

AAPS-F Series

Features

- Qualified to AEC-Q200.
- High performance (I_{sat}) realized by metal dust core.
- Low loss realized with low DCR
- 100% lead (Pb) free meet RoHS standard

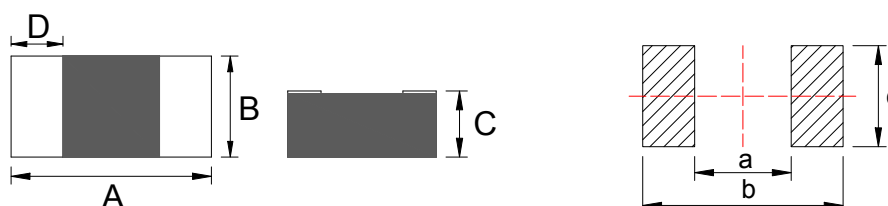
Applications

- Automotive applications.

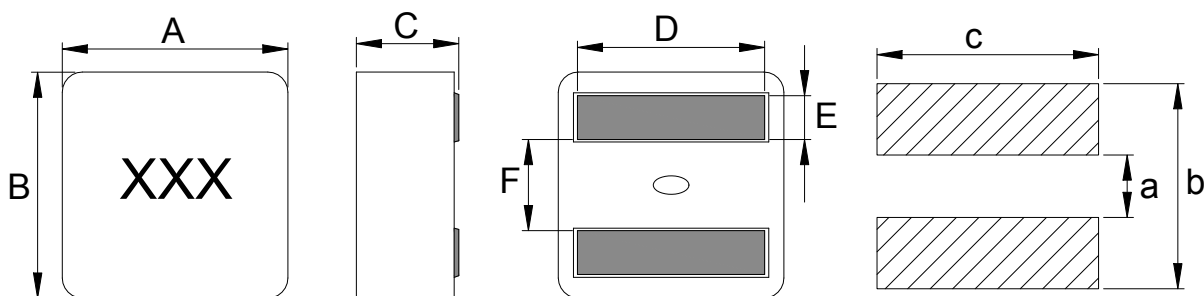
Test Equipment and Conditions

- All test data is referenced to 25°C ambient.
- Operating temperature range -40°C to +125°C (Including self - temperature rise) (AAPS02--32 size)
- Operating temperature range -55°C to +155°C (Including self - temperature rise) (AAPS04-15 size)
- DC current(I_{rms})that will cause an approximate ΔT of 40°C.
- DC current(I_{sat})that will cause L_o to drop approximately 40%.
- For AAPS25 size project ,absolute maximum voltage 20VDC;
- Above AAPS04 size project, absolute maximum voltage 55VDC.

External Dimensions (Unit:m/m)



Type	A	B	C Max.	D Typ.	E	F	a Typ.	b Typ.	c Typ.	Q'TY/Reel
AAPS02F10	2.0±0.2	1.6±0.2	1.0	0.6	/	/	0.9	2.3	1.9	3000
AAPS25F10	2.5±0.2	2.0±0.2	1.05	0.7	/	/	1.2	2.8	2.3	3000
AAPS25F12	2.5±0.2	2.0±0.2	1.25	0.7	/	/	1.2	2.8	2.3	3000
AAPS32F12	3.2±0.2	2.5±0.2	1.25	0.7	/	/	1.8	3.7	2.8	2000



Type	A	B	C Max.	D Typ.	E	F	a Typ.	b Typ.	c Typ.	Q'TY/Reel
AAPS04F20	4.1±0.2	4.1±0.2	2.15	3.4	0.88±0.3	1.6±0.3	1.4	3.4	3.8	3000
AAPS04F30	4.1±0.25	4.1±0.25	3.1	3.4	0.88±0.3	1.6±0.3	1.4	3.4	3.8	2000
AAPS05F20	5.5±0.2	5.3±0.2	2.15	4.3	1.1±0.3	2.3±0.3	2.0	4.5	4.7	3000
AAPS05F30	5.5±0.2	5.3±0.2	3.1	4.3	1.1±0.3	2.3±0.3	2.0	4.5	4.7	2000
AAPS05F50	5.5±0.2	5.3±0.2	5.0	4.3	1.1±0.3	2.3±0.3	2.0	4.5	4.7	1500
AAPS06F30	6.6±0.2	6.4±0.2	3.1	5.3	1.4±0.3	2.6±0.3	2.5	5.6	5.6	1000
AAPS06F50	6.6±0.2	6.4±0.2	5.0	5.3	1.4±0.3	2.6±0.3	2.5	5.6	5.6	800
AAPS06F60	6.6±0.2	6.4±0.2	6.0	5.3	1.4±0.3	2.6±0.3	2.5	5.6	5.6	750
AAPS07F20	7.8±0.25	7.6±0.2	2.0	6.5	1.75±0.3	3.15±0.3	2.8	7.4	7.2	2000
AAPS07F30	7.8±0.25	7.6±0.2	3.1	6.5	1.75±0.3	3.15±0.3	2.8	7.4	7.2	1500
AAPS07F70	7.8±0.25	7.6±0.25	7.0	6.5	1.75±0.3	3.15±0.3	2.8	7.4	7.2	700
AAPS08F80	8.9±0.3	8.5±0.3	8.0	7.0	1.8±0.2	3.5±0.3	2.7	7.8	8.0	450
AAPS10F10	11.9±0.3	11.0±0.3	10.0	9.0	2.4±0.2	4.2±0.3	3.7	10.5	11.0	300
AAPS10F30	11.9±0.3	11.0±0.3	3.1	9.0	2.4±0.2	4.4±0.3	3.7	10.5	11.0	1000
AAPS10F60	11.9±0.3	11.0±0.3	6.0	9.0	2.4±0.2	4.4±0.3	3.7	10.5	11.0	500
AAPS15F80	16.5±0.3	15.5±0.3	8.0	13.2	3.2±0.3	7.4±0.5	6.0	15.0	15.0	200
AAPS15F10	16.5±0.3	15.5±0.3	10.0	13.2	3.2±0.3	7.4±0.5	6.0	15.0	15.0	150
AAPS15F13	16.5±0.3	15.5±0.3	13.0	13.2	3.2±0.3	7.0±0.5	6.0	15.0	15.0	100

Part Number Code

AAPS 25 F 12 M R10
 A B C D E F

A: Series Name Molding Power Inductors
 B: Dimensions(mm) 25: 2.5x2.0
 C: Materials F: Type
 D: Thickness(mm) 12: 1.25 Max
 E: Tolerance M: ±20%
 F: Inductance R10=0.1uH

AAPS-F Series

Part Number	Inductance (μH) $\pm 20\%$ @1MHz/1V	DC Resistance (m Ω) Max.	Heat Rating Current I _{rms} (A)Typ.	Saturation Current I _{sat} (A)Typ.
AAPS02F10MR24	0.24	17.0	5.0	6.0
AAPS02F10MR33	0.33	23.0	4.2	5.1
AAPS02F10MR47	0.47	25.0	4.7	5.0
AAPS02F10M1R0	1.0	48.0	3.4	3.8
AAPS02F10M2R2	2.2	120.0	1.7	2.5
AAPS25F10MR10	0.10	12.0	6.5	8.5
AAPS25F10MR22	0.22	18.0	5.5	7.0
AAPS25F10MR33	0.33	20.0	4.8	6.6
AAPS25F10MR47	0.47	25.0	4.4	6.0
AAPS25F10MR68	0.68	40.0	3.5	5.0
AAPS25F10M1R0	1.0	52.0	3.1	4.3
AAPS25F10M1R5	1.5	85.0	2.5	3.5
AAPS25F10M2R2	2.2	110.0	2.1	3.0
AAPS25F10M3R3	3.3	170.0	1.6	2.3
AAPS25F10M4R7	4.7	262.0	1.3	1.8
AAPS25F12MR10	0.10	11.0	7.0	11.0
AAPS25F12MR15	0.15	12.8	5.8	8.7
AAPS25F12MR22	0.22	13.5	5.7	8.0
AAPS25F12MR33	0.33	18.0	5.1	7.5
AAPS25F12MR47	0.47	20.0	4.9	6.7
AAPS25F12MR68	0.68	30.0	3.5	6.0
AAPS25F12M1R0	1.0	42.0	3.4	4.5
AAPS25F12M1R5	1.5	60.0	2.7	3.8
AAPS25F12M2R2	2.2	84.0	2.2	3.5
AAPS25F12M3R3	3.3	130.0	1.8	2.9
AAPS25F12M4R7	4.7	200.0	1.4	2.1
AAPS32F12MR15	0.15	12	6.8	11.6
AAPS32F12MR33	0.33	12	5.8	9.5
AAPS32F12MR47	0.47	22	5.1	8.2
AAPS32F12MR68	0.68	26	4.4	6.1
AAPS32F12M1R0	1.0	32	3.8	4.8
AAPS32F12M1R5	1.5	48	3.1	3.9
AAPS32F12M2R2	2.2	68	2.6	3.4
AAPS32F12M3R3	3.3	108	2.0	2.6
AAPS32F12M4R7	4.7	157	1.6	2.3
AAPS32F12M6R8	6.8	220	1.3	2.0

AAPS-F Series

Part Number	Inductance (uH)±20% @100KHz/0.1V	DC Resistance (mΩ) Max.	Heat Rating Current Irms (A)Typ.	Saturation Current Isat (A)Typ.
AAPS04F20MR10	0.1	2.42	18	33
AAPS04F20MR22	0.22	4.6	16.8	18.8
AAPS04F20MR36	0.36	6.3	14.5	15
AAPS04F20MR40	0.4	7.73	14	13.5
AAPS04F20MR47	0.47	8.58	12.5	13
AAPS04F20MR56	0.56	9.3	12	12.6
AAPS04F20MR60	0.6	9.52	11.7	12.3
AAPS04F20MR72	0.72	11.6	10.5	10.6
AAPS04F20M1R0	1.0	14.6	9.6	8.8
AAPS04F20M1R2	1.2	17.9	9	7.8
AAPS04F20M1R5	1.5	23.5	7.6	7.4
AAPS04F20M1R8	1.8	28	7	7
AAPS04F20M2R2	2.2	38.7	5.6	6
AAPS04F30MR75LR	0.75	10.8	10	9
AAPS04F30M1R0LR	1	12.76	10	10
AAPS04F30M2R2LR	2.2	20.8	7.2	7
AAPS04F30M3R3LR	3.3	28.6	6.6	5.5
AAPS04F30M4R7LR	4.7	44.1	5.1	4.5
AAPS04F30M6R8LR	6.8	74.1	3.9	3.6
AAPS05F20MR15	0.15	4.6	18.8	27
AAPS05F20MR16	0.16	4.6	18.8	27
AAPS05F20MR33	0.33	7	14.4	24
AAPS05F20MR47	0.47	8.1	14.1	20
AAPS05F20MR56	0.56	9.5	13.9	16
AAPS05F20MR68	0.68	10.2	13.4	14
AAPS05F20MR80	0.8	11.8	13	13.5
AAPS05F20MR82	0.82	12.7	12	13
AAPS05F20M1R0	1	13.8	10.5	12.8
AAPS05F20M1R2	1.2	16.3	9.4	12.2
AAPS05F20M1R5	1.5	18.7	8.8	11.7

AAPS-F Series

Part Number	Inductance (uH)±20% @100KHz/0.1V	DC Resistance (mΩ) Max.	Heat Rating Current I _{rms} (A)Typ.	Saturation Current I _{sat} (A)Typ.
AAPS05F30MR15	0.15	2.31	22.2	32.5
AAPS05F30MR16	0.16	2.33	22.2	32
AAPS05F30MR33	0.33	3.52	19.2	26
AAPS05F30MR47	0.47	4.13	18.4	24
AAPS05F30MR56	0.56	4.52	17.7	20.2
AAPS05F30MR60	0.6	4.52	17.7	20
AAPS05F30MR80	0.8	5.65	13.1	18
AAPS05F30MR82	0.82	5.78	12.9	17.6
AAPS05F30M1R0	1	7.6	12.2	14.3
AAPS05F30M1R2	1.2	9.7	11	13.5
AAPS05F30M1R5	1.5	11.2	10.5	12.5
AAPS05F30M1R8	1.8	12.7	10.1	11.3
AAPS05F30M2R2	2.2	14.5	9.7	9
AAPS05F30M3R3	3.3	23.1	8.1	8.7
AAPS05F30M4R7	4.7	36.3	5.9	7
AAPS05F50M5R6LR	5.6	24.2	7.2	7.2
AAPS05F50M6R8LR	6.8	28.6	6.4	6.6
AAPS05F50M8R2LR	8.2	32.5	6.1	6.1
AAPS05F50M100LR	10	43	5	5.4
AAPS06F30MR18	0.18	1.75	32	39
AAPS06F30MR33	0.33	2.5	25	30
AAPS06F30MR56	0.56	3.31	22	29
AAPS06F30MR68	0.68	5.17	20	25
AAPS06F30M1R0	1	6.05	18	23
AAPS06F30M1R2	1.2	7.4	16	22
AAPS06F30M1R5	1.5	9.13	15	20
AAPS06F30M1R8	1.8	10.2	14	18.2
AAPS06F30M2R2	2.2	12.2	10	15.9
AAPS06F30M3R3	3.3	20.8	8	12.2
AAPS06F30M4R5	4.5	25.3	7	10
AAPS06F30M4R7	4.7	26	6	9

AAPS-F Series

Part Number	Inductance (uH)±20% @100KHz/0.1V	DC Resistance (mΩ) Max.	Heat Rating Current I _{rms} (A)Typ.	Saturation Current I _{sat} (A)Typ.
AAPS06F50MR82	0.82	4.18	21	20
AAPS06F50M1R0	1	4.52	20	18
AAPS06F50M1R2	1.2	5.83	18	16
AAPS06F50M1R5	1.5	6.3	17	14.5
AAPS06F50M1R8	1.8	7.1	16	13.5
AAPS06F50M2R2	2.2	8.5	13	12
AAPS06F50M3R3	3.3	12.5	11	10
AAPS06F50M4R3	4.3	16.2	9	8.5
AAPS06F50M4R7	4.7	18.4	8.5	8
AAPS06F50M5R6	5.6	22	7	8.3
AAPS06F50M6R8	6.8	25.4	6.6	7
AAPS06F50M8R2	8.2	31.5	6.2	6.8
AAPS06F60M1R0	1.0	4.4	21.0	24.0
AAPS06F60M1R5	1.5	6.1	17.5	20.0
AAPS06F60M2R2	2.2	8.1	14.0	16.5
AAPS06F60M3R3	3.3	12.3	12.0	13.0
AAPS06F60M4R7LR	4.7	14.4	11	10.5
AAPS06F60M5R6LR	5.6	15.9	10	9.9
AAPS06F60M6R8LR	6.8	20.8	9	9.2
AAPS06F60M8R2LR	8.2	26.4	8	8.4
AAPS06F60M100LR	10	29.82	7	7.6
AAPS06F60M150LR	15	43.75	6	5.8
AAPS06F60M220LR	22	60.63	5	5.6
AAPS07F20MR27	0.27	3.5	21	35
AAPS07F20MR31	0.31	4.8	20	34
AAPS07F20MR33	0.33	4.8	19	34
AAPS07F20MR47	0.47	6.2	17	28
AAPS07F20MR68	0.68	9.2	13	25
AAPS07F20M1R0	1	10.8	11	23
AAPS07F30M1R0	1	5	21.8	28
AAPS07F30M1R5	1.5	8.25	15.3	23.5

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Part Number	Inductance (μ H) $\pm 20\%$ @100KHz/0.1V	DC Resistance (m Ω) Max.	Heat Rating Current I _{rms} (A)Typ.	Saturation Current I _{sat} (A)Typ.
AAPS07F30M2R2	2.2	13.7	13	17
AAPS07F30M2R7	2.7	15.4	11.4	13.5
AAPS07F30M3R3	3.3	18	10	13
AAPS07F30M4R7	4.7	26.7	9	12.2
AAPS07F30M5R6	5.6	33.2	7.3	11.5
AAPS07F30M6R8	6.8	42.5	6.8	11
AAPS07F30M8R2	8.2	48.73	5.9	9
AAPS07F70M3R3	3.3	9.42	15.1	19.4
AAPS07F70M4R7	4.7	14.26	13.6	15.2
AAPS07F70M6R8	6.8	19.6	9.2	12.8
AAPS08F80M1R8	1.8	4.0	24.0	28.0
AAPS08F80M2R2	2.2	4.3	21.5	25.0
AAPS08F80M3R3	3.3	7.3	18.0	23.0
AAPS08F80M4R7	4.7	9.8	14.6	19.0
AAPS08F80M6R8	6.8	14.3	11.3	14.5
AAPS08F80M100	10	22.9	8.7	11.0
AAPS10F30MR28	0.28	1.60	35.0	65.0
AAPS10F30MR56	0.56	2.75	32.0	44.0
AAPS10F30MR82	0.82	4.10	25.0	38.0
AAPS10F30MR90	0.90	4.20	24.0	36.0
AAPS10F30M1R0	1.00	4.95	23.0	35.0
AAPS10F30M1R5	1.50	6.60	18.0	30.0
AAPS10F60MR68	0.68	1.50	34.0	55.0
AAPS10F60M1R0	1.00	2.32	28.5	48.0
AAPS10F60M1R2	1.20	2.64	26.5	45.0
AAPS10F60M1R5	1.50	3.30	24.5	40.0
AAPS10F60M2R2	2.20	4.84	20.0	35.0
AAPS10F60M3R3	3.30	7.70	16.8	28.0
AAPS10F60M4R7	4.70	10.72	14.0	25.0
AAPS10F10M1R0	1	1.2	40	50
AAPS10F10M2R2	2.2	2.8	32	34
AAPS10F10M3R3	3.3	4.1	25	27.4

AAPS-F Series

Part Number	Inductance (uH)±20% @100KHz/0.1V	DC Resistance (mΩ) Max.	Heat Rating Current I _{rms} (A)Typ.	Saturation Current I _{sat} (A)Typ.
AAPS10F10M4R7	4.7	5.7	24	25.4
AAPS10F10M5R6	5.6	7.2	21.2	23.6
AAPS10F10M6R8	6.8	8.9	18.5	21.8
AAPS10F10M8R2	8.2	12.4	17.1	18.3
AAPS10F10M100	10	13.8	15.5	17.5
AAPS10F10M150	15	19.3	13.8	15.5
AAPS15F80M2R0	2	2.2	40	52
AAPS15F80M2R2	2.2	2.5	37	49
AAPS15F80M3R0	3	3	34.5	41
AAPS15F80M4R2	4.2	4.7	27	33
AAPS15F80M4R7	4.7	5.2	26.5	32
AAPS15F80M5R3	5.3	5.3	26	31
AAPS15F80M6R2	6.2	6.5	23	31
AAPS15F80M7R2	7.2	7.2	21	29
AAPS15F80M8R2	8.2	7.9	19	25
AAPS15F10M4R7	4.7	3.8	29	39
AAPS15F10M5R6	5.6	4.2	28	37
AAPS15F10M6R8	6.8	4.6	26	36
AAPS15F10M8R2	8.2	7.2	24	30
AAPS15F10M100	10	8.6	22	26.5
AAPS15F10M150	15	11.5	18	23
AAPS15F10M220	22	15.8	14	18.7
AAPS15F10M330	33	20	12	16.7
AAPS15F13M4R7	4.7	3.3	31.0	44.0
AAPS15F13M5R6	5.6	3.9	29.0	40.0
AAPS15F13M6R8	6.8	4.2	27.0	37.0
AAPS15F13M8R2	8.2	5.74	26.0	33.0
AAPS15F13M100	10	7.0	25.0	30.0
AAPS15F13M150	15	7.5	22.0	25.5
AAPS15F13M220	22	13.86	17.0	22.0
AAPS15F13M330	33	22.2	14.0	19.0