

### APS Series

#### Features

- 100% lead (Pb)-free.
- Lowest DCR/uH, in this package size.
- Frequency range up to 5.0MHz.
- Handles high transient current spikes without saturation.
- Ultra low buzz noise, due to composite construction.

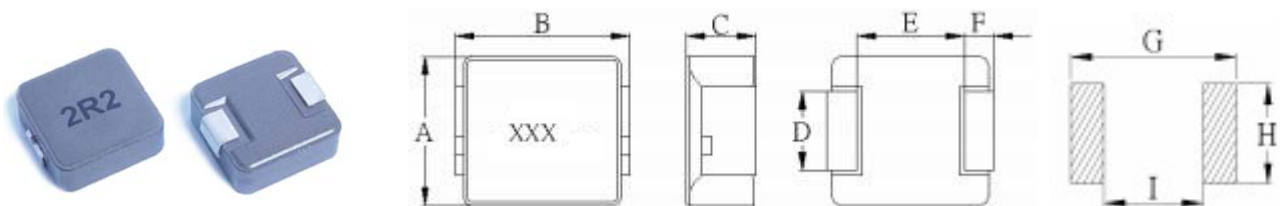
#### Applications

- 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-55°C to +125°C.
- DC current(A)that will cause an approximate $\Delta T$  of 40°C.
- DC current(A)that will cause Lo to drop approximately 20%.
- The part temperature(ambient + temp rise)should not exceed.

#### External Dimensions (Unit:m/m)



#### Part Number Code

Type	A	B	C	D	E	F	G	H	I	Q'Ty Reel
APS04A12	4.5Max	4.8Max	1.2Max	2.0±0.3	2.2Ref	0.8Ref	5.2	2.5	2.2	3000
APS04A20	4.5Max	4.8Max	2.0Max	2.0±0.3	2.2Ref	0.8Ref	5.2	2.5	2.2	3000
APS05A18	5.4Max	5.7Max	1.8Max	2.2±0.3	2.5Ref	1.2Ref	6.0	2.5	2.2	2000
APS05A30	5.4Max	5.7Max	3.0Max	2.2±0.3	2.5Ref	1.2Ref	6.0	2.5	2.2	2000
APS07A12	6.9Max	7.7Max	1.2Max	3.0±0.3	3.7Ref	1.6Ref	8.4	3.5	3.7	1500
APS07A18	6.9Max	7.7Max	1.8Max	3.0±0.3	3.7Ref	1.6Ref	8.4	3.5	3.7	1500
APS07A20	6.9Max	7.7Max	2.0Max	3.0±0.3	3.7Ref	1.6Ref	8.4	3.5	3.7	2000
APS07A24	6.9Max	7.7Max	2.4Max	3.0±0.3	3.7Ref	1.6Ref	8.4	3.5	3.7	1500
APS07A30	6.8Max	7.7Max	3.0Max	3.0±0.3	3.7Ref	1.6Ref	8.4	3.5	3.7	1000
APS10A40	10.3Max	11.5Max	4.0Max	3.0±0.5	5.4Ref	2.0Ref	13.6	4.1	5.4	500
APS13A50	12.9Max	13.9Max	5.0Max	5.0±0.5	8.0Ref	2.0Ref	14.5	5.0	8.0	500

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

A: Series Name                      Supper Power Inductor  
 B: Dimensions(mm)                04: 4.5 x4.8  
 C: Materials                            NO use  
 D: Thickness(mm)                    12: 1.2   20: 2.0  
 E: Tolerance                            M: ±20%  
 F: Inductance                          R15=0.15uH

## APS Series

Part Number	Inductance (uH) @100KHz/1V	DCR mΩ Max @25°C	Heat Rating Current DC(A) Typ.	Saturation Current DC(A) Typ.
APS04A12MR15	0.15	9.0	7.5	15.0
APS04A12MR22	0.22	11.0	7.0	11.0
APS04A12MR33	0.33	19.0	6.5	8.4
APS04A12MR47	0.47	21.0	6.0	6.8
APS04A12MR68	0.68	36.0	4.7	6.0
APS04A12M1R0	1.0	47.0	4.5	5.5
APS04A12M1R5	1.5	75.0	3.25	4.0
APS04A12M2R2	2.2	83.5	2.75	3.5
APS04A12M4R7	4.7	195.0	1.8	2.8
APS04A20MR10	0.10	4.0	13.0	22.0
APS04A20MR22	0.22	6.6	9.5	12.5
APS04A20MR33	0.33	11.0	10.0	12.0
APS04A20MR47	0.47	14.0	7.5	9.5
APS04A20MR56	0.56	16.0	7.0	10.0
APS04A20MR68	0.68	18.0	7.0	9.0
APS04A20M1R0	1.0	27.0	6.0	7.0
APS04A20M1R2	1.2	27.0	6.0	7.0
APS04A20M1R5	1.5	46.0	5.0	6.0
APS04A20M2R2	2.2	58.0	4.5	5.0
APS04A20M3R3	3.3	87.0	3.3	4.0
APS04A20M4R7	4.7	105.0	2.8	3.0
APS04A20M6R8	6.8	175.0	2.4	2.5
APS04A20M100	10.0	282.0	1.6	2.2
APS05A18MR47	0.47	9.0	10.5	15.5
APS05A18MR56	0.56	10.0	9.5	15.0
APS05A18M1R0	1.0	17.0	8.0	9.0
APS05A18M1R5	1.5	26.0	7.5	9.0
APS05A18M2R2	2.2	35.0	5.0	6.5
APS05A18M3R3	3.3	58.0	4.5	5.0
APS05A18M4R7	4.7	85.0	3.5	4.0
APS05A18M6R8	6.8	120.0	2.8	3.4
APS05A18M100	10.0	155.0	2.5	3.0
APS05A30MR10	0.10	3.0	25.0	33.0
APS05A30MR20	0.20	3.9	14.0	14.5
APS05A30MR47	0.47	8.5	11.0	12.0
APS05A30MR68	0.68	12.0	9.0	11.5

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Part Number	Inductance (uH) @100KHz/1V	DCR mΩ Max @25°C	Heat Rating Current DC(A) Typ.	Saturation Current DC(A) Typ.
APS05A30M1R0	1.0	14.0	8.5	11.0
APS05A30M1R2	1.2	16.0	8.5	11.0
APS05A30M1R5	1.5	25.0	8.2	8.5
APS05A30M2R2	2.2	29.0	7.0	7.5
APS05A30M3R3	3.3	38.0	5.5	6.0
APS05A30M4R7	4.7	60.0	4.5	5.0
APS05A30M6R8	6.8	90.0	3.5	4.0
APS05A30M100	10.0	125.0	3.2	3.5
APS07A12MR56	0.56	15.5	8.0	11.0
APS07A12MR68	0.68	17.5	7.0	9.0
APS07A12M1R0	1.0	29.0	6.0	7.5
APS07A12M2R2	2.2	58.0	4.0	5.0
APS07A12M3R3	3.3	92.0	3.5	4.0
APS07A12M4R7	4.7	122.0	3.0	3.5
APS07A12M6R8	6.8	210.0	2.5	2.8
APS07A12M100	10.0	280.0	2.0	2.2
APS07A18MR47	0.47	8.4	11.5	18.0
APS07A18MR68	0.68	12.0	9.5	17.0
APS07A18M1R0	1.0	16.0	8.5	14.0
APS07A18M1R5	1.5	26.0	8.0	12.0
APS07A18M2R2	2.2	35.0	7.0	8.0
APS07A18M3R3	3.3	50.0	4.5	6.5
APS07A18M4R7	4.7	62.0	4.0	5.0
APS07A18M6R8	6.8	110.0	3.0	4.5
APS07A24MR22	0.22	3.0	21.0	34.0
APS07A24MR33	0.33	4.1	18.0	24.5
APS07A24MR47	0.47	5.1	15.0	22.0
APS07A24MR56	0.56	6.5	13.0	17.0
APS07A24MR68	0.68	7.0	12.0	16.0
APS07A24M1R0	1.0	13.5	9.0	16.0
APS07A24M1R5	1.5	20.0	9.0	15.0
APS07A24M2R2	2.2	28.0	7.0	14.0
APS07A24M3R3	3.3	39.0	5.5	10.0
APS07A24M4R7	4.7	50.0	5.0	7.5
APS07A24M6R8	6.8	70.0	4.0	6.0

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Part Number	Inductance (uH) @100KHz/1V	DCR mΩ Max @25°C	Heat Rating Current DC(A) Typ.	Saturation Current DC(A) Typ.
APS07A24M100	10.0	101.0	3.1	4.0
APS07A24M150	15.0	160.0	2.5	3.3
APS07A24M220	22.0	230.0	2.0	2.5
APS07A30MR22	0.22	3.0	24.0	34.0
APS07A30MR24	0.24	3.1	23.0	26.0
APS07A30MR33	0.33	3.5	21.0	25.0
APS07A30MR47	0.47	4.1	18.0	20.0
APS07A30MR56	0.56	14.5	16.5	18.0
APS07A30MR68	0.68	5.3	16.0	17.0
APS07A30MR82	0.82	6.0	14.0	16.0
APS07A30M1R0	1.0	7.4	12.0	15.0
APS07A30M1R5	1.5	12.1	12.0	14.0
APS07A30M2R2	2.2	15.0	9.5	10.0
APS07A30M3R3	3.3	22.0	8.5	9.5
APS07A30M4R7	4.7	33.0	6.0	6.5
APS07A30M6R8	6.8	48.0	5.0	6.0
APS07A30M8R2	8.2	60.0	5.0	6.0
APS07A30M100	10.0	67.0	4.5	5.5
APS07A30M150	15.0	115.0	3.0	4.5
APS07A30M220	22.0	200.0	2.3	3.0
APS07A30M330	33.0	310.0	2.0	2.5
APS10A40MR15	0.15	0.65	45.0	75.0
APS10A40MR22	0.22	1.0	35.0	60.0
APS10A40MR30	0.30	1.1	35.0	50.0
APS10A40MR36	0.36	1.2	30.0	50.0
APS10A40MR47	0.47	1.7	30.0	40.0
APS10A40MR56	0.56	1.8	25.0	33.0
APS10A40MR68	0.68	2.4	23.0	30.0
APS10A40MR80	0.80	2.7	23.0	29.0
APS10A40M1R0	1.0	3.3	19.0	28.0
APS10A40M1R5	1.5	4.2	16.0	26.0
APS10A40M2R2	2.2	7.0	12.0	18.0
APS10A40M3R3	3.3	11.8	11.0	16.0
APS10A40M4R7	4.7	20.0	9.0	15.0
APS10A40M6R8	6.8	25.0	8.5	12.0

**APS Series**

Part Number	Inductance (uH) @100KHz/1V	DCR mΩ Max @25°C	Heat Rating Current DC(A) Typ.	Saturation Current DC(A) Typ.
APS10A40M8R2	8.2	27.0	8.0	9.0
APS10A40M100	10.0	30.0	7.8	8.5
APS10A40M150	15.0	45.0	6.5	7.0
APS10A40M220	22.0	66.0	5.0	5.5
APS10A40M330	33.0	92.0	4.4	5.0
APS10A40M470	47.0	145.0	3.3	3.5
APS10A40M680	68.0	195.0	2.5	3.0
APS13A50MR22	0.22	0.7	50.0	75.0
APS13A50MR36	0.36	0.85	42.0	50.0
APS13A50MR50	0.5	1.15	38.0	48.
APS13A50MR68	0.68	1.55	33.0	46.0
APS13A50MR82	0.82	1.65	30.0	39.0
APS13A50M1R0	1.0	2.2	26.0	35.0
APS13A50M1R5	1.5	3.2	23.0	33.0
APS13A50M2R2	2.2	5.0	15.0	24.0
APS13A50M3R3	3.3	7.0	14.0	22.0
APS13A50M4R7	4.7	9.0	13.0	21.0
APS13A50M6R8	6.8	18.0	12.0	16.0
APS13A50M100	10.0	22.0	9.0	12.0
APS13A50M220	22.0	58.0	4.5	6.5
APS13A50M330	33.0	84.0	3.5	6.0
APS13A50M470	47.0	130.0	3.0	5.0