Power Inductors

HA72L-0420 Series

Features:

- Operating Temperature Range –55°C to +155°C
- Ambient Temperature, Maximum +115°C
- Temperature Rise, 40°C
- RoHS Compliant
- AEC-Q200 Certified

Description:

HA72L series molded inductors are designed with the latest composite molded core materials to maximize inductance, temperature performance and saturation current while minimizing DC resistance and physical size. The result is a compact, surface mount component that operates in demanding environments with saturation currents up to 80 amps. It is mechanically robust, magnetically shielded and resists corrosion in humid environments.

The HA72L series has been designed as a 155°C high temperature rated molded inductor for high stress environments that require high current saturation levels. It is ideal for high power density applications where size is critical and AEC-Q200 performance is certified.

They are also ideal for high efficiency DC-DC converters using high switching frequencies to 3 MHz as well as EMI and low pass DC ripple filters in high temperature environments. Molded inductors deliver clean power in a small, lightweight surface mount package. AEC-Q200 certification assures performance and reliability levels that automotive applications demand.

Applications:

- Transportation
  - Lighting
  - Engine Control
  - Transmission control
  - Powertrain
  - Braking
  - Electric power steering

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Electrical Specifications

Part Number	(1) Inductance (µH ±20%) @0A	DCR (mΩ) Typ	DCR (mΩ) Max	SRF (MHz) Ref	(2) Irms (A)	(3) Isat (A)
HA72L-0420R10LFTR	0.10	3.5	4.0	296	20.0	22.0
HA72L-0420R22LFTR	0.22	6.0	6.6	159	15.0	12.5
HA72L-0420R33LFTR	0.33	9.6	13.0	115	13.0	12.0
HA72L-0420R47LFTR	0.47	12.5	14.0	156	10.0	9.5
HA72L-0420R56LFTR	0.56	14.0	16.0	80	9.0	10.0
HA72L-0420R68LFTR	0.68	16.0	18.0	71	9.0	9.0
HA72L-04201R0LFTR	1.00	24.0	27.0	50	6.5	7.0
HA72L-04201R2LFTR	1.20	24.0	27.0	54	6.5	7.0
HA72L-04201R5LFTR	1.50	38.0	46.0	50	5.0	6.0
HA72L-04202R2LFTR	2.20	52.0	58.0	38	5.0	5.0
HA72L-04203R3LFTR	3.30	74.0	87.0	29	4.0	4.0
HA72L-04204R7LFTR	4.70	98.0	110.0	21	3.6	3.5
HA72L-04205R6LFTR	5.60	105.0	115.0	19	3.3	3.0
HA72L-04206R8LFTR	6.80	160.0	175.0	18	2.6	2.5
HA72L-0420100LFTR	10.0	256.0	282.0	14	2.0	2.2

Notes: (1) Test condition is 100kHz 1V

(2) Irms is the approximate current at which ΔT = 40°C

(3) Isat is the saturation current at which inductance rolls off approximately 30% from its initial (zero DC) value,

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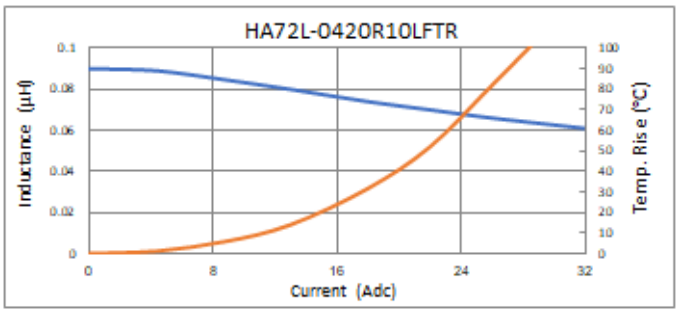
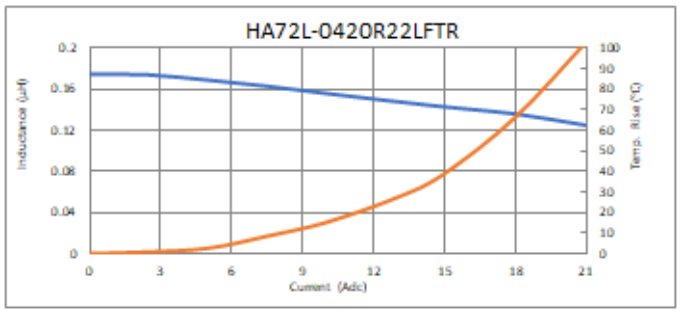
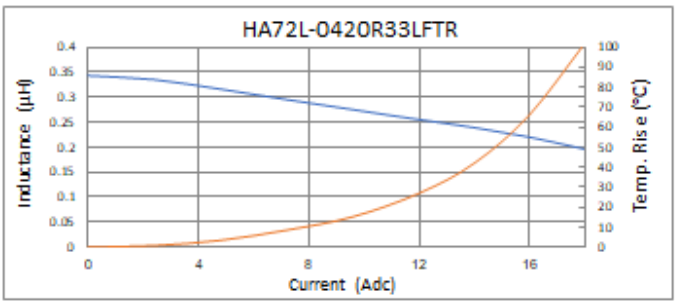
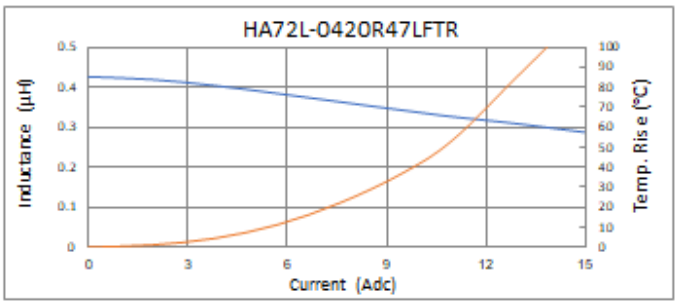
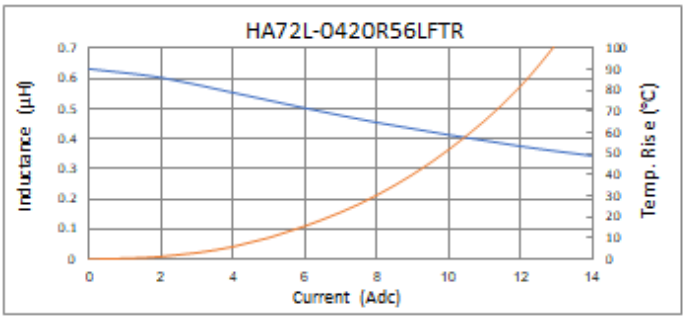
Performance

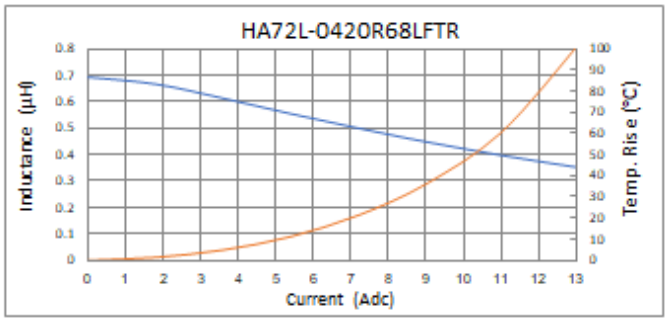


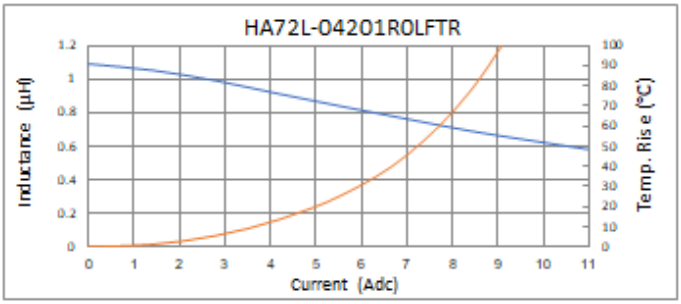


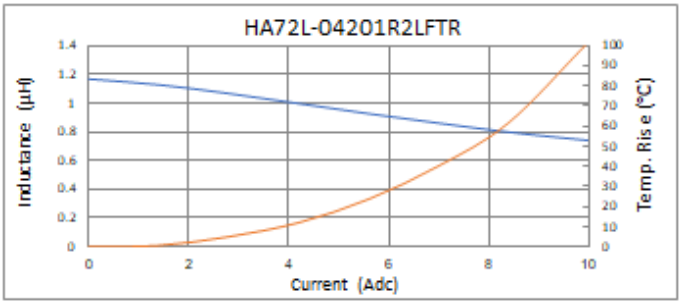












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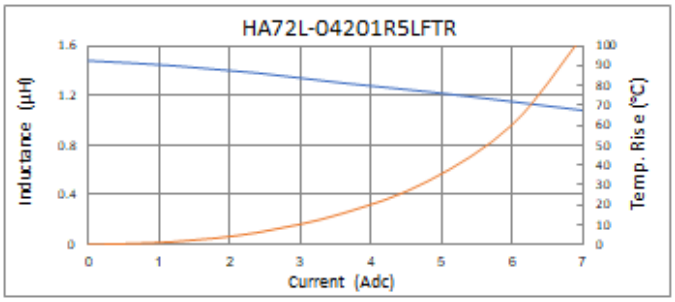

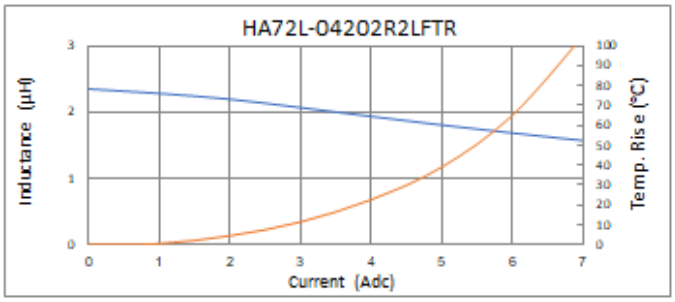

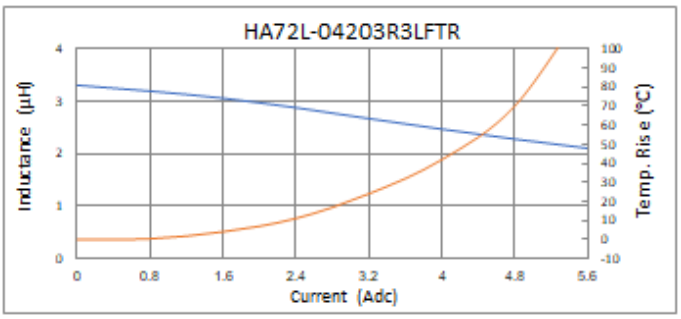

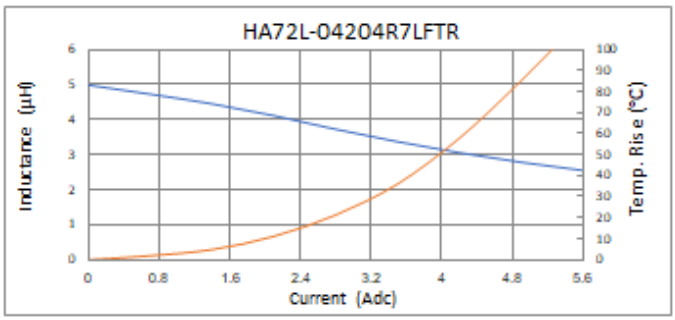

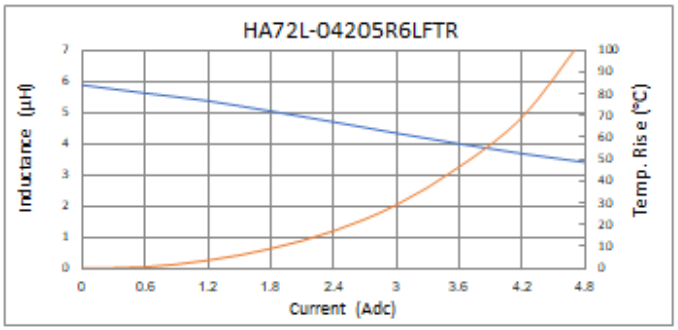

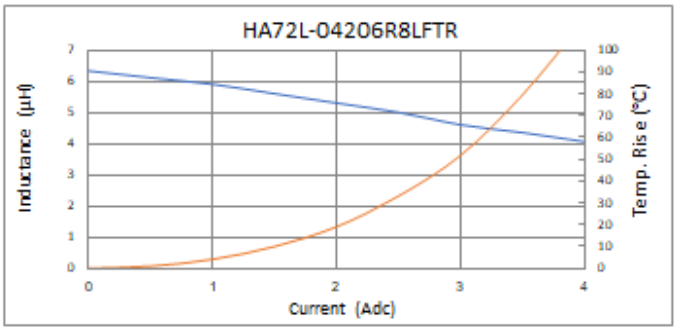

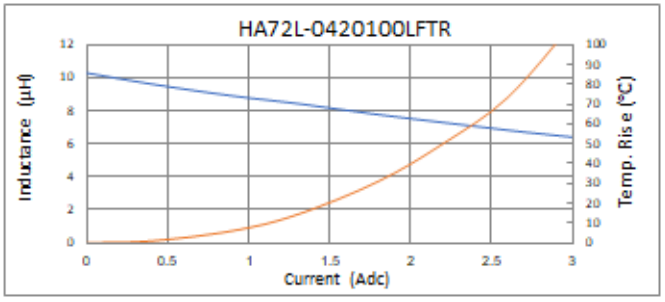

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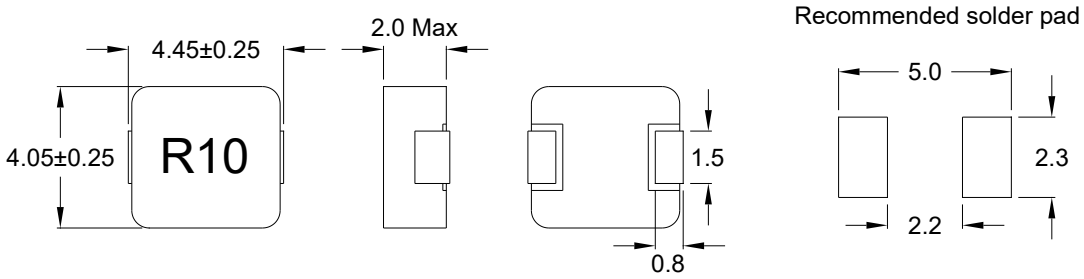
Outline Dimensions (mm)



Ordering Information

HA72L — XXXX YYY LF TR

- Case Size
- Inductance Code
- Tape & Reel Packing (2000 units per 13” reel)
- Lead Free (LF)

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