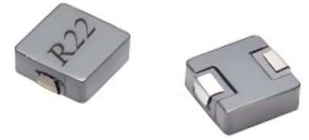


High Current Power Inductors AWS-06XX Series



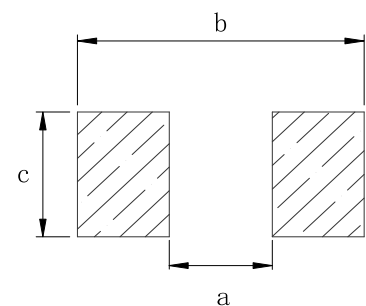
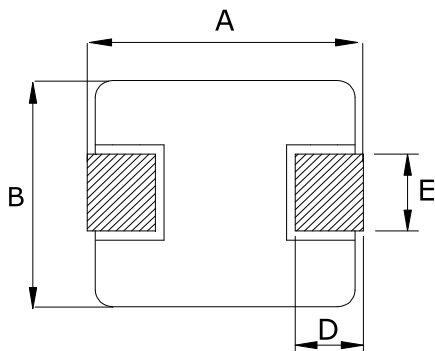
Product features

- DC-DC converter work frequency up to 5MHz
- Soft saturation. Low EMI.
- High current, low DCR, high efficiency.
- Current range from 1.75A to 60A
- Inductance range from 0.10μH to 47μH.
- 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-YTP0618



Recommend Land Pattern

A	B	C	D	E	a typ	b typ	c typ
7.3±0.3	6.6±0.3	1.6±0.2	1.6±0.3	3.0±0.3	3.7	8.4	3.5

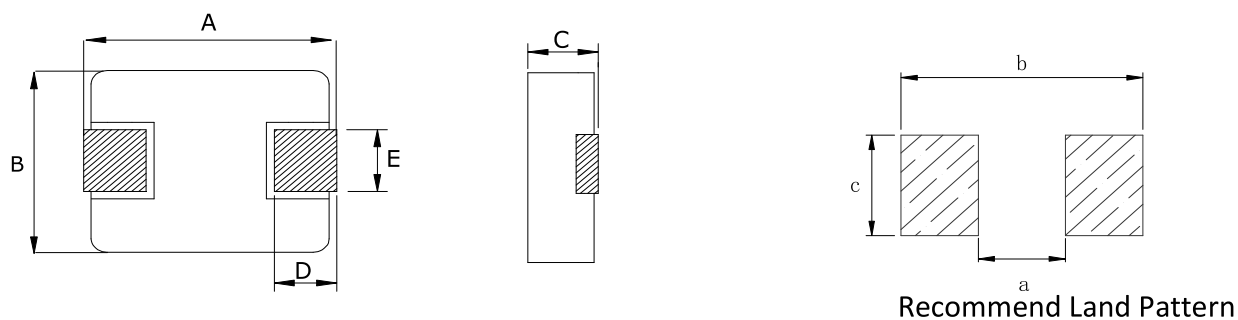
Specifications AWS-YTP0618

Part Number	Inductance ² ±20% (μH)	I _{rms} ³ (A)	I _{sat} ⁴ (A)	DCR MAX (mΩ)
AWS-YTP0618-R22M	0.22	16	26	3
AWS-YTP0618-R33M	0.33	14	22	5.8
AWS-YTP0618-R47M	0.47	12	18	7.4
AWS-YTP0618-R68M	0.68	10	17	11
AWS-YTP0618-R82M	0.82	8.5	15.5	14
AWS-YTP0618-1R0M	1.0	7	14	17
AWS-YTP0618-1R5M	1.5	6	13	25.2
AWS-YTP0618-2R2M	2.2	6	11	35
AWS-YTP0618-3R3M	3.3	5	9	46
AWS-YTP0618-4R7M	4.7	4	7	76
AWS-YTP0618-6R8M	6.8	3	5.5	104
AWS-YTP0618-100M	10	2.3	3.5	160

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-YTP0624

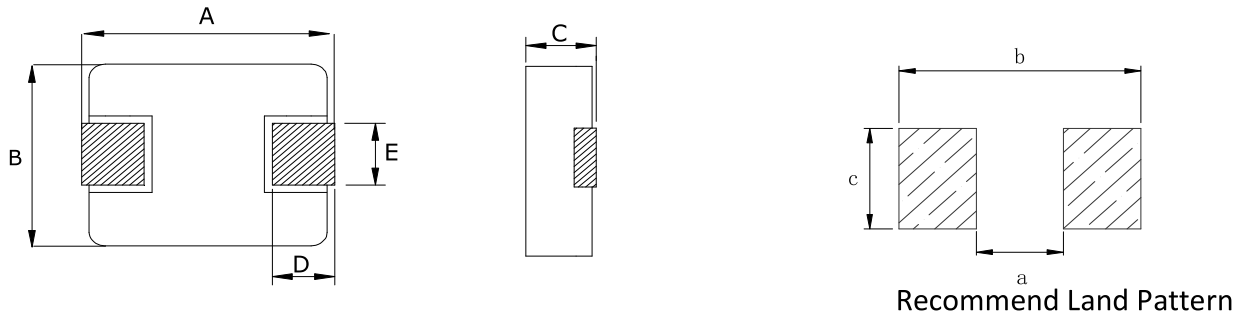


A	B	C	D	E	a typ	b typ	c typ
7.3±0.3	6.6±0.3	2.2±0.2	1.6±0.3	3.0±0.3	3.7	8.4	3.5

Specifications

Part Number	Inductance ² ±20% (μH)	I _{rms} ³ (A)	I _{sat} ⁴ (A)	DCR MAX (mΩ)
AWS-YTP0624-R15M	0.15	30	45	2.3
AWS-YTP0624-R22M	0.22	21	34	3.2
AWS-YTP0624-R33M	0.33	18	30	4.4
AWS-YTP0624-R47M	0.47	15	26	5.1
AWS-YTP0624-R68M	0.68	13	21	7.2
AWS-YTP0624-R82M	0.82	11	17	9.5
AWS-YTP0624-1R0M	1.0	10	16	13.5
AWS-YTP0624-1R5M	1.5	9	15	20
AWS-YTP0624-2R2M	2.2	7	14	28
AWS-YTP0624-3R3M	3.3	6	10	39
AWS-YTP0624-4R7M	4.7	5.5	9	50
AWS-YTP0624-6R8M	6.8	4	7	72
AWS-YTP0624-100M	10	3.2	5	101

Dimensions (mm) AWS-YTP0630

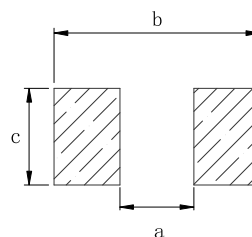
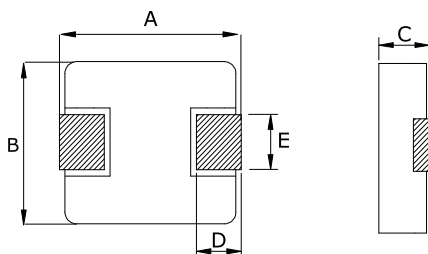


A	B	C	D	E	a typ	b typ	c typ
7.3±0.3	6.6±0.3	2.8±0.2	1.6±0.3	3.0±0.3	3.7	8.4	3.5

Specifications

Part Number	Inductance ² ±20% (μH)	I _{rms} ³ (A)	I _{sat} ⁴ (A)	DCR MAX (mΩ)
AWS-YTP0630-R10N	0.1±30%	32.5	60	1.7
AWS-YTP0630-R15M	0.15	27	45	1.9
AWS-YTP0630-R22M	0.22	23	40	2.8
AWS-YTP0630-R33M	0.33	20.0	32.0	3.9
AWS-YTP0630-R47M	0.47	17.5	26.0	4.2
AWS-YTP0630-R56M	0.56	16.5	25.5	5.0
AWS-YTP0630-R68M	0.68	15.5	25.0	5.5
AWS-YTP0630-R82M	0.82	13.0	24.0	8
AWS-YTP0630-1R0M	1.0	11.0	22.0	10
AWS-YTP0630-1R5M	1.5	9.0	18.0	15.0
AWS-YTP0630-2R2M	2.2	8.0	14.0	20.0
AWS-YTP0630-3R3M	3.3	6.0	13.5	30
AWS-YTP0630-4R7M	4.7	5.5	10.0	40
AWS-YTP0630-5R6M	5.6	5.0	9.0	48
AWS-YTP0630-6R8M	6.8	4.5	8.0	60
AWS-YTP0630-8R2M	8.2	4.0	7.5	68.0
AWS-YTP0630-100M	10	3.5	6.0	85
AWS-YTP0630-150M	15	3	4	123
AWS-YTP0630-220M	22	2	3.5	190
AWS-YTP0630-330M	33	2	2.5	240
AWS-YTP0630-470M	47	1.75	2	363

Dimensions (mm) AWS-0650



Recommend Land Pattern

A	B	C	D	E	a typ	b typ	c typ
7.3±0.3	6.6±0.3	4.8±0.2	1.6±0.3	3.0±0.3	3.7	8.4	3.5

Specifications

Part Number	Inductance ² ±20% (μH)	I _{rms} ³ (A)	I _{sat} ⁴ (A)	DCR MAX (mΩ)
AWS-0650-R20S1MTF	0.20	32.00	50.00	1.20
AWS-0650-R22S1MTF	0.22	30.00	50.00	1.40
AWS-0650-R24S2MTF	0.24	40.00	50.00	0.87±7%
AWS-0650-R36S1MTF	0.36	16.50	35.00	3.50
AWS-0650-R40S1MTF	0.40	16.00	27.00	3.80
AWS-0650-R47S1MTF	0.47	15.50	30.00	3.90
AWS-0650-R56S1MTF	0.56	15.00	22.00	4.20
AWS-0650-R68S1MTF	0.68	14.00	21.00	4.80
AWS-0650-R82S1MTF	0.82	13.50	20.00	6.00
AWS-0650-1R0S1MTF	1.00	13.00	18.00	6.50
AWS-0650-1R2S1MTF	1.20	12.00	13.00	7.50
AWS-0650-1R5S1MTF	1.50	10.00	12.00	8.50
AWS-0650-2R2S1MTF	2.20	9.00	15.00	13.60
AWS-0650-3R3S1MTF	3.30	7.00	13.00	20.90
AWS-0650-4R7S1MTF	4.70	6.00	12.00	28.00
AWS-0650-5R6S1MTF	5.60	5.50	11.00	34.40
AWS-0650-6R8S1MTF	6.80	5.00	10.00	43.00
AWS-0650-8R2S1MTF	8.20	4.50	9.00	49.00
AWS-0650-100S1MTF	10.00	4.10	8.00	60.00
AWS-0650-120S1MTF	12.00	3.90	7.00	65.00
AWS-0650-150S1MTF	15.00	3.40	6.00	85.00
AWS-0650-180S1MTF	18.00	3.00	5.00	95.00
AWS-0650-220S1MTF	22.00	2.60	4.50	140.00
AWS-0650-330S1MTF	33.00	2.30	4.00	185.00
AWS-0650-470S1MTF	47.00	1.80	3.50	280.00