

### AAPSW-H Series

#### Features

- Qualified to AEC-Q200.
- Carbonyl powder Inductors
- It corresponds to Ultra High current.
- Simple and Shield structure.
- Available tape and reel for auto insertion.
- RoHS compliance.

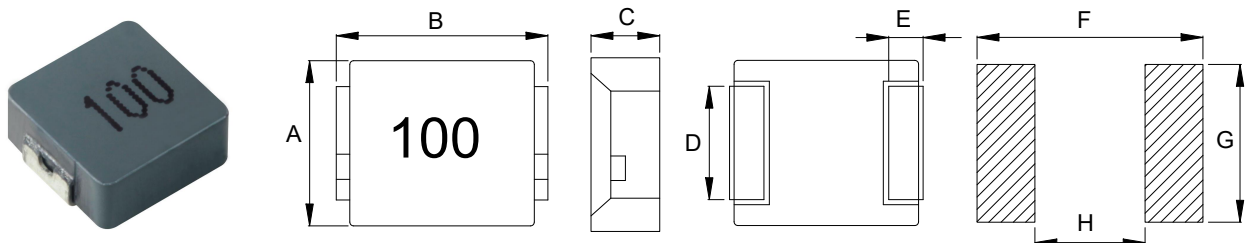
#### Applications

- For small DC/DC converter (cellular Phone , LCD/LED/OLED display ,HDD,DSC etc).

#### Test Equipment and Conditions

- All test data is referenced to 25°C ambient.
- DC current (Irms) that will cause an approximate  $\Delta T$  of 40°C.
- DC current (Isat ) that will cause Lo to drop approximately 40%.
- Operating temperature range -55°C to +125°C.
- 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
AAPSW03H20	3.2±0.3	3.8Max	2.0Max	1.2	0.7	4.1	1.45	1.9	3000
AAPSW04H20	4.2±0.3	4.8Max	2.0Max	2.0	0.8	5.2	2.5	2.2	3000
AAPSW05H20	5.2±0.3	6.0Max	2.0Max	2.0	1.2	6.0	2.5	2.2	2000
AAPSW05H30	5.2±0.3	6.0Max	3.0Max	2.0	1.2	6.0	2.5	2.2	2000
AAPSW07H18	6.6±0.3	7.7Max	1.8Max	3.0	1.6	8.4	3.5	3.7	2000
AAPSW07H24	6.6±0.3	7.7Max	2.4Max	3.0	1.6	8.4	3.5	3.7	1500
AAPSW07H30	6.6±0.3	7.7Max	3.0Max	3.0	1.6	8.4	3.5	3.7	1500
AAPSW07H50	6.6±0.3	7.7Max	5.0Max	3.0	1.6	8.4	3.5	3.7	1000
AAPSW10H30	10.0±0.3	11.5Max	3.0Max	3.0	2.0	13.6	4.1	5.4	800
AAPSW10H40	10.0±0.3	11.5Max	4.0Max	3.0	2.0	13.6	4.1	5.4	500
AAPSW13H35	12.6±0.3	14.0Max	3.5Max	See Remark	2.0	14.2	5.0	8.0	500
AAPSW13H50	12.6±0.3	14.0Max	5.0Max	See Remark	2.0	14.2	5.0	8.0	500
AAPSW13H60	12.6±0.3	14.0Max	6.0Max	See Remark	2.0	14.2	5.0	8.0	500
AAPSW13H65	12.6±0.3	14.0Max	6.5Max	See Remark	2.0	14.2	5.0	8.0	500
AAPSW17H70	17.0±0.3	18.0Max	7.0Max	12.0	2.5	18.2	12.8	11.2	200

#### Remark:

Type	D(mm)Typ.	
	3.85	4.7
AAPSW13H35	R47~R82	1R0~470
AAPSW13H50	R33~1R5	2R2~330
AAPSW13H60	R47~1R5	2R2~151
AAPSW13H65	R47~1R5	2R2~680

### Part Number Code

APSW    03    H    20    M    R47  
 A            B            C            D            E            F

A: Series Name                      Carbonyl powder Inductors  
 B: Dimensions(mm)                03: 3.2 x 3.8  
 C: Materials                          H Typ  
 D: Thickness(mm)                  20: 2.0 Max  
 E: Tolerance                          M:  $\pm 20\%$   
 F: Inductance                        R47=0.47uH

### AAPSW-H Series

Part Number	Inductance (uH) @100KHz/1V	DC Resistance (mΩ)Max.	Heat Rating Current Irms (A)Typ.	Saturation Current Isat (A)Typ.
AAPSW03H20MR33	0.33	21.0	8.05	10.1
AAPSW03H20MR47	0.47	22.8	7.20	9.30
AAPSW03H20MR68	0.68	28.8	5.65	7.20
AAPSW03H20M1R0	1.0	37.5	4.10	5.15
AAPSW03H20M1R5	1.5	49.5	3.88	4.10
AAPSW03H20M2R2	2.2	74.0	3.55	3.78
AAPSW03H20M3R3	3.3	142.5	3.05	3.55
AAPSW03H20M4R7	4.7	196.5	2.63	3.05
AAPSW03H20M5R6	5.6	233.3	2.23	2.63
AAPSW03H20M6R8	6.8	295.0	1.92	2.23
AAPSW03H20M8R2	8.2	385.0	1.62	1.92
AAPSW03H20M100	10.0	417.0	1.42	1.62
AAPSW04H20MR33	0.33	8.6	10.0	18.20
AAPSW04H20MR47	0.47	13.9	8.10	12.35
AAPSW04H20MR68	0.68	19.0	7.25	10.10
AAPSW04H20M1R0	1.0	26.6	5.25	8.60
AAPSW04H20M1R5	1.5	41.8	4.15	7.20
AAPSW04H20M2R2	2.2	61.0	4.25	6.15
AAPSW04H20M3R3	3.3	76.0	3.50	4.00
AAPSW04H20M4R7	4.7	105.0	2.65	3.58
AAPSW04H20M6R8	6.8	172.0	2.10	2.84
AAPSW04H20M100	10.0	243.0	1.84	2.32
AAPSW05H20MR22	0.22	5.5	15.0	25.0
AAPSW05H20MR33	0.33	7.3	12.0	21.3
AAPSW05H20MR47	0.47	8.6	11.5	18.0

**AAPSW-H Series**

Part Number	Inductance (uH) @100KHz/1V	DC Resistance (mΩ)Max.	Heat Rating Current Irms (A)Typ.	Saturation Current Isat (A)Typ.
AAPSW05H20MR68	0.68	12.4	10.0	12.8
AAPSW05H20M1R0	1.0	20.0	7.0	13.7
AAPSW05H20M1R5	1.5	30.5	5.5	9.8
AAPSW05H20M2R2	2.2	50.0	4.2	9.0
AAPSW05H20M3R3	3.3	76.0	3.3	7.3
AAPSW05H20M4R7	4.7	116.0	2.8	5.0
AAPSW05H20M6R8	6.8	150.0	2.4	3.8
AAPSW05H20M100	10.0	199.0	2.3	3.4
AAPSW05H30MR22	0.22	4.4	15.5	21.0
AAPSW05H30MR33	0.33	5.0	14.0	18.0
AAPSW05H30MR47	0.47	7.4	12.0	16.0
AAPSW05H30MR68	0.68	12.0	8.5	14.0
AAPSW05H30MR82	0.82	13.0	8.0	12.5
AAPSW05H30M1R0	1.0	14.0	7.0	11.0
AAPSW05H30M1R5	1.5	25.0	6.0	10.0
AAPSW05H30M2R2	2.2	35.0	5.5	9.0
AAPSW05H30M3R3	3.3	38.0	5.0	8.0
AAPSW05H30M4R7	4.7	53.0	4.6	6.0
AAPSW05H30M5R6	5.6	63.0	4.25	4.5
AAPSW05H30M6R8	6.8	76.2	4.0	4.3
AAPSW05H30M100	10.0	128.0	2.75	3.5
AAPSW05H30M150	15.0	190.0	2.1	2.6
AAPSW07H18MR22	0.22	3.0	16.0	26.0
AAPSW07H18MR33	0.33	5.8	14.0	22.0
AAPSW07H18MR47	0.47	7.4	12.0	18.0
AAPSW07H18MR68	0.68	11.0	10.0	17.0
AAPSW07H18MR82	0.82	14.0	8.5	15.5
AAPSW07H18M1R0	1.0	17.0	7.0	14.0
AAPSW07H18M1R5	1.5	25.2	6.0	13.0
AAPSW07H18M2R2	2.2	35.0	6.0	11.0
AAPSW07H18M3R3	3.3	46.0	5.0	9.0
AAPSW07H18M4R7	4.7	76.0	4.0	7.0
AAPSW07H18M6R8	6.8	104.0	3.0	5.5
AAPSW07H18M100	10.0	160.0	2.3	3.5

**AAPSW-H Series**

Part Number	Inductance (uH) @100KHz/1V	DC Resistance (mΩ)Max.	Heat Rating Current Irms (A)Typ.	Saturation Current Isat (A)Typ.
AAPSW07H24MR15	0.15	2.3	30.0	45.0
AAPSW07H24MR22	0.22	3.2	21.0	34.0
AAPSW07H24MR33	0.33	4.4	18.0	30.0
AAPSW07H24MR47	0.47	5.1	15.0	26.0
AAPSW07H24MR68	0.68	7.2	13.0	21.0
AAPSW07H24MR82	0.82	9.5	11.0	17.0
AAPSW07H24M1R0	1.0	13.5	10.0	16.0
AAPSW07H24M1R5	1.5	20.0	9.0	15.0
AAPSW07H24M2R2	2.2	28.0	7.0	14.0
AAPSW07H24M3R3	3.3	39.0	6.0	10.0
AAPSW07H24M4R7	4.7	50.0	5.5	9.0
AAPSW07H24M6R8	6.8	72.0	4.0	7.0
AAPSW07H24M100	10.0	101.0	3.2	5.0
AAPSW07H30NR10	0.10	1.7	32.5	60.0
AAPSW07H30MR15	0.15	1.9	27.0	45.0
AAPSW07H30MR22	0.22	2.8	23.0	40.0
AAPSW07H30MR33	0.33	3.9	20.0	32.0
AAPSW07H30MR47	0.47	4.2	17.5	26.0
AAPSW07H30MR56	0.56	5.0	16.5	25.5
AAPSW07H30MR68	0.68	5.5	15.5	25.0
AAPSW07H30MR82	0.82	8.0	13.0	24.0
AAPSW07H30M1R0	1.0	10.0	11.0	22.0
AAPSW07H30M1R5	1.5	15.0	9.0	18.0
AAPSW07H30M2R2	2.2	20.0	8.0	14.0
AAPSW07H30M3R3	3.3	30.0	6.0	13.5
AAPSW07H30M4R7	4.7	40.0	5.5	10.0
AAPSW07H30M5R6	5.6	48.0	5.0	9.0
AAPSW07H30M6R8	6.8	60.0	4.5	8.0
AAPSW07H30M8R2	8.2	68.0	4.0	7.5
AAPSW07H30M100	10.0	85.0	3.5	6.0
AAPSW07H30M150	15.0	123.0	3.0	4.0
AAPSW07H30M220	22.0	190.0	2.0	3.5
AAPSW07H30M330	33.0	240.0	2.0	2.5
AAPSW07H30M470	47.0	363.0	1.75	2.0

## AAPSW-H Series

Part Number	Inductance (uH) @100KHz/1V	DC Resistance (mΩ)Max.	Heat Rating Current Irms (A)Typ.	Saturation Current Isat (A)Typ.
AAPSW10H40MR22	0.22	1.0	35.0	60.0
AAPSW10H40MR36	0.36	1.2	31.0	60.0
AAPSW10H40MR45	0.45	1.5	29.0	45.0
AAPSW10H40MR47	0.47	1.5	28.0	43.0
AAPSW10H40MR56	0.56	1.8	25.0	40.0
AAPSW10H40MR68	0.68	2.7	22.0	39.0
AAPSW10H40M1R0	1.0	3.3	18.0	36.0
AAPSW10H40M1R5	1.5	4.6	16.0	33.0
AAPSW10H40M2R2	2.2	7.0	12.0	27.0
AAPSW10H40M3R3	3.3	11.8	11.0	20.0
AAPSW10H40M4R7	4.7	15.5	10.0	17.0
AAPSW10H40M5R6	5.6	19.3	9.0	14.0
AAPSW10H40M6R8	6.8	23.3	8.5	13.5
AAPSW10H40M100	10.0	30.0	7.5	12.0
AAPSW10H40M150	15.0	45.0	6.25	10.0
AAPSW10H40M220	22.0	74.0	5.0	7.0
AAPSW10H40M330	33.0	112.0	3.5	5.0
AAPSW10H40M470	47.0	167.0	3.0	4.5
AAPSW13H35MR47	0.47	2.0	32.0	55.0
AAPSW13H35MR68	0.68	2.5	28.0	49.0
AAPSW13H35MR82	0.82	3.0	25.0	44.0
AAPSW13H35M1R0	1.0	3.5	24.0	40.0
AAPSW13H35M1R5	1.5	5.5	19.0	35.0
AAPSW13H35M2R2	2.2	8.0	16.0	29.0
AAPSW13H35M3R3	3.3	12.0	12.0	27.0
AAPSW13H35M4R7	4.7	18.0	10.0	22.0
AAPSW13H35M5R6	5.6	22.0	9.5	19.0
AAPSW13H35M6R8	6.8	24.0	9.0	18.0
AAPSW13H35M8R2	8.2	28.0	8.5	16.0
AAPSW13H35M100	10.0	34.0	7.5	14.0
AAPSW13H35M150	15.0	65.0	6.5	10.0
AAPSW13H35M220	22.0	99.0	4.5	7.0
AAPSW13H35M330	33.0	160.0	3.5	6.0
AAPSW13H35M470	47.0	218.0	3.0	5.5

## AAPSW-H Series

Part Number	Inductance (uH) @100KHz/1V	DC Resistance (mΩ)Max.	Heat Rating Current Irms (A)Typ.	Saturation Current Isat (A)Typ.
AAPSW13H50MR33	0.33	0.9	42.0	80.0
AAPSW13H50MR47	0.47	1.1	38.0	65.0
AAPSW13H50MR56	0.56	1.5	36.0	55.0
AAPSW13H50MR68	0.68	1.7	34.0	54.0
AAPSW13H50MR82	0.82	2.1	31.0	52.0
AAPSW13H50M1R0	1.0	2.5	29.0	50.0
AAPSW13H50M1R5	1.5	3.3	27.0	48.0
AAPSW13H50M2R2	2.2	5.5	20.0	32.0
AAPSW13H50M3R3	3.3	9.2	15.0	32.0
AAPSW13H50M4R7	4.7	15.0	12.0	27.0
AAPSW13H50M5R6	5.6	16.5	11.5	22.0
AAPSW13H50M6R8	6.8	18.5	11.0	21.0
AAPSW13H50M8R2	8.2	22.5	9.5	18.0
AAPSW13H50M100	10.0	25.5	9.0	16.0
AAPSW13H50M150	15.0	38.0	8.2	13.0
AAPSW13H50M220	22.0	58.0	6.5	10.0
AAPSW13H50M330	33.0	88.0	5.0	8.0
AAPSW13H60MR47	0.47	1.3	38.0	64.0
AAPSW13H60MR68	0.68	1.7	33.0	57.0
AAPSW13H60M1R0	1.0	2.4	29.0	53.0
AAPSW13H60M1R5	1.5	3.2	26.0	50.0
AAPSW13H60M2R2	2.2	4.7	21.0	43.0
AAPSW13H60M3R3	3.3	7.1	17.0	35.0
AAPSW13H60M4R7	4.7	11.5	16.0	30.0
AAPSW13H60M6R8	6.8	13.8	15.0	25.0
AAPSW13H60M8R2	8.2	16.0	11.0	23.0
AAPSW13H60M100	10.0	20.7	11.0	21.0
AAPSW13H60M150	15.0	29.0	9.0	16.0
AAPSW13H60M220	22.0	39.5	8.0	14.0
AAPSW13H60M330	33.0	75.0	6.0	12.0
AAPSW13H60M470	47.0	90.0	5.5	11.0
AAPSW13H60M680	68.0	140.0	5.0	9.0
AAPSW13H60M820	82.0	161.0	4.5	8.5
AAPSW13H60M101	100.0	200.0	4.0	8.0

**AAPSW-H Series**

Part Number	Inductance ( $\mu$ H) @100KHz/1V	DC Resistance (m $\Omega$ )Max.	Heat Rating Current I <sub>rms</sub> (A)Typ.	Saturation Current I <sub>sat</sub> (A)Typ.
AAPSW13H60M121	120.0	235.0	3.5	7.0
AAPSW13H65MR47	0.47	1.2	41.0	63.0
AAPSW13H65MR68	0.68	1.5	35.0	55.0
AAPSW13H65M1R0	1.0	2.3	30.0	48.0
AAPSW13H65M1R5	1.5	3.0	27.0	45.0
AAPSW13H65M2R2	2.2	4.2	22.0	37.0
AAPSW13H65M3R3	3.3	6.8	18.0	30.0
AAPSW13H65M4R7	4.7	8.4	13.5	28.0
AAPSW13H65M6R8	6.8	11.5	11.5	18.0
AAPSW13H65M8R2	8.2	15.5	10.5	16.0
AAPSW13H65M100	10.0	16.5	10.0	15.5
AAPSW13H65M150	15.0	28.0	9.0	13.0
AAPSW13H65M220	22.0	37.0	9.0	12.0
AAPSW13H65M330	33.0	58.0	8.0	11.0
AAPSW13H65M470	47.0	90.0	6.5	9.5
AAPSW13H65M680	68.0	130.0	4.8	7.8
AAPSW17H70M1R0	1.0	2.0	52.0	60.0
AAPSW17H70M1R5	1.5	2.5	47.0	52.0
AAPSW17H70M2R2	2.2	2.7	43.5	47.0
AAPSW17H70M3R3	3.3	3.9	28.0	45.0
AAPSW17H70M4R7	4.7	5.5	25.0	41.0
AAPSW17H70M6R8	6.8	9.2	19.0	32.0
AAPSW17H70M8R2	8.2	10.8	18.0	25.0
AAPSW17H70M100	10.0	13.0	16.5	24.0
AAPSW17H70M150	15.0	20.5	12.5	23.0
AAPSW17H70M220	22.0	26.5	12.0	18.0
AAPSW17H70M330	33.0	44.0	10.7	15.0
AAPSW17H70M390	39.0	48.0	9.2	11.0
AAPSW17H70M470	47.0	55.0	8.7	9.5
AAPSW17H70M560	56.0	62.0	7.8	9.0
AAPSW17H70M680	68.0	80.0	7.0	8.0
AAPSW17H70M101	100.0	118.0	5.3	6.5