

APS Series

Features

- Alloy powder Inductor.
- 100% lead (Pb)-free.
- Lowest DCR/uH, in this package size.
- Handles high transient current spikes without saturation.
- Ultra low buzz noise, due to composite construction.
- RoHS compliance.
- Halogen Free.

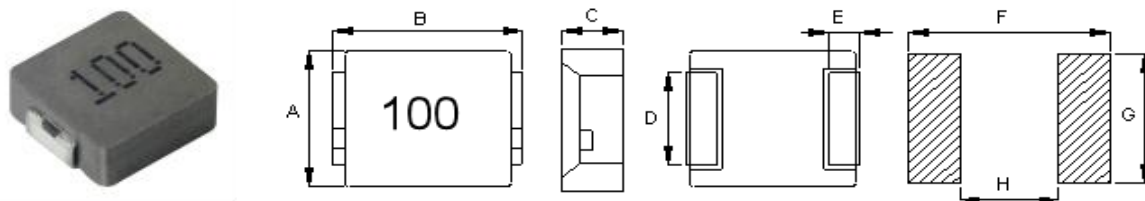
Applications

- Notebook/Desktop/Server applications.
- Low profile, high current power supplies.
- DC/DC converter for Field Programmable Gate Array(FPGA).

Test Equipment and Conditions

- All test data is referenced to 25°C ambient.
- Operating temperature range -40°C to +125°C.(Including self - temperature rise)
- DC current(Irms)that will cause an approximate ΔT of 40°C.
- DC current(Isat)that will cause Lo to drop approximately 40%.
- Absolute maximum voltage 30VDC.

External Dimensions (Unit:mm)



TYPE	A	B Max	C Max	D typ	E typ	F typ	G typ	H typ	Q'TY/Reel
APS04A10	4.1±0.2	4.3	1	1.8	0.8	4.4	2.2	2.2	5000
APS04A12	4.2±0.3	4.8	1.2	2.0	0.8	5.2	2.5	2.2	3000
APS04A20	4.2±0.3	4.8	2	2.0	0.8	5.2	2.5	2.2	3000
APS05A15	5.2±0.3	5.8	1.5	2.2	1.2	5.0	2.5	2.2	3000
APS05A18	5.2±0.3	5.8	1.8	2.2	1.2	6.0	2.5	2.2	2000
APS05A30	5.2±0.3	5.8	3	2.2	1.2	6.0	2.5	2.2	2000
APS06A10	6.1±0.3	6.4	1	4.0	1.8	7.5	4.5	2.8	3000
APS07A15	6.6±0.3	7.7	1.5	3.0	1.6	8.4	3.5	3.7	2000
APS07A18	6.6±0.3	7.7	1.8	3.0	1.6	8.4	3.5	3.7	1500
APS07A24	6.6±0.3	7.7	2.4	3.0	1.6	8.4	3.5	3.7	1500
APS07A30	6.6±0.3	7.7	3	3.0	1.6	8.4	3.5	3.7	1000
APS07A50	6.6±0.3	7.7	5	3.0	1.7	8.4	3.5	3.6	1000

TYPE	A	B Max	C Max	D typ	E typ	F typ	G typ	H typ	Q'TY/Reel
APS07D54	7.2±0.3	8.2	5.4	3.0	2.0	9.0	3.5	2.6	500
APS08A40	8.2±0.3	9.2	4	5.0	1.4	9.5	5.5	4.0	800
APS10A20	10.0±0.5	11.5	2	3.0	2.0	13.6	4.1	5.4	1000
APS10A30	10.0±0.5	11.5	3	3.0	2.0	13.6	4.1	5.4	1000
APS10A40	10.0±0.5	11.5	4	3.0	2.0	13.6	4.1	5.4	500
APS10A50	10.0±0.5	11.5	5	3.0	2.0	13.6	4.1	5.4	500
APS10D54	10.0±0.3	11.3	5.4	4.5	2.2	12.9	5.0	4.9	500
APS13A50	12.6±0.3	13.9	5	See Remark	2.0	14.5	5.0	8.0	500
APS13A60	12.6±0.3	13.9	6	See Remark	2.0	14.5	5.0	8.0	500
APS17A70	16.9±0.3	17.5	7	11.9	2.5	20.0	12.3	12.4	200
APS22A13	22.0±0.3	24.0	13.0	19.0	5.0	24.0	19.6	12.5	80

Remark:

TYPE	D(mm)Typ.	
	3.85	5.0
APS13A50	R22~2R2	3R3~470
APS13A60	1R0~2R2	3R3~151

Part Number Code

APS	04	A	12	LC	M	100
Series Name	Dimensions: L*W	Materials	Dimensions: H	Internal control	Tolerance	Inductance

APS Series

Part Number	Inductance (μH) @100KHz/1V	DC Resistance (mΩ) Max.	Heat Rating Current Irms (A)Typ.	Saturation Current Isat (A)Typ.
APS04A10LCM2R2	2.2	100	3.4	4.3
APS04A10LCM4R7	4.7	160	2.6	2.5
APS04A10LCM100	10	336	1.5	1.8
APS04A12LCMR15	0.15	8.9	7.57	15.16
APS04A12LCMR22	0.22	10.9	7.05	11.12
APS04A12LCMR33	0.33	18.8	6.55	8.48
APS04A12LCMR47	0.47	20.8	6.06	6.86
APS04A12LCMR68	0.68	35.5	4.74	6.06
APS04A12LCM1R0	1	46.5	4.55	5.55

APS Series

Part Number	Inductance (μ H) @100KHz/1V	DC Resistance (m Ω) Max.	Heat Rating Current Irms (A)Typ.	Saturation Current Isat (A)Typ.
APS04A12LCM1R5	1.5	74.3	3.28	4.05
APS04A12LCM2R2	2.2	82.7	2.77	3.54
APS04A12LCM4R7	4.7	193	1.82	2.83
APS04A20LCMR10	0.1	3.9	13.13	22.22
APS04A20LCMR22	0.22	6.5	9.6	12.62
APS04A20LCMR33	0.33	10.9	10.1	12.13
APS04A20LCMR47	0.47	13.8	7.55	9.59
APS04A20LCMR56	0.56	15.8	7.07	10.11
APS04A20LCMR68	0.68	17.8	7.07	9.1
APS04A20LCM1R0	1	26.7	6.05	7.07
APS04A20LCM1R2	1.2	26.8	6.06	7.07
APS04A20LCM1R5	1.5	45.5	5.05	6.05
APS04A20LCM2R2	2.2	57.5	4.55	5.05
APS04A20LCM3R3	3.3	86.5	3.35	4.05
APS04A20LCM4R7	4.7	104	2.82	3.03
APS04A20LCM5R6	5.6	140	2.6	2.8
APS04A20LCM6R8	6.8	173	2.42	2.52
APS04A20LCM100	10	279	1.61	2.22
APS04A20LCM220	22	363	1.2	1.4
APS05A15LCMR47	0.47	12.6	10	15
APS05A15LCMR68	0.68	15.5	8	10.5
APS05A15LCM1R0	1	23	6.5	9
APS05A15LCM2R2	2.2	52	4	6
APS05A15LCM100	10	170	2	3
APS05A18LCMR47	0.47	8.9	10.6	15.65
APS05A18LCMR56	0.56	9.9	9.6	15.2
APS05A18LCM1R0	1	16.8	8.08	9.1
APS05A18LCM1R5	1.5	25.7	7.57	9.1
APS05A18LCM2R2	2.2	34.7	5.05	6.56
APS05A18LCM3R3	3.3	57.4	4.55	5.05
APS05A18LCM6R8	6.8	118.9	2.82	3.43
APS05A18LCM100	10	153	2.52	3.03
APS05A30LCMR10	0.1	2.9	25.3	33.4
APS05A30LCMR15	0.15	3.3	17.1	26.7

APS Series

Part Number	Inductance (μ H) @100KHz/1V	DC Resistance (m Ω) Max.	Heat Rating Current Irms (A)Typ.	Saturation Current Isat (A)Typ.
APS05A30LCMR20	0.2	3.8	14.15	14.65
APS05A30LCMR47	0.47	8.1	11.12	12.15
APS05A30LCMR68	0.68	11.8	9.1	11.6
APS05A30LCM1R0	1	13.8	8.6	11.12
APS05A30LCM1R2	1.2	15.8	8.6	11.12
APS05A30LCM1R5	1.5	24.7	8.3	8.6
APS05A30LCM2R2	2.2	28.8	7.05	7.6
APS05A30LCM3R3	3.3	37.6	5.55	6.05
APS05A30LCM4R7	4.7	59	4.55	5.05
APS05A30LCM6R8	6.8	89	3.53	4.05
APS05A30LCM100	10	124	3.23	3.54
APS05A30LCM150	15	196	2	2.2
APS05A30LCM220	22	248	1.7	2.3
APS06A10LCM4R7	4.7	172	2.2	2.8
APS06A10LCM6R8	6.8	197	2	2.5
APS06A10LCM100	10	310	1.6	2.1
APS07A15LCMR47	0.47	8.5	16	10
APS07A15LCMR56	0.56	11	14	9
APS07A15LCMR68	0.68	12	12	8.5
APS07A15LCMR82	0.82	17	10	8
APS07A15LCM1R0	1	21	9	6
APS07A15LCM2R2	2.2	54	7	3.8
APS07A15LCM3R3	3.3	63	5.5	3.5
APS07A15LCM4R7	4.7	85	5	3.2
APS07A15LCM6R8	6.8	135	4	2.5
APS07A15LCM100	10	175	3	2
APS07A18LCMR47	0.47	8.3	11.6	18.2
APS07A18LCMR68	0.68	11.9	9.6	17.2
APS07A18LCM1R0	1	15.5	8.6	14.15
APS07A18LCM1R5	1.5	25.7	8.08	12.12
APS07A18LCM2R2	2.2	34.6	7.05	8.1
APS07A18LCM3R3	3.3	49	4.55	6.55
APS07A18LCM4R7	4.7	61	4.05	5.05
APS07A18LCM6R8	6.8	108	3.03	4.55

APS Series

Part Number	Inductance (μ H) @100KHz/1V	DC Resistance (m Ω) Max.	Heat Rating Current Irms (A)Typ.	Saturation Current Isat (A)Typ.
APS07A24LCMR22	0.22	2.9	21.22	34.35
APS07A24LCMR33	0.33	4	18.18	24.75
APS07A24LCMR47	0.47	5	15.15	22.22
APS07A24LCMR56	0.56	6.4	13.15	17.2
APS07A24LCMR68	0.68	6.9	12.15	16.15
APS07A24LCM1R0	1	13.3	9.1	16.15
APS07A24LCM1R5	1.5	20	9.1	15.15
APS07A24LCM2R2	2.2	27.8	7.05	14.15
APS07A24LCM3R3	3.3	38.5	5.55	10.1
APS07A24LCM4R7	4.7	59.5	5.05	7.55
APS07A24LCM6R8	6.8	70	4.05	6.06
APS07A24LCM100	10	100	3.13	4.05
APS07A24LCM150	15	158	2.52	3.33
APS07A24LCM220	22	227	2.02	2.52
APS07A30LCMR10	0.1	1.7	35	43
APS07A30LCMR12	0.12	0.95	36	50
APS07A30LCMR15	0.15	2.3	26	41
APS07A30LCMR22	0.22	3	24.25	34.35
APS07A30LCMR24	0.24	3	23.23	26.26
APS07A30LCMR33	0.33	3.5	21.2	25.25
APS07A30LCMR47	0.47	4.1	18.2	20.2
APS07A30LCMR56	0.56	4.3	16.65	18.2
APS07A30LCMR68	0.68	5.3	16.16	17.15
APS07A30LCMR82	0.82	5.9	14.14	16.15
APS07A30LCM1R0	1	7.3	12.12	15.15
APS07A30LCM1R5	1.5	12	12.12	14.15
APS07A30LCM2R2	2.2	14.8	9.6	10.1
APS07A30LCM3R3	3.3	21.8	8.55	9.55
APS07A30LCM4R7	4.7	32.5	6.06	9
APS07A30LCM5R6	5.6	45	5	7
APS07A30LCM6R8	6.8	47.5	5.05	6.05
APS07A30LCM8R2	8.2	59.5	5.05	6.05
APS07A30LCM100	10	66.3	4.55	5.55
APS07A30LCM150	15	113	3.03	4.55

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Part Number	Inductance (μ H) @100KHz/1V	DC Resistance (m Ω) Max.	Heat Rating Current Irms (A)Typ.	Saturation Current Isat (A)Typ.
APS07A30LCM220	22	170	2.5	3.03
APS07A30LCM330	33	270	2.02	2.52
APS07A30LCM470	47	385	1.5	2
APS07A50LCMR22	0.22	2.5	30.03	35.35
APS07A50LCMR47	0.47	4.8	20.02	21.21
APS07A50LCMR56	0.56	5.4	18.18	18.18
APS07A50LCMR68	0.68	5.9	16.16	16.16
APS07A50LCMR82	0.82	7.3	14.15	15.15
APS07A50LCM1R0	1	6.4	14.15	18.18
APS07A50LCM1R5	1.5	7.4	12.12	15.65
APS07A50LCM2R2	2.2	12.3	10.1	14.14
APS07A50LCM3R3	3.3	21.7	8.58	12.12
APS07A50LCM4R7	4.7	24.7	7.07	10.1
APS07A50LCM6R8	6.8	41	5.5	7.07
APS07A50LCM8R2	8.2	48	5.05	6.7
APS07A50LCM100	10	54.3	4.55	6.55
APS07A50LCM150	15	85	3.1	4.5
APS07A50LCM220	22	138	2.52	4.04
APS07A50LCM330	33	178	2.32	3.53
APS07A50LCM470	47	227	2.02	2.62
APS07A50LCM680	68	438	1.2	1.7
APS07A50LCM101	100	680	0.7	1
APS07D54LCM330	33	127.6	3.2	4.9
APS07D54LCM470	47	171.6	2.4	4.1
APS07D54LCM560	56	209.3	2.2	3.3
APS07D54LCM680	68	255	2	2.8
APS07D54LCM101	100	348	1.8	2.4
APS08A40LCMR22	0.22	1.8	36	60
APS08A40LCMR33	0.33	2.4	30	45
APS08A40LCMR47	0.47	2.8	28	42
APS08A40LCMR56	0.56	3.2	24	26
APS08A40LCMR68	0.68	3.8	23	24
APS08A40LCMR82	0.82	4.4	21	21
APS08A40LCM1R0	1	4.62	19	19

APS Series

Part Number	Inductance (μ H) @100KHz/1V	DC Resistance (m Ω) Max.	Heat Rating Current Irms (A)Typ.	Saturation Current Isat (A)Typ.
APS08A40LCM1R5	1.5	7.6	17	17
APS08A40LCM1R8	1.8	11	15	15
APS08A40LCM2R2	2.2	11.4	14	14
APS08A40LCM3R3	3.3	15	12	12.5
APS08A40LCM4R7	4.7	26.5	9.5	11.5
APS08A40LCM5R6	5.6	30	9	11
APS08A40LCM6R8	6.8	36.8	8	9
APS08A40LCM8R2	8.2	46	7	8.7
APS08A40LCM100	10	59	6.5	8
APS08A40LCM150	15	71	5.4	5.5
APS08A40LCM220	22	113	4.8	5
APS08A40LCM330	33	156	3.5	3.5
APS08A40LCM470	47	225	2.9	3.1
APS10A20LCM4R7	4.7	50	5	8
APS10A20LCM100	10	70	4	5
APS10A30LCMR22	0.22	1.2	33	50
APS10A30LCMR33	0.33	1.6	23	32
APS10A30LCMR36	0.36	1.6	23	28
APS10A30LCMR47	0.47	2.5	22	26
APS10A30LCMR82	0.82	3.7	18	23
APS10A30LCM1R0	1	6	15	21
APS10A30LCM2R2	2.2	9	11	14
APS10A30LCM3R3	3.3	16	9	12
APS10A30LCM4R7	4.7	24	7	10
APS10A30LCM8R2	8.2	45	5	7
APS10A30LCM100	10	50	4	7
APS10A30LCM330	33	160	2.5	4
APS10A40LCMR15	0.15	0.6	45.45	75.75
APS10A40LCMR22	0.22	1	35.35	60.6
APS10A40LCMR30	0.3	1	35.35	50.5
APS10A40LCMR36	0.36	1.2	30.3	50.5
APS10A40LCMR47	0.47	1.6	30.3	40.4
APS10A40LCMR56	0.56	1.7	25.25	33.33
APS10A40LCMR68	0.68	2.3	23.23	30.3

APS Series

Part Number	Inductance (μ H) @100KHz/1V	DC Resistance (m Ω) Max.	Heat Rating Current Irms (A)Typ.	Saturation Current Isat (A)Typ.
APS10A40LCMR80	0.8	2.6	23.23	29.3
APS10A40LCM1R0	1	3.2	19.2	28.28
APS10A40LCM1R5	1.5	4.1	16.15	26.25
APS10A40LCM2R2	2.2	6.9	12.12	18.18
APS10A40LCM3R3	3.3	11.6	11.1	16.15
APS10A40LCM4R7	4.7	19.9	9.1	15.15
APS10A40LCM5R6	5.6	22	8.5	12
APS10A40LCM6R8	6.8	24.7	8.58	12.12
APS10A40LCM8R2	8.2	26.5	8.08	9.1
APS10A40LCM100	10	29.7	7.87	8.6
APS10A40LCM150	15	44.5	6.55	7.07
APS10A40LCM220	22	65.3	5.05	5.55
APS10A40LCM330	33	91	4.44	5.05
APS10A40LCM470	47	143	3.33	3.53
APS10A40LCM680	68	193	2.52	3.03
APS10A40LCM101	100	340	2.2	2.3
APS10A50LCMR22	0.22	0.8	37	65
APS10A50LCM1R0	1	2.8	23.5	30
APS10A50LCM2R2	2.2	6	14	19
APS10A50LCM3R3	3.3	9.8	14	16
APS10A50LCM4R7	4.7	14	11	15
APS10A50LCM5R6	5.6	17	9.7	14
APS10A50LCM6R8	6.8	18.5	9.2	14
APS10A50LCM100	10	28	8.2	10
APS10A50LCM150	15	42	6.5	7.5
APS10A50LCM220	22	50	5.5	6
APS10A50LCM330	33	86	4.8	5.2
APS10A50LCM470	47	127	3.7	4.5
APS10A50LCM680	68	180	2.7	3.5
APS10A50LCM101	100	290	2.1	2.8
APS10D54LCMR68	0.68	2.22	32	46
APS10D54LCM1R0	1	2.76	30	37
APS10D54LCM1R5	1.5	4.2	24.8	26.8
APS10D54LCM2R2	2.2	4.9	23	25

APS Series

Part Number	Inductance (μ H) @100KHz/1V	DC Resistance (m Ω) Max.	Heat Rating Current Irms (A)Typ.	Saturation Current Isat (A)Typ.
APS10D54LCM3R3	3.3	7.4	18.7	19
APS10D54LCM6R8	6.8	14	12	13.3
APS10D54LCM100	10	24.2	8.7	12.7
APS10D54LCM150	15	31.3	7.6	9.2
APS10D54LCM220	22	50	6	8.8
APS10D54LCM330	33	75.3	4.8	7.6
APS10D54LCM470	47	103	4.1	4.9
APS10D54LCM680	68	152	3.3	4.2
APS10D54LCM101	100	234	2.8	3.5
APS13A50LCMR22	0.22	0.7	50.5	75.75
APS13A50LCMR36	0.36	0.8	42.4	50.5
APS13A50LCMR47	0.47	1.1	38.38	48.5
APS13A50LCMR68	0.68	1.5	33.33	46.46
APS13A50LCMR82	0.82	1.6	30.3	39.39
APS13A50LCM1R0	1	2.2	26.26	35.35
APS13A50LCM1R5	1.5	3.1	23.23	33.33
APS13A50LCM2R2	2.2	4.9	15.15	24.25
APS13A50LCM3R3	3.3	6.9	14.15	22.23
APS13A50LCM4R7	4.7	8.9	13.13	21.2
APS13A50LCM6R8	6.8	17.9	12.12	16.16
APS13A50LCM330	33	83	3.53	6.05
APS13A50LCM470	47	128	3.03	5.05
APS13A60LCM1R0	1	2.1	28	31
APS13A60LCM1R5	1.5	2.7	16	28
APS13A60LCM2R2	2.2	2.7	16	22
APS13A60LCM3R3	3.3	6.8	17.5	25
APS13A60LCM4R7	4.7	9.9	15.15	24.24
APS13A60LCM5R6	5.6	10.9	13.13	22.73
APS13A60LCM6R8	6.8	13.3	12.12	19.19
APS13A60LCM7R8	7.8	14.4	11.61	18.18
APS13A60LCM8R2	8.2	15.8	11.11	13.63
APS13A60LCM100	10	20.4	10.1	12.62
APS13A60LCM120	12	22.7	9.1	10.1
APS13A60LCM150	15	28.7	8.58	9.1

APS Series

Part Number	Inductance (μ H) @100KHz/1V	DC Resistance (m Ω) Max.	Heat Rating Current I _{rms} (A)Typ.	Saturation Current I _{sat} (A)Typ.
APS13A60LCM180	18	34.6	7.57	8.08
APS13A60LCM220	22	39	7.07	7.57
APS13A60LCM270	27	55.4	6.06	6.56
APS13A60LCM330	33	74.3	5.55	6.06
APS13A60LCM470	47	89.1	5.05	5.55
APS13A60LCM680	68	138.6	4.04	4.54
APS13A60LCM101	100	198	3.03	3.53
APS13A60LCM121	120	232.6	2.02	3.23
APS13A60LCM151	150	346.5	1.52	2.72
APS17A70LCM1R0	1	1.5	42.5	50
APS17A70LCM1R5	1.5	2.2	33	40
APS17A70LCM2R2	2.2	2.5	29.3	34.34
APS17A70LCM3R3	3.3	2.9	24.7	27.27
APS17A70LCM4R7	4.7	4.67	16.2	24.24
APS17A70LCM6R8	6.8	7.5	14.1	22.22
APS17A70LCM8R2	8.2	8.6	12.6	20.2
APS17A70LCM100	10	9.9	11	18.2
APS17A70LCM150	15	17.3	10.1	14.65
APS17A70LCM200	20	21.6	9.6	12.12
APS17A70LCM220	22	22.7	8.1	11.11
APS17A70LCM330	33	36.6	7	10.1
APS17A70LCM470	47	46.5	6	7.57
APS17A70LCM680	68	84.2	5.6	6.56
APS17A70LCM101	100	128.7	4.1	4.55
APS22A13LCM1R0	1	0.95	70	60
APS22A13LCM1R5	1.5	1.15	62	52
APS22A13LCM2R2	2.2	1.25	58	48
APS22A13LCM3R3	3.3	1.75	49	41
APS22A13LCM4R7	4.7	2.2	47	38
APS22A13LCM6R8	6.8	3.1	40	36
APS22A13LCM100	10	4.15	33	28
APS22A13LCM150	15	6.12	26	23

APS Series

Part Number	Inductance (μ H) @100KHz/1V	DC Resistance (m Ω) Max.	Heat Rating Current Irms (A)Typ.	Saturation Current Isat (A)Typ.
APS22A13LCM220	22	11	22	15
APS22A13LCM330	33	15.4	19	12
APS22A13LCM470	47	20.8	17	12
APS22A13LCM680	68	29.5	14	12
APS22A13LCM820	82	34.2	12	9
APS22A13LCM101	100	40	11	9