.5×12.7

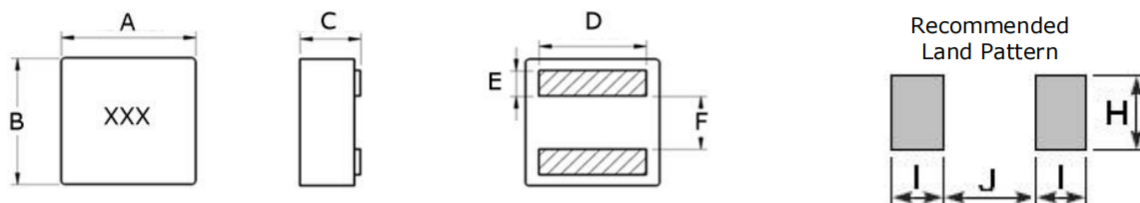
④ Inductance	
Code (example)	Nominal inductance [μH]
R10	0.1μH
1R0	1.0μH
100	10μH

⑤ Inductance Tolerance	
M	20%

⑥ Product Type	
TC	T-Code Type

⑦ Special Material Code	
	D5

■ DIMENSIONS & RECOMMENDED LAND PATTERN 尺寸及推荐焊盘



Unit: mm

Series	Dimensions						Recommended Land Pattern		
	A	B	C	D	E	F	I Typ.	J Typ.	H Typ.
APH0420C	4.1±0.2	4.1±0.2	1.9±0.2	3.4±0.3	0.88±0.3	1.7±0.3	1	1.4	3.8
APH0430C	4.1±0.25	4.1±0.25	2.8±0.2	3.4±0.3	0.88±0.3	1.7±0.3	1	1.4	3.8
APH0520C	5.5±0.2	5.3±0.2	1.9±0.2	4.5±0.3	1.1±0.3	2.3±0.3	1.25	2	4.7
APH0530C	5.5±0.2	5.3±0.2	2.9±0.2	4.5±0.3	1.1±0.3	2.3±0.3	1.25	2	4.7
APH0550C	5.5±0.2	5.3±0.2	4.8±0.2	4.5±0.3	1.1±0.3	2.3±0.3	1.25	2	4.7
APH0630C	6.6±0.2	6.4±0.2	2.8±0.2 (L ≤ 1.2μH)	5.4±0.3	1.5±0.3	2.6±0.3	1.55	2.5	5.6
			2.9±0.2 (L ≥ 1.5μH)						
APH0650C	6.6±0.2	6.4±0.2	4.8±0.2	5.4±0.3	1.5±0.3	2.6±0.3	1.55	2.5	5.6
APH0660C	6.6±0.2	6.4±0.2	5.8±0.2	5.4±0.3	1.5±0.3	2.6±0.3	1.55	2.5	5.6
APH0720C	7.8±0.25	7.6±0.2	1.85±0.2	6.3±0.3	1.75±0.3	3.15±0.3	2.3	2.8	7.2
APH0730C	7.8±0.25	7.6±0.2	2.9±0.2	6.3±0.3	1.75±0.3	3.15±0.3	2.3	2.8	7.2
APH0770C	7.8±0.25	7.6±0.2	6.7±0.3	6.3±0.3	1.75±0.3	3.15±0.3	2.3	2.8	7.2
APH0880C	8.9±0.3	8.5±0.3	7.7±0.3	7.2±0.3 (L ≤ 2.2μH)	1.7±0.3	3.5±0.5	2.65	2.7	7.8
				6.8±0.3 (L ≥ 3.3μH)					
APH1031C	11.9±0.3	11.0±0.3	2.9±0.2	9.5±0.5	2.3±0.3	4.4±0.5	3.4	3.7	11
APH1060C	11.9±0.3	11.0±0.3	5.7±0.3	9.5±0.5	2.3±0.3	4.5±0.5	3.4	3.7	11
APH1010C	11.9±0.3	11.0±0.3	9.7±0.3	9.5±0.5	2.3±0.3	4.4±0.5	3.4	3.7	11
APH1570C	16.5±0.3	15.5±0.3	6.7±0.3	13.5±0.5	3.0±0.3	7.0±0.5	4.5	6	15
APH1580C	16.5±0.3	15.5±0.3	7.7±0.3	13.5±0.5	3.0±0.3	7.0±0.5	4.5	6	15
APH1510C	16.5±0.3	15.5±0.3	9.7±0.3	13.5±0.5	3.0±0.3	7.0±0.5	4.5	6	15
APH1513C	16.5±0.3	15.5±0.3	12.7±0.3	13.5±0.5	3.0±0.3	7.0±0.5	4.5	6	15

ELECTRICAL CHARACTERISTICS 特性规格表

● APH0420C Series

Part Number	Inductance	DC resistance		Saturation Current		Heat Rating Current		Withstanding Voltage
	@100KHz,0.1V	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.
Units	μH	mΩ		A		A		V
Symbol	L	DCR		Isat		Irms		@1mA/3S
APH0420C-R10M-TCD5	0.10±20%	2.5	2.14	33.8	38.6	13.5	18.5	40
APH0420C-R22M-TCD5	0.22±20%	4.6	4	19.4	19.9	13	17.3	40
APH0420C-R36M-TCD5	0.36±20%	6.5	5.5	14.9	16.9	11	14.9	40
APH0420C-R40M-TCD5	0.40±20%	7.73	6.8	13.9	15.9	10	14.4	40
APH0420C-R47M-TCD5	0.47±20%	8.58	7.8	13.1	14.5	9	12.8	40
APH0420C-R56M-TCD5	0.56±20%	9.3	8.2	13	14.3	8.5	12.3	40
APH0420C-R60M-TCD5	0.60±20%	9.52	8.4	12.7	14	8	12	40
APH0420C-R72M-TCD5	0.72±20%	11.9	10.2	11	12.3	7.6	10.8	40
APH0420C-1R0M-TCD5	1.0±20%	14.6	13	9.1	9.9	6.8	9.9	40
APH0420C-1R2M-TCD5	1.2±20%	17.9	15.8	8	9.3	6.6	9.3	40
APH0420C-1R5M-TCD5	1.5±20%	23.8	20.8	7.6	8	5.8	7.9	40
APH0420C-1R8M-TCD5	1.8±20%	28	24.7	7.2	7.7	5.2	7.2	40
APH0420C-2R2M-TCD5	2.2±20%	38.7	34.2	6.2	6.7	4.6	5.8	40

● APH0430C Series

Part Number	Inductance	DC resistance		Saturation Current		Heat Rating Current		Withstanding Voltage
	@100KHz,0.1V	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.
Units	μH	mΩ		A		A		V
Symbol	L	DCR		Isat		Irms		@1mA/3S
APH0430C-R47M-TCD5	0.47±20%	7.26	6.4	15.6	17.4	10	14.4	40
APH0430C-R90M-TCD5	0.90±20%	10.1	8.9	9.3	10.3	8.2	11.5	40
APH0430C-1R0M-TCD5	1.0±20%	10.1	8.9	9.5	10.1	8	11.3	40
APH0430C-1R2M-TCD5	1.2±20%	11.5	10.1	9	9.5	7.8	10.1	40
APH0430C-1R5M-TCD5	1.5±20%	13.2	11.6	7.2	8.2	7	9.3	40
APH0430C-2R2M-TCD5	2.2±20%	22.6	20	6.3	7.2	6	8.1	40
APH0430C-3R3M-TCD5	3.3±20%	28.6	25.3	5.5	6.4	5	6.8	40
APH0430C-4R7M-TCD5	4.7±20%	44.1	38.8	4.2	4.7	3.9	5.3	40
APH0430C-6R8M-TCD5	6.8±20%	74.1	65.2	3.2	3.8	3	4.1	40

ELECTRICAL CHARACTERISTICS 特性规格表

● APH0520C Series

Part Number	Inductance	DC resistance		Saturation Current		Heat Rating Current		Withstanding Voltage
	@100KHz,0.1V	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.
Units	μH	mΩ		A		A		V
Symbol	L	DCR		Isat		Irms		@1mA/3S
APH0520C-R15M-TCD5	0.15±20%	4.6	4	27.6	30.8	13.9	19.3	40
APH0520C-R16M-TCD5	0.16±20%	4.6	4	27.6	30.8	13.9	19.3	40
APH0520C-R33M-TCD5	0.33±20%	7.3	6.2	23.6	25.1	10.5	14.8	40
APH0520C-R47M-TCD5	0.47±20%	8.05	7.1	20.6	22.6	10.1	14.5	40
APH0520C-R56M-TCD5	0.56±20%	9.54	8.4	16.6	19.4	9.9	14.3	40
APH0520C-R68M-TCD5	0.68±20%	10.2	9	14.4	16.4	9.6	13.8	40
APH0520C-R80M-TCD5	0.80±20%	11.8	10.4	13.9	15.9	9.4	13.4	40
APH0520C-R82M-TCD5	0.82±20%	12.7	11.2	13.4	15.3	8.5	12.3	40
APH0520C-1R0M-TCD5	1.0±20%	13.8	12.2	13.2	14.8	7.5	10.8	40
APH0520C-1R2M-TCD5	1.2±20%	16.3	14.4	12.6	14.3	6.8	9.7	40
APH0520C-1R5M-TCD5	1.5±20%	18.7	16.5	10.9	11.8	6.4	9.1	40

● APH0530C Series

Part Number	Inductance	DC resistance		Saturation Current		Heat Rating Current		Withstanding Voltage
	@100KHz,0.1V	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.
Units	μH	mΩ		A		A		V
Symbol	L	DCR		Isat		Irms		@1mA/3S
APH0530C-R15M-TCD5	0.15±20%	2.31	2.04	33.3	36.8	14.3	22.8	40
APH0530C-R16M-TCD5	0.16±20%	2.33	2.06	32.8	35.8	14.2	22.8	40
APH0530C-R47M-TCD5	0.47±20%	4.13	3.65	24.6	26.6	13.7	18.9	40
APH0530C-R56M-TCD5	0.56±20%	4.52	4	20.8	22.8	13.6	18.2	40
APH0530C-R60M-TCD5	0.60±20%	4.52	4	20.1	21.4	13.6	18.2	40
APH0530C-R80M-TCD5	0.80±20%	5.65	5	18.6	20.4	10.1	13.5	40
APH0530C-R82M-TCD5	0.82±20%	5.78	5.11	18.2	20.1	9.9	13.2	40
APH0530C-1R0M-TCD5	1.0±20%	7.6	6.7	14.7	16.9	9	12.5	40
APH0530C-1R2M-TCD5	1.2±20%	9.7	8.5	13.9	15.3	8.5	11.3	40
APH0530C-1R5M-TCD5	1.5±20%	11.2	9.9	12.9	14.3	8	10.8	40
APH0530C-1R8M-TCD5	1.8±20%	12.7	11.2	11.7	12.6	7.6	10.4	40
APH0530C-2R2M-TCD5	2.2±20%	14.5	12.8	9.3	10.3	7.2	10	40
APH0530C-3R3M-TCD5	3.3±20%	23.1	20.4	9	9.8	5.9	8.4	40
APH0530C-4R7M-TCD5	4.7±20%	36.3	32.1	7.2	8.5	4.3	6.1	40

ELECTRICAL CHARACTERISTICS 特性规格表

● APH0550C Series

Part Number	Inductance	DC resistance		Saturation Current		Heat Rating Current		Withstanding Voltage
	@100KHz,0.1V	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.
Units	μH	mΩ		A		A		V
Symbol	L	DCR		Isat		Irms		@1mA/3S
APH0550C-5R6M-TCD5	5.6±20%	24.2	21.4	7.4	8.9	5.3	7.4	40
APH0550C-6R8M-TCD5	6.8±20%	28.6	25.3	6.8	8	4.8	6.6	40
APH0550C-8R2M-TCD5	8.2±20%	32.5	29.55	6.3	7.4	4.6	6.3	40
APH0550C-100M-TCD5	10±20%	43	39.1	5.6	6.7	3.8	5.2	40

● APH0630C Series

Part Number	Inductance	DC resistance		Saturation Current		Heat Rating Current		Withstanding Voltage
	@100KHz,0.1V	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.
Units	μH	mΩ		A		A		V
Symbol	L	DCR		Isat		Irms		@1mA/3S
APH0630C-R18M-TCD5	0.18±20%	1.75	1.54	36.8	41	24	32.6	40
APH0630C-R28M-TCD5	0.28±20%	2.4	2.12	28.6	33.3	20.5	26.1	40
APH0630C-R33M-TCD5	0.33±20%	2.5	2.21	28.6	32.8	20	25.6	40
APH0630C-R47M-TCD5	0.47±20%	2.7	2.2	19.3	27.1	18.1	25.6	40
APH0630C-R56M-TCD5	0.56±20%	3.31	2.92	25.1	28.6	17	22.6	40
APH0630C-R68M-TCD5	0.68±20%	5.17	4.57	21.6	25.6	15	20.5	40
APH0630C-1R0M-TCD5	1.0±20%	6.05	5.35	18.6	23.6	13	18.5	40
APH0630C-1R2M-TCD5	1.2±20%	7.4	6.54	16.6	22.6	12	16.5	40
APH0630C-1R5M-TCD5	1.5±20%	9.13	8	16.1	20.4	11	15.4	40
APH0630C-1R8M-TCD5	1.8±20%	10.2	9	13.4	14.5	10	14.4	40
APH0630C-2R2M-TCD5	2.2±20%	12.2	10.7	11.4	16.3	7	10.3	40
APH0630C-3R3M-TCD5	3.3±20%	20.8	18.4	9.3	12.5	6	8.3	40
APH0630C-4R5M-TCD5	4.5±20%	25.3	22.4	8.3	9.3	5	7.2	40

ELECTRICAL CHARACTERISTICS 特性规格表

● APH0650C Series

Part Number	Inductance	DC resistance		Saturation Current		Heat Rating Current		Withstanding Voltage
	@100KHz,0.1V	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.
Units	μH	mΩ		A		A		V
Symbol	L	DCR		Isat		Irms		@1mA/3S
APH0650C-R82M-TCD5	0.82±20%	4.18	3.7	20.6	24.6	16	21.6	40
APH0650C-1R0M-TCD5	1.0±20%	4.52	4	18.6	23.6	15	20.5	40
APH0650C-1R2M-TCD5	1.2±20%	5.83	5.1	16.6	21.4	14	18.5	40
APH0650C-1R5M-TCD5	1.5±20%	6.3	5.5	14.9	19.9	13	17.5	40
APH0650C-1R8M-TCD5	1.8±20%	7.1	6.2	13.9	18.9	12	16.5	40
APH0650C-2R2M-TCD5	2.2±20%	8.5	7.5	12.4	16.4	10	13.4	40
APH0650C-3R3M-TCD5	3.3±20%	12.5	11	10.4	12.8	8.5	11.3	40
APH0650C-4R3M-TCD5	4.3±20%	16.2	14.3	8.8	11.3	7	9.3	40
APH0650C-4R7M-TCD5	4.7±20%	18.4	16.2	8.3	10.8	6.5	8.8	40
APH0650C-6R8M-TCD5	6.8±20%	25.4	22.5	6.4	7.2	5	6.8	40

● APH0660C Series

Part Number	Inductance	DC resistance		Saturation Current		Heat Rating Current		Withstanding Voltage
	@100KHz,0.1V	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.
Units	μH	mΩ		A		A		V
Symbol	L	DCR		Isat		Irms		@1mA/3S
APH0660C-1R0M-TCD5	1.0±20%	4.4	3.89	19.6	24.6	16	21.6	40
APH0660C-1R5M-TCD5	1.5±20%	6.1	5.39	15.6	20.4	13.5	18	40
APH0660C-2R2M-TCD5	2.2±20%	8.1	7.16	12.9	16.9	11	14.4	40
APH0660C-3R3M-TCD5	3.3±20%	12.3	10.88	11.4	13.3	9	12.3	40
APH0660C-4R7M-TCD5	4.7±20%	14.4	13.1	9.6	10.8	8.5	11.3	40
APH0660C-5R6M-TCD5	5.6±20%	15.9	14.46	9	10.2	7.6	10.3	40
APH0660C-6R8M-TCD5	6.8±20%	20.8	18.9	8.4	9.5	7	9.3	40
APH0660C-8R2M-TCD5	8.2±20%	26.4	23.3	8.3	8.7	6	8.3	40
APH0660C-100M-TCD5	10±20%	29.82	26.5	7	7.8	5	7.2	40
APH0660C-150M-TCD5	15±20%	43.75	38.7	5.2	6	4.5	6.2	40
APH0660C-220M-TCD5	22±20%	60.63	53.6	5	5.8	3.8	5.2	40

ELECTRICAL CHARACTERISTICS 特性规格表

● APH0720C Series

Part Number	Inductance	DC resistance		Saturation Current		Heat Rating Current		Withstanding Voltage
	@100KHz,0.1V	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.
Units	μH	mΩ		A		A		V
Symbol	L	DCR		Isat		Irms		@1mA/3S
APH0720C-R27M-TCD5	0.27±20%	3.5	3.1	32.8	35.8	16	21.6	40
APH0720C-R31M-TCD5	0.31±20%	4.8	4.2	31.8	34.8	14	20.5	40
APH0720C-R33M-TCD5	0.33±20%	4.8	4.2	31.8	34.8	13	19.5	40
APH0720C-R47M-TCD5	0.47±20%	6.2	5.5	25.6	28.6	12	17.5	40
APH0720C-R68M-TCD5	0.68±20%	9.2	8.1	23.6	25.6	10	13.4	40
APH0720C-1R0M-TCD5	1.0±20%	10.8	9.5	20.6	23.6	8	11.3	40

● APH0730C Series

Part Number	Inductance	DC resistance		Saturation Current		Heat Rating Current		Withstanding Voltage
	@100KHz,0.1V	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.
Units	μH	mΩ		A		A		V
Symbol	L	DCR		Isat		Irms		@1mA/3S
APH0730C-1R0M-TCD5	1.0±20%	5	4.5	28.6	30.8	16.1	22.4	40
APH0730C-1R5M-TCD5	1.5±20%	8.25	7.3	24.1	25.6	12	15.8	40
APH0730C-2R2M-TCD5	2.2±20%	13.7	12.1	17.6	19.4	10	13.4	40
APH0730C-2R7M-TCD5	2.7±20%	15.4	13.6	13.9	16.4	9.2	11.7	40
APH0730C-3R3M-TCD5	3.3±20%	18	15.9	13.4	15.3	8	10.3	40
APH0730C-4R7M-TCD5	4.7±20%	26.7	23.6	12.4	13.3	6.9	9.3	40
APH0730C-5R6M-TCD5	5.6±20%	33.2	28.1	11.9	12.8	5.3	7.5	40
APH0730C-6R8M-TCD5	6.8±20%	42.5	37.6	11.4	12.3	4.5	7	40
APH0730C-8R2M-TCD5	8.2±20%	48.73	43	9.3	10.5	3	6.1	40

● APH0770C Series

Part Number	Inductance	DC resistance		Saturation Current		Heat Rating Current		Withstanding Voltage
	@100KHz,0.1V	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.
Units	μH	mΩ		A		A		V
Symbol	L	DCR		Isat		Irms		@1mA/3S
APH0770C-R80M-TCD5	0.8±20%	2.29	2.1	34.8	38.6	20.8	26.4	40
APH0770C-1R0M-TCD5	1.0±20%	2.81	2.48	32.6	35.6	20	25.6	40
APH0770C-1R8M-TCD5	1.8±20%	4.46	3.94	23.6	25.6	15.8	21.6	40
APH0770C-2R2M-TCD5	2.2±20%	6.33	5.6	18.2	20	13.2	18.3	40
APH0770C-3R3M-TCD5	3.3±20%	9.42	8.3	15.7	19.8	11.5	15.6	40
APH0770C-4R7M-TCD5	4.7±20%	13.5	11.9	13.9	15.5	10.5	14	40
APH0770C-5R6M-TCD5	5.6±20%	14	12.3	11.9	12.3	10	11.8	40
APH0770C-6R8M-TCD5	6.8±20%	19.6	17.3	11.4	13.1	7	9.8	40

ELECTRICAL CHARACTERISTICS 特性规格表

● APH0880C Series

Part Number	Inductance	DC resistance		Saturation Current		Heat Rating Current		Withstanding Voltage
	@100KHz,0.1V	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.
Units	μH	mΩ		A		A		V
Symbol	L	DCR		Isat		Irms		@1mA/3S
APH0880C-1R8M-TCD5	1.8±20%	4	3.5	24.6	28.6	18	24.6	40
APH0880C-2R2M-TCD5	2.2±20%	4.3	3.8	22.6	25.6	16	22.1	40
APH0880C-3R3M-TCD5	3.3±20%	7.3	6.5	20.6	23.6	13.5	18.5	40
APH0880C-4R7M-TCD5	4.7±20%	9.8	8.6	15.6	16.9	10.5	15	40
APH0880C-6R8M-TCD5	6.8±20%	14.3	12.6	12.9	14.8	8	11.6	40
APH0880C-100M-TCD5	10±20%	22.9	20.2	10.4	11.3	6.6	9	40

● APH1031C Series

Part Number	Inductance	DC resistance		Saturation Current		Heat Rating Current		Withstanding Voltage
	@100KHz,0.1V	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.
Units	μH	mΩ		A		A		V
Symbol	L	DCR		Isat		Irms		@1mA/3S
APH1031C-R28M-TCD5	0.28±20%	1.6	1.4	59	66	25.5	35.8	40
APH1031C-R56M-TCD5	0.56±20%	2.75	2.4	39.8	45	23	32.6	40
APH1031C-R82M-TCD5	0.82±20%	4.1	3.6	32.8	38.8	18	25.6	40
APH1031C-R90M-TCD5	0.90±20%	4.2	3.5	31.8	36.8	17	24.6	40
APH1031C-1R0M-TCD5	1.0±20%	4.95	4.3	30.6	35.8	16	23.6	40
APH1031C-1R5M-TCD5	1.5±20%	6.6	5.8	25.6	30.8	12	18.5	40

● APH1060C Series

Part Number	Inductance	DC resistance		Saturation Current		Heat Rating Current		Withstanding Voltage
	@100KHz,0.1V	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.
Units	μH	mΩ		A		A		V
Symbol	L	DCR		Isat		Irms		@1mA/3S
APH1060C-R68M-TCD5	0.68±20%	1.5	1.32	51	56	22.5	34.8	40
APH1060C-1R0M-TCD5	1.0±20%	2.32	2.05	45	49	20	29.1	40
APH1060C-1R2M-TCD5	1.2±20%	2.64	2.33	41	46	18	27.1	40
APH1060C-1R5M-TCD5	1.5±20%	3.3	3	36.8	41	16	25.1	40
APH1060C-2R2M-TCD5	2.2±20%	4.84	4.28	30.6	35.8	14	20.5	40
APH1060C-3R3M-TCD5	3.3±20%	7.7	6.8	25.6	28.6	11.4	17.3	40
APH1060C-4R7M-TCD5	4.7±20%	10.72	9.48	22.6	25.6	8.7	14.4	40

ELECTRICAL CHARACTERISTICS 特性规格表

● APH1010C Series

Part Number	Inductance	DC resistance		Saturation Current		Heat Rating Current		Withstanding Voltage
	@100KHz,0.1V	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.
Units	μH	mΩ		A		A		V
Symbol	L	DCR		Isat		Irms		@1mA/3S
APH1010C-1R0M-TCD5	1.0±20%	1.2	1.1	45	51	35.4	40.8	40
APH1010C-2R2M-TCD5	2.2±20%	2.8	2.3	29.6	34.8	24.5	32.6	40
APH1010C-3R3M-TCD5	3.3±20%	4.1	3.6	24	28	18.2	25.6	40
APH1010C-4R7M-TCD5	4.7±20%	5.7	5	22	26	17.5	24.6	40
APH1010C-5R6M-TCD5	5.6±20%	7.2	6.3	20.2	24.2	15.7	21.8	40
APH1010C-6R8M-TCD5	6.8±20%	8.9	7.8	19.1	22.4	14	19	40
APH1010C-8R2M-TCD5	8.2±20%	12.4	11	16.9	18.7	12.9	17.6	40
APH1010C-100M-TCD5	10±20%	13.75	12.1	15.2	17.9	11.5	16	40
APH1010C-150M-TCD5	15±20%	19.3	17	12.9	15.3	9.9	14.2	40

● APH1570C Series

Part Number	Inductance	DC resistance		Saturation Current		Heat Rating Current		Withstanding Voltage
	@100KHz,0.1V	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.
Units	μH	mΩ		A		A		V
Symbol	L	DCR		Isat		Irms		@1mA/3S
APH1570C-5R3M-TCD5	5.3±20%	5.34	4.7	30.6	34.8	19	25.6	40
APH1570C-8R2M-TCD5	8.2±20%	7.9	7	20.6	24.6	13	18.5	40
APH1570C-100M-TCD5	10±20%	9	8	18.6	22.6	10	16.5	40

● APH1580C Series

Part Number	Inductance	DC resistance		Saturation Current		Heat Rating Current		Withstanding Voltage
	@100KHz,0.1V	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.
Units	μH	mΩ		A		A		V
Symbol	L	DCR		Isat		Irms		@1mA/3S
APH1580C-2R0M-TCD5	2.0±20%	2.21	1.95	53	58	29.5	40.8	40
APH1580C-2R2M-TCD5	2.2±20%	2.48	2.2	50	56	28	37.8	40
APH1580C-3R0M-TCD5	3.0±20%	3	2.65	42	47	26	35.3	40
APH1580C-4R2M-TCD5	4.2±20%	4.68	4.14	33.8	38.8	20.5	27.6	40
APH1580C-5R3M-TCD5	5.3±20%	5.34	4.72	31.8	35.8	19.5	26.6	40
APH1580C-6R2M-TCD5	6.2±20%	6.5	5.75	31.8	34.8	17	23.6	40
APH1580C-7R2M-TCD5	7.2±20%	7.2	6.37	29.6	32.8	15	21.6	40
APH1580C-8R2M-TCD5	8.2±20%	7.92	7	25.6	28.6	13	19.5	40
APH1580C-100M-TCD5	10±20%	9.6	8.49	21.6	24.6	11	16.5	40
APH1580C-150M-TCD5	15±20%	15	13.27	18.6	21.4	10	13.4	40
APH1580C-220M-TCD5	22±20%	23.2	20.53	16.6	19.4	9	12.3	40

ELECTRICAL CHARACTERISTICS 特性规格表

● APH1510C Series

Part Number	Inductance	DC resistance		Saturation Current		Heat Rating Current		Withstanding Voltage
	@100KHz,0.1V	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.
Units	μH	mΩ		A		A		V
Symbol	L	DCR		Isat		Irms		@1mA/3S
APH1510C-4R7M-TCD5	4.7±20%	3.8	3.5	39.8	44	22	30.6	40
APH1510C-5R6M-TCD5	5.6±20%	4.2	3.7	34.8	38.8	21	28.6	40
APH1510C-6R8M-TCD5	6.8±20%	4.6	4.1	31.8	36.8	20	26.6	40
APH1510C-8R2M-TCD5	8.2±20%	7.2	6	28.6	32.8	19	25.6	40
APH1510C-100M-TCD5	10±20%	8.6	6.8	24.1	27.1	16	22.6	40
APH1510C-150M-TCD5	15±20%	11.5	10.2	18.6	20.4	14	18.5	40
APH1510C-220M-TCD5	22±20%	15.8	13.9	16.6	18.4	10.5	14.6	40
APH1510C-240M-TCD5	24±20%	15.8	13.9	16.6	18.4	10.5	14.6	40
APH1510C-330M-TCD5	33±20%	20	17.7	14.4	17.1	8.6	12.6	40

● APH1513C Series

Part Number	Inductance	DC resistance		Saturation Current		Heat Rating Current		Withstanding Voltage
	@100KHz,0.1V	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.
Units	μH	mΩ		A		A		V
Symbol	L	DCR		Isat		Irms		@1mA/3S
APH1513C-4R7M-TCD5	4.7±20%	3.3	2.9	41	45	23	31.6	40
APH1513C-5R6M-TCD5	5.6±20%	3.9	3.4	35.8	41	22	29.6	40
APH1513C-6R8M-TCD5	6.8±20%	4.2	3.7	32.8	37.8	21	27.6	40
APH1513C-8R2M-TCD5	8.2±20%	5.74	5	29.6	33.8	20	26.6	40
APH1513C-100M-TCD5	10±20%	7	6.2	27.6	30.8	19	25.6	40
APH1513C-150M-TCD5	15±20%	7.5	6.6	21.6	26.1	16	22.6	40
APH1513C-220M-TCD5	22±20%	13.86	12.3	19.6	22.6	12	17.5	40
APH1513C-330M-TCD5	33±20%	22.2	19.6	16.6	19.4	9	14.4	40

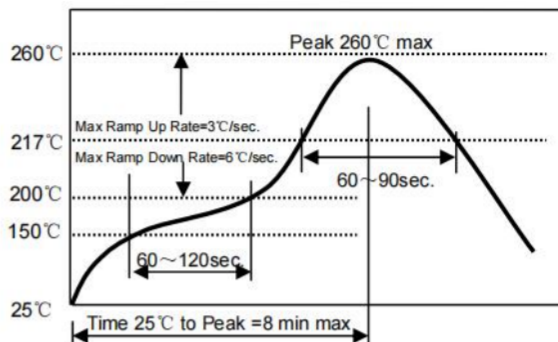
- Rated current: Isat or Irms, whichever is smaller.
- Isat: DC current at which the inductance drops approximate 35% from its value without current.
- Irms: DC current that causes the temperature rise ($\Delta T=40^{\circ}\text{C}$) from 20°C ambient.

Recommended Soldering Technologies 回流焊建议

Reflowing Profile

- ◆ Preheat condition: 150~200°C/60~120sec.
- ◆ Allowed time above 217°C: 60~90sec.
- ◆ Max temp: 260°C
- ◆ Max time at max temp: 10sec.
- ◆ Solder paste: Sn/3.0Ag/0.5Cu
- ◆ Allowed Reflow time: 2x max

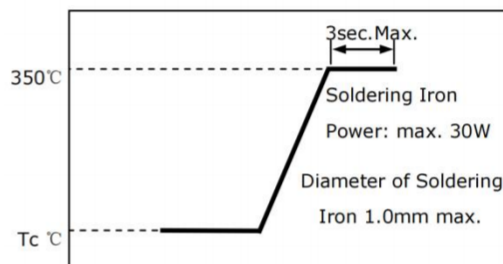
Note: The reflow profile in the above table is only for qualification and is not meant to specify board assembly profiles. Actual board assembly profiles must be based on the customer's specific board design, solder paste and process, and should not exceed the parameters as the Reflow profile shows.



Iron Soldering Profile

- ◆ Iron soldering power: Max.30W
- ◆ Pre-heating: 150 °C / 60sec.
- ◆ Soldering Tip temperature: 350°C Max.
- ◆ Soldering time: 3sec Max.
- ◆ Solder paste: Sn/3.0Ag/0.5Cu
- ◆ Max.1 times for iron soldering

Note: Take care not to apply the tip of the soldering iron to the terminal electrodes.



■ Safety Reminders 注意事项

SAFETY REMINDERS

- The storage period is within 12 months. Be sure to follow the storage conditions (temperature: 15 to 35°C, humidity: 75% RH or less). If the storage period elapses, the soldering of the terminal electrodes may deteriorate.
- Do not use or store in locations where there are conditions such as gas corrosion (salt, acid, alkali, etc.).
- Soldering corrections after mounting should be within the range of the conditions determined in the specifications. If overheated, a short circuit, performance deterioration, or lifespan shortening may occur.
- When embedding a printed circuit board where a chip is mounted to a set, be sure that residual stress is not given to the chip due to the overall distortion of the printed circuit board and partial distortion such as at screw tightening portions.
- Self heating (temperature increase) occurs when the power is turned ON, so the tolerance should be sufficient for the set thermal design.
- This product is not designed for production processes involving ultrasonic welding, as high-frequency vibration may cause application issues such as product detachment and breakage.
- Carefully layout the coil for the circuit board design of the non-magnetic shield type. A malfunction may occur due to magnetic interference.
- Use a wrist band to discharge static electricity in your body through the grounding wire.
- Do not expose the products to magnets or magnetic fields.
- Do not use for a purpose outside of the contents regulated in the delivery specifications.
- The products listed on this catalog are intended for use in general electronic equipment, under a normal operation and use condition.

The Company shall not guarantee the suitability, performance, or quality for the following applications that require a high level of safety and reliability, or where equipment failure, malfunction, or abnormal operation may cause damage to human life, physical well-being, or property, and may have significant social impacts (hereinafter referred to as "specific applications"). If you intend to use this product in the application scenarios listed below, or if you have special requirements exceeding the scope or conditions specified in each product catalog, please contact us.

- (1) Aerospace/aviation equipment
- (2) Transportation equipment (cars, electric trains, ships, etc.)
- (3) Medical equipment
- (4) Power-generation control equipment
- (5) Atomic energy-related equipment
- (6) Seabed equipment
- (7) Transportation control equipment
- (8) Public information-processing equipment
- (9) Military equipment
- (10) Electric heating apparatus, burning equipment
- (11) Disaster prevention/crime prevention equipment
- (12) Safety equipment
- (13) Other applications that are not considered general-purpose applications

When designing your equipment even for general-purpose applications, you are kindly requested to take into consideration securing protection circuit/device or providing backup circuits in your equipment.