

FEATURES

- Winding type realizes small size and low profile.
- Metal material for large current and low loss.
- High performance (Isat) realized by metal dust core.
- Low loss realized with low Rdc.
- Closed magnetic circuit design reduces leakage flux.
- Vinyl thermal spray, better surface compactness.
- 100% lead (Pb) free meet RoHS standard.



APPLICATIONS

- Multimedia system.
- DC/DC converters.
- Pad, Smart phone, WIFI 6.
- Portable gaming devices, Smart wear, Wi-Fi module.
- Notebooks, VR, AR, SSD, TWS.
- LCD displays, HDDs, DVCs, DSCs, etc.
- Baseband power supply, Amplifier, Power management.
- Module power supply, Camera power manageme.

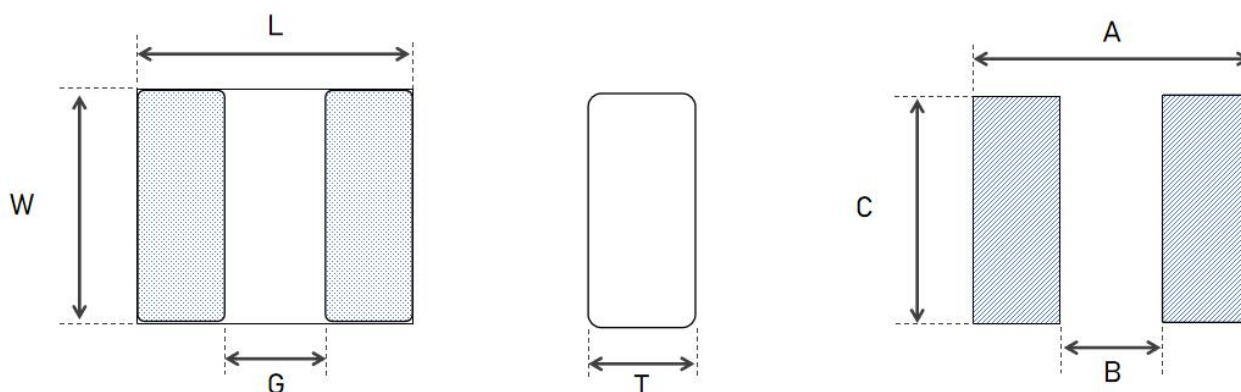
PART NUMBERING

APH	201610	C	1R0	M	P01
① Series Name	② External Dimensions	③ Feature Type	④ Nominal Inductance	⑤ Inductance Tolerance	⑥ Design Code

① Series Name		② External Dimensions	
APH	Mini Molding Power Inductors	160865	1.6x0.8x0.65
		160808	1.6x0.8x0.80
		141265	1.4x1.2x0.65
		141207	1.4x1.2x0.70
		141208	1.4x1.2x0.80
		201265	2.0x1.2x0.65
		201208	2.0x1.2x0.80
		201210	2.0x1.2x1.00
		201212	2.0x1.2x1.20
		201655	2.0x1.6x0.55
		201607	2.0x1.6x0.70
		201608	2.0x1.6x0.80
		201610	2.0x1.6x1.00
		201612	2.0x1.6x1.20
		252055	2.5x2.0x0.55
		252008	2.5x2.0x0.80
		252010	2.5x2.0x1.00
		252012	2.5x2.0x1.20
		322510	3.2x2.5x1.00
		322512	3.2x2.5x1.20
		322520	3.2x2.5x2.00
		303010	3.0x3.0x1.00
		303012	3.0x3.0x1.20
		303015	3.0x3.0x1.50
		303018	3.0x3.0x1.80
		303020	3.0x3.0x2.00

③ Feature Type	
C	
④ Nominal Inductance	
Code (example)	Nominal Inductance [μ H]
R68	0.68
1R0	1.0
4R7	4.7
⑤ Inductance Tolerance	
M	$\pm 20\%$
⑥ Design Code	
P01, P02, P03	

DIMENSIONS & RECOMMENDED LAND PATTERN



Recommended Land Pattern

Unit: mm

Series	L	W	T	G	A	B	C
APH160865C	1.6±0.2	0.8±0.2	0.65Max.	0.6±0.2	1.70	0.50	0.90
APH160808C	1.6±0.2	0.8±0.2	0.80Max.	0.6±0.2	1.70	0.50	0.90
APH141265C	1.4±0.2	1.2±0.2	0.65Max.	0.5±0.2	1.50	0.40	1.30
APH141207C	1.4±0.2	1.2±0.2	0.70Max.	0.5±0.2	1.50	0.40	1.30
APH141208C	1.4±0.2	1.2±0.2	0.80Max.	0.5±0.2	1.50	0.40	1.30
APH201265C	2.0±0.2	1.2±0.2	0.65Max.	0.6±0.2	2.10	0.50	1.30
APH201208C	2.0±0.2	1.2±0.2	0.80Max.	0.6±0.2	2.10	0.50	1.30
APH201210C	2.0±0.2	1.2±0.2	1.00Max.	0.6±0.2	2.10	0.50	1.30
APH201212C	2.0±0.2	1.2±0.2	1.20Max.	0.6±0.2	2.10	0.50	1.30
APH201655C	2.0±0.2	1.6±0.2	0.55Max.	0.6±0.2	2.10	0.50	1.70
APH201607C	2.0±0.2	1.6±0.2	0.70Max.	0.6±0.2	2.10	0.50	1.70
APH201608C	2.0±0.2	1.6±0.2	0.80Max.	0.6±0.2	2.10	0.50	1.70
APH201610C	2.0±0.2	1.6±0.2	1.00Max.	0.6±0.2	2.10	0.50	1.70
APH201612C	2.0±0.2	1.6±0.2	1.20Max.	0.6±0.2	2.10	0.50	1.70
APH252055C	2.5±0.2	2.0±0.2	0.55Max.	0.8±0.2	2.60	0.70	2.10
APH252008C	2.5±0.2	2.0±0.2	0.80Max.	0.8±0.2	2.60	0.70	2.10
APH252010C	2.5±0.2	2.0±0.2	1.00Max.	0.8±0.2	2.60	0.70	2.10
APH252012C	2.5±0.2	2.0±0.2	1.20Max.	0.8±0.2	2.60	0.70	2.10
APH322510C	3.2±0.2	2.5±0.2	1.00Max.	1.0±0.2	3.20	0.90	2.50
APH322512C	3.2±0.2	2.5±0.2	1.20Max.	1.0±0.2	3.20	0.90	2.50
APH322520C	3.2±0.2	2.5±0.2	2.00Max.	1.0±0.2	3.20	0.90	2.50
APH303010C	3.0±0.1	3.0±0.1	1.00Max.	0.9±0.2	3.00	0.80	3.00
APH303012C	3.0±0.1	3.0±0.1	1.20Max.	0.9±0.2	3.00	0.80	3.00
APH303015C	3.0±0.1	3.0±0.1	1.50Max.	0.9±0.2	3.00	0.80	3.00
APH303018C	3.0±0.1	3.0±0.1	1.80Max.	0.9±0.2	3.00	0.80	3.00
APH303020C	3.0±0.1	3.0±0.1	2.00Max.	0.9±0.2	3.00	0.80	3.00

ELECTRICAL CHARACTERISTICS

● APH1608 Series

Part Number	Inductance	Inductance Tolerance	DC Resistance		Heat Rating Current		Saturation Current	
	@1MHz		Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	-	mΩ		A		A	
Symbol	L	-	DCR		I _{rms}		I _{sat}	
APH160865C2R2MP01	2.2	±20%	430	390	1.1	1.3	1.3	1.6
APH160808CR22MP01	0.22	±20%	40	33	3.0	3.4	5.0	5.5
APH160808CR24MP01	0.24	±20%	41	34	2.9	3.3	4.8	5.3
APH160808CR24MP02	0.24	±20%	26	22	3.5	3.9	4.4	4.9
APH160808CR24MP03	0.24	±20%	24	20	5.0	5.5	4.8	5.3
APH160808CR47MP01	0.47	±20%	100	80	2.3	2.6	3.7	4.1
APH160808CR47MP02	0.47	±20%	45	38	3.4	3.8	3.5	4.0
APH160808CR56MP01	0.56	±20%	110	85	1.9	2.2	3.5	4.0
APH160808CR56MP02	0.56	±20%	63	51	2.2	2.5	2.7	3.0
APH160808CR68MP01	0.68	±20%	130	110	1.9	2.1	3.0	3.3
APH160808C1R0MP01	1.0	±20%	200	180	1.8	2.1	2.6	3.0
APH160808C1R5MP01	1.5	±20%	285	240	1.4	1.7	2.0	2.4
APH160808C3R3MP01	3.3	±20%	600	500	0.9	1.0	1.2	1.4
APH160808C4R7MP01	4.7	±20%	700	585	0.8	1.0	1.0	1.2
APH160808C100MP01	10.0	±20%	1600	1450	0.45	0.5	0.7	0.8

● APH1412 Series

Part Number	Inductance	Inductance Tolerance	DC Resistance		Heat Rating Current		Saturation Current	
	@1MHz		Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	-	mΩ		A		A	
Symbol	L	-	DCR		I _{rms}		I _{sat}	
APH141265CR33MP01	0.33	±20%	32	26	4.2	4.4	4.0	4.4
APH141265CR47MP01	0.47	±20%	45	37	2.7	3.0	3.0	3.4
APH141207CR24MP01	0.24	±20%	28	22	3.6	4.0	4.3	4.6
APH141207CR47MP01	0.47	±20%	38	34	3.3	3.8	3.5	3.8
APH141208CR24MP02	0.24	±20%	24	21	6.0	6.6	6.5	7.2
APH141208CR33MP01	0.33	±20%	28	23	3.5	4.0	5.0	5.3
APH141208CR47MP01	0.47	±20%	35	29	3.3	3.8	4.2	4.6
APH141208C1R0MP01	1.0	±20%	77	65	2.5	3.0	2.5	3.0

● APH2012 Series

Part Number	Inductance	Inductance Tolerance	DC Resistance		Heat Rating Current		Saturation Current	
	@1MHz		Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	-	mΩ		A		A	
Symbol	L	-	DCR		I _{rms}		I _{sat}	
APH201265C1R0MP01	1.0	±20%	86	78	2.3	2.6	2.5	2.8
APH201265C2R2MP01	2.2	±20%	230	215	1.4	1.7	1.5	1.8
APH201265C2R2MP02	2.2	±20%	210	175	1.3	1.4	1.3	1.4

ELECTRICAL CHARACTERISTICS

● APH2012 Series

Part Number	Inductance	Inductance Tolerance	DC Resistance		Heat Rating Current		Saturation Current	
	@1MHz		Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	-	mΩ		A		A	
Symbol	L	-	DCR		I _{rms}		I _{sat}	
APH201208CR11MP01	0.11	±20%	12	10	6.5	7.0	9.0	9.5
APH201208CR15MP01	0.15	±20%	13	11	6.3	6.8	7.0	7.5
APH201208CR24MP01	0.24	±20%	23	18	5.9	6.5	6.0	6.5
APH201208CR33MP01	0.33	±20%	45	33	4.0	4.3	4.8	5.2
APH201208CR47MP01	0.47	±20%	50	34	3.3	3.5	4.6	5.0
APH201208CR47MP02	0.47	±20%	28	24	4.5	4.7	4.8	5.2
APH201208CR68MP01	0.68	±20%	60	50	3.3	3.7	3.7	4.2
APH201208C1R0MP01	1.0	±20%	70	55	2.9	3.3	3.5	4.0
APH201208C1R0MP02	1.0	±20%	55	48	2.8	3.2	2.8	3.2
APH201208C1R5MP01	1.5	±20%	135	118	1.9	2.2	2.5	3.0
APH201208C2R2MP01	2.2	±20%	185	160	1.8	2.2	2.3	2.6
APH201208C2R2MP03	2.2	±20%	156	130	1.6	1.8	2.0	2.2
APH201208C3R3MP01	3.3	±20%	300	253	1.5	1.8	1.6	1.9
APH201208C4R7MP01	4.7	±20%	325	285	1.5	1.7	1.4	1.6
APH201210CR10MP01	0.1	±20%	13	8.0	7.0	7.5	8.0	8.5
APH201210CR22MP01	0.22	±20%	22	16	6.5	7.1	6.8	7.3
APH201210CR24MP01	0.24	±20%	23	17	6.4	7.0	6.7	7.2
APH201210CR33MP01	0.33	±20%	32	24	5.0	5.5	6.0	6.5
APH201210CR47MP01	0.47	±20%	36	29	4.3	4.7	5.0	5.5
APH201210CR68MP01	0.68	±20%	43	37	4.0	4.3	4.5	5.0
APH201210C1R0MP01	1.0	±20%	63	55	3.5	3.9	3.5	4.0
APH201210C1R0MP02	1.0	±20%	55	50	3.5	4.0	3.5	4.0
APH201210C1R5MP01	1.5	±20%	85	76	2.6	3.1	2.7	3.2
APH201210C2R2MP01	2.2	±20%	150	135	1.7	2.0	2.4	2.7
APH201210C3R3MP01	3.3	±20%	260	210	1.5	1.8	1.8	2.2
APH201210C4R7MP01	4.7	±20%	300	275	1.4	1.6	1.6	1.8
APH201210C6R8MP01	6.8	±20%	520	440	1.3	1.5	1.2	1.45
APH201210C100MP01	10.0	±20%	660	600	1.0	1.1	1.0	1.2
APH201212CR11MP01	0.11	±20%	6.2	5.5	11	12	11.0	12.0
APH201212CR11MP02	0.11	±20%	5.8	5.0	11	12	11.0	12.0
APH201212CR24MP01	0.24	±20%	16	13	7.0	7.5	8.5	9.0
APH201212CR24MP02	0.24	±20%	15	13	7.2	7.7	8.5	9.0
APH201212CR47MP01	0.47	±20%	23.5	20	5.5	6.0	5.0	5.5
APH201212CR47MP02	0.47	±20%	22	20	5.7	6.2	5.0	5.5
APH201212C3R3MP01	3.3	±20%	210	180	1.6	1.8	1.8	2.0

ELECTRICAL CHARACTERISTICS

● APH2016 Series

Part Number	Inductance	Inductance Tolerance	DC Resistance		Heat Rating Current		Saturation Current	
	@1MHz		Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	-	mΩ		A		A	
Symbol	L	-	DCR		I _{rms}		I _{sat}	
APH201655CR33MP01	0.33	±20%	41	34	3.5	4.0	3.5	4.0
APH201655CR47MP01	0.47	±20%	53	44	3.0	3.5	3.0	3.5
APH201665C1R0MP01	1.0	±20%	70	58	3.0	3.5	2.7	3.0
APH201607C2R2MP01	2.2	±20%	175	150	1.8	2.1	2.0	2.3
APH201608CR22MP01	0.22	±20%	19	14	5.9	6.6	5.6	6.1
APH201608CR24MP01	0.24	±20%	20	14	5.8	6.5	5.5	6.0
APH201608CR33MP01	0.33	±20%	24	18	4.8	5.5	5.3	5.8
APH201608CR47MP01	0.47	±20%	27	24	4.4	4.6	5.0	5.5
APH201608CR68MP01	0.68	±20%	44	39	3.5	3.8	4.2	4.6
APH201608C1R0MP01	1.0	±20%	60	53	3.3	3.6	3.1	3.3
APH201608C1R5MP01	1.5	±20%	85	73	2.8	3.1	2.8	3.0
APH201608C2R2MP01	2.2	±20%	140	123	2.0	2.2	2.3	2.5
APH201608C3R3MP01	3.3	±20%	220	200	1.5	1.8	1.8	2.1
APH201608C4R7MP01	4.7	±20%	290	260	1.4	1.6	1.5	1.7
APH201608C100MP01	10.0	±20%	800	690	0.9	1.0	0.9	1.0
APH201610CR10MP01	0.10	±20%	12	7.0	8.0	8.5	8.4	9.0
APH201610CR11MP01	0.11	±20%	13	7.5	7.5	8.0	8.2	8.9
APH201610CR15MP01	0.15	±20%	14	8.0	7.0	7.6	8.0	8.7
APH201610CR22MP01	0.22	±20%	18	11	6.3	6.9	7.5	8.2
APH201610CR24MP01	0.24	±20%	19	12	6.2	6.8	7.4	8.0
APH201610CR24MP02	0.24	±20%	14	11	6.2	6.8	7.4	8.0
APH201610CR33MP01	0.33	±20%	22	17	5.3	5.7	6.5	7.0
APH201610CR47MP01	0.47	±20%	25	22	5.0	5.5	5.5	6.3
APH201610CR47MP03	0.47	±20%	25	22	5.6	5.8	6.0	6.5
APH201610CR56MP01	0.56	±20%	23	19	7.0	7.5	5.0	5.5
APH201610CR68MP01	0.68	±20%	32	25	4.3	4.6	4.7	5.2
APH201610CR68MP03	0.68	±20%	32	25	5.2	5.5	5.5	5.7
APH201610C1R0MP01	1.0	±20%	43	35	4.1	4.5	4.2	4.6
APH201610C1R0MP02	1.0	±20%	36	31	4.2	4.6	4.2	4.7
APH201610C1R5MP01	1.5	±20%	100	80	2.3	2.6	2.9	3.2
APH201610C2R2MP01	2.2	±20%	130	120	2.1	2.5	2.8	3.0
APH201610C2R2MP03	2.2	±20%	125	115	2.2	2.5	3.0	3.3
APH201610C3R3MP01	3.3	±20%	170	140	1.5	1.7	2.0	2.3
APH201610C4R7MP03	4.7	±20%	276	250	1.4	1.6	1.7	1.9
APH201610C4R7MP01	4.7	±20%	220	190	1.4	1.6	1.8	2.0
APH201610C6R8MP01	6.8	±20%	350	320	1.5	1.7	1.5	1.7
APH201610C100MP01	10.0	±20%	580	483	0.7	1.0	1.1	1.4
APH201612CR10MP01	0.10	±20%	6.0	4.0	10	12	11.5	13
APH201612CR11MP01	0.11	±20%	5.6	4.8	14.5	15.5	11.0	12.5
APH201612CR15MP01	0.15	±20%	10	7.5	9.0	10	10.5	12

ELECTRICAL CHARACTERISTICS

● APH2016 Series

Part Number	Inductance	Inductance Tolerance	DC Resistance		Heat Rating Current		Saturation Current	
	@1MHz		Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	-	mΩ		A		A	
Symbol	L	-	DCR		I _{rms}		I _{sat}	
APH201612CR24MP01	0.24	±20%	11	9.0	8.6	9.1	8.7	9.2
APH201612CR33MP01	0.33	±20%	15	10	7.2	7.7	7.3	7.8
APH201612CR47MP01	0.47	±20%	17	13	6.0	6.7	6.0	6.7
APH201612CR68MP01	0.68	±20%	23	19	5.3	6.0	5.3	6.0
APH201612C1R0MP01	1.0	±20%	36	30	4.5	5.0	4.5	5.0
APH201612C1R5MP01	1.5	±20%	50	40	3.5	4.0	3.5	4.0
APH201612C2R2MP01	2.2	±20%	90	77	2.9	3.3	2.7	3.1
APH201612C3R3MP01	3.3	±20%	165	135	2.0	2.4	2.3	2.7

● APH2520 Series

Part Number	Inductance	Inductance Tolerance	DC Resistance		Heat Rating Current		Saturation Current	
	@1MHz		Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	-	mΩ		A		A	
Symbol	L	-	DCR		I _{rms}		I _{sat}	
APH252055CR22MP01	0.22	±20%	28	23	6.0	6.5	4.5	4.8
APH252055CR47MP01	0.47	±20%	49	42	5.2	5.5	3.2	3.5
APH252008CR47MP01	0.47	±20%	27	22	6.0	6.5	5.3	6.0
APH252008C1R0MP01	1.0	±20%	40	34	4.0	4.3	4.0	4.5
APH252008C1R5MP01	1.5	±20%	75	64	3.0	3.4	3.0	3.5
APH252008C2R2MP01	2.2	±20%	77	69	2.6	3.0	2.6	3.0
APH252008C3R3MP01	3.3	±20%	180	150	2.1	2.5	2.1	2.5
APH252008C4R7MP01	4.7	±20%	215	180	1.5	2.0	1.5	1.9
APH252008C100MP01	10	±20%	600	500	1.2	1.4	0.9	1.1
APH252010CR22MP01	0.22	±20%	17	12	6.5	6.8	7.9	8.6
APH252010CR24MP01	0.24	±20%	17.5	12	6.4	6.7	7.8	8.5
APH252010CR33MP01	0.33	±20%	19	13	6.2	6.5	7.2	7.6
APH252010CR47MP01	0.47	±20%	22	15	5.6	6.1	6.5	6.9
APH252010CR47MP02	0.47	±20%	15	13	6.0	6.5	6.0	6.6
APH252010CR68MP01	0.68	±20%	27	23	5.0	5.6	5.5	5.9
APH252010CR82MP01	0.82	±20%	29	25	4.1	4.5	4.8	5.3
APH252010C1R0MP01	1.0	±20%	30	25	4.1	4.7	4.8	5.4
APH252010C1R5MP01	1.5	±20%	55	45	3.0	3.4	3.9	4.3
APH252010C2R2MP01	2.2	±20%	70	62	2.1	2.4	3.0	3.3
APH252010C2R2MP03	2.2	±20%	70	62	2.3	2.6	3.3	3.7
APH252010C2R2MP02	2.2	±20%	70	62	3.2	4.0	3.1	3.4
APH252010C3R3MP01	3.3	±20%	100	86	2.1	2.5	2.5	2.8
APH252010C4R7MP01	4.7	±20%	180	160	1.6	2.0	2.0	2.6
APH252010C4R7MP02	4.7	±20%	160	145	1.6	2.0	2.0	2.6
APH252010C4R7MP03	4.7	±20%	130	120	2.8	3.0	2.0	2.2

ELECTRICAL CHARACTERISTICS

● APH2520 Series

Part Number	Inductance	Inductance Tolerance	DC Resistance		Heat Rating Current		Saturation Current	
	@1MHz		Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	-	mΩ		A		A	
Symbol	L	-	DCR		I _{rms}		I _{sat}	
APH252010C6R8MP01	6.8	±20%	320	270	1.4	1.6	1.9	2.4
APH252010C100MP01	10.0	±20%	560	500	0.95	1.05	1.4	1.55
APH252012CR10MP01	0.1	±20%	10	6	10.5	12	12.5	13.5
APH252012CR15MP01	0.15	±20%	11	7	10	11.5	12.0	13.0
APH252012CR22MP01	0.22	±20%	14	9	7.6	8.2	9.0	9.6
APH252012CR22MP02	0.22	±20%	10	8	8.0	11	10	12
APH252012CR24MP01	0.24	±20%	15	10	7.5	8.0	8.8	9.3
APH252012CR33MP01	0.33	±20%	17	11	6.4	6.8	7.8	8.3
APH252012CR47MP01	0.47	±20%	19	13	6.0	6.5	7.0	7.5
APH252012CR47MP02	0.47	±20%	13	11	7.5	8.0	8.0	8.5
APH252012CR68MP01	0.68	±20%	23	17	5.5	6.3	6.0	6.5
APH252012CR68MP02	0.68	±20%	18	15	7.0	7.5	6.0	6.7
APH252012CR82MP01	0.82	±20%	24	19	5.3	5.8	5.8	6.5
APH252012C1R0MP01	1.0	±20%	42	35	3.6	4.0	5.0	5.6
APH252012C1R0MP02	1.0	±20%	22	16	4.5	5.2	6.0	6.5
APH252012C1R0MP03	1.0	±20%	36	30	5.0	5.5	5.0	5.6
APH252012C1R2MP01	1.2	±20%	45	40	3.4	3.8	4.1	4.5
APH252012C1R5MP01	1.5	±20%	50	44	3.2	3.7	4.1	4.5
APH252012C1R5MP02	1.5	±20%	32	27	4.2	4.6	4.4	4.7
APH252012C2R2MP01	2.2	±20%	65	55	2.7	3.0	3.3	3.8
APH252012C3R3MP01	3.3	±20%	97	80	1.8	2.3	2.7	3.0
APH252012C4R7MP01	4.7	±20%	170	150	1.5	1.8	2.1	2.4
APH252012C6R8MP01	6.8	±20%	270	245	1.4	1.6	1.7	2.0
APH252012C100MP01	10.0	±20%	400	330	1.05	1.2	1.45	1.6
APH252012C150MP01	15.0	±20%	565	500	1.3	1.4	1.3	1.4

● APH3225 Series

Part Number	Inductance	Inductance Tolerance	DC Resistance		Heat Rating Current		Saturation Current	
	@1MHz		Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	-	mΩ		A		A	
Symbol	L	-	DCR		I _{rms}		I _{sat}	
APH322510CR22MP01	0.22	±20%	11	9	8.0	8.5	8.0	8.5
APH322510CR33MP01	0.33	±20%	15	11	7.8	8.3	7.8	8.3
APH322510CR47MP01	0.47	±20%	22	17	5.9	6.4	7.6	8.3
APH322510CR68MP01	0.68	±20%	28	22	5.7	6.2	7.0	7.5
APH322510C1R0MP01	1.0	±20%	30	25	4.9	5.4	5.3	6.0
APH322510C1R5MP01	1.5	±20%	42	34	3.6	4.0	4.4	5.0

ELECTRICAL CHARACTERISTICS

● APH3225 Series

Part Number	Inductance	Inductance Tolerance	DC Resistance		Heat Rating Current		Saturation Current	
	@1MHz		Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	-	mΩ		A		A	
Symbol	L	-	DCR		I _{rms}		I _{sat}	
APH322510C2R2MP01	2.2	±20%	66	55	3.4	3.7	3.5	4.0
APH322510C3R3MP01	3.3	±20%	120	105	2.3	2.7	3.3	3.7
APH322510C4R7MP01	4.7	±20%	140	125	1.9	2.3	2.5	2.8
APH322510C6R8MP01	6.8	±20%	320	290	1.6	1.9	2.0	2.4
APH322510C100MP01	10.0	±20%	365	325	1.8	2.2	1.8	2.2
APH322512CR10MP01	0.10	±20%	7.0	5.2	11.0	12.0	16.5	18.0
APH322512CR22MP01	0.22	±20%	10	6.6	8.7	9.2	11.0	11.5
APH322512CR24MP01	0.24	±20%	12	7.0	8.5	9.0	10.5	11
APH322512CR33MP01	0.33	±20%	14	9.0	8.1	8.4	9.5	10
APH322512CR47MP01	0.47	±20%	19	14	7.2	7.5	8.2	8.6
APH322512CR47MP02	0.47	±20%	14	11	7.2	7.5	8.2	8.6
APH322512CR47MP03	0.47	±20%	11	10	8.0	8.5	8.0	8.5
APH322512CR68MP01	0.68	±20%	23	18	6.8	7.3	7.7	8.1
APH322512CR68MP02	0.68	±20%	15	12	6.5	7.0	7.5	8.0
APH322512C1R0MP01	1.0	±20%	30	26	4.8	5.3	5.8	6.6
APH322512C1R0MP02	1.0	±20%	21	18	5.0	5.5	7.0	7.7
APH322512C1R5MP01	1.5	±20%	44	37	4.3	4.7	4.7	5.1
APH322512C2R2MP01	2.2	±20%	70	58	3.0	3.6	4.2	4.6
APH322512C2R2MP02	2.2	±20%	50	42	3.7	4.2	4.5	5.0
APH322512C3R3MP01	3.3	±20%	95	75	2.5	2.9	3.2	3.7
APH322512C4R7MP01	4.7	±20%	135	115	2.0	2.3	2.6	2.9
APH322512C4R7MP03	4.7	±20%	120	105	2.1	2.5	2.6	3.0
APH322512C6R8MP01	6.8	±20%	210	177	1.9	2.1	2.4	2.8
APH322512C100MP01	10.0	±20%	230	210	1.8	2.2	1.9	2.3
APH322520CR27MP01	0.27	±20%	6.5	5.5	15	16	15	16
APH322520CR33MP01	0.33	±20%	9	7.5	9	9.5	14	15.5
APH322520CR47MP01	0.47	±20%	10.5	9	8.5	9.5	13	15
APH322520CR68MP01	0.68	±20%	14.5	12.5	8.0	9.0	11	13
APH322520C1R0MP01	1.0	±20%	17.5	15	7.5	8.2	8.3	9.0
APH322520C1R5MP01	1.5	±20%	25	22	6.0	6.5	6.0	6.8
APH322520C2R2MP01	2.2	±20%	43	36	4.8	5.4	5.5	6.5
APH322520C3R3MP01	3.3	±20%	60	55	4.0	4.5	3.5	4.5
APH322520C4R7MP01	4.7	±20%	94	81	3.0	3.5	3.0	4.0
APH322520C6R8MP01	6.8	±20%	125	101	2.3	2.8	2.9	3.8

ELECTRICAL CHARACTERISTICS

● APH3030 Series

Part Number	Inductance	Inductance Tolerance	DC Resistance		Heat Rating Current		Saturation Current	
	@1MHz		Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	-	mΩ		A		A	
Symbol	L	-	DCR		I _{rms}		I _{sat}	
APH303010C6R8MP03	6.8	±20%	270	225	1.8	2.1	1.5	1.8
APH303010C100MP01	10.0	±20%	360	320	1.7	2.0	1.3	1.6
APH303010C100MP02	10.0	±20%	275	250	2.0	2.2	1.5	1.8
APH303012CR10MP03	0.10	±20%	6.0	5.0	17.0	18.0	18.0	20.0
APH303012C1R0MP03	1.0	±20%	27	23	5.0	5.5	5.5	6.0
APH303012C4R7MP03	4.7	±20%	120	100	2.5	3.0	2.5	3.0
APH303012C100MP03	10.0	±20%	220	192	1.9	2.3	2.0	2.3
APH303012C150MP03	15.0	±20%	380	345	1.3	1.6	1.6	1.9
APH303015CR15MP03	0.15	±20%	6.0	5.0	11.0	12.0	15.0	16.0
APH303015CR47MP03	0.47	±20%	11	9	8.0	9.0	9.0	10.0
APH303015C1R0MP03	1.0	±20%	22	18	5.5	6.0	6.5	7.0
APH303015C1R5MP03	1.5	±20%	26	22	7.5	8.0	5.5	6.0
APH303015C2R2MP03	2.2	±20%	50	42	4.0	4.5	4.5	5.0
APH303015C4R7MP03	4.7	±20%	104	87	3.0	3.5	3.5	4.0
APH303015C6R8MP03	6.8	±20%	180	160	2.0	2.5	3.0	3.5
APH303015C100MP03	10.0	±20%	215	185	1.5	2.0	2.5	2.8
APH303015C220MP03	22.0	±20%	700	580	1.0	1.2	1.2	1.6
APH303018CR22MP03	0.22	±20%	7.0	5.5	9.0	10.0	16	17
APH303018CR47MP03	0.47	±20%	10	8	8.0	9.0	11	12
APH303018C1R0MP03	1.0	±20%	21	15	5.8	6.3	6.8	7.6
APH303018C1R5MP03	1.5	±20%	26	20	6.4	6.8	7.0	8.0
APH303018C4R7MP03	4.7	±20%	87	72	3.0	3.4	4.2	4.7
APH303020CR15MP03	0.15	±20%	5.0	4.0	12.0	13.0	17.0	18.0
APH303020CR33MP03	0.33	±20%	9	7.5	9.0	10.0	15	17
APH303020CR50MP03	0.5	±20%	12	9.0	8.0	9.0	13	15
APH303020CR68MP03	0.68	±20%	16	13	7.8	8.5	11	13
APH303020C1R0MP03	1.0	±20%	20	14	6.0	6.5	7.3	8.0
APH303020C1R5MP03	1.5	±20%	25	19	5.8	6.3	6.5	7.0
APH303020C2R2MP03	2.2	±20%	45	37	4.3	4.7	5.5	6.0
APH303020C3R3MP03	3.3	±20%	63	52	4.0	4.5	5.4	5.9
APH303020C4R7MP03	4.7	±20%	73	60	3.8	4.2	4.0	4.8
APH303020C6R8MP03	6.8	±20%	135	107	3.0	3.2	3.8	4.5
APH303020C100MP03	10.0	±20%	160	135	2.2	2.5	3.3	3.8
APH303020C150MP03	15.0	±20%	260	235	1.5	1.8	2.2	2.6

- All test data is referenced to 25 °C ambient.
- Test Condition:1MHz, 1.0Vrms.
- I_{rms}:DC current (A) that will cause an approximate ΔT of 40 °C .
- I_{sat}:DC current (A) that will cause L0 to drop approximately 30%.
- Operating Temperature Range -55°C to + 125°C .

- All test data is referenced to 25 °C ambient.
- Test Condition: 1MHz, 1.0Vrms.
- Irms: DC current (A) that will cause an approximate ΔT of 40 °C .
- Isat: DC current (A) that will cause L0 to drop approximately 30%.
- Operating Temperature Range -55°C to + 125°C .
- The part temperature (ambient + temp rise) should not exceed 125 under °C the worst case operating conditions. Circuit design, component placement, PCB trace size and thickness, airflow and other cooling provision all affect the part temperature. Part temperature should be verified in the end application.
- The rated current as listed is either the saturation current or the heating current depending on which value is lower.

RELIABILITY

Item	Requirements	Test Methods and Remarks
Insulation Resistance	$\geq 100M \Omega$	100 VDC between inductor coil and The middle of the top surface of the body for 60 seconds
Solderability	90% or more of electrode area shall be coated by new solde.	Dip pads in flux . Solder Composition: Sn/Ag3.0/Cu0.5 (Pb-Free). Solder Temperature: 245 ± 5 C. Immersion Time: (5±1) s.
Resistance to Soldering Heat	No visible mechanical damage. Inductance change: Within ± 10.	Dip pads in flux. Solder Composition: Sn/Ag3.0/Cu0.5 (Pb-Free). Solder Temperature: 260 ± 5 C. Immersion Time: 10 ± 1sec
Adhesion of teral electrode	Strong bond between the pad and the core, without come off PCB.	Inductors shall be subjected to (260±5) °C for (20±5)s Soldering in the base whit 0.3mm solder. And then aplombelectrode way plus tax 10 N for (10±1) seconds.
High temperature	No case deformation or change in appearance. Inductance change: Within ± 10%	Temperature: 125 ± 2C. Time : 1000 hours. Measurement at 24 ± 4 hours after test conclusion
Low temperature	No visible mechanical damage. Inductance change: Within ± 10%	Temperature: -40 ± 2C. Time : 1000 hours. Measurement at 24 ± 4 hours after test conclusion.
Thermal shock	No visible mechanical damage. Inductance change: Within ± 10%	The test sample shall be placed at (-55±3) °C and (125±3) °C for (30±3) , different temperature conversion time is 2~3 utes. The temperature cycle shall be repeated 32 cycles. Placed at room temperature for 2 hours, within 48 ± 4 hours of testing.
Static Humidity	No visible mechanical damage. Inductance change: Within ± 10%	Inductors shall be subjected to (95±3)%RH . at(60±2)C for (1000±4) h. Placed at room temperature for 2 hours, within 48 hours of testing
Life	No visible mechanical damage. Inductance change: Within ± 10%	Inductors shall be store at (85±2)C for (1000±4) hours with Irms applied. Placed at room temperature for 2 hours, within 48 hours of testing

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.