

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.

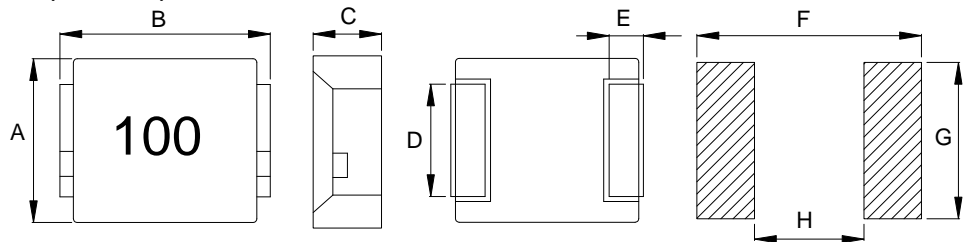
Applications

- 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:m/m)



Type	A	B	C	D Typ.	E Typ.	F Typ.	G Typ.	H Typ.	Q'Ty/Reel
APS04A10	4.1±0.2	4.1±0.2	1.0Max	1.8	0.8	4.4	2.2	2.2	5000
APS04A12	4.2±0.3	4.8Max	1.2Max	2.0	0.8	5.2	2.5	2.2	3000
APS04D20	4.0±0.3	4.8Max	2.0Max	1.5	0.8	5.2	2.5	2.2	3000
APS04A20	4.2±0.3	4.8Max	2.0Max	2.0	0.8	5.2	2.5	2.2	3000
APS05A15	5.2±0.3	5.8Max	1.5Max	2.2	1.2	5.0	2.5	2.2	3000
APS05A18	5.2±0.3	5.8Max	1.8Max	2.2	1.2	6.0	2.5	2.2	2000
APS05A30	5.2±0.3	5.8Max	3.0Max	2.2	1.2	6.0	2.5	2.2	2000
APS06A10	6.1±0.3	6.1±0.3	1.0Max	4.0	1.75	7.5	4.5	2.8	3000
APS07A15	6.6±0.3	7.7Max	1.5Max	3.0	1.6	8.4	3.5	3.7	2000
APS07A18	6.6±0.3	7.7Max	1.8Max	3.0	1.6	8.4	3.5	3.7	1500
APS07A24	6.6±0.3	7.7Max	2.4Max	3.0	1.6	8.4	3.5	3.7	1500
APS07A30	6.6±0.3	7.7Max	3.0Max	3.0	1.6	8.4	3.5	3.7	1000
APS07A50	6.6±0.3	7.7Max	5.0Max	3.0	1.7	8.4	3.5	3.6	1000
APS07D54	7.2±0.3	8.2Max	5.4Max	3.0	2.0	9.0	3.5	2.6	500
APS08A40	8.2±0.3	9.2Max	4.0Max	5.0	1.4	9.5	5.5	4.0	800
APS10A20	10.0±0.5	11.5Max	2.0Max	3.0	2.0	13.6	4.1	5.4	1000
APS10A30	10.0±0.5	11.5Max	3.0Max	3.0	2.0	13.6	4.1	5.4	1000
APS10A40	10.0±0.5	11.5Max	4.0Max	3.0	2.0	13.6	4.1	5.4	500
APS10A50	10.0±0.5	11.5Max	5.0Max	3.0	2.0	13.6	4.1	5.4	500
APS10D54	10.0±0.3	11.3Max	5.4Max	4.5	2.2	12.88	5.0	4.9	500
APS13A50	12.6±0.3	13.9Max	5.0Max	5.0	2.0	14.5	5.0	8.0	500
APS13A60	12.6±0.3	13.9Max	6.0Max	5.0	2.0	14.5	5.0	8.0	500

Type	A	B	C	D Typ.	E Typ.	F Typ.	G Typ.	H Typ.	Q'Ty/Reel
APS13A65	12.6±0.3	13.9Max	6.5Max	5.0	2.0	14.5	5.0	8.0	500
APS17A70	16.9±0.3	17.5Max	7.0Max	11.9	2.5	20.0	12.3	12.4	200

Part Number Code

APS 04 A 12 M R15
 A B C D E F

A: Series Name Molding Power Inductors
 B: Dimensions(mm) 04: 4.2 x 4.8
 C: Materials A Type
 D: Thickness(mm) 12: 1.2 Max
 E: Tolerance M: ±20%
 F: Inductance R15=0.15uH

APS Series

Part Number	Inductance (uH) @100KHz/1V	DC Resistance (mΩ) Max.	Heat Rating Current Irms (A)Typ.	Saturation Current Isat (A)Typ.
APS04A10M2R2	2.2	100.0	3.4	4.3
APS04A10M4R7	4.7	160.0	2.6	2.5
APS04A10M100	10.0	336.0	1.5	1.8
APS04A12MR15	0.15	8.9	7.57	15.16
APS04A12MR22	0.22	10.9	7.05	11.12
APS04A12MR33	0.33	18.8	6.55	8.48
APS04A12MR47	0.47	20.8	6.06	6.86
APS04A12MR68	0.68	35.5	4.74	6.06
APS04A12M1R0	1.0	46.5	4.55	5.55
APS04A12M1R5	1.5	74.3	3.28	4.05
APS04A12M2R2	2.2	82.7	2.77	3.54
APS04A12M4R7	4.7	193.0	1.82	2.83
APS04A20MR10	0.1	3.9	13.13	22.22
APS04A20MR22	0.22	6.5	9.60	12.62
APS04A20MR33	0.33	10.9	10.1	12.13
APS04A20MR47	0.47	13.8	7.55	9.59
APS04A20MR56	0.56	15.8	7.07	10.11
APS04A20MR68	0.68	17.8	7.07	9.1
APS04D20M1R0	1.0	26.7	6.05	7.07
APS04A20M1R2	1.2	26.8	6.06	7.07
APS04D20M1R5	1.5	45.5	5.05	6.05

APS Series

Part Number	Inductance (uH) @100KHz/1V	DC Resistance (mΩ) Max.	Heat Rating Current Irms (A)Typ.	Saturation Current Isat (A)Typ.
APS04D20M2R2	2.2	57.5	4.55	5.05
APS04A20M3R3	3.3	86.5	3.35	4.05
APS04D20M4R7	4.7	104.0	2.82	3.03
APS04A20M6R8	6.8	173.0	2.42	2.52
APS04A20M100	10.0	279.0	1.61	2.22
APS04A20M220	22.0	363.0	1.2	1.4
APS05A15MR47	0.47	12.6	10.0	15.0
APS05A15MR68	0.68	15.5	8.0	10.5
APS05A15M1R0	1.0	23.0	6.5	9.0
APS05A15M2R2	2.2	52.0	4.0	6.0
APS05A15M100	10.0	170.0	2.0	3.0
APS05A18MR47	0.47	8.9	10.6	15.65
APS05A18MR56	0.56	9.9	9.6	15.2
APS05A18M1R0	1.0	16.8	8.08	9.1
APS05A18M1R5	1.5	25.7	7.57	9.1
APS05A18M2R2	2.2	34.7	5.05	6.56
APS05A18M3R3	3.3	57.4	4.55	5.05
APS05A18M4R7	4.7	84.1	3.53	4.05
APS05A18M6R8	6.8	118.9	2.82	3.43
APS05A18M100	10.0	153.0	2.52	3.03
APS05A30MR10	0.1	2.9	25.3	33.4
APS05A30MR20	0.2	3.8	14.15	14.65
APS05A30MR47	0.47	8.1	11.12	12.15
APS05A30MR68	0.68	11.8	9.1	11.6
APS05A30M1R0	1.0	13.8	8.6	11.12
APS05A30M1R2	1.2	15.8	8.6	11.12
APS05A30M1R5	1.5	24.7	8.3	8.6
APS05A30M2R2	2.2	28.8	7.05	7.6
APS05A30M3R3	3.3	37.6	5.55	6.05
APS05A30M4R7	4.7	59.0	4.55	5.05
APS05A30M6R8	6.8	89.0	3.53	4.05
APS05A30M100	10.0	124.0	3.23	3.54
APS05A30M150	15.0	196.0	2.0	2.2
APS05A30M220	22.0	248.0	1.70	2.3

APS Series

Part Number	Inductance (uH) @100KHz/1V	DC Resistance (mΩ) Max.	Heat Rating Current Irms (A)Typ.	Saturation Current Isat (A)Typ.
APS06A10M4R7	4.7	172.0	2.2	2.8
APS06A10M6R8	6.8	197.0	2.0	2.5
APS06A10M100	10.0	310.0	1.6	2.1
APS07A15MR47	0.47	8.5	16.0	10.0
APS07A15MR56	0.56	11.0	14.0	9.0
APS07A15MR68	0.68	12.0	12.0	8.5
APS07A15MR82	0.82	17.0	10.0	8.0
APS07A15M1R0	1.0	21.0	9.0	6.0
APS07A15M2R2	2.2	54.0	7.0	3.8
APS07A15M3R3	3.3	63.0	5.5	3.5
APS07A15M4R7	4.7	85.0	5.0	3.2
APS07A15M6R8	6.8	135.0	4.0	2.5
APS07A15M100	10.0	175.0	3.0	2.0
APS07A18MR47	0.47	8.3	11.6	18.2
APS07A18MR68	0.68	11.9	9.6	17.2
APS07A18M1R0	1.0	15.5	8.6	14.15
APS07A18M1R5	1.5	25.7	8.08	12.12
APS07A18M2R2	2.2	34.6	7.05	8.10
APS07A18M3R3	3.3	49.0	4.55	6.55
APS07A18M4R7	4.7	61.0	4.05	5.05
APS07A18M6R8	6.8	108.0	3.03	4.55
APS07A24MR22	0.22	2.9	21.22	34.35
APS07A24MR33	0.33	4.0	18.18	24.75
APS07A24MR47	0.47	5.0	15.15	22.22
APS07A24MR56	0.56	6.4	13.15	17.2
APS07A24MR68	0.68	6.9	12.15	16.15
APS07A24M1R0	1.0	13.3	9.1	16.15
APS07A24M1R5	1.5	20.0	9.1	15.15
APS07A24M2R2	2.2	27.8	7.05	10.0
APS07A24M3R3	3.3	38.5	5.55	10.1
APS07A24M4R7	4.7	59.5	5.05	7.55
APS07A24M6R8	6.8	70.0	4.05	6.06
APS07A24M100	10.0	100.0	3.13	4.05
APS07A24M150	15.0	158.0	2.52	3.33

APS Series

Part Number	Inductance (uH) @100KHz/1V	DC Resistance (mΩ) Max.	Heat Rating Current Irms (A)Typ.	Saturation Current Isat (A)Typ.
APS07A24M220	22.0	227.0	2.02	2.52
APS07A30MR10	0.1	1.7	35.0	43.0
APS07A30MR12	0.12	0.95	36.0	50.0
APS07A30MR15	0.15	2.3	26.0	41.0
APS07A30MR22	0.22	3.0	24.25	34.35
APS07A30MR24	0.24	3.0	23.23	26.26
APS07A30MR33	0.33	3.5	21.2	25.25
APS07A30MR47	0.47	4.1	18.2	20.2
APS07A30MR56	0.56	4.3	16.65	18.2
APS07A30MR68	0.68	5.3	16.16	17.15
APS07A30MR82	0.82	5.9	14.14	16.15
APS07A30M1R0	1.0	7.3	12.12	15.15
APS07A30M1R5	1.5	12.0	12.12	14.15
APS07A30M2R2	2.2	14.8	9.6	10.1
APS07A30M3R3	3.3	21.8	8.55	9.55
APS07A30M4R7	4.7	32.5	6.06	9.0
APS07A30M6R8	6.8	47.5	5.05	6.05
APS07A30M8R2	8.2	59.5	5.05	6.05
APS07A30M100	10.0	66.3	4.55	5.55
APS07A30M150	15.0	113.0	3.03	4.55
APS07A30M220	22.0	170.0	2.5	3.03
APS07A30M330	33.0	270.0	2.02	2.52
APS07A30M470	47.0	385.0	1.5	2.0
APS07A50MR22	0.22	2.5	30.03	35.35
APS07A50MR47	0.47	4.8	20.02	21.21
APS07A50MR56	0.56	5.4	18.18	18.18
APS07A50MR68	0.68	5.9	16.16	16.16
APS07A50MR82	0.82	7.3	14.15	15.15
APS07A50M1R0	1.0	6.4	14.15	18.18
APS07A50M1R5	1.5	7.4	12.12	15.65
APS07A50M2R2	2.2	12.3	10.1	14.14
APS07A50M3R3	3.3	21.7	8.58	12.12
APS07A50M4R7	4.7	24.7	7.07	10.1
APS07A50M6R8	6.8	54.5	5.5	7.07

APS Series

Part Number	Inductance (uH) @100KHz/1V	DC Resistance (mΩ) Max.	Heat Rating Current Irms (A)Typ.	Saturation Current Isat (A)Typ.
APS07A50M8R2	8.2	67.5	5.05	6.06
APS07A50M100	10.0	54.3	4.55	6.55
APS07A50M150	15.0	85.0	3.1	4.5
APS07A50M220	22.0	138.0	2.52	4.04
APS07A50M330	33.0	178.0	2.32	3.53
APS07A50M470	47.0	227.0	2.02	2.62
APS07A50M680	68.0	438.0	1.2	1.7
APS07A50M101	100.0	680.0	0.7	1.0
APS07D54M1R5	1.5	7.3	11.4	16.3
APS07D54M2R2	2.2	11.4	9.7	14.8
APS07D54M3R3	3.3	15.4	8.0	13.5
APS07D54M4R7	4.7	20.9	7.0	13.1
APS07D54M6R8	6.8	26.6	6.1	10.2
APS07D54M8R2	8.2	31.9	5.6	9.0
APS07D54M100	10.0	38.0	5.2	8.0
APS07D54M150	15.0	66.0	3.8	6.9
APS07D54M220	22.0	93.5	3.3	6.3
APS07D54M330	33.0	127.6	3.2	4.9
APS07D54M470	47.0	171.6	2.4	4.1
APS07D54M560	56.0	209.3	2.2	3.3
APS07D54M680	68.0	255	2.0	2.8
APS07D54M101	100.0	348	1.8	2.4
APS08A40MR22	0.22	1.8	36.0	60.0
APS08A40MR33	0.33	2.4	30.0	45.0
APS08A40MR47	0.47	2.8	28.0	42.0
APS08A40MR56	0.56	3.2	24.0	26.0
APS08A40MR68	0.68	3.8	23.0	24.0
APS08A40MR82	0.82	4.4	21.0	21.0
APS08A40M1R0	1.0	4.62	19.0	19.0
APS08A40M1R5	1.5	7.6	17.0	17.0
APS08A40M1R8	1.8	11.0	15.0	15.0
APS08A40M2R2	2.2	11.4	14.0	14.0
APS08A40M3R3	3.3	15.0	12.0	12.5

APS Series

Part Number	Inductance (uH) @100KHz/1V	DC Resistance (mΩ) Max.	Heat Rating Current Irms (A)Typ.	Saturation Current Isat (A)Typ.
APS08A40M4R7	4.7	26.5	9.5	11.5
APS08A40M5R6	5.6	30.0	9.0	11.0
APS08A40M6R8	6.8	36.8	8.0	9.0
APS08A40M8R2	8.2	46.0	7.0	8.7
APS08A40M100	10.0	59.0	6.5	8.0
APS08A40M150	15.0	71.0	5.4	5.5
APS08A40M220	22.0	113.0	4.8	5.0
APS08A40M330	33.0	156.0	3.5	3.5
APS08A40M470	47.0	225.0	2.9	3.1
APS10A20M4R7	4.7	50.0	5.0	8.0
APS10A20M100	10.0	70.0	4.0	5.0
APS10A30MR22	0.22	1.2	33.0	50.0
APS10A30MR33	0.33	1.6	23.0	32.0
APS10A30MR36	0.36	1.6	23.0	28.0
APS10A30MR47	0.47	2.5	22.0	26.0
APS10A30MR82	0.82	3.7	18.0	23.0
APS10A30M1R0	1.0	6.0	15.0	21.0
APS10A30M2R2	2.2	9.0	11.0	14.0
APS10A30M3R3	3.3	16.0	9.0	12.0
APS10A30M4R7	4.7	24.0	7.0	10.0
APS10A30M8R2	8.2	45.0	5.0	7.0
APS10A30M100	10.0	50.0	4.0	7.0
APS10A30M330	33.0	160.0	2.5	4.0
APS10A40MR15	0.15	0.6	45.45	75.75
APS10A40MR22	0.22	1.0	35.35	60.6
APS10A40MR30	0.3	1.0	35.35	50.5
APS10A40MR36	0.36	1.2	30.3	50.5
APS10A40MR47	0.47	1.6	30.3	40.4
APS10A40MR56	0.56	1.7	25.25	33.33
APS10A40MR68	0.68	2.3	23.23	30.3
APS10A40MR80	0.8	2.6	23.23	29.3
APS10A40M1R0	1.0	3.2	19.2	28.28
APS10A40M1R5	1.5	4.1	16.15	26.25
APS10A40M2R2	2.2	6.9	12.12	18.18

APS Series

Part Number	Inductance (uH) @100KHz/1V	DC Resistance (mΩ) Max.	Heat Rating Current Irms (A)Typ.	Saturation Current Isat (A)Typ.
APS10A40M3R3	3.3	11.6	11.1	16.15
APS10A40M4R7	4.7	19.9	9.1	15.15
APS10A40M5R6	5.6	22.0	8.5	12.0
APS10A40M6R8	6.8	24.7	8.58	12.12
APS10A40M8R2	8.2	26.5	8.08	9.1
APS10A40M100	10.0	29.7	7.87	8.6
APS10A40M150	15.0	44.5	6.55	7.07
APS10A40M220	22.0	65.3	5.05	5.55
APS10A40M330	33.0	91.0	4.44	5.05
APS10A40M470	47.0	143.0	3.33	3.53
APS10A40M680	68.0	193.0	2.52	3.03
APS10A40M101	100.0	340.0	2.20	2.3
APS10A50MR22	0.22	0.8	37.0	65.0
APS10A50M1R0	1.0	2.8	23.5	30.0
APS10A50M2R2	2.2	6.0	14.0	19.0
APS10A50M3R3	3.3	9.8	14.0	16.0
APS10A50M4R7	4.7	14.0	11.0	15.0
APS10A50M5R6	5.6	17.0	9.7	14.0
APS10A50M6R8	6.8	18.5	9.2	14.0
APS10A50M100	10.0	28.0	8.2	10.0
APS10A50M150	15.0	42.0	6.5	7.5
APS10A50M220	22.0	50.0	5.5	6.0
APS10A50M330	33.0	86.0	4.8	5.2
APS10A50M470	47.0	127.0	3.7	4.5
APS10A50M101	100.0	290.0	2.1	2.8
APS10D54MR68	0.68	2.22	32.0	46.0
APS10D54M1R0	1.0	2.76	30.0	37.0
APS10D54M1R5	1.5	4.2	24.8	26.8
APS10D54M2R2	2.2	4.9	23.0	25.0
APS10D54M3R3	3.3	7.4	18.7	19.0
APS10D54M4R7	4.7	10.0	14.5	15.7
APS10D54M6R8	6.8	14.0	12	13.3
APS10D54M100	10.0	24.2	8.7	12.7
APS10D54M150	15.0	31.3	7.6	9.2

APS Series

Part Number	Inductance (uH) @100KHz/1V	DC Resistance (mΩ) Max.	Heat Rating Current Irms (A)Typ.	Saturation Current Isat (A)Typ.
APS10D54M220	22.0	50.0	6.0	8.8
APS10D54M330	33.0	75.3	4.8	7.6
APS10D54M470	47.0	103.0	4.1	4.9
APS10D54M680	68.0	152.0	3.3	4.2
APS10D54M101	100.0	234.0	2.8	3.5
APS13A50MR22	0.22	0.7	50.5	75.75
APS13A50MR36	0.36	0.8	42.4	50.5
APS13A50MR47	0.47	1.1	38.38	48.5
APS13A50MR68	0.68	1.5	33.33	46.46
APS13A50MR82	0.82	1.6	30.30	39.39
APS13A50M1R0	1.0	2.2	26.26	35.35
APS13A50M1R5	1.5	3.1	23.23	33.33
APS13A50M2R2	2.2	4.9	15.15	24.25
APS13A50M3R3	3.3	6.9	14.15	22.23
APS13A50M4R7	4.7	8.9	13.13	21.20
APS13A50M6R8	6.8	17.9	12.12	16.16
APS13A50M100	10.0	21.8	9.10	12.12
APS13A50M220	22.0	57.4	4.55	6.56
APS13A50M330	33.0	83.0	3.53	6.05
APS13A50M470	47.0	128.0	3.03	5.05
APS13A60M1R0	1.0	2.1	28.0	31.0
APS13A60M1R5	1.5	2.7	16.0	28.0
APS13A60M2R2	2.2	2.7	16.0	22.0
APS13A60M3R3	3.3	6.8	17.5	25.0
APS13A60M4R7	4.7	9.9	15.15	24.24
APS13A60M5R6	5.6	10.9	13.13	22.73
APS13A60M6R8	6.8	13.3	12.12	19.19
APS13A60M7R8	7.8	14.4	11.61	18.18
APS13A60M8R2	8.2	15.8	11.11	13.63
APS13A60M100	10.0	20.4	10.1	12.62
APS13A60M120	12.0	22.7	9.1	10.1
APS13A60M150	15.0	28.7	8.58	9.1
APS13A60M180	18.0	34.6	7.57	8.08
APS13A60M220	22.0	39.0	7.07	7.57

APS Series

Part Number	Inductance (uH) @100KHz/1V	DC Resistance (mΩ) Max.	Heat Rating Current Irms (A)Typ.	Saturation Current Isat (A)Typ.
APS13A60M270	27.0	55.4	6.06	6.56
APS13A60M330	33.0	74.3	5.55	6.06
APS13A60M470	47.0	89.1	5.05	5.55
APS13A60M680	68.0	138.6	4.04	4.54
APS13A60M101	100.0	198.0	3.03	3.53
APS13A60M121	120.0	232.6	2.02	3.23
APS13A60M151	150.0	346.5	1.52	2.72
APS13A65M1R0	1.0	1.8	33.0	45.0
APS13A65M2R2	2.2	4.2	21.0	28.0
APS13A65M4R7	4.7	8.5	16.0	24.5
APS13A65M5R6	5.6	10.5	14.0	23.0
APS13A65M6R8	6.8	12	13.0	19.3
APS13A65M8R2	8.2	14	12.0	16.0
APS13A65M100	10.0	16.5	11.0	15.0
APS13A65M150	15.0	26.0	9.5	11.0
APS13A65M220	22.0	36.0	8.0	9.0
APS13A65M330	33.0	65.0	6.5	8.0
APS13A65M470	47.0	70.0	5.5	6.8
APS13A65M680	68.0	120.0	4.8	5.2
APS13A65M820	82.0	135.0	4.0	4.5
APS13A65M101	100.0	170.0	3.5	4.0
APS17A70M1R0	1.0	1.5	42.5	50.0
APS17A70M1R5	1.5	2.2	33.0	40.0
APS17A70M2R2	2.2	2.5	29.3	34.34
APS17A70M3R3	3.3	2.9	24.7	27.27
APS17A70M4R7	4.7	4.67	16.2	24.24
APS17A70M6R8	6.8	7.5	14.1	22.22
APS17A70M8R2	8.2	8.6	12.6	20.2
APS17A70M100	10.0	9.9	11.0	18.2
APS17A70M150	15.0	17.3	10.1	14.65
APS17A70M200	20.0	21.6	9.6	12.12
APS17A70M220	22.0	22.7	8.1	11.11
APS17A70M330	33.0	36.6	7.0	10.1
APS17A70M470	47.0	46.5	6.0	7.57

APS Series

Part Number	Inductance (uH) @100KHz/1V	DC Resistance (mΩ) Max.	Heat Rating Current Irms (A)Typ.	Saturation Current Isat (A)Typ.
APS17A70M680	68.0	84.2	5.6	6.56
APS17A70M101	100.0	128.7	4.1	4.55