

### APS-H Series

#### Features

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

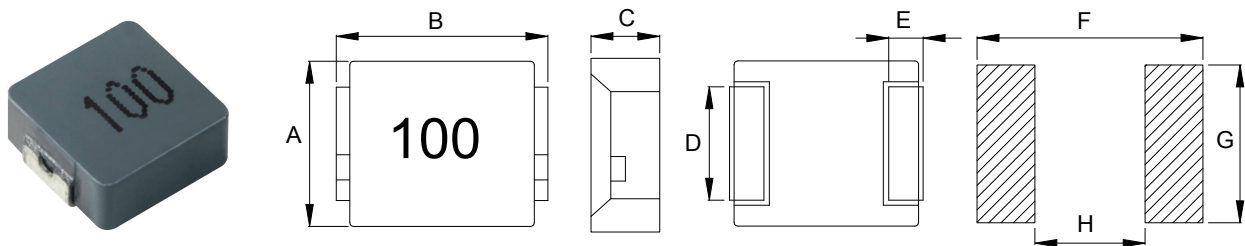
#### Applications

- 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 (I<sub>rms</sub>) that will cause an approximate  $\Delta T$  of 40°C.
- DC current (I<sub>sat</sub>) that will cause L<sub>o</sub> to drop approximately 40%.
- Operating temperature range -40°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
APS03H20	3.2±0.3	3.8Max	2.0Max	1.2	0.7	4.1	1.45	1.9	3000
APS04H20	4.2±0.3	4.8Max	2.0Max	2.0	0.76	5.2	2.4	2.2	3000
APS05H30	5.1±0.2	5.7Max	3.0Max	1.5	1.0	6.3	2.2	2.2	2000
APS07H30	6.8±0.2	7.7Max	3.0Max	3.0	1.6	7.6	3.3	3.0	1500
APS10H30	10.0±0.3	11.5Max	3.0Max	3.0	1.8	12.0	4.5	5.4	1000
APS10H40	10.0±0.3	11.5Max	4.0Max	3.0	1.8	12.0	4.5	5.4	850
APS13H50	12.2±0.3	13.8Max	5.0Max	4.0	2.54	14.3	4.9	7.7	400
APS17H70	16.9±0.3	17.5Max	7.0Max	12.0	2.8	18.2	12.8	11.2	350

#### Part Number Code

APS   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: ±20%  
 F: Inductance                          R47=0.47uH

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Part Number	Inductance (uH) @100KHz/1V	DC Resistance (mΩ)Max.	DC Resistance (mΩ)Typ.	Heat Rating Current Irms (A)Typ.	Saturation Current Isat (A)Typ.
APS03H20MR47	0.47	22.8	19.5	7.20	9.30
APS03H20MR68	0.68	28.8	25.3	5.65	7.20
APS03H20M1R0	1.0	37.5	31.5	4.10	5.15
APS03H20M1R5	1.5	49.5	41.6	3.88	4.10
APS03H20M2R2	2.2	74.0	64.3	3.55	3.78
APS03H20M3R3	3.3	142.5	123.5	3.05	3.55
APS03H20M4R7	4.7	196.5	170.5	2.63	3.05
APS03H20M5R6	5.6	233.3	203.0	2.23	2.63
APS03H20M6R8	6.8	295.0	257.0	1.92	2.23
APS03H20M8R2	8.2	385.0	337.0	1.62	1.92
APS03H20M100	10.0	417.0	363.0	1.42	1.62
APS04H20MR33	0.33	12.85	9.6	9.12	18.20
APS04H20MR47	0.47	13.9	11.0	8.30	12.35
APS04H20MR68	0.68	19.9	16.5	7.25	10.30
APS04H20M1R0	1.0	26.25	21.5	5.25	8.80
APS04H20M1R5	1.5	41.0	34.5	4.85	7.30
APS04H20M2R2	2.2	60.0	50.5	4.25	6.25
APS04H20M3R3	3.3	92.8	78.5	3.33	4.25
APS04H20M6R8	6.8	201.0	170.0	2.45	2.94
APS05H30MR20	0.2	2.29	2.1	22.45	21.30
APS05H30MR35	0.35	4.25	3.9	16.75	15.30
APS05H30MR47	0.47	7.08	6.5	12.15	11.65
APS05H30MR75	0.75	9.26	8.5	11.40	9.80
APS05H30M1R0	1.0	11.35	10.4	10.20	8.55
APS05H30M1R5	1.5	18.35	17.1	7.55	7.00
APS05H30M2R2	2.2	24.8	22.5	6.83	6.55
APS05H30M3R3	3.3	40.12	36.4	5.55	6.05
APS05H30M4R7	4.7	59.5	54.0	4.55	5.56
APS05H30M5R6	5.6	70.0	63.0	4.30	3.55
APS05H30M100	10.0	130.65	122.1	2.78	2.33
APS05H30M150	15.0	164.5	138.4	2.45	2.10
APS05H30M220	22.0	270.0	260.0	1.92	1.92
APS07H30MR15	0.15	2.48	1.9	26.30	52.50
APS07H30MR22	0.22	2.78	2.5	23.30	40.50
APS07H30MR47	0.47	4.16	4.0	17.65	26.30

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APS07H30MR68	0.68	5.45	5.0	15.65	25.30
APS07H30MR82	0.82	7.95	6.7	13.00	24.26
APS07H30M1R0	1.0	10.0	9.0	11.33	22.32
APS07H30M1R5	1.5	14.85	14.0	9.12	18.25
APS07H30M2R2	2.2	20.0	18.0	8.00	14.16
APS07H30M3R3	3.3	29.7	28.0	6.06	13.50
APS07H30M4R7	4.7	40.0	37.0	5.56	10.00
APS07H30M6R8	6.8	59.5	54.0	4.55	8.12
APS07H30M8R2	8.2	67.5	64.0	4.00	7.55
APS07H30M100	10.0	76.5	70.5	3.25	7.10
APS07H30M150	15.0	126.0	112.6	2.20	5.05
APS07H30M220	22.0	146.8	135.3	2.35	3.05
APS07H30M330	33.0	240.0	220.0	1.83	2.25
APS10H30MR12	0.12	0.6	0.55	30.50	75.80
APS10H30MR36	0.36	1.3	1.1	23.00	28.50
APS10H30MR47	0.47	1.98	1.5	20.00	26.32
APS10H30MR68	0.68	3.38	2.9	21.30	23.25
APS10H30M1R0	1.0	6.0	5.5	15.00	21.30
APS10H30M1R5	1.5	7.45	6.5	13.65	20.00
APS10H30M2R2	2.2	9.0	8.4	13.30	16.20
APS10H30M3R3	3.3	16.0	14.5	9.12	14.15
APS10H30M4R7	4.7	22.3	20.5	7.10	13.15
APS10H30M8R2	8.2	38.2	35.0	5.05	8.60
APS10H30M100	10.0	44.0	40.0	5.00	7.60
APS10H30M150	15.0	64.5	59.0	4.05	6.05
APS10H30M220	22.0	98.0	90.0	3.02	5.05
APS10H40MR20	0.2	0.71	0.63	32.40	45.50
APS10H40MR36	0.36	1.2	1.04	30.50	42.50
APS10H40MR45	0.45	1.21	1.07	29.30	36.32
APS10H40MR56	0.56	1.79	1.56	25.30	32.40
APS10H40MR90	0.9	2.48	2.17	22.00	28.25
APS10H40M1R0	1.0	3.30	3.0	18.25	28.25
APS10H40M1R5	1.5	4.15	3.8	16.20	32.50
APS10H40M2R2	2.2	7.0	6.0	12.15	18.20
APS10H40M3R3	3.3	11.7	10.8	10.00	16.18

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APS10H40M4R7	4.7	19.9	17.0	8.60	15.20
APS10H40M100	10.0	30.0	27.0	7.55	8.60
APS10H40M220	22.0	65.5	60.0	5.08	5.52
APS13H50MR10	0.1	0.59	0.52	55.56	119.0
APS13H50MR22	0.22	0.71	0.63	51.50	112.0
APS13H50MR33	0.33	0.91	0.8	42.50	80.50
APS13H50MR47	0.47	0.91	0.8	38.42	65.82
APS13H50MR56	0.56	1.31	1.15	36.38	55.65
APS13H50MR68	0.68	1.31	1.15	34.35	54.52
APS13H50MR82	0.82	1.61	1.4	31.50	53.60
APS13H50M1R0	1.0	2.39	2.1	29.30	50.10
APS13H50M1R5	1.5	3.12	2.75	23.30	48.50
APS13H50M1R8	1.8	4.6	4.0	21.25	40.42
APS13H50M2R2	2.2	5.23	4.6	20.25	32.42
APS13H50M3R3	3.3	9.1	7.7	15.20	32.42
APS13H50M4R7	4.7	12.6	11.0	12.19	27.30
APS13H50M5R6	5.6	13.7	12.0	11.65	22.25
APS13H50M6R8	6.8	15.0	13.0	11.00	21.32
APS13H50M7R8	7.8	19.2	16.8	10.00	18.55
APS13H50M8R2	8.2	19.9	17.5	9.60	18.15
APS13H50M100	10.0	21.6	19.0	9.10	16.23
APS13H50M150	15.0	33.0	29.0	7.80	13.20
APS13H50M220	22.0	51.5	45.0	6.25	10.00
APS13H50M330	33.0	84.0	74.5	5.30	8.12
APS17H70M1R5	1.5	2.12	1.85	40.50	40.50
APS17H70M2R2	2.2	2.5	2.15	34.35	34.50
APS17H70M4R7	4.7	4.7	4.12	27.30	24.32
APS17H70M6R8	6.8	7.49	6.55	20.50	22.23
APS17H70M8R2	8.2	8.7	8.1	16.30	20.24
APS17H70M100	10.0	10.0	9.3	14.22	18.15
APS17H70M150	15.0	15.35	14.5	12.00	13.23
APS17H70M220	22.0	23.0	21.0	9.60	11.15
APS17H70M330	33.0	36.0	35.0	9.12	10.15
APS17H70M470	47.0	46.5	41.0	6.90	7.55
APS17H70M680	68.0	84.5	74.0	5.25	6.55