

## FEATURES

- Lowest molded height in this package Footprint.
- Shielded construction.
- Handles high transient current spikes without saturation.
- Ultra low buzz noise, due to composite construction.
- Encapsulated body offers improved environmental protection and moisture resistance.
- Corrosion resistant package.
- Operating Temperature: -40°C ~ + 125°C .



## APPLICATIONS

- PDA, notebook, desktop, server applications.
- High current POL converters.
- Low profile, high current power supplies.
- Battery powered devices.
- DC/DC converters in distributed power systems.
- DC/DC converter for Field Programmable Gate Array.
- RoHS, REACH Compliance.

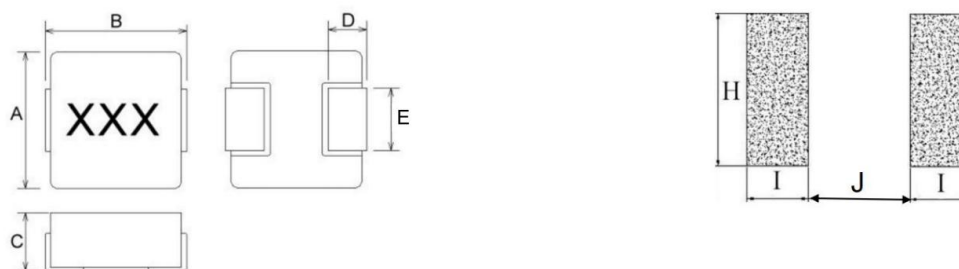
## PART NUMBERING



① Series Name	
APH	Molded SMD Power Inductors
③ Feature Type	
T	Standard
④ Nominal inductance	
Code (example)	Nominal inductance [μH]
4R7	4.7
100	10
101	100
⑤ Inductance tolerance	
Code (example)	Inductance tolerance
M	±20%
⑥ Design Code	
□□	Standard product is blank

② External Dimensions(L×W×H) [mm]	
0412	4.4x4.2x1
0420	4.4x4.2x1.8
0518	5.4x5.2x1.6
0530	5.4x5.2x2.8
0615	7x6.6x1.3
0618	7x6.6x1.6
0620	7x6.6x1.8
0624	7x6.6x2.2
0630	7x6.6x2.8
0640	7x6.6x3.8
0650	7x6.6x4.8
0840	8.8x8x3.8
0850	8.8x8x4.8
1030	11x10x2.8
1040	11x10x3.8
1050	11x10x4.8
1240	13.45x12.8x3.8
1250	13.45x12.8x4.8
1260	13.45x12.8x5.8
1265	13.45x12.8x6.5
1770	17.65x17.15x6.7
2213	23.5x22x12.6

## DIMENSIONS &amp; RECOMMENDED LAND PATTERN



Recommended Land Pattern

Dimensions						Recommended Land Pattern			Unit: mm
Series	A	B	C	D Typ.	E Typ.	I Typ.	J Typ.	H Typ.	
APH0412	4.2±0.25	4.4±0.35	1.0±0.2	0.8	2.0	1.5	2.2	2.5	
APH0420	4.2±0.25	4.4±0.35	1.8±0.2	0.8	2.0	1.5	2.2	2.5	
APH0518	5.2±0.3	5.4±0.35	1.6±0.2	1.3	2.2	1.9	2.2	2.5	
APH0530	5.2±0.3	5.4±0.35	2.8±0.2	1.3	2.2	1.9	2.2	2.5	
APH0615	6.6±0.3	7.0±0.3	1.3±0.2	1.7	3.0	2.35	3.7	3.5	
APH0618	6.6±0.3	7.0±0.3	1.6±0.2	1.7	3.0	2.35	3.7	3.5	
APH0620	6.6±0.3	7.0±0.3	1.8±0.2	1.7	3.0	2.35	3.7	3.5	
APH0624	6.6±0.3	7.0±0.3	2.2±0.2	1.7	3.0	2.35	3.7	3.5	
APH0630	6.6±0.3	7.0±0.3	2.8±0.2	1.7	3.0	2.35	3.7	3.5	
APH0640	6.6±0.3	7.0±0.3	3.8±0.2	1.7	3.0	2.35	3.7	3.5	
APH0650	6.6±0.3	7.0±0.3	4.8±0.2	1.7	3.0	2.35	3.7	3.5	
APH0840	8.0±0.5	8.8±0.5	3.8±0.2	1.8	3.0	3	4.0	4.1	
APH0850	8.0±0.5	8.8±0.5	4.8±0.2	1.8	3.0	3	4.0	4.1	
APH1030	10.0±0.3	11.0±0.5	2.8±0.2	2.0	3.0	4.1	5.4	4.1	
APH1040	10.0±0.3	11.0±0.5	3.8±0.2	2.0	3.0	4.1	5.4	4.1	
APH1050	10.0±0.3	11.0±0.5	4.8±0.2	2.0	3.0	4.1	5.4	4.1	
APH1240	12.8±0.3	13.45±0.35	3.8±0.2	2.5	4.0	4.1	6.5	5.5	
APH1250	12.8±0.3	13.45±0.35	4.8±0.2	2.5	4.0	4.1	6.5	5.5	
APH1260	12.8±0.3	13.45±0.35	5.8±0.2	2.5	4.0	4.1	6.5	5.5	
APH1265	12.8±0.3	13.45±0.35	6.5Max.	2.5	4.0	4.1	6.5	5.5	
APH1770	17.15±0.3	17.65±0.5	6.7±0.3	2.5	12	3.5	11.2	12.8	
APH2213	22.0±0.3	23.5±0.5	12.6±0.4	5.0	19	5.75	12.5	19.6	

## ELECTRICAL CHARACTERISTICS

## ● APH0412 Series

Part Number	Inductance	Inductance Tolerance	Heat Rating Current		Saturation Current		DC Resistance	Marking
	@100kHz,1V		Max.	Typ.	Max.	Typ.	Typ.	
Units	μH	-	A		A		mΩ	
Symbol	L	-	Irms		Isat		DCR	
APH0412TR15M	0.15	±20%	6.91	7.50	12.45	15.00	9	R15
APH0412TR22M	0.22	±20%	6.58	7.00	9.13	11.00	11	R22
APH0412TR33M	0.33	±20%	5.82	6.50	6.96	8.40	19	R33
APH0412TR47M	0.47	±20%	5.32	6.00	5.61	6.80	21	R47
APH0412TR68M	0.68	±20%	4.28	4.70	4.98	6.00	36	R68
APH0412TIR0M	1	±20%	3.91	4.50	4.57	5.50	47	1R0
APH0412TIR5M	1.5	±20%	2.78	3.25	3.32	4.00	75	1R5
APH0412T2R2M	2.2	±20%	2.28	2.75	2.49	3.00	83.5	2R2
APH0412T3R3M	3.3	±20%	1.80	2.00	2.43	2.70	160	3R3
APH0412T4R7M	4.7	±20%	1.50	1.80	1.86	2.20	195	4R7

## ● APH0420 Series

Part Number	Inductance	Inductance Tolerance	Heat Rating Current		Saturation Current		DC Resistance	Marking
	@100kHz,1V		Max.	Typ.	Max.	Typ.	Typ.	
Units	μH	-	A		A		mΩ	
Symbol	L	-	Irms		Isat		DCR	
APH0420TR10M	0.1	±20%	11.47	13.00	18.26	22.00	4	R10
APH0420TR22M	0.22	±20%	8.40	9.50	10.38	12.50	6.6	R22
APH0420TR33M	0.33	±20%	8.81	10.00	9.96	12.00	11	R33
APH0420TR47M	0.47	±20%	6.78	7.50	7.89	9.50	14	R47
APH0420TR56M	0.56	±20%	6.24	7.00	7.47	9.00	16	R56
APH0420TR68M	0.68	±20%	6.28	7.00	6.64	8.00	18	R68
APH0420TIR0M	1	±20%	5.49	6.00	5.81	7.00	27	1R0
APH0420TIR2M	1.2	±20%	5.49	6.00	5.40	6.50	27	1R2
APH0420TIR5M	1.5	±20%	4.41	5.00	4.57	5.50	46	1R5
APH0420T2R2M	2.2	±20%	3.91	4.50	4.15	5.00	58	2R2
APH0420T3R3M	3.3	±20%	2.88	3.30	2.91	3.50	87	3R3
APH0420T4R7M	4.7	±20%	2.29	2.80	2.49	3.00	105	4R7
APH0420T6R8M	6.8	±20%	1.98	2.40	2.08	2.50	175	6R8
APH0420T100M	10	±20%	1.35	1.60	1.66	2.00	282	100
APH0420T220M	22	±20%	0.95	1.20	1.16	1.40	363	220

## ● APH0518 Series

Part Number	Inductance	Inductance Tolerance	Heat Rating Current		Saturation Current		DC Resistance	Marking
	@100kHz,1V		Max.	Typ.	Max.	Typ.	Typ.	
Units	μH	-	A		A		mΩ	
Symbol	L	-	Irms		Isat		DCR	
APH0518TR47M	0.47	±20%	9.65	10.50	9.96	12.00	9	R47
APH0518TR56M	0.56	±20%	8.40	9.50	9.13	11.00	10	R56

## ELECTRICAL CHARACTERISTICS

## ● APH0518 Series

Part Number	Inductance	Inductance Tolerance	Heat Rating Current		Saturation Current		DC Resistance	Marking
	@100kHz,1V		Max.	Typ.	Max.	Typ.	Typ.	
Units	μH	-	A		A		mΩ	
Symbol	L	-	I <sub>rms</sub>		I <sub>sat</sub>		DCR	
APH0518TR68M	0.68	±20%	7.85	8.70	9.48	10.50	13.8	R68
APH0518T1R0M	1	±20%	7.32	8.00	7.47	9.00	17	1R0
APH0518T1R5M	1.5	±20%	6.74	7.50	6.64	8.00	26	1R5
APH0518T2R2M	2.2	±20%	4.32	5.00	4.98	6.00	35	2R2
APH0518T3R3M	3.3	±20%	3.91	4.50	3.98	4.80	58	3R3
APH0518T4R7M	4.7	±20%	3.08	3.50	3.32	4.00	85	4R7
APH0518T6R8M	6.8	±20%	2.46	2.80	2.82	3.40	120	6R8
APH0518T100M	10	±20%	2.25	2.50	2.08	2.50	155	100

## ● APH0530 Series

Part Number	Inductance	Inductance Tolerance	Heat Rating Current		Saturation Current		DC Resistance	Marking
	@100kHz,1V		Max.	Typ.	Max.	Typ.	Typ.	
Units	μH	-	A		A		mΩ	
Symbol	L	-	I <sub>rms</sub>		I <sub>sat</sub>		DCR	
APH0530TR10M	0.1	±20%	23.30	25.00	24.90	30.00	3	R10
APH0530TR20M	0.2	±20%	13.15	14.00	16.60	20.00	4.1	R20
APH0530TR33M	0.33	±20%	13.24	14.00	14.94	18.00	5.5	R33
APH0530TR47M	0.47	±20%	10.15	11.00	12.45	15.00	8.5	R47
APH0530TR68M	0.68	±20%	8.32	9.00	9.55	11.50	12	R68
APH0530TR82M	0.82	±20%	9.23	10.50	9.40	10.50	10.4	R82
APH0530T1R0M	1	±20%	7.91	8.50	8.30	10.00	14	1R0
APH0530T1R2M	1.2	±20%	7.95	8.50	7.89	9.50	16	1R2
APH0530T1R5M	1.5	±20%	7.69	8.20	7.47	9.00	25	1R5
APH0530T2R2M	2.2	±20%	6.49	7.00	5.81	7.00	29	2R2
APH0530T3R3M	3.3	±20%	5.08	5.50	4.98	6.00	38	3R3
APH0530T4R7M	4.7	±20%	4.08	4.50	3.82	4.60	60	4R7
APH0530T6R8M	6.8	±20%	2.99	3.50	2.99	3.60	90	6R8
APH0530T100M	10	±20%	2.86	3.20	2.91	3.50	125	100
APH0530T150M	15	±20%	1.63	1.80	2.03	2.20	170	150

## ● APH0615 Series

Part Number	Inductance	Inductance Tolerance	Heat Rating Current		Saturation Current		DC Resistance	Marking
	@100kHz,1V		Max.	Typ.	Max.	Typ.	Typ.	
Units	μH	-	A		A		mΩ	
Symbol	L	-	I <sub>rms</sub>		I <sub>sat</sub>		DCR	
APH0615TR47M	0.47	±20%	9.02	10.00	14.44	16.00	8.5	R47
APH0615TR56M	0.56	±20%	8.12	9.00	12.62	14.00	11	R56

## ELECTRICAL CHARACTERISTICS

## ● APH0615 Series

Part Number	Inductance	Inductance Tolerance	Heat Rating Current		Saturation Current		DC Resistance	Marking
	@100kHz,1V		Max.	Typ.	Max.	Typ.	Typ.	
Units	$\mu\text{H}$	-	A		A		$\text{m}\Omega$	
Symbol	L	-	I <sub>rms</sub>		I <sub>sat</sub>		DCR	
APH0615TR68M	0.68	±20%	7.67	8.50	10.83	12.00	12	R68
APH0615TR82M	0.82	±20%	7.22	8.00	9.02	10.00	17	R82
APH0615T1R0M	1	±20%	5.41	6.00	8.12	9.00	21	1R0
APH0615T2R2M	2.2	±20%	3.43	3.80	6.31	7.00	54	2R2
APH0615T3R3M	3.3	±20%	3.16	3.50	4.96	5.50	63	3R3
APH0615T4R7M	4.7	±20%	2.89	3.20	4.51	5.00	85	4R7
APH0615T6R8M	6.8	±20%	2.25	2.50	3.61	4.00	135	6R8
APH0615T100M	10	±20%	1.80	2.00	2.70	3.00	175	100
APH0615T220M	22	±20%	1.33	1.40	2.25	2.50	510	220

## ● APH0618 Series

Part Number	Inductance	Inductance Tolerance	Heat Rating Current		Saturation Current		DC Resistance	Marking
	@100kHz,1V		Max.	Typ.	Max.	Typ.	Typ.	
Units	$\mu\text{H}$	-	A		A		$\text{m}\Omega$	
Symbol	L	-	I <sub>rms</sub>		I <sub>sat</sub>		DCR	
APH0618TR10M	0.1	±20%	23.30	25.00	31.54	38.00	2.3	R10
APH0618TR22M	0.22	±20%	20.30	22.00	19.92	24.00	3.5	R22
APH0618TR47M	0.47	±20%	10.23	11.50	14.94	18.00	8.4	R47
APH0618TR68M	0.68	±20%	8.57	9.50	13.70	16.50	12	R68
APH0618T1R0M	1	±20%	7.74	8.50	9.96	12.00	16	1R0
APH0618T1R5M	1.5	±20%	7.24	8.00	7.64	9.20	26	1R5
APH0618T2R2M	2.2	±20%	6.32	7.00	6.64	8.00	35	2R2
APH0618T3R3M	3.3	±20%	3.91	4.50	4.98	6.00	50	3R3
APH0618T4R7M	4.7	±20%	3.58	4.00	4.15	5.00	62	4R7
APH0618T6R8M	6.8	±20%	2.49	3.00	3.74	4.50	110	6R8
APH0618T8R2M	8.2	±20%	2.15	2.40	3.01	3.60	135	8R2
APH0618T100M	10	±20%	2.00	2.30	3.32	4.00	155	100
APH0618T220M	22	±20%	1.46	1.80	1.91	2.30	350	220

## ● APH0620 Series

Part Number	Inductance	Inductance Tolerance	Heat Rating Current		Saturation Current		DC Resistance	Marking
	@100kHz,1V		Max.	Typ.	Max.	Typ.	Typ.	
Units	$\mu\text{H}$	-	A		A		$\text{m}\Omega$	
Symbol	L	-	I <sub>rms</sub>		I <sub>sat</sub>		DCR	
APH0620T1R5M	1.5	±20%	7.15	8.00	10.30	12.00	26	1R5
APH0620T4R7M	4.7	±20%	3.52	4.30	4.57	5.50	60	4R7
APH0620T100M	10	±20%	2.31	2.80	3.34	4.00	145	100

## ELECTRICAL CHARACTERISTICS

## ● APH0624 Series

Part Number	Inductance	Inductance Tolerance	Heat Rating Current		Saturation Current		DC Resistance	Marking
	@100kHz,1V		Max.	Typ.	Max.	Typ.	Typ.	
Units	μH	-	A		A		mΩ	
Symbol	L	-	I <sub>rms</sub>		I <sub>sat</sub>		DCR	
APH0624TR22M	0.22	±20%	19.30	21.00	24.90	30.00	3	R22
APH0624TR33M	0.33	±20%	16.30	18.00	20.34	24.50	4.1	R33
APH0624TR47M	0.47	±20%	13.73	15.00	16.60	20.00	5.1	R47
APH0624TR56M	0.56	±20%	11.73	13.00	14.11	17.00	6.5	R56
APH0624TR68M	0.68	±20%	10.73	12.00	13.28	16.00	7	R68
APH0624T1R0M	1	±20%	8.15	9.00	12.45	15.00	13.5	1R0
APH0624T1R5M	1.5	±20%	7.18	8.20	11.21	13.50	20	1R5
APH0624T2R2M	2.2	±20%	6.32	7.00	8.30	10.00	28	2R2
APH0624T3R3M	3.3	±20%	4.91	5.50	6.64	8.00	39	3R3
APH0624T4R7M	4.7	±20%	4.41	5.00	5.40	6.50	50	4R7
APH0624T6R8M	6.8	±20%	3.32	4.00	4.98	6.00	70	6R8
APH0624T100M	10	±20%	2.51	3.10	3.32	4.00	101	100
APH0624T150M	15	±20%	2.08	2.50	2.74	3.30	160	150
APH0624T220M	22	±20%	1.66	2.00	2.08	2.50	230	220

## ● APH0630 Series

Part Number	Inductance	Inductance Tolerance	Heat Rating Current		Saturation Current		DC Resistance	Marking
	@100kHz,1V		Max.	Typ.	Max.	Typ.	Typ.	
Units	μH	-	A		A		mΩ	
Symbol	L	-	I <sub>rms</sub>		I <sub>sat</sub>		DCR	
APH0630TR10M	0.1	±20%	29.10	32.50	54.05	60.00	1.7	R10
APH0630TR12M	0.12	±20%	32.90	38.00	31.50	40.00	0.75	R12
APH0630TR22M	0.22	±20%	21.45	24.00	28.22	34.00	3	R22
APH0630TR24M	0.24	±20%	19.09	23.00	23.24	28.00	3.1	R24
APH0630TR33M	0.33	±20%	19.30	21.00	20.75	25.00	3.5	R33
APH0630TR47M	0.47	±20%	16.73	18.00	16.60	20.00	4.1	R47
APH0630TR56M	0.56	±20%	15.23	16.50	14.94	18.00	4.5	R56
APH0630TR68M	0.68	±20%	14.73	16.00	14.11	17.00	5.3	R68
APH0630TR82M	0.82	±20%	12.73	14.00	13.28	16.00	6	R82
APH0630T1R0M	1	±20%	10.73	12.00	12.45	15.00	7.4	1R0
APH0630T1R5M	1.5	±20%	10.73	12.00	9.96	12.00	12.1	1R5
APH0630T1R8M	1.8	±20%	8.37	9.30	9.76	11.80	12.6	1R8
APH0630T2R2M	2.2	±20%	8.65	9.50	8.30	10.00	15	2R2
APH0630T3R3M	3.3	±20%	7.65	8.50	7.89	9.50	27	3R3
APH0630T4R7M	4.7	±20%	5.15	6.00	7.47	9.00	33	4R7
APH0630T5R6M	5.6	±20%	4.91	5.50	5.40	6.50	42	5R6
APH0630T6R8M	6.8	±20%	4.32	5.00	4.98	6.00	48	6R8
APH0630T8R2M	8.2	±20%	4.32	5.00	4.57	5.50	60	8R2
APH0630T100M	10	±20%	3.91	4.50	4.57	5.50	68	100
APH0630T150M	15	±20%	2.41	3.00	3.32	4.00	113	150

## ELECTRICAL CHARACTERISTICS

## ● APH0630 Series

Part Number	Inductance	Inductance Tolerance	Heat Rating Current		Saturation Current		DC Resistance	Marking
	@100kHz,1V		Max.	Typ.	Max.	Typ.	Typ.	
Units	μH	-	A		A		mΩ	
Symbol	L	-	I <sub>rms</sub>		I <sub>sat</sub>		DCR	
APH0630T220M	22	±20%	2.08	2.50	2.49	3.00	170	220
APH0630T330M	33	±20%	1.66	2.00	2.08	2.50	270	330
APH0630T470M	47	±20%	1.25	1.50	1.66	2.00	385	470

## ● APH0640 Series

Part Number	Inductance	Inductance Tolerance	Heat Rating Current		Saturation Current		DC Resistance	Marking
	@100kHz,1V		Max.	Typ.	Max.	Typ.	Typ.	
Units	μH	-	A		A		mΩ	
Symbol	L	-	I <sub>rms</sub>		I <sub>sat</sub>		DCR	
APH0640TR68M	0.68	±20%	13.93	17.00	15.83	19.00	4.8	R68
APH0640T1R0M	1	±20%	11.07	13.50	13.33	16.00	6.6	1R0
APH0640T1R5M	1.5	±20%	10.16	12.40	10.42	12.50	10	1R5
APH0640T2R2M	2.2	±20%	8.13	10.00	9.13	11.00	14	2R2
APH0640T3R3M	3.3	±20%	6.97	8.50	7.92	9.50	20	3R3
APH0640T4R7M	4.7	±20%	6.08	6.50	7.47	9.00	30	4R7
APH0640T6R8M	6.8	±20%	4.51	5.50	5.42	6.50	45	6R8
APH0640T100M	10	±20%	3.93	4.80	5.00	6.00	65	100
APH0640T150M	15	±20%	2.94	3.70	3.74	4.50	95	150
APH0640T220M	22	±20%	2.70	3.30	3.33	4.00	125	220
APH0640T330M	33	±20%	1.80	2.20	2.50	3.00	240	330
APH0640T470M	47	±20%	1.48	1.80	2.08	2.50	320	470

## ● APH0650 Series

Part Number	Inductance	Inductance Tolerance	Heat Rating Current		Saturation Current		DC Resistance	Marking
	@100kHz,1V		Max.	Typ.	Max.	Typ.	Typ.	
Units	μH	-	A		A		mΩ	
Symbol	L	-	I <sub>rms</sub>		I <sub>sat</sub>		DCR	
APH0650TR47M	0.47	±20%	17.45	20.00	17.43	21.00	3.9	R47
APH0650TR68M	0.68	±20%	14.80	16.50	14.94	18.00	4.5	R68
APH0650T1R0M	1	±20%	10.30	12.00	13.28	16.00	6.6	1R0
APH0650T1R5M	1.5	±20%	8.40	9.50	10.79	13.00	10	1R5
APH0650T2R2M	2.2	±20%	8.15	9.00	9.13	11.00	12.5	2R2
APH0650T3R3M	3.3	±20%	7.74	8.50	8.30	10.00	22	3R3
APH0650T4R7M	4.7	±20%	5.15	6.00	6.64	8.00	29	4R7
APH0650T6R8M	6.8	±20%	4.27	5.80	5.23	6.30	41	6R8
APH0650T8R2M	8.2	±20%	4.91	5.50	4.57	5.50	48	8R2
APH0650T100M	10	±20%	3.91	4.50	4.40	5.30	60	100
APH0650T150M	15	±20%	2.68	3.10	3.32	4.00	90	150
APH0650T220M	22	±20%	2.09	2.60	2.91	3.50	140	220

## ELECTRICAL CHARACTERISTICS

## ● APH0650 Series

Part Number	Inductance	Inductance Tolerance	Heat Rating Current		Saturation Current		DC Resistance	Marking
	@100kHz,1V		Max.	Typ.	Max.	Typ.	Typ.	
Units	μH	-	A		A		mΩ	
Symbol	L	-	Irms		Isat		DCR	
APH0650T330M	33	±20%	1.88	2.30	2.49	3.00	190	330
APH0650T470M	47	±20%	1.58	2.00	2.16	2.60	230	470
APH0650T680M	68	±20%	1.48	1.80	2.05	2.50	423	680
APH0650T101M	100	±20%	1.31	1.60	1.80	2.20	515	101

## ● APH0840 Series

Part Number	Inductance	Inductance Tolerance	Heat Rating Current		Saturation Current		DC Resistance	Marking
	@100kHz,1V		Max.	Typ.	Max.	Typ.	Typ.	
Units	μH	-	A		A		mΩ	
Symbol	L	-	Irms		Isat		DCR	
APH0840TR22M	0.22	±20%	30.90	36.00	55.75	60.00	1.8	R22
APH0840TR33M	0.33	±20%	25.75	30.00	40.75	45.00	2.4	R33
APH0840TR47M	0.47	±20%	25.45	28.00	36.90	42.00	2.8	R47
APH0840TR56M	0.56	±20%	22.30	24.00	23.45	26.00	3.2	R56
APH0840TR68M	0.68	±20%	21.30	23.00	22.30	24.00	3.8	R68
APH0840TR82M	0.82	±20%	19.30	21.00	19.30	21.00	4.4	R82
APH0840T1R0M	1	±20%	17.30	19.00	17.30	19.00	4.62	1R0
APH0840T1R5M	1.5	±20%	15.30	17.00	15.30	17.00	7.6	1R5
APH0840T1R8M	1.8	±20%	12.88	15.00	13.73	15.00	11	1R8
APH0840T2R2M	2.2	±20%	12.30	14.00	12.30	14.00	11.4	2R2
APH0840T3R3M	3.3	±20%	10.30	12.00	11.23	12.50	15	3R3
APH0840T4R7M	4.7	±20%	8.65	9.50	10.65	11.50	26.5	4R7
APH0840T5R6M	5.6	±20%	8.15	9.00	10.15	11.00	30	5R6
APH0840T6R8M	6.8	±20%	7.15	8.00	8.15	9.00	36.8	6R8
APH0840T8R2M	8.2	±20%	6.15	7.00	7.85	8.70	46	8R2
APH0840T100M	10	±20%	5.65	6.50	7.15	8.00	59	100
APH0840T150M	15	±20%	4.89	5.40	4.99	5.50	71	150
APH0840T220M	22	±20%	4.29	4.80	4.58	5.00	113	220
APH0840T330M	33	±20%	3.08	3.50	3.33	3.50	156	330
APH0840T470M	47	±20%	2.56	2.90	2.93	3.10	225	470

## ● APH0850 Series

Part Number	Inductance	Inductance Tolerance	Heat Rating Current		Saturation Current		DC Resistance	Marking
	@100kHz,1V		Max.	Typ.	Max.	Typ.	Typ.	
Units	μH	-	A		A		mΩ	
Symbol	L	-	Irms		Isat		DCR	
APH0850T2R2M	2.2	±20%	11.05	13.00	12.75	15.00	10	2R2
APH0850T3R3M	3.3	±20%	9.35	11.00	11.90	14.00	15	3R3
APH0850T4R7M	4.7	±20%	6.80	8.00	11.05	13.00	22	4R7
APH0850T6R8M	6.8	±20%	6.38	7.50	8.93	10.50	28	6R8
APH0850T100M	10	±20%	5.10	6.00	7.65	9.00	38	100



## ELECTRICAL CHARACTERISTICS

## ● APH0850 Series

Part Number	Inductance	Inductance Tolerance	Heat Rating Current		Saturation Current		DC Resistance	Marking
	@100kHz,1V		Max.	Typ.	Max.	Typ.	Typ.	
Units	$\mu\text{H}$	-	A		A		m $\Omega$	
Symbol	L	-	I <sub>rms</sub>		I <sub>sat</sub>		DCR	
APH0850T150M	15	±20%	4.68	5.50	5.95	7.00	52	150
APH0850T220M	22	±20%	3.57	4.20	5.10	6.00	82	220
APH0850T330M	33	±20%	2.98	3.50	4.68	5.50	140	330
APH0850T470M	47	±20%	1.87	2.20	3.23	3.80	190	470
APH0850T560M	56	±20%	2.13	2.50	2.98	3.50	185	560
APH0850T680M	68	±20%	1.70	2.00	2.98	3.50	300	680
APH0850T101M	100	±20%	1.28	1.50	2.13	2.50	400	101

## ● APH1030 Series

Part Number	Inductance	Inductance Tolerance	Heat Rating Current		Saturation Current		DC Resistance	Marking
	@100kHz,1V		Max.	Typ.	Max.	Typ.	Typ.	
Units	$\mu\text{H}$	-	A		A		m $\Omega$	
Symbol	L	-	I <sub>rms</sub>		I <sub>sat</sub>		DCR	
APH1030TR22M	0.22	±20%	29.77	33.00	45.10	50.00	1.2	R22
APH1030TR33M	0.33	±20%	20.75	23.00	28.86	32.00	1.6	R33
APH1030TR36M	0.36	±20%	20.75	23.00	25.28	28.00	1.6	R36
APH1030TR47M	0.47	±20%	19.85	22.00	23.45	26.00	2.5	R47
APH1030TR82M	0.82	±20%	16.24	18.00	20.75	23.00	3.7	R82
APH1030T1R0M	1	±20%	13.53	15.00	18.94	21.00	6	1R0
APH1030T1R5M	1.5	±20%	11.73	13.00	18.04	20.00	7.5	1R5
APH1030T2R2M	2.2	±20%	9.92	11.00	12.62	14.00	9	2R2
APH1030T3R3M	3.3	±20%	8.12	9.00	10.82	12.00	16	3R3
APH1030T4R7M	4.7	±20%	6.31	7.00	9.01	10.00	22.5	4R7
APH1030T8R2M	8.2	±20%	4.51	5.00	6.32	7.00	45	8R2
APH1030T100M	10	±20%	4.06	4.50	5.86	6.50	55	100
APH1030T330M	33	±20%	2.35	2.60	3.60	4.00	160	330

## ● APH1040 Series

Part Number	Inductance	Inductance Tolerance	Heat Rating Current		Saturation Current		DC Resistance	Marking
	@100kHz,1V		Max.	Typ.	Max.	Typ.	Typ.	
Units	$\mu\text{H}$	-	A		A		m $\Omega$	
Symbol	L	-	I <sub>rms</sub>		I <sub>sat</sub>		DCR	
APH1040TR13M	0.13	±20%	64.35	72.00	67.35	92.00	0.52	R13
APH1040TR15M	0.15	±20%	40.75	45.00	62.25	75.00	0.65	R15
APH1040TR22M	0.22	±20%	30.75	35.00	49.80	60.00	1	R22
APH1040TR30M	0.3	±20%	30.75	35.00	37.35	45.00	1.1	R30
APH1040TR36M	0.36	±20%	25.75	30.00	37.35	45.00	1.2	R36
APH1040TR45M	0.45	±20%	25.75	30.00	35.35	43.00	1.5	R45
APH1040TR47M	0.47	±20%	25.75	30.00	33.20	40.00	1.7	R47

## ELECTRICAL CHARACTERISTICS

## ● APH1040 Series

Part Number	Inductance	Inductance Tolerance	Heat Rating Current		Saturation Current		DC Resistance	Marking
	@100kHz,1V		Max.	Typ.	Max.	Typ.	Typ.	
Units	μH	-	A		A		mΩ	
Symbol	L	-	I <sub>rms</sub>		I <sub>sat</sub>		DCR	
APH1040TR56M	0.56	±20%	20.75	25.00	27.39	33.00	1.8	R56
APH1040TR68M	0.68	±20%	19.60	23.00	24.90	30.00	2.4	R68
APH1040TR80M	0.8	±20%	19.60	23.00	24.07	29.00	2.7	R80
APH1040T1R0M	1	±20%	16.45	19.00	23.24	28.00	4.3	1R0
APH1040T1R5M	1.5	±20%	14.30	16.00	19.92	24.00	5.5	1R5
APH1040T2R2M	2.2	±20%	10.30	12.00	13.70	16.50	8	2R2
APH1040T3R3M	3.3	±20%	9.73	11.00	13.28	16.00	11.8	3R3
APH1040T4R7M	4.7	±20%	7.73	9.00	10.79	13.00	20	4R7
APH1040T6R8M	6.8	±20%	7.23	8.50	9.96	12.00	25	6R8
APH1040T8R2M	8.2	±20%	6.98	8.00	7.47	9.00	27	8R2
APH1040T100M	10	±20%	7.04	7.80	7.06	8.50	30	100
APH1040T150M	15	±20%	5.74	6.50	5.81	7.00	45	150
APH1040T220M	22	±20%	4.32	5.00	4.57	5.50	66	220
APH1040T330M	33	±20%	3.89	4.40	3.98	4.80	92	330
APH1040T470M	47	±20%	2.88	3.30	3.16	3.50	145	470
APH1040T680M	68	±20%	2.08	2.50	2.49	3.00	195	680
APH1040T820M	82	±20%	2.13	2.30	2.38	2.80	285	820
APH1040T101M	100	±20%	1.83	2.00	2.13	2.30	340	101

## ● APH1050 Series

Part Number	Inductance	Inductance Tolerance	Heat Rating Current		Saturation Current		DC Resistance	Marking
	@100kHz,1V		Max.	Typ.	Max.	Typ.	Typ.	
Units	μH	-	A		A		mΩ	
Symbol	L	-	I <sub>rms</sub>		I <sub>sat</sub>		DCR	
APH1050TR22M	0.22	±20%	33.18	37.00	58.63	65.00	0.8	R22
APH1050TR68M	0.68	±20%	21.30	23.00	34.45	37.00	1.95	R68
APH1050T1R0M	1	±20%	20.71	23.00	28.30	30.00	3	1R0
APH1050T1R5M	1.5	±20%	18.88	21.00	22.45	25.00	3.8	1R5
APH1050T2R2M	2.2	±20%	13.47	15.00	17.13	19.00	6	2R2
APH1050T3R3M	3.3	±20%	11.73	13.00	14.30	16.00	10	3R3
APH1050T4R7M	4.7	±20%	9.90	11.00	13.47	15.00	14	4R7
APH1050T5R6M	5.6	±20%	8.65	9.50	12.56	14.00	17	5R6
APH1050T6R8M	6.8	±20%	8.15	9.00	12.56	14.00	18.5	6R8
APH1050T100M	10	±20%	7.15	8.00	8.98	10.00	28	100
APH1050T150M	15	±20%	5.82	6.50	6.65	7.50	42	150
APH1050T220M	22	±20%	5.08	5.50	5.41	6.00	50	220
APH1050T330M	33	±20%	4.29	4.80	4.69	5.20	86	330
APH1050T470M	47	±20%	3.28	3.70	4.08	4.50	127	470
APH1050T680M	68	±20%	2.45	2.70	2.86	3.20	185	680

## ELECTRICAL CHARACTERISTICS

## ● APH1050 Series

Part Number	Inductance	Inductance Tolerance	Heat Rating Current		Saturation Current		DC Resistance	Marking
	@100kHz,1V		Max.	Typ.	Max.	Typ.	Typ.	
Units	μH	-	A		A		mΩ	
Symbol	L	-	I <sub>rms</sub>		I <sub>sat</sub>		DCR	
APH1050T820M	82	±20%	1.75	2.00	3.08	3.50	280	820
APH1050T101M	100	±20%	1.85	2.10	2.55	2.80	290	101

## ● APH1240 Series

Part Number	Inductance	Inductance Tolerance	Heat Rating Current		Saturation Current		DC Resistance	Marking
	@100kHz,1V		Max.	Typ.	Max.	Typ.	Typ.	
Units	μH	-	A		A		mΩ	
Symbol	L	-	I <sub>rms</sub>		I <sub>sat</sub>		DCR	
APH1240TR22M	0.22	±20%	38.60	42.00	41.50	50.00	0.9	R22
APH1240TR47M	0.47	±20%	29.60	33.00	39.84	48.00	2	R47
APH1240TR68M	0.68	±20%	24.60	28.00	39.01	47.00	3.5	R68
APH1240TR82M	0.82	±20%	24.60	28.00	33.20	40.00	4.5	R82
APH1240T1R0M	1	±20%	20.60	24.00	29.05	35.00	7.5	1R0
APH1240T1R5M	1.5	±20%	17.45	20.00	25.32	30.50	9.5	1R5
APH1240T2R2M	2.2	±20%	15.45	18.00	21.58	26.00	11.5	2R2
APH1240T3R3M	3.3	±20%	13.30	15.00	17.43	21.00	13	3R3
APH1240T4R7M	4.7	±20%	11.30	13.00	14.94	18.00	14.5	4R7
APH1240T6R8M	6.8	±20%	8.15	9.00	11.62	14.00	20	6R8
APH1240T100M	10	±20%	7.15	8.00	8.30	10.00	25	100
APH1240T150M	15	±20%	5.91	6.50	6.23	7.50	39	150
APH1240T220M	22	±20%	3.91	4.50	4.98	6.00	51	220

## ● APH1250 Series

Part Number	Inductance	Inductance Tolerance	Heat Rating Current		Saturation Current		DC Resistance	Marking
	@100kHz,1V		Max.	Typ.	Max.	Typ.	Typ.	
Units	μH	-	A		A		mΩ	
Symbol	L	-	I <sub>rms</sub>		I <sub>sat</sub>		DCR	
APH1250TR22M	0.22	±20%	45.75	50.00	62.25	75.00	0.7	R22
APH1250TR36M	0.36	±20%	37.75	42.00	41.50	50.00	0.85	R36
APH1250TR50M	0.5	±20%	33.75	38.00	39.84	48.00	1.15	R50
APH1250TR68M	0.68	±20%	29.60	33.00	38.18	46.00	1.55	R68
APH1250TR82M	0.82	±20%	26.60	30.00	32.37	39.00	1.67	R82
APH1250T1R0M	1	±20%	22.60	26.00	29.05	35.00	2.2	1R0
APH1250T1R5M	1.5	±20%	19.60	23.00	27.39	33.00	3.2	1R5
APH1250T2R2M	2.2	±20%	13.30	15.00	19.92	24.00	5	2R2
APH1250T3R3M	3.3	±20%	12.30	14.00	18.26	22.00	7	3R3
APH1250T4R7M	4.7	±20%	11.30	13.00	16.60	20.00	11	4R7
APH1250T6R8M	6.8	±20%	10.30	12.00	13.28	16.00	18	6R8
APH1250T100M	10	±20%	8.15	9.00	9.96	12.00	22	100

## ELECTRICAL CHARACTERISTICS

## ● APH1250 Series

Part Number	Inductance	Inductance Tolerance	Heat Rating Current		Saturation Current		DC Resistance	Marking
	@100kHz,1V		Max.	Typ.	Max.	Typ.	Typ.	
Units	$\mu$ H	-	A		A		m $\Omega$	
Symbol	L	-	I <sub>rms</sub>		I <sub>sat</sub>		DCR	
APH1250T150M	15	±20%	7.15	8.00	8.30	10.00	30	150
APH1250T220M	22	±20%	3.91	4.50	5.40	6.50	58	220
APH1250T330M	33	±20%	2.91	3.50	4.98	6.00	84	330
APH1250T470M	47	±20%	2.66	3.00	4.15	5.00	130	470
APH1250T680M	68	±20%	2.05	2.40	3.50	4.10	183	680

## ● APH1260 Series

Part Number	Inductance	Inductance Tolerance	Heat Rating Current		Saturation Current		DC Resistance	Marking
	@100kHz,1V		Max.	Typ.	Max.	Typ.	Typ.	
Units	$\mu$ H	-	A		A		m $\Omega$	
Symbol	L	-	I <sub>rms</sub>		I <sub>sat</sub>		DCR	
APH1260T1R5M	1.5	±20%	23.60	27.00	27.45	30.00	2.9	1R5
APH1260T2R2M	2.2	±20%	18.60	22.00	24.60	28.00	4.2	2R2
APH1260T3R3M	3.3	±20%	14.45	17.00	21.60	25.00	6.8	3R3
APH1260T4R7M	4.7	±20%	12.45	15.00	19.92	24.00	9	4R7
APH1260T5R6M	5.6	±20%	11.30	13.00	18.68	22.50	11	5R6
APH1260T6R8M	6.8	±20%	10.30	12.00	15.77	19.00	13.5	6R8
APH1260T8R2M	8.2	±20%	9.30	11.00	11.21	13.50	16	8R2
APH1260T100M	10	±20%	8.73	10.00	11.31	12.50	20.7	100
APH1260T120M	12	±20%	7.98	9.00	8.30	10.00	23	120
APH1260T150M	15	±20%	7.65	8.50	7.47	9.00	29	150
APH1260T180M	18	±20%	6.65	7.50	6.64	8.00	35	180
APH1260T220M	22	±20%	6.15	7.00	6.23	7.50	39.5	220
APH1260T270M	27	±20%	5.15	6.00	5.40	6.50	56	270
APH1260T330M	33	±20%	4.91	5.50	4.98	6.00	75	330
APH1260T470M	47	±20%	4.32	5.00	4.57	5.50	90	470
APH1260T680M	68	±20%	3.32	4.00	3.74	4.50	140	680
APH1260T101M	100	±20%	2.58	3.00	2.91	3.50	200	101
APH1260T121M	120	±20%	1.75	2.00	2.66	3.20	235	121
APH1260T151M	150	±20%	1.25	1.50	2.24	2.70	350	151

## ● APH1265 Series

Part Number	Inductance	Inductance Tolerance	Heat Rating Current		Saturation Current		DC Resistance	Marking
	@100kHz,1V		Max.	Typ.	Max.	Typ.	Typ.	
Units	$\mu$ H	-	A		A		m $\Omega$	
Symbol	L	-	I <sub>rms</sub>		I <sub>sat</sub>		DCR	
APH1265TR33M	0.33	±20%	38.50	43.00	47.50	57.00	0.84	R33
APH1265TR47M	0.47	±20%	34.80	39.00	43.30	52.00	1.1	R47
APH1265TR68M	0.68	±20%	30.10	34.00	39.20	47.00	1.5	R68

## ELECTRICAL CHARACTERISTICS

## ● APH1265 Series

Part Number	Inductance	Inductance Tolerance	Heat Rating Current		Saturation Current		DC Resistance	Marking
	@100kHz,1V		Max.	Typ.	Max.	Typ.	Typ.	
Units	μH	-	A		A		mΩ	
Symbol	L	-	I <sub>rms</sub>		I <sub>sat</sub>		DCR	
APH1265TR82M	0.82	±20%	27.50	31.00	35.00	42.00	1.65	R82
APH1265T1R0M	1	±20%	24.80	29.00	32.10	38.50	2.1	1R0
APH1265T1R5M	1.5	±20%	23.50	27.50	28.30	34.00	2.9	1R5
APH1265T2R2M	2.2	±20%	19.20	22.50	25.80	31.00	4.2	2R2
APH1265T3R3M	3.3	±20%	16.70	19.50	24.20	29.00	6.4	3R3
APH1265T4R7M	4.7	±20%	13.70	16.00	20.00	24.00	8.5	4R7
APH1265T5R6M	5.6	±20%	12.00	14.00	18.80	22.50	10.5	5R6
APH1265T6R8M	6.8	±20%	11.10	13.00	15.80	19.00	13	6R8
APH1265T8R2M	8.2	±20%	10.30	12.00	13.30	16.00	14	8R2
APH1265T100M	10	±20%	9.40	11.00	12.50	15.00	16.5	100
APH1265T150M	15	±20%	8.10	9.50	9.20	11.00	37	150
APH1265T220M	22	±20%	6.80	8.00	7.50	9.00	44	220
APH1265T330M	33	±20%	5.60	6.50	6.70	8.00	65	330
APH1265T470M	47	±20%	4.70	5.50	5.70	6.80	90	470
APH1265T680M	68	±20%	4.10	4.80	4.30	5.20	120	680
APH1265T820M	82	±20%	3.40	4.00	3.80	4.50	135	820
APH1265T101M	100	±20%	3.00	3.50	3.30	4.00	170	101
APH1265T151M	150	±20%	1.50	1.70	2.30	2.80	257	151

## ● APH1770 Series

Part Number	Inductance	Inductance Tolerance	Heat Rating Current		Saturation Current		DC Resistance	Marking
	@100kHz,1V		Max.	Typ.	Max.	Typ.	Typ.	
Units	μH	-	A		A		mΩ	
Symbol	L	-	I <sub>rms</sub>		I <sub>sat</sub>		DCR	
APH1770T1R0M	1	±20%	26.50	31.00	34.80	40.00	2	1R0
APH1770T2R2M	2.2	±20%	24.80	29.00	28.30	34.00	2.5	2R2
APH1770T3R3M	3.3	±20%	20.50	24.00	25.00	30.00	3.95	3R3
APH1770T4R7M	4.7	±20%	17.90	21.00	20.00	24.00	4.75	4R7
APH1770T6R8M	6.8	±20%	14.50	17.00	18.30	22.00	7.5	6R8
APH1770T8R2M	8.2	±20%	11.10	13.00	16.70	20.00	8.7	8R2
APH1770T100M	10	±20%	10.30	12.00	15.80	19.00	9.9	100
APH1770T150M	15	±20%	9.40	11.00	12.10	14.50	17	150
APH1770T220M	22	±20%	7.30	8.50	9.60	11.50	23	220
APH1770T330M	33	±20%	6.80	8.00	8.30	10.00	37	330
APH1770T470M	47	±20%	5.10	6.00	6.30	7.50	47	470
APH1770T680M	68	±20%	4.40	5.20	5.40	6.50	85	680
APH1770T101M	100	±20%	3.20	3.70	4.20	5.00	130	101

## ELECTRICAL CHARACTERISTICS

## ● APH2213 Series

Part Number	Inductance	Inductance Tolerance	Heat Rating Current		Saturation Current		DC Resistance	Marking
	@100kHz,1V		Max.	Typ.	Max.	Typ.	Typ.	
Units	μH	-	A		A		mΩ	
Symbol	L	-	I <sub>rms</sub>		I <sub>sat</sub>		DCR	
APH2213T2R2M	2.2	±20%	52.00	52.90	43.75	48.00	1.25	2R2
APH2213T4R7M	4.7	±20%	44.00	44.45	34.60	38.00	2.2	4R7
APH2213T100M	10	±20%	30.00	30.45	21.20	28.00	4.15	100
APH2213T150M	15	±20%	23.00	23.45	18.75	23.00	6.12	150
APH2213T680M	68	±20%	12.00	12.30	9.45	12.00	29.5	680

△All test data is referenced to 20°C ambient;

△Rated current: I<sub>sat</sub> or I<sub>rms</sub>, whichever is smaller;

△I<sub>sat</sub>: DC current at which the inductance drops approximate 30% from its value without current;

△The DC Resistance maximum from typical +30%;

△I<sub>rms</sub>: DC current that causes the temperature rise (ΔT=40°C) from 20°C ambient.

## 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.

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