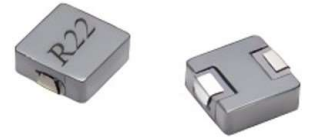


High Current Power Inductors AWS-05XX Series



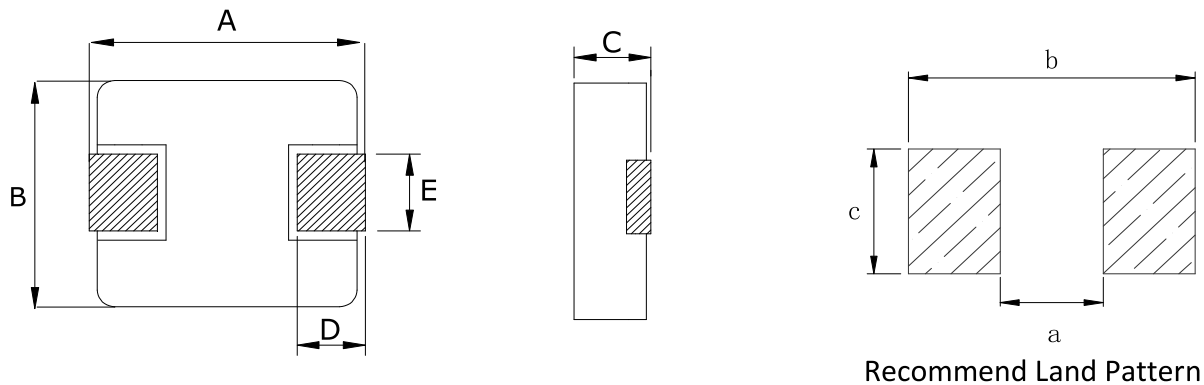
Product features

- DC-DC converter work frequency up to 5MHz
- Soft saturation. Low EMI.
- High current, low DCR, high efficiency.
- Current range from 1.5A to 45A
- Inductance range from 0.10μH to 22μH.
- High reliability.
- 100% Lead (Pb)-Free and RoHS compliant.
- Operating temperature -55~+125°C (Including self - temperature rise)

Applications

- Note PC power system, server VRMs and EVRDs.
- DC/DC converter, Electric pumps, motor control and auxiliaries.
- Data networking and storage system.
- LED lighting/Battery management systems/Powertrain control module

Dimensions (mm) AWS-0520



A	B	C	D	E	a typ	b typ	c typ
5.7±0.3	5.2±0.2	1.8±0.2	1.2±0.2	2.0±0.3	2.2	6	2.5

Recommend Land Pattern Unit: mm

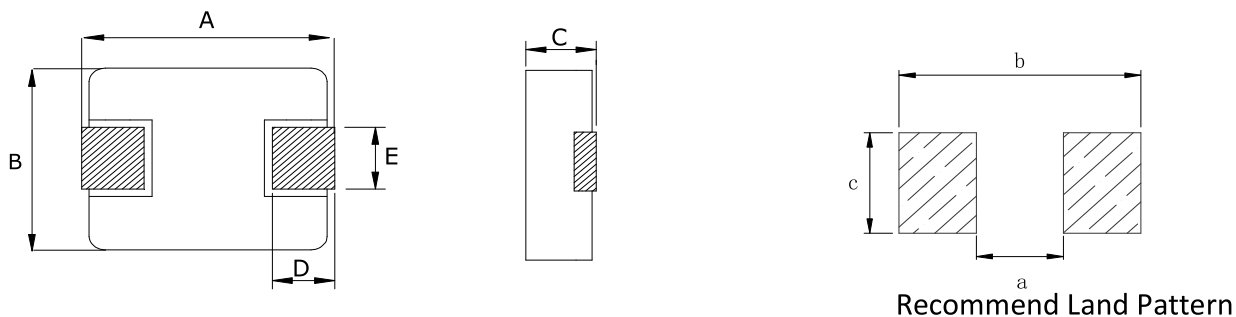
Specifications AWS-0520

Part Number	Inductance ² ±20% (μH)	I _{rms} ³ (A)	I _{sat} ⁴ (A)	DCR MAX (mΩ)
AWS-YTP0520-R10M	0.10	18	45	4.0
AWS-YTP0520-R15M	0.15	16	27	4.6
AWS-YTP0520-R22M	0.22	15	25	5.5
AWS-YTP0520-R33M	0.33	12	21.3	7.3
AWS-YTP0520-R47M	0.47	11.5	18	8.6
AWS-YTP0520-R68M	0.68	10	12.8	12.4
AWS-YTP0520-1R0M	1.0	7	13.7	20
AWS-YTP0520-1R5M	1.5	5.5	9.8	30.5
AWS-YTP0520-2R2M	2.2	4.2	9	50
AWS-YTP0520-3R3M	3.3	3.3	7.3	76
AWS-YTP0520-4R7M	4.7	2.8	5	116
AWS-YTP0520-6R8M	6.8	2.4	3.8	150
AWS-YTP0520-8R2M	8.2	2.3	3.5	171
AWS-YTP0520-100M	10	2.3	3.4	199
AWS-YTP0520-150M	15	1.9	2.8	270
AWS-YTP0520-220M	22	1.5	1.8	390

Notes:

1. All test data is reference to 25°C ambient.
2. Test Condition:100KHz,1.0Vrms.
3. I_{dc}: DC current (A) that will cause an approximate ΔT of 40°C
4. I_{sat} : DC current (A) that will cause L0 to drop approximately 30%
5. Operate between temperature range -55°C to +125°C
6. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component. PWB trace size and thickness, airflow and other cooling procession all affect the part temperature. Part temperature should be verified in the den application.

Dimensions (mm) AWS-0530



A	B	C	D	E	a typ	b typ	c typ
5.7±0.3	5.2±0.2	2.8±0.2	1.2±0.2	2.0±0.3	2.2	6	2.5

Specifications

Part Number	Inductance ² ±20% (μH)	I _{rms} ³ (A)	I _{sat} ⁴ (A)	DCR MAX (mΩ)
AWS-YTP0530-R22M	0.22	15.5	21	4.4
AWS-YTP0530-R33M	0.33	14	18	5
AWS-YTP0530-R47M	0.47	12	16	7.4
AWS-YTP0530-R68M	0.68	8.5	14	12
AWS-YTP0530-R82M	0.82	8	12.5	13
AWS-YTP0530-1R0M	1.0	7	11	14
AWS-YTP0530-1R5M	1.5	6	10	25
AWS-YTP0530-2R2M	2.2	5.5	9	35
AWS-YTP0530-3R3M	3.3	5	8	38
AWS-YTP0530-4R7M	4.7	4.6	6	53
AWS-YTP0530-5R6M	5.6	4.25	4.5	63
AWS-YTP0530-6R8M	6.8	4	4.3	76.2
AWS-YTP0530-100M	10	2.75	3.5	128
AWS-YTP0530-150M	15	2.1	2.6	190
AWS-YTP0530-220M	22	1.9	1.7	250