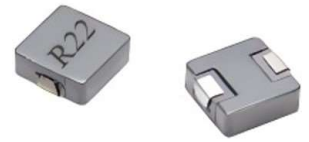


## High Current Power Inductors AWS-0420 Series



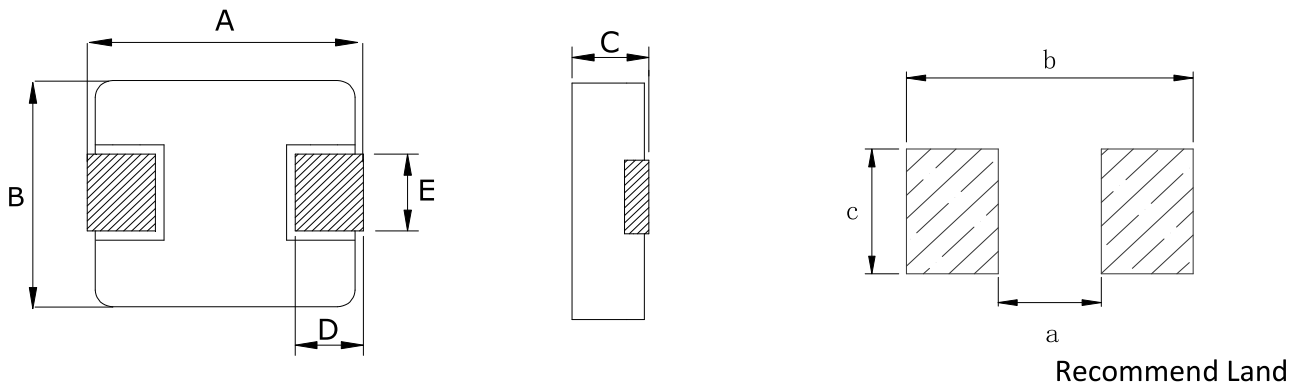
### Product features

- DC-DC converter work frequency up to 5MHz
- Soft saturation. Low EMI.
- High current, low DCR, high efficiency.
- Current range from 1.6A to 14A
- Inductance range from 0.47 $\mu$ H to 10 $\mu$ H.
- 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-0420



### Pattern

A	B	C	D	E	a typ	b typ	c typ
4.75 $\pm$ 0.20	4.2 $\pm$ 0.25	2.0 MAX	0.8 $\pm$ 0.3	2.0 $\pm$ 0.3	2.2	5.2	2.5

## Specifications AWS-0420

Part Number	Inductance <sup>2</sup> ±20% (μH)	I <sub>rms</sub> <sup>3</sup> (A)	I <sub>sat</sub> <sup>4</sup> (A)	DCR MAX (mΩ)
AWS0420-R47S1MTF	0.47	7.00	14.00	14.00
AWS0420-R68S1MTF	0.68	5.20	10.00	21.00
AWS0420-1R0S1MTF	1.00	4.50	11.00	27.00
AWS0420-1R5S1MTF	1.50	4.00	7.50	42.00
AWS0420-2R2S1MTF	2.20	3.00	6.50	58.00
AWS0420-4R7S1MTF	4.70	2.20	4.50	110.00
AWS0420-6R8S1MTF	6.80	2.00	3.50	165.00
AWS0420-100S1MTF	10.00	1.60	3.00	210.00

### Notes:

1. All test data is reference to 25°C ambient.
2. Test Condition:100KHz,1.0Vrms.
3. I<sub>dc</sub>: DC current (A) that will cause an approximate ΔT of 40°C
4. I<sub>sat</sub> : 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.