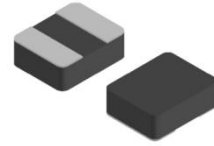


FEATURES

- 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

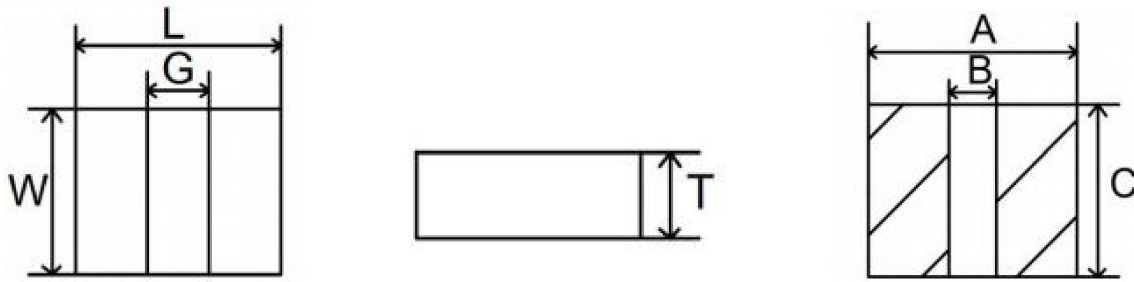
APH	201610	T	1R0	M	B	A	C
①	②	③	④	⑤	⑥	⑦	⑧
Series Name	External Dimensions	Feature Type	Nominal Inductance	Inductance Tolerance	Coating Color	Design Code	Product Type

① Series Name		④ Nominal Inductance		② External Dimensions	
APH	Mini Molding Power Inductors	Code (example)	Nominal Inductance [μ H]	100765	1.0x0.7x0.65
		R68	0.68	121065	1.2x1.0x0.65
		1R0	1.0	160865	1.6x0.8x0.65
		4R7	4.7	160808	1.6x0.8x0.8
				160810	1.6x0.8x1.0
				141265	1.4x1.2x0.65
				141208	1.4x1.2x0.8
				201265	2.0x1.2x0.65
				201208	2.0x1.2x0.8
				201210	2.0x1.2x1.0
				201608	2.0x1.6x0.8
				201610	2.0x1.6x1.0
				201612	2.0x1.6x1.2
				252010	2.5x2.0x1.0
				252012	2.5x2.0x1.2
				322512	3.2x2.5x1.2
				303018	3.0x3.0x1.8
				303020	3.0x3.0x2.0

③ Feature Type		⑤ Inductance Tolerance		⑦ Design Code	
T/D		M	\pm 20%	A	Routine
				B~Z	Special

⑥ Coating Color		⑧ Product Type	
B	Black	C	T-Code Type
G	Grey		

DIMENSIONS & RECOMMENDED LAND PATTERN



Recommended Land Pattern

Series	L	W	T	G	A	B	Unit: mm
							C
APH100765D	1.0±0.1	0.7±0.1	0.65Max.	0.3±0.2	1.00	0.20	0.70
APH121065T	1.2±0.2	1.0±0.2	0.65Max.	0.4±0.2	1.30	0.30	1.10
APH160865D	1.6±0.1	0.8±0.1	0.65Max.	0.5±0.2	1.70	0.40	0.90
APH160865T	1.6±0.2	0.8±0.2	0.65Max.	0.5±0.2	1.60	0.40	0.80
APH160808T	1.6±0.2	0.8±0.2	0.80Max.	0.5±0.2	1.70	0.40	0.90
APH160810T	1.6±0.2	0.8±0.2	1.00Max.	0.5±0.2	1.70	0.40	0.90
APH141265T	1.4±0.2	1.2±0.2	0.65Max.	0.5±0.2	1.50	0.45	1.30
APH141208T	1.4±0.2	1.2±0.2	0.80Max.	0.5±0.2	1.50	0.45	1.30
APH201265T	2.0±0.2	1.2±0.2	0.65Max.	0.5±0.2	2.10	0.50	1.30
APH201208T	2.0±0.2	1.2±0.2	0.80Max.	0.5±0.2	2.10	0.50	1.30
APH201210T	2.0±0.2	1.2±0.2	1.00Max.	0.5±0.2	2.10	0.50	1.30
APH201608T	2.0±0.2	1.6±0.2	0.80Max.	0.6±0.2	2.10	0.50	1.70
APH201610T	2.0±0.2	1.6±0.2	1.00Max.	0.6±0.2	2.10	0.50	1.70
APH201610D	2.0±0.1	1.6±0.1	1.00Max.	0.6±0.2	2.00	0.50	1.60
APH201612T	2.0±0.2	1.6±0.2	1.20Max.	0.6±0.2	2.10	0.50	1.70
APH252010T	2.5±0.2	2.0±0.2	1.00Max.	0.7±0.2	2.60	0.70	2.10
APH252012T	2.5±0.2	2.0±0.2	1.20Max.	0.7±0.2	2.60	0.70	2.10
APH322512T	3.2±0.2	2.5±0.2	1.20Max.	0.9±0.2	3.25	0.90	2.55
APH303018D	3.0±0.1	3.0±0.1	1.8Max.	1.0±0.2	2.90	0.90	2.90
APH303020D	3.0±0.1	3.0±0.1	2.00Max.	1.0±0.2	2.90	0.90	2.90

ELECTRICAL CHARACTERISTICS

● APH100765 Series

Part Number	Inductance	Inductance Tolerance	DC Resistance		Heat Rating Current		Saturation Current	
	@1MHz		Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	-	Ω		A		A	
Symbol	L	-	DCR		I _{rms}		I _{sat}	
APH100765D1R5MBAC	1.5	±20%	500	400	0.3	0.4	0.9	1.1
APH100765D2R6MGAC	2.6	±20%	900	750	0.4	0.55	0.8	1

● APH121065 Series

Part Number	Inductance	Inductance Tolerance	DC Resistance		Heat Rating Current		Saturation Current	
	@1MHz		Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	-	Ω		A		A	
Symbol	L	-	DCR		I _{rms}		I _{sat}	
APH121065T2R2MBAC	2.2	±20%	340	280	0.9	1	1.2	1.3

● APH1608 Series

Part Number	Inductance	Inductance Tolerance	DC Resistance		Heat Rating Current		Saturation Current	
	@1MHz		Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	-	Ω		A		A	
Symbol	L	-	DCR		I _{rms}		I _{sat}	
APH160865DR22MGAC	0.22	±20%	43	35	3.5	3.8	4.3	4.7
APH160865TR47MGAC	0.47	±20%	82	66	2	2.3	3	3.3
APH160808TR22MBAC	0.22	±20%	40	33	3	3.4	5	5.5
APH160808TR24MBAC	0.24	±20%	41	34	2.9	3.3	4.8	5.3
APH160808TR47MBAC	0.47	±20%	100	80	2.3	2.6	3.7	4.1
APH160808TR47MBDC	0.47	±20%	55	48	3.4	3.8	3.5	4
APH160808TR56MBAC	0.56	±20%	110	85	1.9	2.2	3.5	4
APH160808TR68MBAC	0.68	±20%	130	110	1.9	2.1	3	3.3
APH160808T1R0MBAC	1	±20%	200	180	1.8	2.1	2.6	3
APH160808T1R0MGDC	1	±20%	115	105	1.8	2.1	2.1	2.3
APH160808T2R2MGAC	2.2	±20%	260	220	1.2	1.4	1.3	1.5
APH160810TR22MBAC	0.22	±20%	35	28	4	4.5	6	6.5
APH160810TR24MBAC	0.24	±20%	35	28	3.9	4.4	5.8	6.3
APH160810TR47MBAC	0.47	±20%	80	65	3.5	4	4.4	4.8
APH160810TR56MBAC	0.56	±20%	95	70	3	3.5	3.7	4.2
APH160810TR68MBAC	0.68	±20%	115	90	2.5	3	3.2	3.6

ELECTRICAL CHARACTERISTICS

● APH1412 Series

Part Number	Inductance	Inductance Tolerance	DC Resistance		Heat Rating Current		Saturation Current	
	@1MHz		Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μ H	-	Ω		A		A	
Symbol	L	-	DCR		I _{rms}		I _{sat}	
APH141265TR33MBAC	0.33	±20%	32	26	4.2	4.4	4	4.4
APH141265TR33MGAC	0.33	±20%	32	26	4.2	4.4	4	4.4
APH141265TR47MBAC	0.47	±20%	45	37	2.7	3	3	3.4
APH141265TR47MGAC	0.47	±20%	45	37	2.7	3	3	3.4
APH141207TR24MBAC	0.24	±20%	28	22	3.6	4	4.3	4.6
APH141207TR47MBAC	0.47	±20%	38	34	3.3	3.8	3.5	3.8
APH141208TR24MBAC	0.24	±20%	27	22	3.7	4.1	5.7	6
APH141208TR33MBAC	0.33	±20%	28	23	3.5	4	5	5.3
APH141208TR33MGAC	0.33	±20%	28	23	3.5	4	5	5.3
APH141208TR47MBAC	0.47	±20%	35	29	3.3	3.8	4.2	4.6
APH141208TR47MGAC	0.47	±20%	35	29	3.3	3.8	4.2	4.6

● APH2012 Series

Part Number	Inductance	Inductance Tolerance	DC Resistance		Heat Rating Current		Saturation Current	
	@1MHz		Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μ H	-	Ω		A		A	
Symbol	L	-	DCR		I _{rms}		I _{sat}	
APH201265T1R0MBAC	1	±20%	86	78	2.3	2.6	2.5	2.8
APH201265D1R0MGAC	1	±20%	110	95	2.2	2.5	2.4	2.7
APH201265T2R2MBAC	2.2	±20%	230	215	1.4	1.7	1.5	1.8
APH201265T2R2MBBC	2.2	±20%	245	230	1.4	1.7	1.5	1.8
APH201208TR24MBAC	0.24	±20%	23	18	5.9	6.5	6	6.5
APH201208TR24MGAC	0.24	±20%	23	18	5.9	6.5	6	6.5
APH201208TR33MBAC	0.33	±20%	45	33	4	4.3	4.8	5.2
APH201208TR47MBAC	0.47	±20%	50	34	3.3	3.5	4.6	5
APH201208TR47MGAC	0.47	±20%	50	34	3.3	3.5	4.6	5
APH201208TR47MBDC	0.47	±20%	28	24	4.5	4.7	4.8	5.2
APH201208DR47MGAC	0.47	±20%	42	34	3.9	4.3	4.8	5.2
APH201208TR68MBAC	0.68	±20%	60	50	3.3	3.7	3.7	4.2
APH201208T1R0MBAC	1	±20%	70	55	2.9	3.3	3.5	4
APH201208T1R0MBDC	1	±20%	55	48	2.8	3.2	2.8	3.2
APH201208T1R0MGDC	1	±20%	55	48	2.8	3.2	2.8	3.2
APH201208T1R5MBAC	1.5	±20%	135	118	1.9	2.2	2.5	3
APH201208T2R2MBAC	2.2	±20%	185	160	1.8	2.2	2.3	2.6
APH201210TR10MBAC	0.1	±20%	13	8	7	7.5	8	8.5
APH201210TR22MBAC	0.22	±20%	22	16	6.5	7.1	6.8	7.3
APH201210TR24MBAC	0.24	±20%	23	17	6.4	7	6.7	7.2
APH201210TR24MGDC	0.24	±20%	17	13	6.4	7	6.7	7.2
APH201210TR33MBAC	0.33	±20%	32	24	5	5.5	6	6.5

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	-	Ω		A		A	
Symbol	L	-	DCR		I _{rms}		I _{sat}	
APH201210TR47MBAC	0.47	±20%	36	29	4.3	4.7	5	5.5
APH201210TR68MBAC	0.68	±20%	43	37	4	4.3	4.5	5
APH201210T1R0MBAC	1	±20%	63	55	3.5	3.9	3.5	4
APH201210T1R5MBAC	1.5	±20%	85	76	2.6	3.1	2.7	3.2
APH201210T1R5MBBC	1.5	±20%	100	90	2.6	3.1	2.7	3.2
APH201210T2R2MBAC	2.2	±20%	150	135	1.7	2	2.4	2.7

● APH2016 Series

Part Number	Inductance	Inductance Tolerance	DC Resistance		Heat Rating Current		Saturation Current	
	@1MHz		Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	-	Ω		A		A	
Symbol	L	-	DCR		I _{rms}		I _{sat}	
APH201608TR22MBAC	0.22	±20%	19	14	5.9	6.6	5.6	6.1
APH201608TR24MBAC	0.24	±20%	20	14	5.8	6.5	5.5	6
APH201608TR33MBAC	0.33	±20%	24	18	4.8	5.5	5.3	5.8
APH201608TR47MBAC	0.47	±20%	27	24	4.4	4.6	5	5.5
APH201608TR47MGAC	0.47	±20%	27	24	4.4	4.6	5	5.5
APH201608TR68MBAC	0.68	±20%	44	39	3.5	3.8	4.2	4.6
APH201608T1R0MBAC	1	±20%	60	53	3.3	3.6	3.1	3.3
APH201608T1R0MGDC	1	±20%	52	45	3.3	3.6	3.5	3.8
APH201608T1R5MBAC	1.5	±20%	85	73	2.8	3.1	2.8	3
APH201608T2R2MBAC	2.2	±20%	140	123	2	2.2	2.3	2.5
APH201608T3R3MBAC	3.3	±20%	220	200	1.5	1.8	1.8	2.1
APH201608T4R7MBAC	4.7	±20%	290	260	1.4	1.6	1.5	1.7
APH201610TR10MBAC	0.1	±20%	12	7	8	8.5	8.4	9
APH201610TR15MBAC	0.15	±20%	14	8	7	7.6	8	8.7
APH201610TR22MBAC	0.22	±20%	18	11	6.3	6.9	7.5	8.2
APH201610TR24MBAC	0.24	±20%	19	12	6.2	6.8	7.4	8
APH201610TR33MBAC	0.33	±20%	22	17	5.3	5.7	6.5	7
APH201610TR33MGAC	0.33	±20%	22	17	5.3	5.7	6.5	7
APH201610TR47MBAC	0.47	±20%	25	22	5	5.5	5.5	6.3
APH201610TR47MGAC	0.47	±20%	25	22	5	5.5	5.5	6.3
APH201610TR68MBAC	0.68	±20%	32	25	4.3	4.6	4.7	5.2
APH201610T1R0MBAC	1	±20%	43	35	4.1	4.5	4.2	4.6
APH201610T1R0MGAC	1	±20%	43	35	4.1	4.5	4.2	4.6
APH201610T1R0MBDC	1	±20%	36	31	4.2	4.6	4.2	4.7
APH201610T1R0MGDC	1	±20%	36	31	4.2	4.6	4.2	4.7
APH201610T1R5MBAC	1.5	±20%	100	80	2.3	2.6	2.9	3.2
APH201610T2R2MBAC	2.2	±20%	130	120	2.1	2.5	2.8	3
APH201610T2R2MGAC	2.2	±20%	130	120	2.1	2.5	2.8	3

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	-	Ω		A		A	
Symbol	L	-	DCR		I _{rms}		I _{sat}	
APH201610D2R2MBAC	2.2	±20%	125	115	2.2	2.5	3	3.3
APH201610T3R3MBAC	3.3	±20%	170	140	1.5	1.7	2	2.3
APH201610T4R7MBAC	4.7	±20%	220	190	1.4	1.6	1.8	2
APH201610T4R7MGAC	4.7	±20%	220	190	1.4	1.6	1.8	2
APH201612TR10MBAC	0.1	±20%	6	4	10	12	11.5	13
APH201612TR24MBAC	0.24	±20%	11	9	8.6	9.1	8.7	9.2
APH201612TR33MBAC	0.33	±20%	15	10	7.2	7.7	7.3	7.8
APH201612TR47MBAC	0.47	±20%	17	13	6	6.7	6	6.7
APH201612T1R5MBAC	1.5	±20%	50	40	3.5	4	3.5	4

● APH2520 Series

Part Number	Inductance	Inductance Tolerance	DC Resistance		Heat Rating Current		Saturation Current	
	@1MHz		Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	-	Ω		A		A	
Symbol	L	-	DCR		I _{rms}		I _{sat}	
APH252010TR22MBAC	0.22	±20%	17	12	6.5	6.8	7.9	8.6
APH252010TR22MGAC	0.22	±20%	17	12	6.5	6.8	7.9	8.6
APH252010TR24MBAC	0.24	±20%	17.5	12	6.4	6.7	7.8	8.5
APH252010TR33MBAC	0.33	±20%	19	13	6.2	6.5	7.2	7.6
APH252010TR33MGAC	0.33	±20%	19	13	6.2	6.5	7.2	7.6
APH252010TR47MBAC	0.47	±20%	22	15	5.6	6.1	6.5	6.9
APH252010TR47MGAC	0.47	±20%	22	15	5.6	6.1	6.5	6.9
APH252010TR47MBDC	0.47	±20%	15	13	6	6.5	6	6.6
APH252010TR68MBAC	0.68	±20%	27	23	5	5.6	5.5	5.9
APH252010T1R0MBAC	1	±20%	30	25	4.1	4.5	4.8	5.3
APH252010T1R0MGAC	1	±20%	30	25	4.1	4.5	4.8	5.3
APH252010T1R5MBAC	1.5	±20%	55	45	3	3.4	3.9	4.3
APH252010T1R5MGAC	1.5	±20%	55	45	3	3.4	3.9	4.3
APH252010T2R2MBAC	2.2	±20%	70	62	2.1	2.4	3	3.3
APH252010T2R2MGAC	2.2	±20%	70	62	2.1	2.4	3	3.3
APH252010T3R3MBAC	3.3	±20%	100	86	2.1	2.5	2.5	2.8
APH252010T3R3MGAC	3.3	±20%	100	86	2.1	2.5	2.5	2.8
APH252010T4R7MBAC	4.7	±20%	180	160	1.6	2	2	2.6
APH252010T4R7MGAC	4.7	±20%	180	160	1.6	2	2	2.6
APH252010T4R7MBDC	4.7	±20%	160	145	1.6	2	2	2.6
APH252010T6R8MBAC	6.8	±20%	320	270	1.4	1.6	1.9	2.4
APH252010T100MBAC	10	±20%	560	500	0.95	1.05	1.4	1.55
APH252010T100MGAC	10	±20%	560	500	0.95	1.05	1.4	1.55
APH252010T220MGAC	22	±20%	1300	1100	0.6	0.85	0.9	1.1

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	-	Ω		A		A	
Symbol	L	-	DCR		I _{rms}		I _{sat}	
APH252012TR10MBAC	0.1	±20%	10	6	10.5	12	12.5	13.5
APH252012TR15MBAC	0.15	±20%	11	7	10	11.5	12	13
APH252012TR22MBAC	0.22	±20%	14	9	7.6	8.2	9	9.6
APH252012TR24MBAC	0.24	±20%	15	10	7.5	8	8.8	9.3
APH252012TR24MGAC	0.24	±20%	15	10	7.5	8	8.8	9.3
APH252012TR33MBAC	0.33	±20%	17	11	6.4	6.8	7.8	8.3
APH252012TR47MBAC	0.47	±20%	19	13	6	6.5	7	7.5
APH252012TR47MBDC	0.47	±20%	13	11	7.5	8	8	8.5
APH252012TR47MGDC	0.47	±20%	13	11	7.5	8	8	8.5
APH252012TR68MBAC	0.68	±20%	23	17	5.5	6.3	6	6.5
APH252012T1R0MBAC	1	±20%	42	35	3.6	4	5	5.6
APH252012T1R0MBDC	1	±20%	22	16	4.5	5.2	6	6.5
APH252012T1R0MGDC	1	±20%	22	16	4.5	5.2	6	6.5
APH252012T1R5MBAC	1.5	±20%	50	44	3.2	3.7	4.1	4.5
APH252012T1R5MBDC	1.5	±20%	32	27	4.2	4.6	4.4	4.7
APH252012T1R5MGAC	1.5	±20%	50	44	3.2	3.7	4.1	4.5
APH252012T2R2MBAC	2.2	±20%	65	55	2.7	3	3.3	3.8
APH252012T2R2MGAC	2.2	±20%	65	55	2.7	3	3.3	3.8
APH252012T3R3MBAC	3.3	±20%	97	80	1.8	2.3	2.7	3
APH252012T4R7MBAC	4.7	±20%	170	150	1.5	1.8	2.1	2.4
APH252012T4R7MGAC	4.7	±20%	170	150	1.5	1.8	2.1	2.4
APH252012T6R8MBAC	6.8	±20%	270	245	1.4	1.6	1.7	2
APH252012T100MBAC	10	±20%	400	330	1.05	1.2	1.45	1.6
APH252012T100MGAC	10	±20%	400	330	1.05	1.2	1.45	1.6

● APH3225 Series

Part Number	Inductance	Inductance Tolerance	DC Resistance		Heat Rating Current		Saturation Current	
	@1MHz		Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	-	Ω		A		A	
Symbol	L	-	DCR		I _{rms}		I _{sat}	
APH322510TR47MBAC	0.47	±20%	22	17	5.9	6.4	7.6	8.3
APH322510TR68MBAC	0.68	±20%	28	22	5.7	6.2	7	7.5
APH322510T1R0MBAC	1	±20%	30	25	4.9	5.4	5.3	6
APH322510T1R5MBAC	1.5	±20%	42	34	3.6	4	4.4	5
APH322510T2R2MBAC	2.2	±20%	66	55	3.4	3.7	3.5	4
APH322510T3R3MBAC	3.3	±20%	120	105	2.3	2.7	3.3	3.7
APH322510T4R7MBAC	4.7	±20%	140	125	1.9	2.3	2.5	2.8
APH322512TR10MBAC	0.10	±20%	7	5.2	11	12	16.5	18
APH322512TR22MBAC	0.22	±20%	10	6.6	8.7	9.2	11	11.5
APH322512TR22MGAC	0.22	±20%	10	6.6	8.7	9.2	11	11.5

ELECTRICAL CHARACTERISTICS

● APH3225 Series

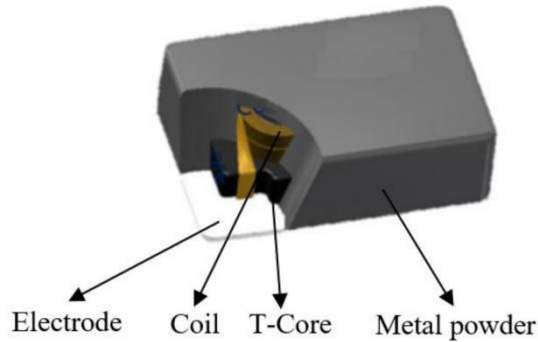
Part Number	Inductance	Inductance Tolerance	DC Resistance		Heat Rating Current		Saturation Current	
	@1MHz		Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	-	Ω		A		A	
Symbol	L	-	DCR		I _{rms}		I _{sat}	
APH322512TR24MBAC	0.24	±20%	12	7	8.5	9	10.5	11
APH322512TR33MBAC	0.33	±20%	14	9	8.1	8.4	9.5	10
APH322512TR47MBAC	0.47	±20%	19	14	7.2	7.5	8.2	8.6
APH322512TR47MGAC	0.47	±20%	19	14	7.2	7.5	8.2	8.6
APH322512TR47MBDC	0.47	±20%	14	11	7.2	7.5	8.2	8.6
APH322512TR68MBAC	0.68	±20%	23	18	6.8	7.3	7.7	8.1
APH322512TR68MBDC	0.68	±20%	15	12	6.5	7	7.5	8
APH322512T1R0MBAC	1	±20%	30	26	4.8	5.3	5.8	6.6
APH322512T1R0MGAC	1	±20%	30	26	4.8	5.3	5.8	6.6
APH322512T1R0MBDC	1	±20%	21	18	5	5.5	7	7.7
APH322512T1R5MBAC	1.5	±20%	44	37	4.3	4.7	4.7	5.1
APH322512T2R2MBAC	2.2	±20%	70	58	3	3.6	4.2	4.6
APH322512T2R2MBDC	2.2	±20%	50	42	3.5	3.8	4.5	5
APH322512T2R2MGDC	2.2	±20%	50	42	3.5	3.8	4.5	5
APH322512T3R3MBAC	3.3	±20%	95	75	2.5	2.9	3.2	3.7
APH322512T3R3MGAC	3.3	±20%	95	75	2.5	2.9	3.2	3.7
APH322512T4R7MBAC	4.7	±20%	135	115	2	2.3	2.6	2.9
APH322512T6R8MBAC	6.8	±20%	210	177	1.9	2.1	2.4	2.8
APH322512T100MBAC	10	±20%	230	210	1.8	2.2	1.9	2.3

● APH3030 Series

Part Number	Inductance	Inductance Tolerance	DC Resistance		Heat Rating Current		Saturation Current	
	@1MHz		Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	-	Ω		A		A	
Symbol	L	-	DCR		I _{rms}		I _{sat}	
APH303018DR22MBAC	0.22	±20%	7	5.5	9	10	16	17
APH303018D4R7MBAC	4.7	±20%	87	72	3	3.4	4.2	4.7
APH303020D1R0MBAC	1	±20%	20	14	6	6.5	7.3	8
APH303020D1R5MBAC	1.5	±20%	25	19	5.8	6.3	6.5	7
APH303020D2R2MBAC	2.2	±20%	45	37	4.3	4.7	5.5	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 .
- 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.

STRUCTURE

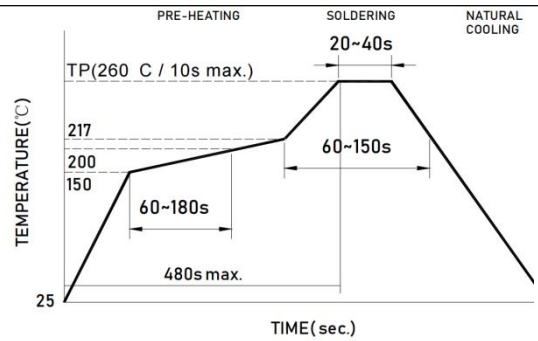


RELIABILITY

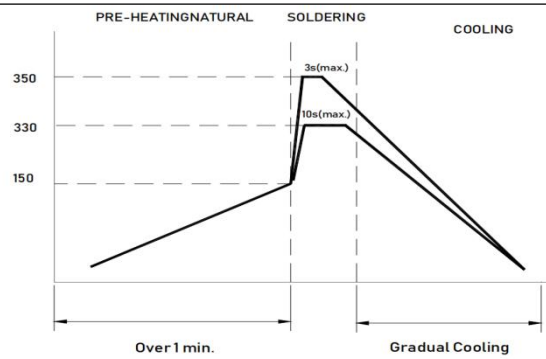
Item	Requirements	Test Methods and Remarks
Insulation Resistance	$\geq 100M \Omega$	100 VDC between inductor coil and The middle of the top surface of the body for 60 seconds
Solderability	90% or more of electrode area shall be coated by new solde.	Dip pads in flux . Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free).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

SOLDERING CONDITIONS

- 260°C tip temperature (max)
- Reflow times: no more than 2 times
- Solder paste thickness: the best 0.08mm is ,but max is 0.1mm



- Use a 20 watt soldering iron with tip diameter of 1.0mm
- Limit soldering time to 3 sec.



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.