PRECISION INCORPORATED

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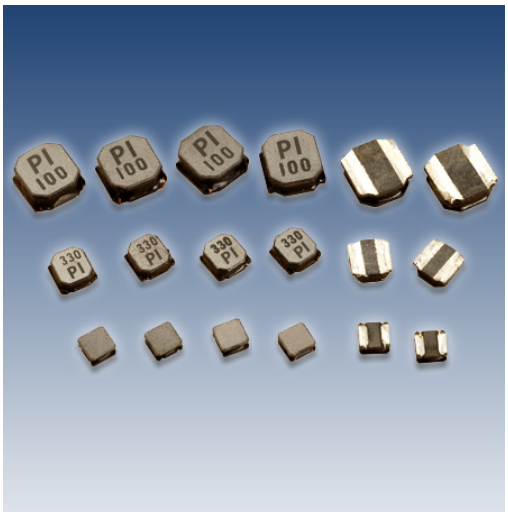


# LSMS-12120 Series
## Shielded SMD Power Inductor

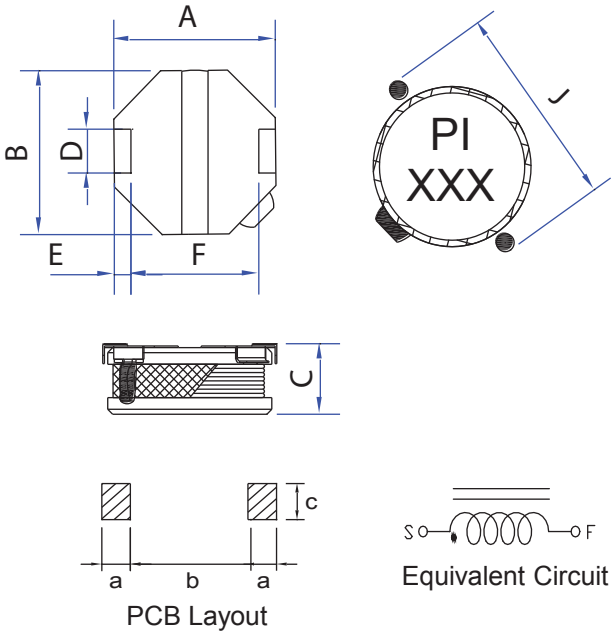
**Features:**

- RoHS Compliant
- Surface Mount
- Low Radiated Field Due to Shielded Design
- High DC Current Bias Capability
- 120 Degree C Rating (ambient plus rise)
- Used for Output and EMI Inductor Applications
- Very Low Profiles Available

## Applications:

- LCD TV, Touch Panel, & Monitor
- STB & Smart Phone
- Game Console & Other Electronic Devices

## Physical Dimension




PCB Layout

Equivalent Circuit

(Unit: mm)

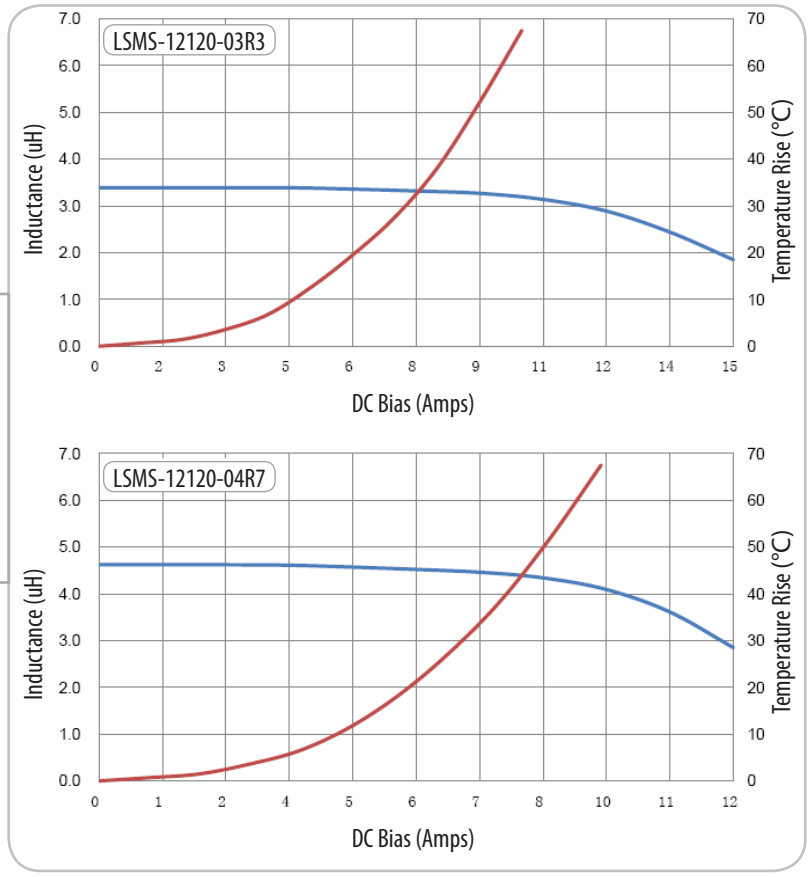
| Part Number | A Max | B Max | C Max | D Ref | E Ref | F Ref | J Max | a ref | b ref | c ref |
|---|---|---|---|---|---|---|---|---|---|---|
| LSMS-12120 | 12.5 | 12.5 | 6.0 | 5.0 | 2.0 | 7.6 | 17.5 | 2.9 | 7.0 | 5.4 |

## Electrical

| Precision Model Number | Inductance L0 100KHz/1.0V | DCR @ 25°C, Max | I-sat ≥80%L0 Note 1 | I-rms ΔT≤40°C Note 2 |
|---|---|---|---|---|
| LSMS-12120-03R3 | 3.3uH ± 30% | 15.0 mΩ | 10.0 Amps | 7.8 Amps |
| LSMS-12120-04R7 | 4.7uH ± 30% | 16.0 mΩ | 9.5 Amps | 7.5 Amps |
| LSMS-12120-05R6 | 5.6uH ± 30% | 18.0 mΩ | 9.0 Amps | 7.2 Amps |
| LSMS-12120-06R8 | 6.8uH ± 30% | 20.0 mΩ | 8.3 Amps | 7.0 Amps |
| LSMS-12120-08R2 | 8.2uH ± 30% | 24.0 mΩ | 7.4 Amps | 6.5 Amps |
| LSMS-12120-0100 | 10uH ± 20% | 26.0 mΩ | 6.6 Amps | 6.0 Amps |
| LSMS-12120-0120 | 12uH ± 20% | 27.0 mΩ | 6.1 Amps | 5.5 Amps |
| LSMS-12120-0150 | 15uH ± 20% | 35.0 mΩ | 5.3 Amps | 4.8 Amps |
| LSMS-12120-0180 | 18uH ± 20% | 41.0 mΩ | 5.0 Amps | 4.3 Amps |
| LSMS-12120-0220 | 22uH ± 20% | 47.0 mΩ | 4.6 Amps | 3.9 Amps |
| LSMS-12120-0270 | 27uH ± 20% | 58.5 mΩ | 4.0 Amps | 3.6 Amps |
| LSMS-12120-0330 | 33uH ± 20% | 62.5 mΩ | 3.7 Amps | 3.3 Amps |
| LSMS-12120-0390 | 39uH ± 20% | 79.0 mΩ | 3.4 Amps | 3.0 Amps |
| LSMS-12120-0470 | 47uH ± 20% | 93.5 mΩ | 3.0 Amps | 2.7 Amps |
| LSMS-12120-0560 | 56uH ± 20% | 120 mΩ | 2.6 Amps | 2.3 Amps |
| LSMS-12120-0680 | 68uH ± 20% | 136 mΩ | 2.4 Amps | 2.1 Amps |
| LSMS-12120-0820 | 82uH ± 20% | 155 mΩ | 2.2 Amps | 1.9 Amps |
| LSMS-12120-0101 | 100uH ± 20% | 180 mΩ | 2.0 Amps | 1.7 Amps |
| LSMS-12120-0121 | 120uH ± 20% | 212 mΩ | 1.8 Amps | 1.5 Amps |
| LSMS-12120-0151 | 150uH ± 20% | 255 mΩ | 1.6 Amps | 1.3 Amps |

NOTE (1) : Saturation Rated Current that will cause initial inductance value approximately 20% roll off. (Ta=25±5°C)
NOTE (2) : Temperature Rise Current that will cause temperature rise approximate 40°C without core loss. (Ta=25±5°C)

## Electrical curve

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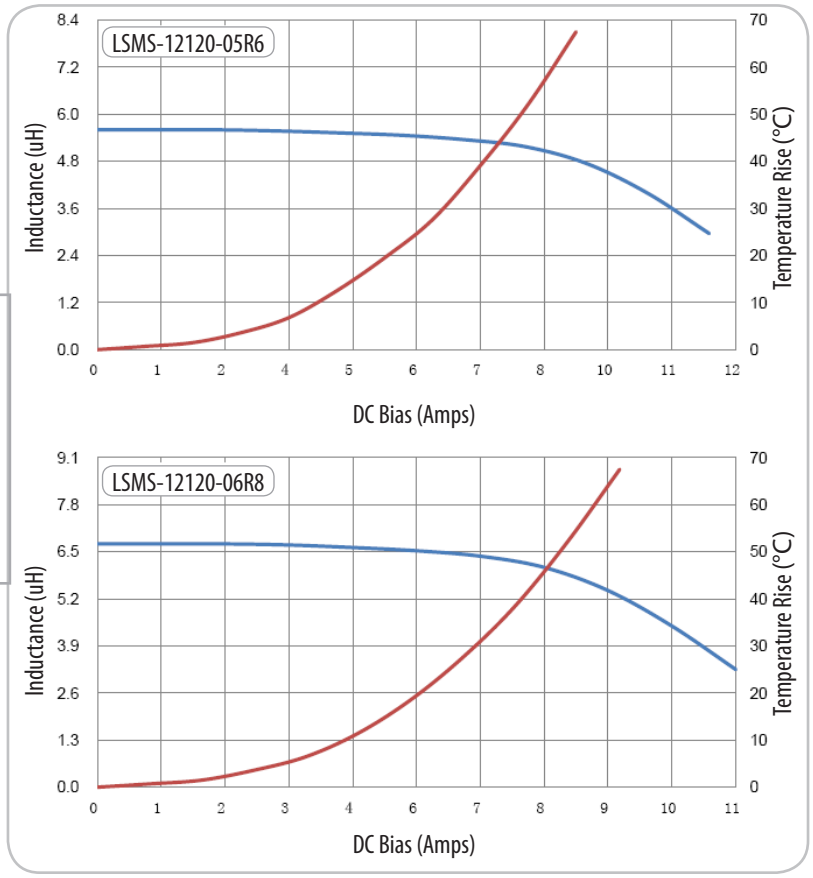


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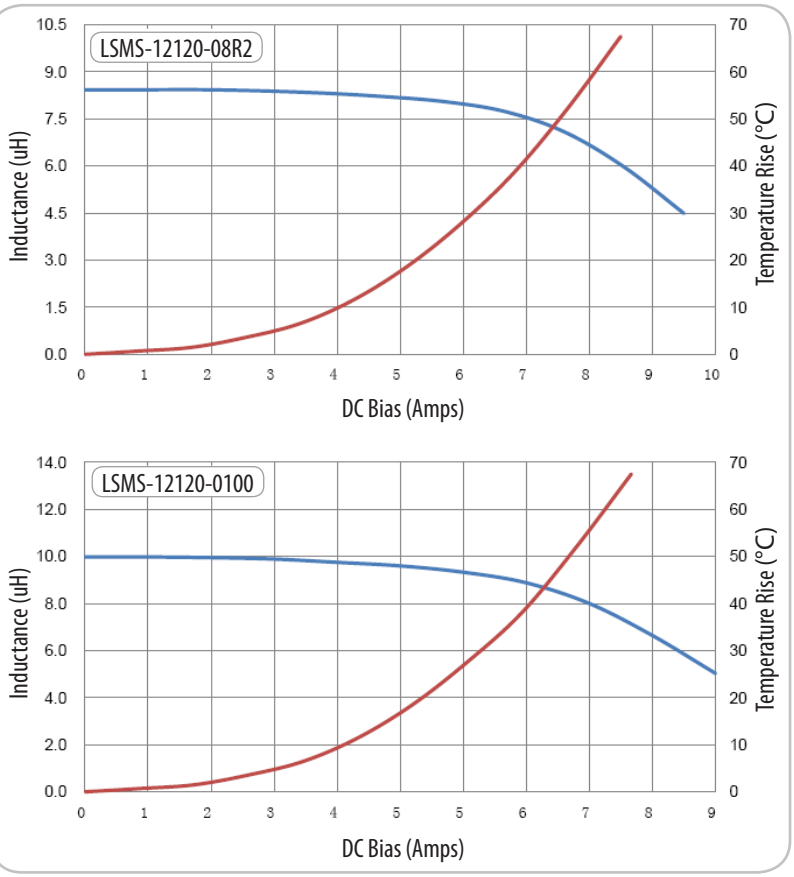


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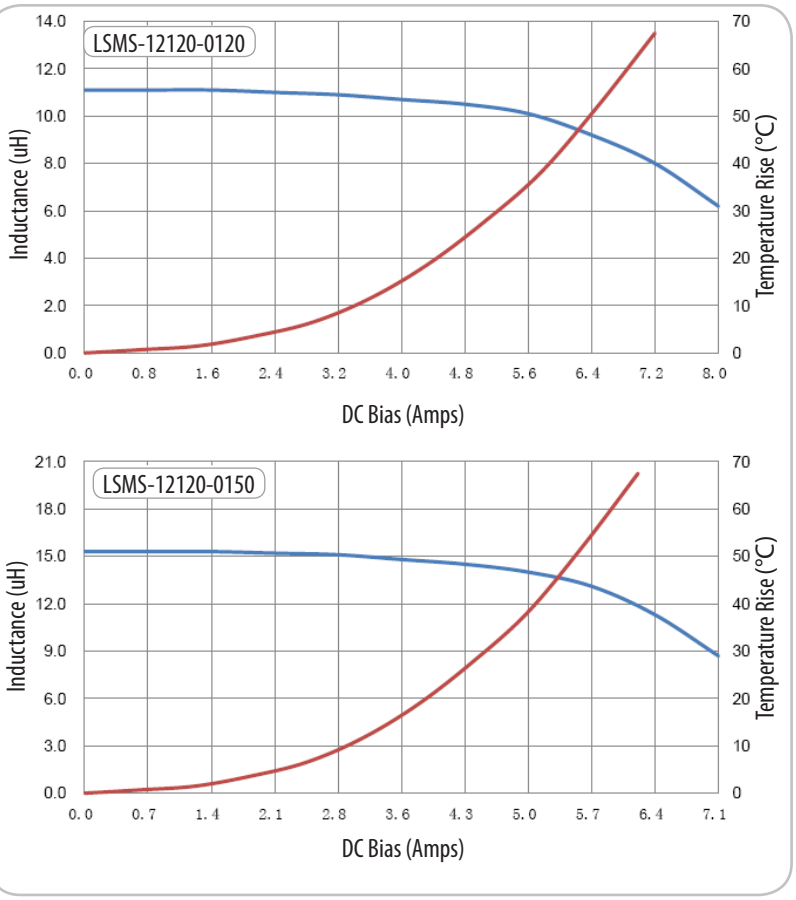

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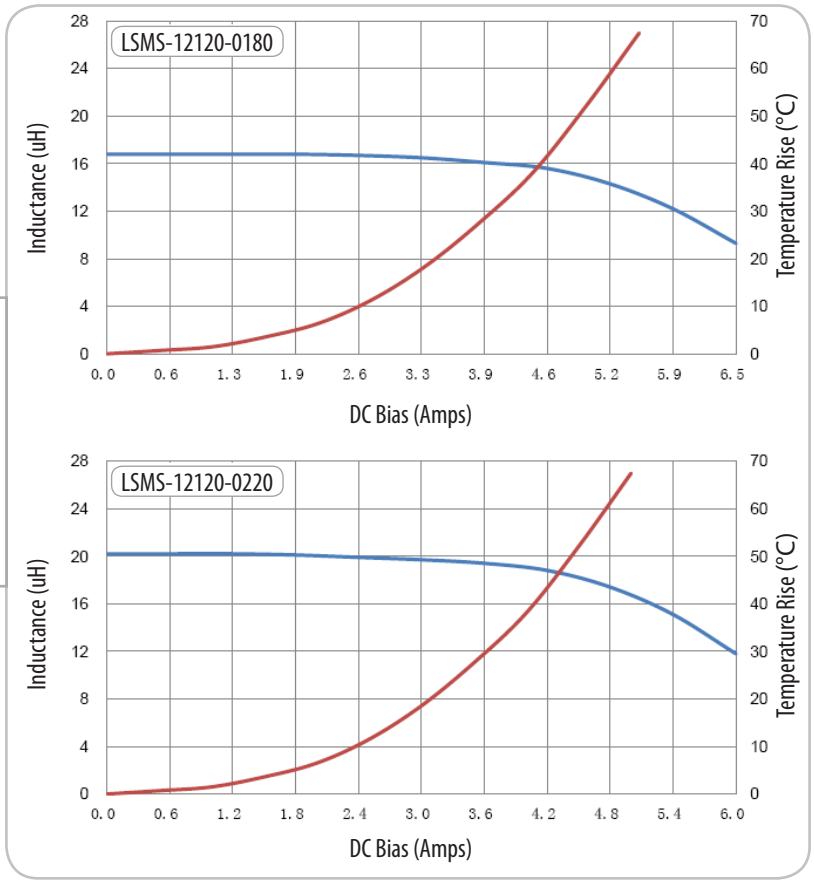


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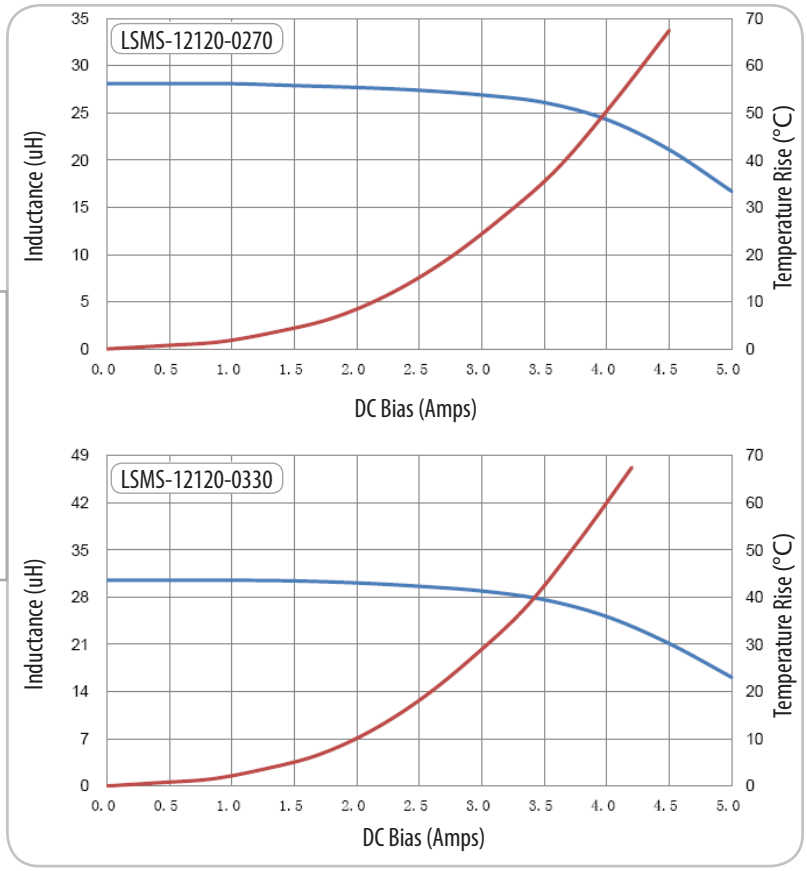

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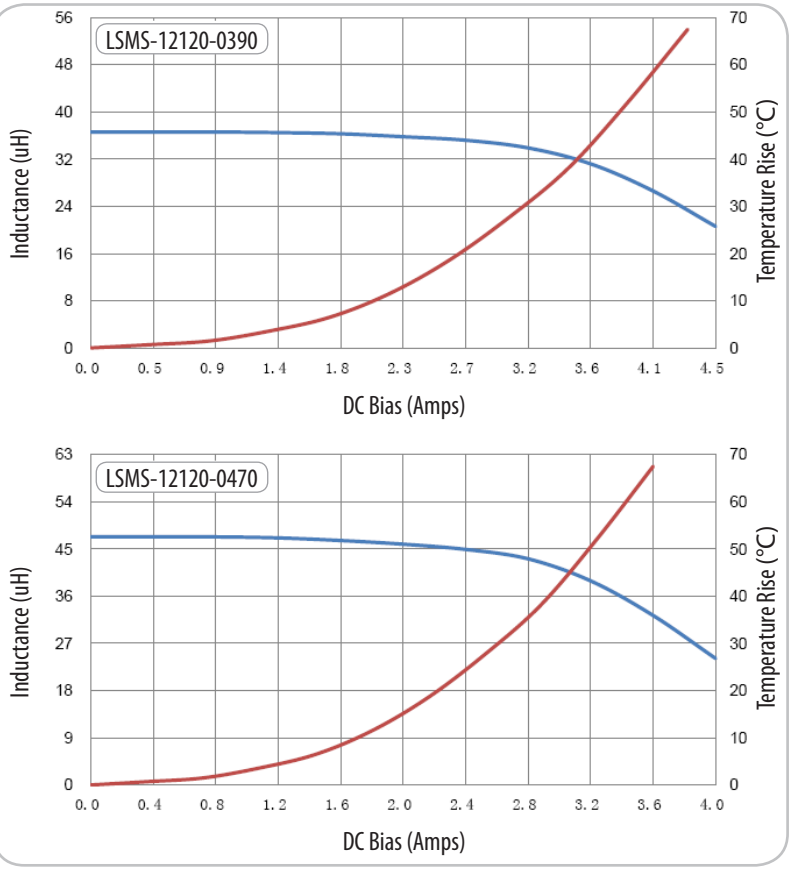


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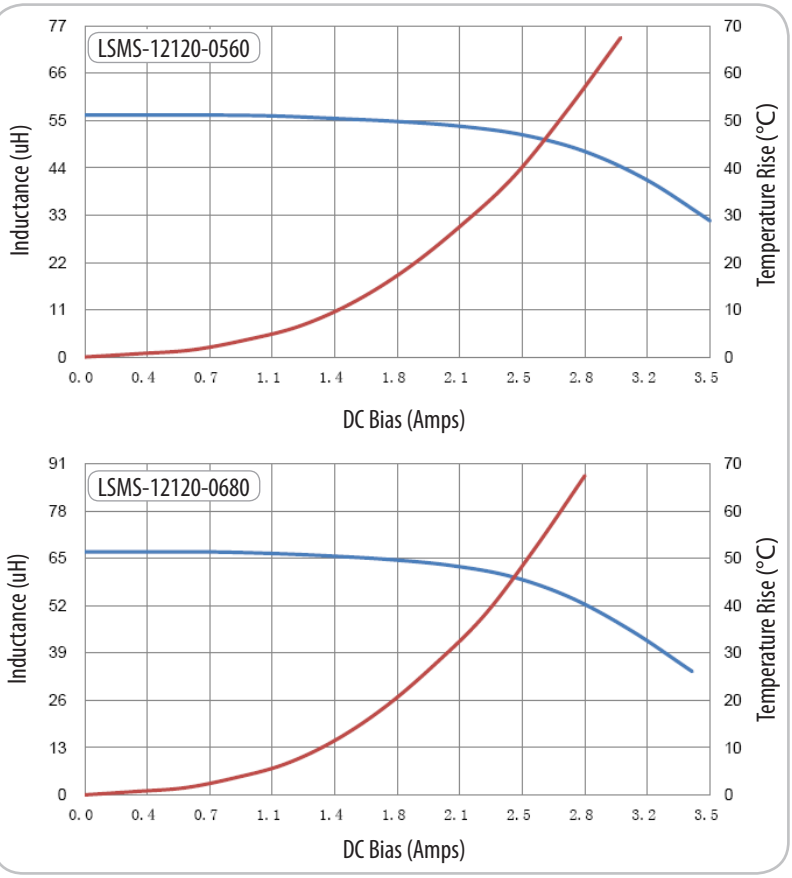

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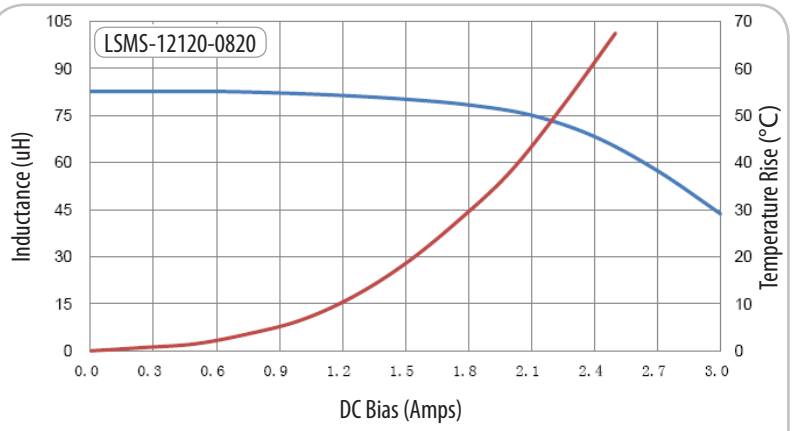


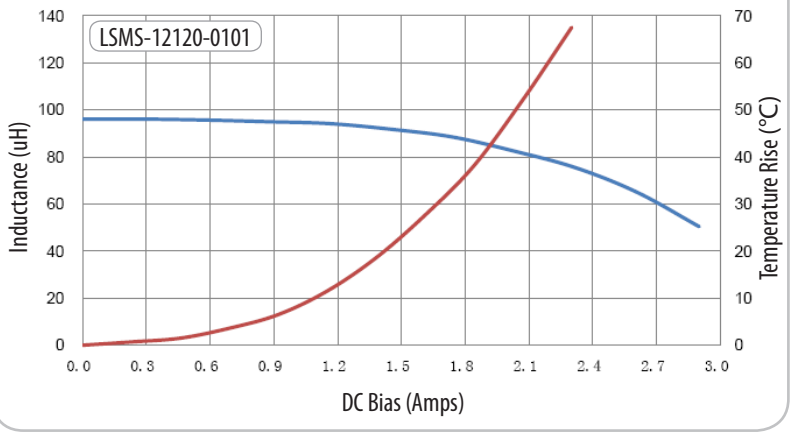


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