

High Current Power Inductors AWSIHC Series

Product features

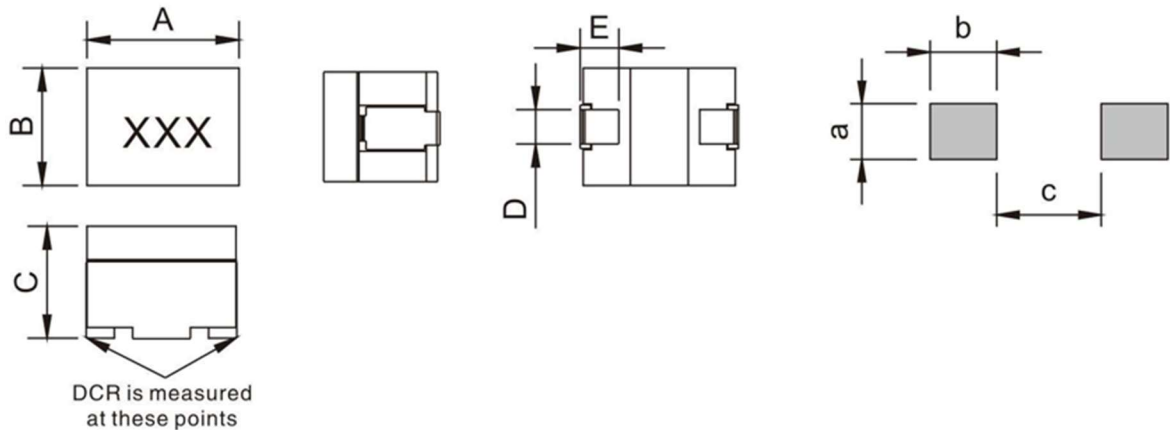
- DC-DC converter work frequency up to 2MHz
- Low core loss, Low EMI.
- Magnetically shield
- High current, Ultra-Low DCR, high efficiency.
- Current ranges from 14A to 100+A
- Inductance range from 0.10 μ H to 0.40 μ H.
- 100% Lead (Pb)-Free and RoHS compliant.
- Operating temperature -40+125°C



Applications

- CPU/GPU/ASIC
- Multi-Phase and Vcore regulators
- Data networking and storage system
- Graphics Cards and battery system
- DCR sensing circuits

Dimensions (mm) AWSIHC



Series	A	B	C	D	E	a	b	c
AWSIHC106580	9.4 $\pm$ 0.2	6.2 $\pm$ 0.2	7.8 $\pm$ 0.3	2.0 $\pm$ 0.2	1.8 $\pm$ 0.2	2.54	3.20	4.00
AWSIHC100808	10.2 Max	8.1 Max	8.0 Max	2.4 $\pm$ 0.25	2.5 $\pm$ 0.25	3.00	3.56	4.06

Specifications AWSIHC106580

Part Number	Inductance (nH) 100LH/1V	DCR(mΩ) @25°C	I-sat1 (Typ) (A) 80% L0@25°C	I-sat2 (Typ) (A) 80% L0@100°C	I-DC (Typ) (A) ΔT40°C
AWSIHC106580-R10L-R29	100±15%	0.29 ± 5%	100	85	42
AWSIHC106580-R12L-R29	120±15%		85	65	
AWSIHC106580-R15L-R29	150±15%		65	54	
AWSIHC106580-R18L-R29	180±15%		60	45	
AWSIHC106580-R22L-R29	220±15%		45	39	
AWSIHC106580-R30L-R29	300±15%		32	22	
AWSIHC106580-R40L-R29	400±15%		21	14	

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
4. Isat : DC current (A) that will cause L0 to drop approximately 20%

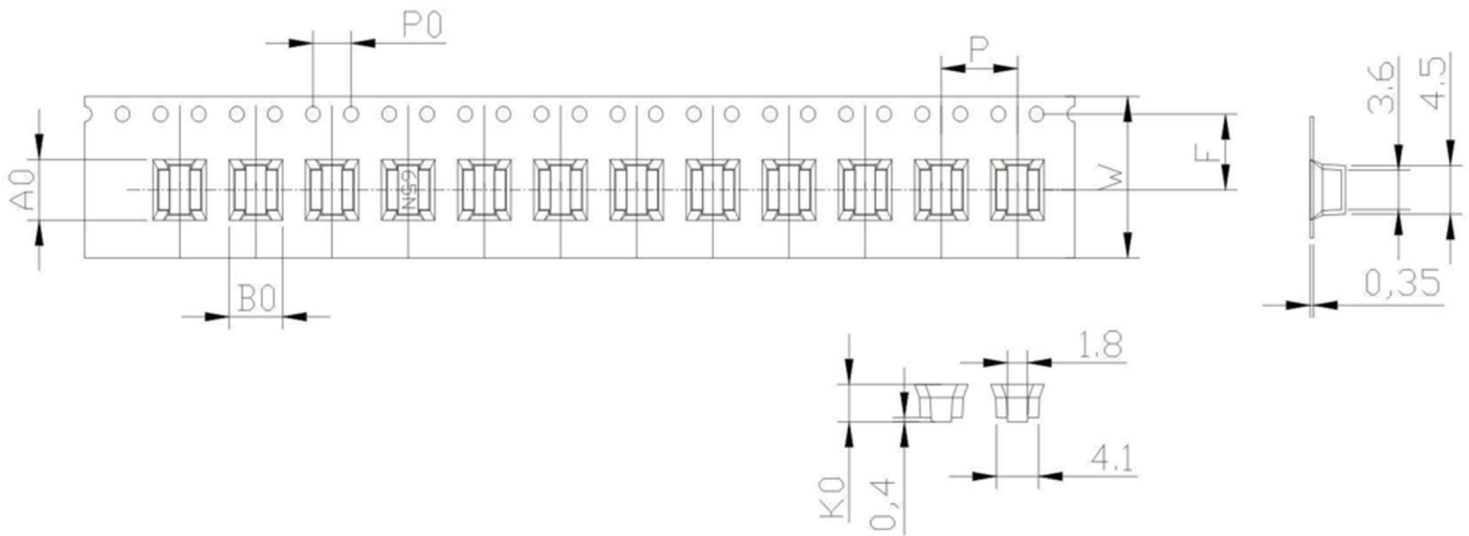
Specifications AWSIHC1000808

Part Number	Inductance (nH) 100LH/1V	DCR(mΩ) @25°C	I-sat1 (Typ) (A) 80% L0@25°C	I-sat2 (Typ) (A) 80% L0@100°C	I-DC (Typ) (A) ΔT40°C
AWSIHC100808-R10L-R18	100±15%	0.18 ± 5%	100+	100	70
AWSIHC100808-R12L-R18	120±15%		94	84	
AWSIHC100808-R15L-R18	150±15%		79	64	
AWSIHC100808-R17L-R18	170±15%		68	55	
AWSIHC100808-R18L-R18	180±15%		64	50	
AWSIHC100808-R22L-R18	220±15%		60	45	
AWSIHC100808-R40L-R18	400±15%		21	16	
AWSIHC100808-R15L-R15	150±15%	0.15 ± 5%	80	65	75
AWSIHC100808-R17L-R15	170±15%		72	56	
AWSIHC100808-R18L-R15	180±15%		70	55	

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	Ao(mm)	Bo(mm)	Lo(mm)	P(mm)	T(mm)	W(mm)	PCS/RE EL	c
AWSIHC106580	6.6 ± 0.1	9.8 ± 0.1	8.1 ± 0.1	12.0 ± 0.1	0.5 ± 0.05	16.0 ± 0.3	600	4.00
AWSIHC100808	8.2 ± 0.1	10.2 ± 0.1	8.5 ± 0.1	12.0 ± 0.1	0.5 ± 0.05	24.0 ± 0.3	600	4.06