

High Current Power Inductors AWIM05XX Series



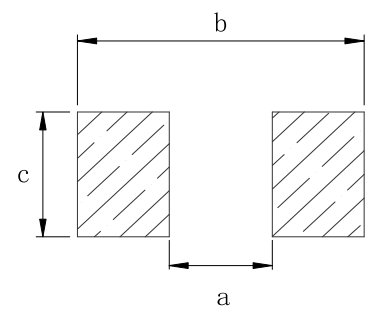
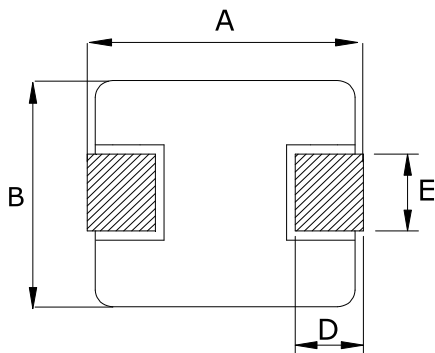
Product features

- DC-DC converter work frequency up to 1MHz
- Soft saturation. Low EMI.
- High current, low DCR, high efficiency.
- Current range from 1.8A to 30A
- Inductance range from 0.10μH to 15μH.
- 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) AWIM0512



Recommend Land

Pattern

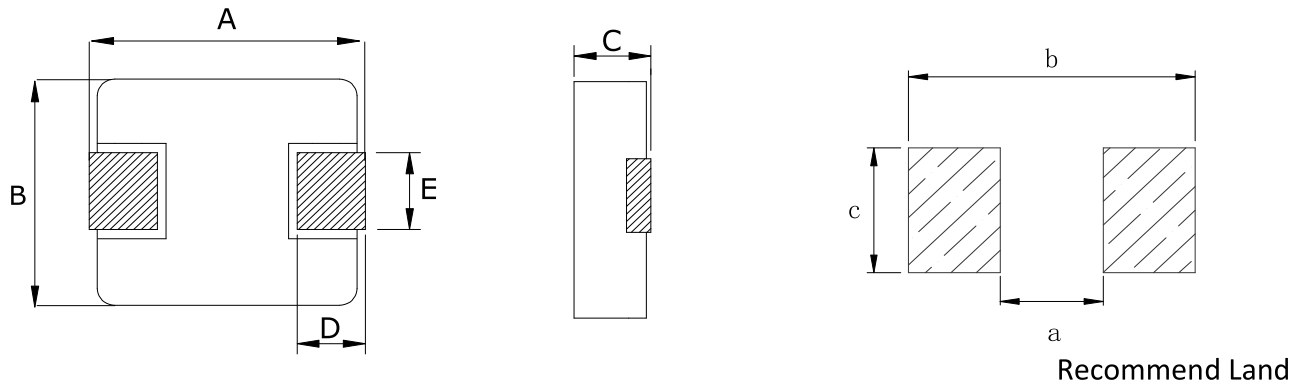
A	B	C	D	E	a typ	b typ	c typ
5.4±0.35	5.2±0.25	1.2 MAX	1.1±0.3	2.5±0.3	2.2	5.99	2.5

Specifications AWIM0512

Part Number	Inductance ² ±20% (μH)	I _{rms} ³ (A)	I _{sat} ⁴ (A)	DCR MAX (mΩ)
AWIM0512-1R0MTF	1.00	8.00	6.00	30.00
AWIM0512-1R5MTF	1.50	5.00	4.60	44.00
AWIM0512-2R2MTF	2.20	4.60	4.10	53.00
AWIM0512-3R3MTF	3.30	4.00	3.80	69.00

- 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) AWIM0515



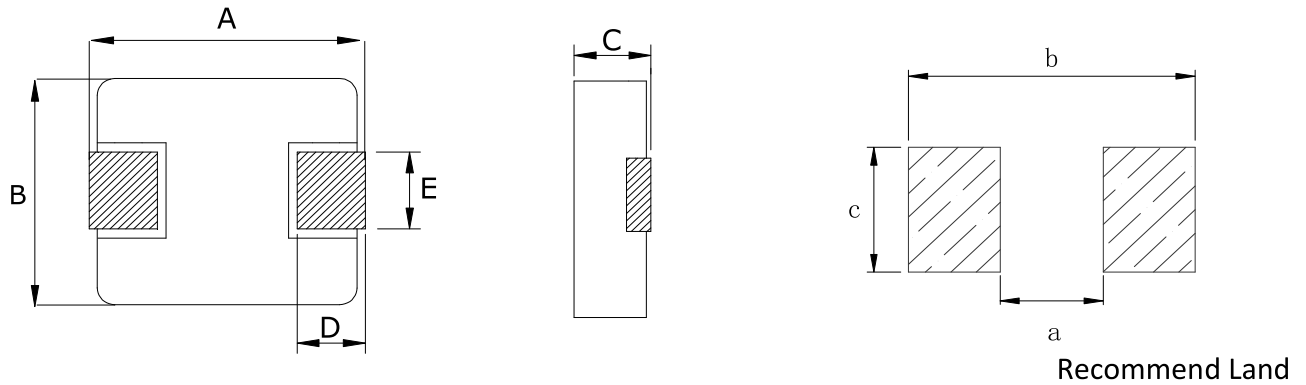
Pattern

A	B	C	D	E	a typ	b typ	c typ
5.4±0.35	5.2±0.25	1.5 MAX	1.2±0.2	2.2±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)
AWIM0515-R12MTF	0.12	28.00	16.00	3.70
AWIM0515-R33MTF	0.33	16.00	12.00	6.50
AWIM0515-R47MTF	0.47	9.00	13.00	13.00
AWIM0515-R56MTF	0.56	9.60	8.70	13.50
AWIM0515-R68MTF	0.68	10.00	9.60	16.00
AWIM0515-1R0MTF	1.00	6.50	9.00	23.00
AWIM0515-1R2MTF	1.20	7.00	6.50	26.50
AWIM0515-1R5MTF	1.50	7.00	5.50	32.00
AWIM0515-2R2MTF	2.20	4.50	6.00	46.00
AWIM0515-3R3MTF	3.30	5.00	3.50	72.00
AWIM0515-4R7MTF	4.70	2.70	4.00	117.00
AWIM0515-6R8MTF	6.80	2.30	3.00	170.00
AWIM0515-100MTF	10.00	2.30	2.00	195.00

Dimensions (mm) AWIM-YTA0518



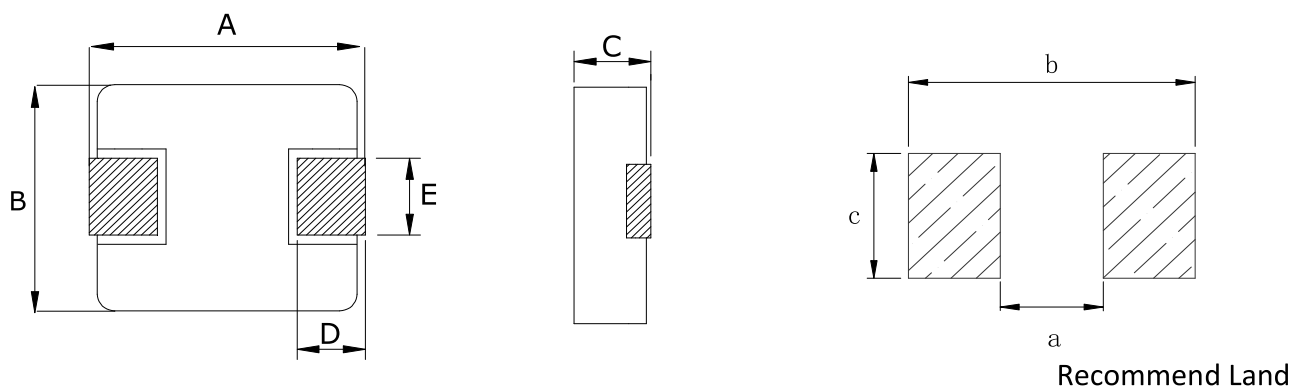
Pattern

A	B	C	D	E	a typ	b typ	c typ
5.4±0.35	5.2±0.25	1.8 MAX	1.2±0.2	2.2±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)
AWIM-YTA0518-R47M	0.47	10.5	15.5	9
AWIM-YTA0518-R56M	0.56	9.5	15	10
AWIM-YTA0518-R68M	0.68	8.9	11.2	13.8
AWIM-YTA0518-1R0M	1.0	8.0	9.0	17
AWIM-YTA0518-1R5M	1.5	7.5	8	26
AWIM-YTA0518-2R2M	2.2	5.0	6.5	35
AWIM-YTA0518-3R3M	3.3	4.5	5	58
AWIM-YTA0518-4R7M	4.7	3.5	4.0	85
AWIM-YTA0518-6R8M	6.8	2.8	3.4	120
AWIM-YTA0518-100M	10	2.5	3	155

Dimensions (mm) AWIM0520



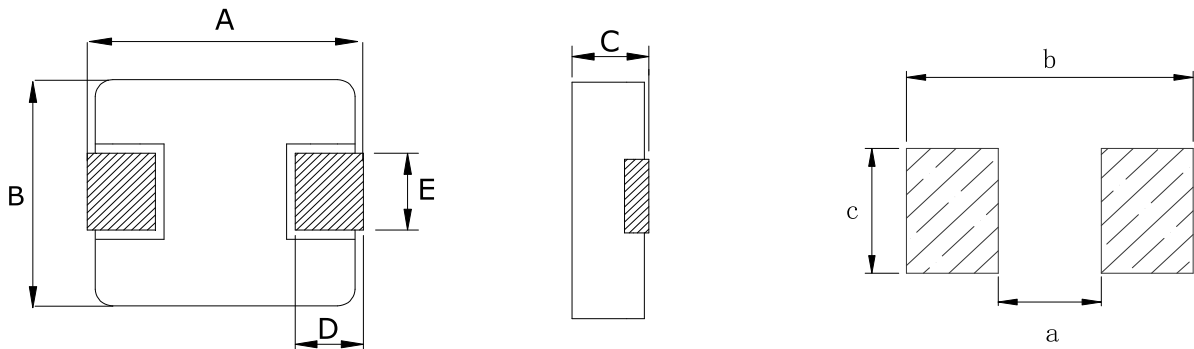
Pattern

A	B	C	D	E	a typ	b typ	c typ
5.4±0.35	5.2±0.20	2.0 MAX	1.1±0.3	2.3±0.3	2.2	5.99	2.5

Specifications

Part Number	Inductance ² ±20% (μH)	I _{rms} ³ (A)	I _{sat} ⁴ (A)	DCR MAX (mΩ)
AWIM0520-R47MTF	0.47	10.50	15.50	9.00
AWIM0520-R56MTF	0.56	9.50	15.00	10.00
AWIM0520-R68MTF	0.68	8.00	14.00	13.00
AWIM0520-1R0MTF	1.00	7.50	9.50	20.00
AWIM0520-1R5MTF	1.50	6.00	8.00	28.00
AWIM0520-2R2MTF	2.20	5.00	7.00	36.00
AWIM0520-3R3MTF	3.30	4.50	5.00	52.00
AWIM0520-4R7MTF	4.70	3.50	4.50	78.00
AWIM0520-5R6MTF	5.60	3.00	3.50	95.00
AWIM0520-6R8MTF	6.80	2.80	3.40	120.00
AWIM0520-8R2MTF	8.20	2.60	3.10	145.00
AWIM0520-100MTF	10.00	2.50	3.00	170.00

Dimensions (mm) AWIM0530



Recommend Land

Pattern

A	B	C	D	E	a typ	b typ	c typ
5.4±0.35	5.2±0.20	3.0 MAX	1.1±0.3	2.3±0.3	2.2	5.99	2.5

Specifications

Part Number	Inductance ² ±20% (μH)	I _{rms} ³ (A)	I _{sat} ⁴ (A)	DCR MAX (mΩ)
AW-YTA0530-R10M	0.1	25	30	3.0
AWIM0530-R22MTF	0.22	13.00	20.00	5.20
AWIM0530-R33MTF	0.33	14.90	16.50	6.00
AWIM0530-R47MTF	0.47	12.00	16.00	7.40
AWIM0530-R68MTF	0.68	8.50	14.00	12.00
AWIM0530-R75MTF	0.75	8.00	12.00	13.00
AWIM0530-1R0MTF	1.00	7.00	11.00	14.00
AWIM0530-1R2MTF	1.20	6.50	11.00	16.00
AWIM0530-1R5MTF	1.50	6.00	10.00	25.00
AWIM0530-2R2MTF	2.20	5.50	9.00	35.00
AWIM0530-3R3MTF	3.30	5.00	7.00	38.00
AWIM0530-4R7MTF	4.70	4.00	5.00	60.00
AWIM0530-5R6MTF	5.60	4.00	4.50	63.00
AWIM0530-6R8MTF	6.80	4.00	4.30	76.00
AWIM0530-8R2MTF	8.20	3.25	4.00	105.00
AWIM0530-100MTF	10.00	2.75	3.50	128.00
AWIM0530-150MTF	15.00	1.80	2.50	165.00