FEATURES

- Soft saturation.
- 100% Lead(Pb)-Free and RoHS compliant.
- High reliability.
- Very low acoustic noise and very low leakage flux noise.
- High current，low DCR，high efficiency.
- Operating temperature -55~+125℃(Including self - temperature rise)

PART NUMBERING

- Note PC power system，incl. IMVP-6
- DC/DC converter

APPLICATIONS

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

①Series Name	
APH	Molding Power Inductors

③Feature Type
C

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

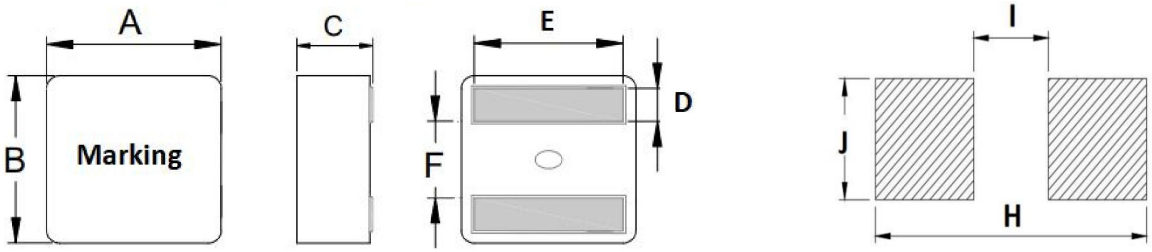
⑤Inductance Tolerance	
M	±20%

⑥Product Type	
TC	T-Code Type

⑦Design Code	
□□	Standard product is blank

②External Dimensions	
0420	4.1x4.1x1.9
0430	4.1X4.1X2.8
0520	5.5X5.3X1.9
0530	5.5X5.3X2.8
0550	5.5X5.3X4.8
0630	6.6X6.4X2.9
0650	6.6X6.4X4.8
0660	6.6X6.4X5.8
0720	7.8X7.6X1.85
0730	7.8X7.6X2.9
0770	7.8X7.6X6.7
0880	8.9X8.5X7.7
1010	11.9X11X9.7
1031	11.9X11X2.9
1060	11.9X11X5.7
1510	16.5X15.5X9.7
1513	16.5X15.5X12.7
1580	16.5X15.5X7.7

DIMENSIONS & RECOMMENDED LAND PATTERN



Recommended Land Pattern

Unit: mm

Series	A	B	C	D Typ.	E Typ.	F Typ.	H Ref.	I Ref.	J Ref.
APH0420C-TC	4.1±0.2	4.1±0.2	1.9±0.2	0.88±0.3	See Spec table	1.7±0.3	3.4	1.4	3.8
APH0430C-TC	4.1±0.25	4.1±0.25	2.8±0.2	0.88±0.3	See Spec table	1.7±0.3	3.4	1.4	3.8
APH0520C-TC	5.5±0.2	5.3±0.2	1.9±0.2	1.1±0.3	See Spec table	2.3±0.3	4.5	2.0	4.7
APH0530C-TC	5.5±0.2	5.3±0.2	2.8±0.3	1.1±0.3	See Spec table	2.3±0.3	4.5	2.0	4.7
APH0550C-TC	5.5±0.2	5.3±0.2	4.8±0.2	1.1±0.3	See Spec table	2.3±0.3	4.5	2.0	4.7
APH0630C-TC	6.6±0.2	6.4±0.2	2.9±0.2	1.4±0.3	See Spec table	2.6±0.3	5.6	2.5	5.6
APH0650C-TC	6.6±0.2	6.4±0.2	4.8±0.2	1.4±0.3	See Spec table	2.6±0.3	5.6	2.5	5.6
APH0660C-TC	6.6±0.2	6.4±0.2	5.8±0.2	1.4±0.3	See Spec table	2.6±0.3	5.6	2.5	5.6
APH0720C-TC	7.8±0.25	7.6±0.2	1.85±0.2	1.75±0.3	See Spec table	3.15±0.3	7.4	2.8	7.2
APH0730C-TC	7.8±0.25	7.6±0.2	2.9±0.2	1.75±0.3	See Spec table	3.15±0.3	7.4	2.8	7.2
APH0770C-TC	7.8±0.25	7.6±0.25	6.7±0.3	1.75±0.3	See Spec table	3.15±0.3	7.8	2.8	6.7
APH0880C-TC	8.9±0.3	8.5±0.3	7.7±0.3	1.8±0.3	See Spec table	3.5±0.5	8.0	2.7	7.8
APH1010C-TC	11.9±0.3	11.0±0.3	9.7±0.3	2.4±0.3	See Spec table	4.4±0.5	10.5	3.7	11.0
APH1031C-TC	11.9±0.3	11.0±0.3	2.9±0.2	2.4±0.3	See Spec table	4.4±0.5	10.5	3.7	11.0
APH1060C-TC	11.9±0.3	11.0±0.3	5.7±0.3	2.4±0.3	See Spec table	4.5±0.5	10.5	3.7	11.0
APH1510C-TC	16.5±0.3	15.5±0.3	9.7±0.3	3.2±0.3	See Spec table	7.0±0.3	15.0	6.0	15.0
APH1513C-TC	16.5±0.3	15.5±0.3	12.7±0.3	3.2±0.3	See Spec table	7.0±0.5	15.0	6.0	15.0
APH1580C-TC	16.5±0.3	15.5±0.3	7.7±0.3	3.2±0.3	See Spec table	7.0±0.5	15.0	6.0	15.0

ELECTRICAL CHARACTERISTICS

APH0420C-TC Series

Part Number	Inductance	Inductance Tolerance	Saturation Current		Heat Rating Current Typ.		DC Resistance	D (MM)
	@100KHz /0.1V		Max.	Typ.	20℃ rise	40℃ rise	Max.	
Units	μH	-	A		A		mΩ	-
Symbol	L	-	Isat		Irms		DCR	
APH0420C-R10M-TC	0.1	±20%	33.0	38.0	13.5	18.0	2.4	3.4±0.3
APH0420C-R22M-TC	0.22	±20%	18.8	19.5	13.0	16.8	4.6	3.4±0.3
APH0420C-R36M-TC	0.36	±20%	15.0	17.0	11.0	14.5	6.3	3.4±0.3
APH0420C-R40M-TC	0.4	±20%	13.5	15.5	10.0	14.0	7.7	3.4±0.3
APH0420C-R47M-TC	0.47	±20%	13.0	14.5	9.0	12.5	8.6	3.4±0.3
APH0420C-R56M-TC	0.56	±20%	12.6	14.0	8.5	12.0	9.3	3.4±0.3
APH0420C-R60M-TC	0.6	±20%	12.3	13.7	8.0	11.7	9.5	3.4±0.3
APH0420C-R72M-TC	0.72	±20%	10.6	12.0	7.6	10.5	11.6	3.4±0.3
APH0420C-1R0M-TC	1	±20%	8.8	9.6	6.8	9.6	14.6	3.4±0.3
APH0420C-1R2M-TC	1.2	±20%	7.8	9.0	6.6	9.0	17.9	3.4±0.3
APH0420C-1R5M-TC	1.5	±20%	7.4	8.0	5.8	7.6	23.5	3.4±0.3
APH0420C-1R8M-TC	1.8	±20%	7.0	7.5	5.2	7.0	28.0	3.4±0.3
APH0420C-2R2M-TC	2.2	±20%	6.0	6.5	4.6	5.6	38.7	3.4±0.3

APH0430C-TC Series

Part Number	Inductance	Inductance Tolerance	Saturation Current		Heat Rating Current Typ.		DC Resistance	D (MM)
	@100KHz /0.1V		Max.	Typ.	20℃ rise	40℃ rise	Max.	
Units	μH	-	A		A		mΩ	-
Symbol	L	-	Isat		Irms		DCR	
APH0430C-R47M-TC	0.47	±20%	15.0	17.0	10.0	14.0	7.3	3.4±0.3
APH0430C-R90M-TC	0.9	±20%	9.0	10.0	8.2	11.2	10.1	3.4±0.3
APH0430C-1R0M-TC	1	±20%	9.2	9.8	8.0	11.0	10.1	3.4±0.3
APH0430C-1R2M-TC	1.2	±20%	8.7	9.2	7.8	9.8	11.5	3.4±0.3
APH0430C-1R5M-TC	1.5	±20%	7.0	8.0	7.0	9.0	13.2	3.4±0.3
APH0430C-2R2M-TC	2.2	±20%	6.1	7.0	6.0	7.8	22.6	3.4±0.3
APH0430C-3R3M-TC	3.3	±20%	5.3	6.2	5.0	6.6	28.6	3.4±0.3
APH0430C-4R7M-TC	4.7	±20%	4.0	4.5	3.9	5.1	44.1	3.4±0.3
APH0430C-6R8M-TC	6.8	±20%	3.0	3.6	3.0	3.9	74.1	3.4±0.3

APH0520C-TC Series

Part Number	Inductance	Inductance Tolerance	Saturation Current		Heat Rating Current Typ.		DC Resistance	D (MM)
	@100KHz /0.1V		Max.	Typ.	20℃ rise	40℃ rise	Max.	
Units	μH	-	A		A		mΩ	-
Symbol	L	-	Isat		Irms		DCR	
APH0520C-R15M-TC	0.15	±20%	27.0	30.0	13.9	18.8	4.6	4.3±0.3
APH0520C-R16M-TC	0.16	±20%	27.0	30.0	13.9	18.8	4.6	4.3±0.3
APH0520C-R33M-TC	0.33	±20%	24.0	26.0	10.5	14.4	7.0	4.3±0.3
APH0520C-R47M-TC	0.47	±20%	20.0	22.0	10.1	14.1	8.1	4.3±0.3
APH0520C-R56M-TC	0.56	±20%	16.0	19.0	9.9	13.9	9.5	4.3±0.3
APH0520C-R68M-TC	0.68	±20%	14.0	16.0	9.6	13.4	10.2	4.3±0.3
APH0520C-R80M-TC	0.8	±20%	13.5	15.5	9.4	13.0	11.8	4.3±0.3
APH0520C-R82M-TC	0.82	±20%	13.0	15.0	8.5	12.0	12.7	4.3±0.3
APH0520C-1R0M-TC	1	±20%	12.8	14.5	7.5	10.5	13.8	4.3±0.3
APH0520C-1R2M-TC	1.2	±20%	12.2	14.0	6.8	9.4	16.3	4.3±0.3
APH0520C-1R5M-TC	1.5	±20%	11.7	13.3	6.4	8.8	18.7	4.3±0.3

ELECTRICAL CHARACTERISTICS

APH0530C-TC Series

Part Number	Inductance	Inductance Tolerance	Saturation Current		Heat Rating Current Typ.		DC Resistance	D (MM)
	@100KHz /0.1V		Max.	Typ.	20℃ rise	40℃ rise	Max.	
Units	μH	-	A		A		mΩ	-
Symbol	L	-	Isat		Irms		DCR	
APH0530C-R15M-TC	0.15	±20%	32.5	36.0	14.3	22.2	2.3	4.3±0.3
APH0530C-R16M-TC	0.16	±20%	32.0	35.0	14.2	22.2	2.3	4.3±0.3
APH0530C-R33M-TC	0.33	±20%	26.0	28.0	13.8	19.2	3.5	4.3±0.3
APH0530C-R47M-TC	0.47	±20%	24.0	26.0	13.7	18.4	4.1	4.3±0.3
APH0530C-R56M-TC	0.56	±20%	20.2	22.2	13.6	17.7	4.5	4.3±0.3
APH0530C-R60M-TC	0.6	±20%	20.0	22.0	13.6	17.7	4.5	4.3±0.3
APH0530C-R80M-TC	0.8	±20%	18.0	20.0	10.1	13.1	5.7	4.3±0.3
APH0530C-R82M-TC	0.82	±20%	17.6	19.7	9.9	12.9	5.8	4.3±0.3
APH0530C-1R0M-TC	1	±20%	14.3	16.5	9.0	12.2	7.6	4.3±0.3
APH0530C-1R2M-TC	1.2	±20%	13.5	15.0	8.5	11.0	9.7	4.3±0.3
APH0530C-1R5M-TC	1.5	±20%	12.5	14.0	8.0	10.5	11.2	4.3±0.3
APH0530C-1R8M-TC	1.8	±20%	11.3	12.3	7.6	10.1	12.7	4.3±0.3
APH0530C-2R2M-TC	2.2	±20%	9.0	10.0	7.2	9.7	14.5	4.3±0.3
APH0530C-3R3M-TC	3.3	±20%	8.7	9.5	5.9	8.1	23.1	4.3±0.3
APH0530C-4R7M-TC	4.7	±20%	7.0	8.2	4.3	5.9	36.3	4.3±0.3

APH0550C-TC Series

Part Number	Inductance	Inductance Tolerance	Saturation Current		Heat Rating Current Typ.		DC Resistance	D (MM)
	@100KHz /0.1V		Max.	Typ.	20℃ rise	40℃ rise	Max.	
Units	μH	-	A		A		mΩ	-
Symbol	L	-	Isat		Irms		DCR	
APH0550C-5R6M-TC	5.6	±20%	7.2	8.6	5.3	7.2	24.2	4.3±0.3
APH0550C-6R8M-TC	6.8	±20%	6.6	7.8	4.8	6.4	28.6	4.3±0.3
APH0550C-8R2M-TC	8.2	±20%	6.1	7.2	4.6	6.1	32.5	4.3±0.3
APH0550C-100M-TC	10	±20%	5.4	6.5	3.8	5.0	43.0	4.3±0.3
APH0550C-150M-TC	15	±20%	3.2	3.7	3.0	3.9	76.7	4.3±0.3
APH0550C-220M-TC	22	±20%	3.0	3.6	2.5	3.4	99.7	4.3±0.3

APH0630C-TC Series

Part Number	Inductance	Inductance Tolerance	Saturation Current		Heat Rating Current Typ.		DC Resistance	D (MM)
	@100KHz /0.1V		Max.	Typ.	20℃ rise	40℃ rise	Max.	
Units	μH	-	A		A		mΩ	-
Symbol	L	-	Isat		Irms		DCR	
APH0630C-R18M-TC	0.18	±20%	36.0	40.0	24.0	32.0	1.8	5.3±0.3
APH0630C-R33M-TC	0.33	±20%	28.0	32.0	20.0	25.0	2.5	5.55±0.3
APH0630C-R56M-TC	0.56	±20%	25.0	29.0	17.0	22.0	3.3	5.3±0.3
APH0630C-R68M-TC	0.68	±20%	21.0	25.0	15.0	20.0	5.2	5.3±0.3
APH0630C-1R0M-TC	1	±20%	18.0	23.0	13.0	18.0	6.1	5.2±0.3
APH0630C-1R2M-TC	1.2	±20%	16.0	22.0	12.0	16.0	7.4	5.15±0.3
APH0630C-1R5M-TC	1.5	±20%	15.5	20.0	11.0	15.0	9.1	5.15±0.3
APH0630C-1R8M-TC	1.8	±20%	13.0	18.2	10.0	14.0	10.2	5.10±0.3
APH0630C-2R2M-TC	2.2	±20%	11.0	15.9	7.0	10.0	12.2	5.05±0.3
APH0630C-3R3M-TC	3.3	±20%	9.0	12.2	6.0	8.0	20.8	5.0±0.3
APH0630C-4R5M-TC	4.5	±20%	8.0	10.0	5.0	7.0	25.3	5.0±0.3

ELECTRICAL CHARACTERISTICS

APH0650C-TC Series

Part Number	Inductance	Inductance Tolerance	Saturation Current		Heat Rating Current Typ.		DC Resistance	D (MM)
	@100KHz /0.1V		Max.	Typ.	20℃ rise	40℃ rise	Max.	
Units	μH	-	A		A		mΩ	-
Symbol	L	-	Isat		Irms		DCR	
APH0650C-R82M-TC	0.82	±20%	20.0	24.0	16.0	21.0	4.2	5.3±0.3
APH0650C-1R0M-TC	1	±20%	18.0	23.0	15.0	20.0	4.5	5.3±0.3
APH0650C-1R2M-TC	1.2	±20%	16.0	22.0	14.0	18.0	5.8	5.3±0.3
APH0650C-1R5M-TC	1.5	±20%	14.5	19.5	13.0	17.0	6.3	5.3±0.3
APH0650C-1R8M-TC	1.8	±20%	13.5	18.5	12.0	16.0	7.1	5.3±0.3
APH0650C-2R2M-TC	2.2	±20%	12.0	16.0	10.0	13.0	8.5	5.2±0.3
APH0650C-3R3M-TC	3.3	±20%	10.0	12.5	8.5	11.0	12.5	5.2±0.3
APH0650C-4R3M-TC	4.3	±20%	8.5	11.0	7.0	9.0	16.2	5.2±0.3
APH0650C-4R7M-TC	4.7	±20%	8.0	10.5	6.5	8.5	18.4	5.2±0.3

APH0660C-TC Series

Part Number	Inductance	Inductance Tolerance	Saturation Current		Heat Rating Current Typ.		DC Resistance	D (MM)
	@100KHz /0.1V		Max.	Typ.	20℃ rise	40℃ rise	Max.	
Units	μH	-	A		A		mΩ	-
Symbol	L	-	Isat		Irms		DCR	
APH0660C-1R0M-TC	1	±20%	19.0	24.0	16.0	21.0	4.4	5.3±0.3
APH0660C-1R5M-TC	1.5	±20%	15.0	20.0	13.5	17.5	6.1	5.3±0.3
APH0660C-2R2M-TC	2.2	±20%	12.5	16.5	11.0	14.0	8.1	5.3±0.3
APH0660C-3R3M-TC	3.3	±20%	11.0	13.0	9.0	12.0	12.3	5.3±0.3
APH0660C-4R7M-TC	4.7	±20%	9.3	10.5	8.5	11.0	14.4	5.3±0.3
APH0660C-5R6M-TC	5.6	±20%	8.7	9.9	7.6	10.0	15.9	5.3±0.3
APH0660C-6R8M-TC	6.8	±20%	8.1	9.2	7.0	9.0	20.8	5.3±0.3
APH0660C-8R2M-TC	8.2	±20%	8.0	8.4	6.0	8.0	26.4	5.3±0.3
APH0660C-100M-TC	10	±20%	6.8	7.6	5.0	7.0	29.8	5.3±0.3
APH0660C-150M-TC	15	±20%	5.0	5.8	4.5	6.0	43.8	5.3±0.3
APH0660C-220M-TC	22	±20%	4.8	5.6	3.8	5.0	60.6	5.3±0.3

APH0720C-TC Series

Part Number	Inductance	Inductance Tolerance	Saturation Current		Heat Rating Current Typ.		DC Resistance	D (MM)
	@100KHz /0.1V		Max.	Typ.	20℃ rise	40℃ rise	Max.	
Units	μH	-	A		A		mΩ	-
Symbol	L	-	Isat		Irms		DCR	
APH0720C-R27M-TC	0.27	±20%	32.0	35.0	16.0	21.0	3.5	6.6±0.3
APH0720C-R31M-TC	0.31	±20%	31.0	34.0	14.0	20.0	4.8	6.2±0.3
APH0720C-R33M-TC	0.33	±20%	31.0	34.0	13.0	19.0	4.8	6.2±0.3
APH0720C-R47M-TC	0.47	±20%	25.0	28.0	12.0	17.0	6.2	6.2±0.3
APH0720C-R68M-TC	0.68	±20%	23.0	25.0	10.0	13.0	9.2	6.2±0.3
APH0720C-1R0M-TC	1	±20%	20.0	23.0	8.0	11.0	10.8	6.2±0.3

ELECTRICAL CHARACTERISTICS

APH0730C-TC Series

Part Number	Inductance	Inductance Tolerance	Saturation Current		Heat Rating Current Typ.		DC Resistance	D (MM)
	@100KHz /0.1V		Max.	Typ.	20℃ rise	40℃ rise	Max.	
Units	μH	-	A		A		mΩ	-
Symbol	L	-	Isat		Irms		DCR	
APH0730C-1R0M-TC	1	±20%	28.0	30.0	16.1	21.8	5.0	6.6±0.3
APH0730C-1R5M-TC	1.5	±20%	23.5	25.0	12.0	15.3	8.3	6.6±0.3
APH0730C-2R2M-TC	2.2	±20%	17.0	19.0	10.0	13.0	13.7	6.2±0.3
APH0730C-2R7M-TC	2.7	±20%	13.5	16.0	9.2	11.4	15.4	6.2±0.3
APH0730C-3R3M-TC	3.3	±20%	13.0	15.0	8.0	10.0	18.0	6.2±0.3
APH0730C-4R7M-TC	4.7	±20%	12.2	13.5	6.9	9.0	26.7	6.2±0.3
APH0730C-5R6M-TC	5.6	±20%	11.5	12.5	5.3	7.3	33.2	6.2±0.3
APH0730C-6R8M-TC	6.8	±20%	11.0	12.0	4.5	6.8	42.5	6.2±0.3
APH0730C-8R2M-TC	8.2	±20%	9.0	10.2	3.0	5.9	48.7	6.2±0.3

APH0770C-TC Series

Part Number	Inductance	Inductance Tolerance	Saturation Current		Heat Rating Current Typ.		DC Resistance	D (MM)
	@100KHz /0.1V		Max.	Typ.	20℃ rise	40℃ rise	Max.	
Units	μH	-	A		A		mΩ	-
Symbol	L	-	Isat		Irms		DCR	
APH0770C-1R0M-TC	1	±20%	31.8	34.8	20.0	25.0	2.8	6.7±0.3
APH0770C-1R8M-TC	1.8	±20%	23.0	25.0	15.8	21.0	4.5	6.7±0.3
APH0770C-3R3M-TC	3.3	±20%	15.1	19.4	11.5	15.1	9.4	6.7±0.3
APH0770C-4R7M-TC	4.7	±20%	14.0	15.5	10.5	13.6	13.5	6.7±0.3
APH0770C-6R8M-TC	6.8	±20%	11.0	12.8	7.0	9.5	19.6	6.5±0.3

APH0880C-TC Series

Part Number	Inductance	Inductance Tolerance	Saturation Current		Heat Rating Current Typ.		DC Resistance	D (MM)
	@100KHz /0.1V		Max.	Typ.	20℃ rise	40℃ rise	Max.	
Units	μH	-	A		A		mΩ	-
Symbol	L	-	Isat		Irms		DCR	
APH0880C-1R8M-TC	1.8	±20%	24.0	28.0	18.0	24.0	4.0	7.2±0.3
APH0880C-2R2M-TC	2.2	±20%	22.0	25.0	16.0	21.5	4.3	7.2±0.3
APH0880C-3R3M-TC	3.3	±20%	20.0	23.0	13.5	18.0	7.3	6.9±0.3
APH0880C-4R7M-TC	4.7	±20%	17.0	19.0	10.5	14.6	9.8	6.9±0.3
APH0880C-6R8M-TC	6.8	±20%	12.5	14.5	8.0	11.3	14.3	6.9±0.3
APH0880C-100M-TC	10	±20%	10.0	11.0	6.6	8.7	22.9	6.9±0.3

APH1010C-TC Series

Part Number	Inductance	Inductance Tolerance	Saturation Current		Heat Rating Current Typ.		DC Resistance	D (MM)
	@100KHz /0.1V		Max.	Typ.	20℃ rise	40℃ rise	Max.	
Units	μH	-	A		A		mΩ	-
Symbol	L	-	Isat		Irms		DCR	
APH1010C-2R2M-TC	2.2	±20%	29.0	34.0	24.5	32.0	2.8	9.3±0.5
APH1010C-3R3M-TC	3.3	±20%	23.4	27.4	18.2	25.0	4.1	9.3±0.5
APH1010C-4R7M-TC	4.7	±20%	21.4	25.4	17.5	24.0	5.7	9.3±0.5
APH1010C-5R6M-TC	5.6	±20%	19.6	23.6	15.7	21.2	7.2	9.3±0.5
APH1010C-6R8M-TC	6.8	±20%	18.5	21.8	14.0	18.5	8.9	9.0±0.5
APH1010C-8R2M-TC	8.2	±20%	16.3	18.3	12.9	17.1	12.4	9.0±0.5

ELECTRICAL CHARACTERISTICS

APH1010C-TC Series

Part Number	Inductance	Inductance Tolerance	Saturation Current		Heat Rating Current Typ.		DC Resistance	D (MM)
	@100KHz /0.1V		Max.	Typ.	20℃ rise	40℃ rise	Max.	
Units	μH	-	A		A		mΩ	-
Symbol	L	-	Isat		Irms		DCR	
APH1010C-100M-TC	10	±20%	14.6	17.5	11.5	15.5	13.8	9.0±0.5
APH1010C-150M-TC	15	±20%	12.5	15.5	9.9	13.8	19.3	9.0±0.5

APH1031C-TC Series

Part Number	Inductance	Inductance Tolerance	Saturation Current		Heat Rating Current Typ.		DC Resistance	D (MM)
	@100KHz /0.1V		Max.	Typ.	20℃ rise	40℃ rise	Max.	
Units	μH	-	A		A		mΩ	-
Symbol	L	-	Isat		Irms		DCR	
APH1031C-R28M-TC	0.28	±20%	58.0	65.0	25.5	35.0	1.6	9.0±0.5
APH1031C-R56M-TC	0.56	±20%	39.0	44.0	23.0	32.0	2.8	9.0±0.5
APH1031C-R82M-TC	0.82	±20%	32.0	38.0	18.0	25.0	4.1	9.0±0.5
APH1031C-R90M-TC	0.9	±20%	31.0	36.0	17.0	24.0	4.2	9.0±0.5
APH1031C-1R0M-TC	1	±20%	30.0	35.0	16.0	23.0	5.0	9.0±0.5
APH1031C-1R5M-TC	1.5	±20%	25.0	30.0	12.0	18.0	6.6	9.0±0.5

APH1060C-TC Series

Part Number	Inductance	Inductance Tolerance	Saturation Current		Heat Rating Current Typ.		DC Resistance	D (MM)
	@100KHz /0.1V		Max.	Typ.	20℃ rise	40℃ rise	Max.	
Units	μH	-	A		A		mΩ	-
Symbol	L	-	Isat		Irms		DCR	
APH1060C-R68M-TC	0.68	±20%	50.0	55.0	22.5	34.0	1.5	9.5±0.5
APH1060C-1R0M-TC	1	±20%	44.0	48.0	20.0	28.5	2.3	9.0±0.5
APH1060C-1R2M-TC	1.2	±20%	40.0	45.0	18.0	26.5	2.6	9.0±0.5
APH1060C-1R5M-TC	1.5	±20%	36.0	40.0	16.0	24.5	3.3	9.0±0.5
APH1060C-2R2M-TC	2.2	±20%	30.0	35.0	14.0	20.0	4.8	9.0±0.5
APH1060C-3R3M-TC	3.3	±20%	25.0	28.0	11.4	16.8	7.7	9.0±0.5
APH1060C-4R7M-TC	4.7	±20%	22.0	25.0	8.7	14.0	10.7	9.0±0.5

APH1510C-TC Series

Part Number	Inductance	Inductance Tolerance	Saturation Current		Heat Rating Current Typ.		DC Resistance	D (MM)
	@100KHz /0.1V		Max.	Typ.	20℃ rise	40℃ rise	Max.	
Units	μH	-	A		A		mΩ	-
Symbol	L	-	Isat		Irms		DCR	
APH1510C-4R7M-TC	4.7	±20%	39.0	43.0	22.0	30.0	3.8	13.2±0.5
APH1510C-5R6M-TC	5.6	±20%	34.0	38.0	21.0	28.0	4.2	13.2±0.5
APH1510C-6R8M-TC	6.8	±20%	31.0	36.0	20.0	26.0	4.6	13.2±0.5
APH1510C-8R2M-TC	8.2	±20%	28.0	32.0	19.0	25.0	7.2	13.2±0.5
APH1510C-100M-TC	10	±20%	26.0	29.0	18.0	24.0	8.6	13.2±0.5
APH1510C-150M-TC	15	±20%	18.0	20.0	14.0	18.0	11.5	13.2±0.5
APH1510C-220M-TC	22	±20%	16.0	18.0	10.5	14.2	15.8	13.2±0.5
APH1510C-330M-TC	33	±20%	14.0	16.7	8.6	12.3	20.0	13.2±0.5

ELECTRICAL CHARACTERISTICS

● APH1513C-TC Series

Part Number	Inductance	Inductance Tolerance	Saturation Current		Heat Rating Current Typ.		DC Resistance	D (MM)
	@100KHz /0.1V		Max.	Typ.	20℃ rise	40℃ rise	Max.	
Units	μH	-	A		A		mΩ	-
Symbol	L	-	Isat		Irms		DCR	
APH1513C-4R7M-TC	4.7	±20%	40.0	44.0	23.0	31.0	3.3	13.2±0.5
APH1513C-5R6M-TC	5.6	±20%	35.0	40.0	22.0	29.0	3.9	13.2±0.5
APH1513C-6R8M-TC	6.8	±20%	32.0	37.0	21.0	27.0	4.2	13.2±0.5
APH1513C-8R2M-TC	8.2	±20%	29.0	33.0	20.0	26.0	5.7	13.2±0.5
APH1513C-100M-TC	10	±20%	27.0	30.0	19.0	25.0	7.0	13.2±0.5
APH1513C-150M-TC	15	±20%	21.0	25.5	16.0	22.0	7.5	13.2±0.5
APH1513C-220M-TC	22	±20%	19.0	22.0	12.0	17.0	13.9	13.2±0.5
APH1513C-330M-TC	33	±20%	16.0	19.0	9.0	14.0	22.2	13.2±0.5

● APH1580C-TC Series

Part Number	Inductance	Inductance Tolerance	Saturation Current		Heat Rating Current Typ.		DC Resistance	D (MM)
	@100KHz /0.1V		Max.	Typ.	20℃ rise	40℃ rise	Max.	
Units	μH	-	A		A		mΩ	-
Symbol	L	-	Isat		Irms		DCR	
APH1580C-2R0M-TC	2	±20%	52.0	57.0	29.5	40.0	2.2	13.2±0.5
APH1580C-2R2M-TC	2.2	±20%	49.0	55.0	28.0	37.0	2.5	13.2±0.5
APH1580C-3R0M-TC	3	±20%	41.0	46.0	26.0	34.5	3.0	13.2±0.5
APH1580C-4R2M-TC	4.2	±20%	33.0	38.0	20.5	27.0	4.7	13.2±0.5
APH1580C-5R3M-TC	5.3	±20%	31.0	35.0	19.5	26.0	5.3	13.2±0.5
APH1580C-6R2M-TC	6.2	±20%	31.0	34.0	17.0	23.0	6.5	13.2±0.5
APH1580C-7R2M-TC	7.2	±20%	29.0	32.0	15.0	21.0	7.2	13.2±0.5
APH1580C-8R2M-TC	8.2	±20%	25.0	28.0	13.0	19.0	7.9	13.2±0.5
APH1580C-100M-TC	10	±20%	21.0	24.0	11.0	16.0	9.6	13.2±0.5
APH1580C-150M-TC	15	±20%	18.0	21.0	10.0	13.0	15.0	13.2±0.5
APH1580C-220M-TC	22	±20%	16.0	19.0	9.0	12.0	23.2	13.2±0.5

- All test in 25 °C temperature.
- Irms: DC current that causes the temperature rise (△ T =40°C) from 20°C ambient.
- Isat: DC current at which the inductance drops approximate 30% from its value without current;
- Operating Temperature Range -55℃ to + 125℃ .
- Rated current: Isat or Irms, whichever is smaller;

Mechanical Reliability

Item	Specification and Requirement	Test Method
Solderability	1. No case deformation or change in visual 2. New solder coverage More than 95%	1.Preheat：155℃±5℃，60S±2S 2.Tin: lead-free. 3.Temperature:240℃±5℃，flux 3.0S±0.5S.
Mechanical shock	1. No case deformation or change in visual 2. △L/Lo≦±10%	1. Acceleration： 100G 2. Pulse time:： 6ms 3. 3 times in each positive and negative direction of 3 mutual perpendicular directions
Mechanical vibration	1. No case deformation or change in visual 2. △L/Lo≦±10%	1. Reflow: 2times 2. Frequency: 10HZ～50HZ～10HZ，20 Min/Cycles 3. Amplitude: 1.52 mm±10% 4. Directions: X,Y,Z 5. Time: 12 cycle / direction

Endurance Reliability

Item	Specification and Requirement	Test Method
Thermal Shock	Inductance change: Within ± 10% Without distinct damage in visual	1. First -55℃ for 30 minutes，last 125℃ for 30 minutes as 1 cycle. Go through 1000 cycles. 2. Max transfer time is 3 minutes. 3. Measured at room temperature after placing for 24±2 hours
Biased Humidity	Inductance change: Within ± 10% Without distinct damage in visual	1.Reflow 2 times, 2.85℃±3℃,85%±3%RH,1000 hours 3.Measured at room temperature after placing for 24±2 hours
Low temperature storage	Inductance change: Within ± 10% Without distinct damage in visual	1. Temperature：-55 ± 2℃ 2. Time：1000 hours 3. Measured at room temperature after placing for 24±2 hours
High temperature storage	Inductance change: Within ± 10% Without distinct damage in visual	1. Temperature：+125 ± 2℃ 2. Time：1000 hours 3. Measured at room temperature after placing for 24±2 hours

Recommended Soldering Technologies

● Re-flowing Profile

Preheat condition: 150 ~200℃/60~120sec.

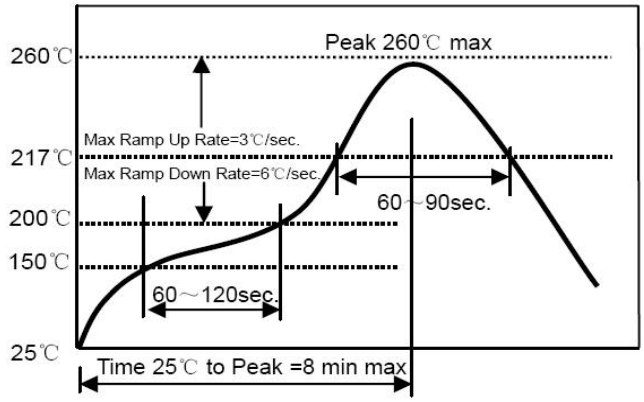
Allowed time above 217℃: 60~90sec.

Peak temp: 260℃

Max time at Peak temp: 10 sec.

Solder paste: Sn/3.0Ag/0.5Cu

Allowed Reflow time: 2x max



● Iron Soldering Profile

Iron soldering power: Max. 30W

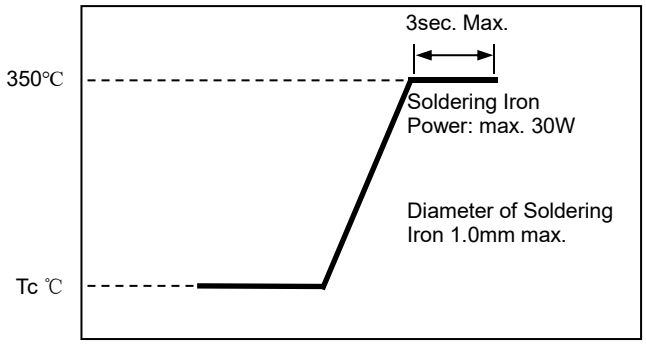
Pre-heating: 150℃/60sec.

Soldering Tip temperature: 350℃ Max.

Soldering time: 3sec. Max.

Solder paste: Sn/3.0Ag/0.5Cu

Max.1 times for iron soldering



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.