

High Current Cube Power Inductors AWSPL Series (THT)

Product features

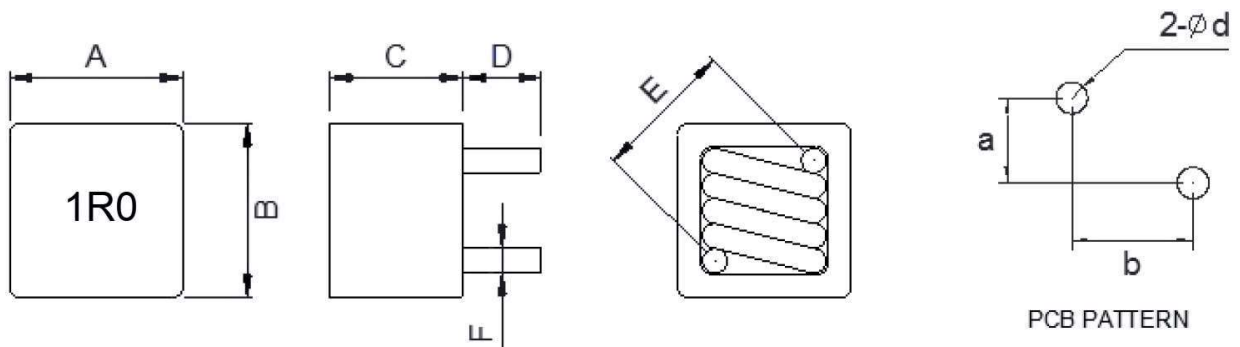
- THT design for enhanced vibration resistance.
- Magnetically shield, Low EMI
- High Current ranges from 15A to 52A
- Inductance range from 0.30 μ H to 4.70 μ H.
- 100% Lead (Pb)-Free and RoHS compliant.
- Operating temperature -40+125°C



Applications

- DC/DC converter for data and device systems.
- Power applications/battery management systems.
- EMI suppression for motors/Automotive/electrical systems.
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Dimensions (mm) AWSPL Series



Series	A	B	C	D	E/F	a	b	ød
AWSPL0806P	8.2 Max.	8.2 Max.	7.0 Max.	3.5±0.5	Page #2	Page #2	Page #2	Page #2
AWSPL1010P	10.5Max.	10.5Max.	10.0 Max.	3.5±0.5	Page #3	Page #3	Page #3	Page #3
AWSPL1108P	11.7Max.	11.7Max.	9.5 Max.	3.5±0.5	Page #4	Page #4	Page #4	Page #4
AWSPL1310P	12.5Max.	12.5Max.	10.0(Max)	3.3±0.5	Page #5	Page #5	Page #5	Page #5

Specifications AWSPL0806P Series

Part Number	Inductance (μ H) $\pm 20\%$	DCR (m Ω) $\pm 8\%$	I-DC (Typ) (A) $\Delta T 40^{\circ}\text{C}$	I-sat (Typ) (A) 80%	Dim. E	Dim F	PCB Pattern		
							a	b	$\varnothing d$
AWSPL0806P-R30M-C	0.30	1.55	31.0	50.0	5.8 $\pm$ 0.5	0.9 $\pm$ 0.1	3.6 $\pm$ 0.5	4.5 $\pm$ 0.5	1.2
AWSPL0806P-R36M-C	0.36	1.55	31.0	45.0	6.3 $\pm$ 0.5	0.9 $\pm$ 0.1	4.4 $\pm$ 0.5	4.5 $\pm$ 0.5	1.2
AWSPL0806P-R47M-C	0.47	1.90	23.0	38.0	6.3 $\pm$ 0.5	0.9 $\pm$ 0.1	4.4 $\pm$ 0.5	4.5 $\pm$ 0.5	1.2
AWSPL0806P-R56M-C	0.56	1.90	23.0	28.0	6.3 $\pm$ 0.5	0.9 $\pm$ 0.1	4.4 $\pm$ 0.5	4.5 $\pm$ 0.5	1.2
AWSPL0806P-R82M-C	0.82	2.90	18.0	23.0	6.2 $\pm$ 0.5	0.8 $\pm$ 0.1	4.3 $\pm$ 0.5	4.5 $\pm$ 0.5	1.1
AWSPL0806P-1R0M-C	1.00	4.30	14.0	22.0	6.2 $\pm$ 0.5	0.7 $\pm$ 0.1	4.5 $\pm$ 0.5	4.4 $\pm$ 0.5	1.0
AWSPL0806P-1R2M-C	1.20	4.30	15.0	20.0	6.2 $\pm$ 0.5	0.7 $\pm$ 0.1	4.5 $\pm$ 0.5	4.4 $\pm$ 0.5	1.0

Notes:

1. All test data is reference to 25 $^{\circ}$ C ambient.
2. Test Condition:100KHz,1.0Vrms.
3. Idc: DC current (A) that will cause an approximate ΔT of 40 $^{\circ}$ C
4. Isat : DC current (A) that will cause L0 to drop approximately 20%

Specifications AWSPL1010P Series

Part Number	Inductance (μ H) $\pm 20\%$	DCR (m Ω) $\pm 8\%$	I-DC (Typ) (A) $\Delta T 40^{\circ}\text{C}$	I-sat (Typ) (A) 80%	Dim. E	Dim F	PCB Pattern		
							a	b	$\varnothing d$
AWSPL1010P-R36M-C	0.36	0.75	39.0	52.0	7.8 $\pm$ 0.5	1.3 $\pm$ 0.1	5.0 $\pm$ 0.5	6.0 $\pm$ 0.5	1.6
AWSPL1010P-R56M-C	0.56	1.05	38.0	52.0	7.8 $\pm$ 0.5	1.3 $\pm$ 0.1	5.0 $\pm$ 0.5	6.0 $\pm$ 0.5	1.6
AWSPL1010P-1R0M-C	1.00	2.60	23.0	40.0	8.2 $\pm$ 0.5	1.0 $\pm$ 0.1	5.5 $\pm$ 0.5	6.1 $\pm$ 0.5	1.3

Notes:

1. All test data is reference to 25 $^{\circ}$ C ambient.
2. Test Condition:100KHz,1.0Vrms.
3. Idc: DC current (A) that will cause an approximate ΔT of 40 $^{\circ}$ C without core losses.
4. Isat :DC current (A) that will cause L0 to drop approximately 20%

Specifications AWSPL1108P Seires

Part Number	Inductance (μ H) $\pm 20\%$	DCR (m Ω) $\pm 8\%$	I-DC (Typ) (A) $\Delta T 40^{\circ}\text{C}$	I-sat (Typ) (A) 80%	Dim. E	Dim F	PCB Pattern		
							a	b	ϕd
AWSPL1108P-R36M-C	0.36	0.80	38.0	50.0	8.5 $\pm$ 0.5	1.5 $\pm$ 0.1	5.7 $\pm$ 0.5	6.3 $\pm$ 0.5	1.8
AWSPL1108P-R47M-C	0.47	0.80	41.0	50.0	8.5 $\pm$ 0.5	1.5 $\pm$ 0.1	5.7 $\pm$ 0.5	6.3 $\pm$ 0.5	1.8
AWSPL1108P-R80M-C	0.80	1.30	33.0	45.0	9.0 $\pm$ 0.5	1.3 $\pm$ 0.1	6.4 $\pm$ 0.5	6.3 $\pm$ 0.5	1.6
AWSPL1108P-1R0M-C	1.00	1.30	32.0	35.0	9.0 $\pm$ 0.5	1.3 $\pm$ 0.1	6.4 $\pm$ 0.5	6.3 $\pm$ 0.5	1.6
AWSPL1108P-1R5M-C	1.50	1.80	27.0	25.0	9.0 $\pm$ 0.5	1.2 $\pm$ 0.1	6.4 $\pm$ 0.5	6.3 $\pm$ 0.5	1.5
AWSPL1108P-2R0M-C	2.00	3.30	21.0	30.0	9.3 $\pm$ 0.5	1.0 $\pm$ 0.1	6.6 $\pm$ 0.5	6.6 $\pm$ 0.5	1.3
AWSPL1108P-3R3M-C	3.30	6.30	14.0	25.0	9.6 $\pm$ 0.5	0.8 $\pm$ 0.1	6.6 $\pm$ 0.5	7.0 $\pm$ 0.5	1.1
AWSPL1108P-4R7M-C	4.70	9.20	20.0	10.0	9.3 $\pm$ 0.5	0.7 $\pm$ 0.1	6.4 $\pm$ 0.5	6.7 $\pm$ 0.5	1.0

Notes:

1. All test data is reference to 25°C ambient.
2. Test Condition:100KHz,1.0Vrms.
3. Id_c: DC current (A) that will cause an approximate ΔT of 40°C
4. Isat : DC current (A) that will cause L0 to drop approximately 20%

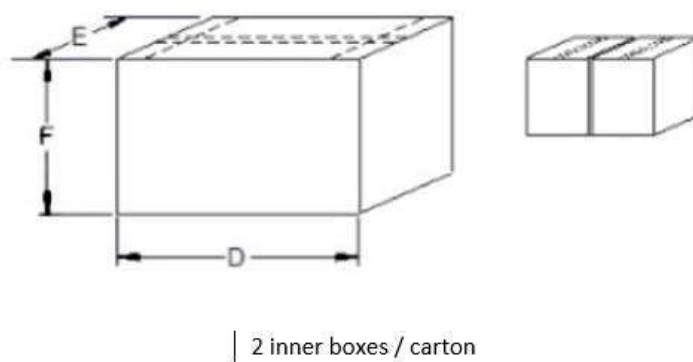
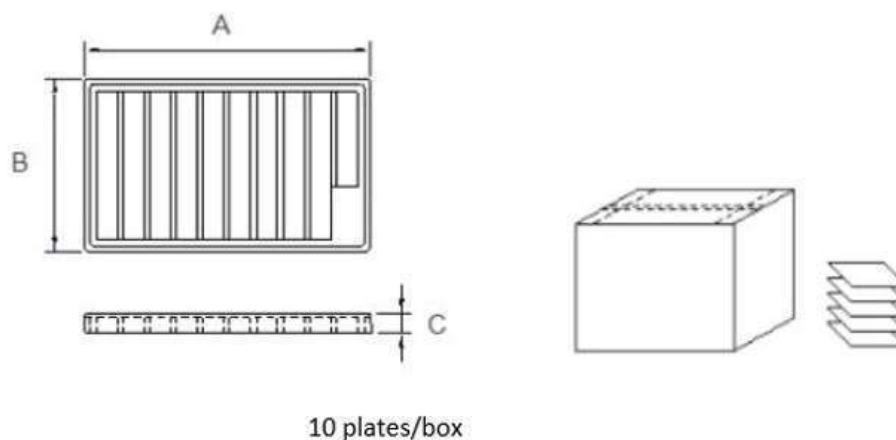
Specifications AWSPL1310P Series

Part Number	Inductance (μ H) $\pm 20\%$	DCR (m Ω) $\pm 8\%$	I-DC (Typ) (A) $\Delta T 40^{\circ}\text{C}$	I-sat (Typ) (A) 80%	Dim. E	Dim F	PCB Pattern		
							a	b	$\varnothing d$
AWSPL1310P-R60M-C	0.60	0.85	46.0	40.0	9.5 $\pm$ 0.5	1.5 $\pm$ 0.1	6.0 $\pm$ 0.5	7.3 $\pm$ 0.5	1.7
AWSPL1310P-1R0M-C	1.00	1.15	39.0	45.0	9.7 $\pm$ 0.5	1.4 $\pm$ 0.1	6.9 $\pm$ 0.5	6.8 $\pm$ 0.5	1.7
AWSPL1310P-1R2M-C	1.20	1.90	31.0	38.0	10 $\pm$ 0.5	1.2 $\pm$ 0.1	7.0 $\pm$ 0.5	7.1 $\pm$ 0.5	1.5

Notes:

1. All test data is reference to 25°C ambient.
2. Test Condition: 100KHz, 1.0Vrms.
3. Idc: DC current (A) that will cause an approximate ΔT of 40°C without core losses.
4. Isat :DC current (A) that will cause L0 to drop approximately 20%

Packaging Dimensions:



Unit: mm

Series	Plate			Carton			Quantity
	A	B	C	D	E	F	Pcs
AWSPL0806P	230	150	10	315	250	130	4,000
AWSPL1010P	230	150	14	315	250	170	1,900
AWSPL1108P	230	150	14	315	250	170	2,000
AWSPL1310P	230	150	15	315	250	170	2,000