

LMax Low Profile/High Current Power Inductor

LMLP Series – Style D

FEATURES

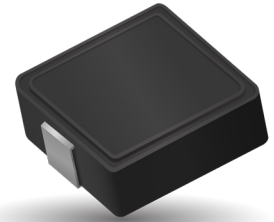
- Shielded Construction
- Large Current Rating
- Lower Temperature Rise
- Low Profile
- Available on tape and reel

APPLICATIONS

- Personal Computers
- Servers
- High Current POL Converters
- Low Profile High Current Power Supplies
- DC/DC Converters
- DC/DC Converters for FPGA

INDUCTANCE AND RATED CURRENT RANGES

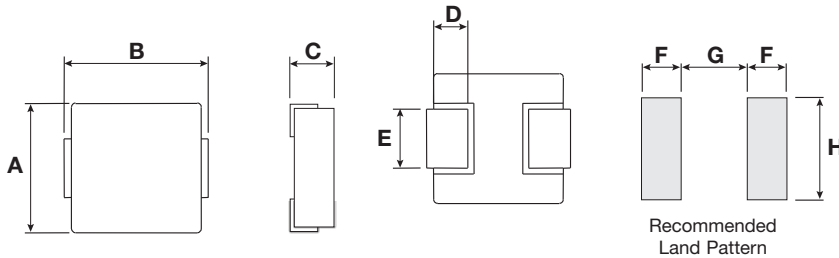
| | | |
|--------|---------------------------|--------------|
| • 0405 | 0.1 μ H ~ 3.3 μ H | 22 ~ 4 A |
| • 05A6 | 0.1 μ H ~ 4.7 μ H | 45 ~ 5 A |
| • 0506 | 0.1 μ H ~ 4.7 μ H | 27 ~ 8.2 A |
| • 0707 | 0.1 μ H ~ 4.7 μ H | 40 ~ 8 A |
| • 07A7 | 0.1 μ H ~ 10 μ H | 50 ~ 7 A |
| • 07B7 | 0.1 μ H ~ 10 μ H | 60 ~ 7 A |
| • 07C7 | 0.56 μ H ~ 10 μ H | 12 ~ 4.5 A |
| • 1011 | 0.19 μ H ~ 47 μ H | 90 ~ 3 A |
| • 13A3 | 0.1 μ H ~ 10 μ H | 84 ~ 14 A |
| • 1313 | 0.1 μ H ~ 10 μ H | 118 ~ 16 A |
| • 13B3 | 0.1 μ H ~ 10 μ H | 120 ~ 15.5 A |



- All test data taken at 25°C
- Operating Temperature Range: -55°C ~ +155°C
- I_{SAT} : The current that causes an inductance drop of approximately 25% (30% on 0405 size).
- I_{DC} : DC Current that causes an approximate ΔT of 40°C.



DIMENSIONS



mm

| Type | A | B | C | D | E | F | G | H |
|------|----------|------------|---------|---------|---------|------|------|-----|
| 0405 | 4.0±0.3 | 4.45±0.25 | 1.8±0.2 | 0.8±0.3 | 1.5±0.3 | 1.5 | 2.22 | 2.5 |
| 05A6 | 5.2±0.2 | 5.7±0.7 | 1.8±0.2 | 1.1±0.3 | 2.5±0.3 | 2 | 2.2 | 2.8 |
| 0506 | 5.2±0.3 | 5.4±0.3 | 3.0±MAX | 1.2±0.2 | 2.2±0.3 | 1.9 | 2.2 | 2.5 |
| 0707 | 6.6±0.3 | 7.0±0.3 | 1.8±0.2 | 1.8±0.3 | 3.0±0.3 | 2.6 | 2.5 | 3.5 |
| 07B7 | 6.6±0.3 | 7.3±0.3 | 2.2±0.2 | 1.8±0.3 | 3.0±0.3 | 2.6 | 2.5 | 3.5 |
| 07A7 | 6.6±0.2 | 7.3±MAX | 3.0±MAX | 1.6±0.3 | 3.0±0.3 | 1.85 | 3.7 | 3.5 |
| 07C7 | 6.6±0.3 | 7.3±0.3 | 4.8±0.2 | 1.8±0.3 | 3.0±0.3 | 2.95 | 2.5 | 3.5 |
| 1011 | 10.0±0.3 | 11.15±0.35 | 4.0±MAX | 2.0±0.5 | 3.0±0.5 | 4.05 | 5.4 | 4.4 |
| 1313 | 12.8±0.5 | 13.5±1.0 | 5.0±MAX | 2.5±0.5 | 3.8±0.5 | 3.25 | 8 | 5 |
| 13B3 | 12.8±0.5 | 13.5±1.0 | 6.5±MAX | 2.5±0.5 | 3.2±0.5 | 3.25 | 8 | 5 |

HOW TO ORDER

| | | | | | | | | |
|---------------------|------------------|--|------------------|--|--------------|--------------------|----------------|------------------|
| LM | LP | 0707 | M | R04 | D | T | A | S |
| Family | Series | Size | Tolerance | Inductance | Style | Termination | Special | Packaging |
| LM = Power Inductor | LP = Low Profile | 0707 = 7x7xh 07A7 = 7x7xA(h) (h = see catalog) | M = 20% | R39 = 0.390 μ H 3R9 = 3.900 μ H 390 = 39.00 μ H 391 = 390.0 μ H | | T = Sn Plate | A = Standard | S = 13" Reel |

LMax Low Profile/High Current Power Inductor

LMLP Series – Style D



ELECTRICAL CHARACTERISTICS

0405

| AVX PN | Inductance (μH) | Tolerance | Test Condition | DCR (mΩ) Typical | DCR (mΩ) Max | I _{DC} (A) Typical | I _{sat} (A) Typical |
|------------------|-----------------|-----------|----------------|---------------------|-----------------|--------------------------------|---------------------------------|
| LMLP0405MR10DTAS | 0.1 | ±20% | 100KHz, 0.25V | 3.5 | 4 | 12 | 22 |
| LMLP0405MR15DTAS | 0.15 | ±20% | 100KHz, 0.25V | 6 | 6.6 | 9 | 13 |
| LMLP0405MR22DTAS | 0.22 | ±20% | 100KHz, 0.25V | 6 | 6.6 | 9 | 12.5 |
| LMLP0405MR47DTAS | 0.47 | ±20% | 100KHz, 0.25V | 12.5 | 14 | 7 | 9.5 |
| LMLP0405MR56DTAS | 0.56 | ±20% | 100KHz, 0.25V | 14 | 16 | 6.5 | 10 |
| LMLP0405MR68DTAS | 0.68 | ±20% | 100KHz, 0.25V | 16 | 18 | 6 | 9 |
| LMLP0405M1R0DTAS | 1 | ±20% | 100KHz, 0.25V | 24 | 27 | 4.5 | 7 |
| LMLP0405M1R2DTAS | 1.2 | ±20% | 100KHz, 0.25V | 24 | 27 | 4.5 | 7 |
| LMLP0405M1R5DTAS | 1.5 | ±20% | 100KHz, 0.25V | 38 | 46 | 4 | 6 |
| LMLP0405M2R2DTAS | 2.2 | ±20% | 100KHz, 0.25V | 52 | 58 | 3 | 5 |
| LMLP0405M3R3DTAS | 3.3 | ±20% | 100KHz, 0.25V | 74 | 87 | 2.5 | 4 |
| LMLP0405M4R7DTAS | 4.7 | ±20% | 100KHz, 0.25V | 98 | 110 | 2.2 | 3.5 |
| LMLP0405M5R6DTAS | 5.6 | ±20% | 100KHz, 0.25V | 105 | 115 | 1.8 | 3.5 |
| LMLP0405M6R8DTAS | 6.8 | ±20% | 100KHz, 0.25V | 160 | 175 | 1.5 | 2.5 |
| LMLP0405M100DTAS | 10 | ±20% | 100KHz, 0.25V | 256 | 282 | 1.2 | 2.2 |

05A6

| AVX PN | Inductance (μH) | Tolerance | Test Condition | DCR (mΩ) Typical | DCR (mΩ) Max | I _{DC} (A) Typical | I _{sat} (A) Typical |
|------------------|-----------------|-----------|----------------|---------------------|-----------------|--------------------------------|---------------------------------|
| LMLP05A6MR10DTAS | 0.1 | ±20% | 100KHz, 0.25V | 3.6 | 4 | 18 | 45 |
| LMLP05A6MR15DTAS | 0.15 | ±20% | 100KHz, 0.25V | 3.8 | 4.6 | 16 | 27 |
| LMLP05A6MR22DTAS | 0.22 | ±20% | 100KHz, 0.25V | 4 | 5.5 | 15 | 25 |
| LMLP05A6MR24DTAS | 0.24 | ±20% | 100KHz, 0.25V | 6 | 7 | 13 | 23 |
| LMLP05A6MR33DTAS | 0.33 | ±20% | 100KHz, 0.25V | 6.3 | 7.3 | 12 | 21.3 |
| LMLP05A6MR47DTAS | 0.47 | ±20% | 100KHz, 0.25V | 7.3 | 8.6 | 11.5 | 18 |
| LMLP05A6MR68DTAS | 0.68 | ±20% | 100KHz, 0.25V | 11 | 12.4 | 10 | 12.8 |
| LMLP05A6M1R0DTAS | 1 | ±20% | 100KHz, 0.25V | 17.5 | 20 | 7 | 13.7 |
| LMLP05A6M1R2DTAS | 1.2 | ±20% | 100KHz, 0.25V | 23 | 28 | 6.2 | 11 |
| LMLP05A6M1R5DTAS | 1.5 | ±20% | 100KHz, 0.25V | 26.5 | 30.5 | 5.5 | 9.8 |
| LMLP05A6M2R2DTAS | 2.2 | ±20% | 100KHz, 0.25V | 42 | 50 | 4.2 | 9 |
| LMLP05A6M3R3DTAS | 3.3 | ±20% | 100KHz, 0.25V | 66 | 76 | 3.3 | 7.3 |
| LMLP05A6M4R7DTAS | 4.7 | ±20% | 100KHz, 0.25V | 103 | 116 | 2.8 | 5 |
| LMLP05A6M5R6DTAS | 5.6 | ±20% | 100KHz, 0.25V | 112 | 122 | 2.5 | 4 |
| LMLP05A6M6R8DTAS | 6.8 | ±20% | 100KHz, 0.25V | 130 | 150 | 2.4 | 3.8 |
| LMLP05A6M8R2DTAS | 8.2 | ±20% | 100KHz, 0.25V | 148 | 171 | 2.3 | 3.5 |
| LMLP05A6M100DTAS | 10 | ±20% | 100KHz, 0.25V | 180 | 199 | 2.3 | 3.4 |
| LMLP05A6M150DTAS | 15 | ±20% | 100KHz, 0.25V | 240 | 270 | 1.9 | 2.8 |
| LMLP05A6M220DTAS | 22 | ±20% | 100KHz, 0.25V | 350 | 390 | 1.5 | 1.8 |

I_{SAT}: The current that causes an inductance drop of approximately 25% (30% on 0405 size).
 I_{DC}: DC Current that causes an approximate ΔT of 40°C.

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LMLP Series – Style D



0506

| AVX PN | Inductance (µH) | Tolerance | Test Condition | DCR (mΩ) Typical | DCR (mΩ) Max | I _{DC} (A) Typical | I _{sat} (A) Typical |
|------------------|-----------------|-----------|----------------|------------------|--------------|-----------------------------|------------------------------|
| LMLP0506MR20DTAS | 0.2 | ±20% | 100KHz, 0.25V | 3.5 | 3.9 | 18 | 14.5 |
| LMLP0506MR47DTAS | 0.47 | ±20% | 100KHz, 0.25V | 7.4 | 8.5 | 13.5 | 12 |
| LMLP0506MR68DTAS | 0.68 | ±20% | 100KHz, 0.25V | 11 | 12 | 8.5 | 14 |
| LMLP0506M1R0DTAS | 1 | ±20% | 100KHz, 0.25V | 13 | 14 | 7 | 11 |
| LMLP0506M1R2DTAS | 1.2 | ±20% | 100KHz, 0.25V | 15 | 16 | 6.5 | 11 |
| LMLP0506M1R5DTAS | 1.5 | ±20% | 100KHz, 0.25V | 20 | 25 | 6 | 8.5 |
| LMLP0506M2R2DTAS | 2.2 | ±20% | 100KHz, 0.25V | 25 | 29 | 5.5 | 7.5 |
| LMLP0506M3R3DTAS | 3.3 | ±20% | 100KHz, 0.25V | 32 | 38 | 5 | 6 |
| LMLP0506M4R7DTAS | 4.7 | ±20% | 100KHz, 0.25V | 50 | 60 | 3.5 | 5 |
| LMLP0506M6R8DTAS | 6.8 | ±20% | 100KHz, 0.25V | 75 | 90 | 3 | 4 |
| LMLP0506M100DTAS | 10 | ±20% | 100KHz, 0.25V | 110 | 125 | 2.5 | 3.5 |

0707

| AVX PN | Inductance (µH) | Tolerance | Test Condition | DCR (mΩ) Typical | DCR (mΩ) Max | I _{DC} (A) Typical | I _{sat} (A) Typical |
|------------------|-----------------|-----------|----------------|------------------|--------------|-----------------------------|------------------------------|
| LMLP0707MR10DTAS | 0.1 | ±20% | 100KHz, 0.25V | 2 | 2.4 | 21 | 40 |
| LMLP0707MR15DTAS | 0.15 | ±20% | 100KHz, 0.25V | 2.3 | 2.7 | 18 | 39 |
| LMLP0707MR16DTAS | 0.16 | ±20% | 100KHz, 0.25V | 2.3 | 2.7 | 18 | 38 |
| LMLP0707MR18DTAS | 0.18 | ±20% | 100KHz, 0.25V | 2.4 | 2.9 | 18 | 36 |
| LMLP0707MR20DTAS | 0.2 | ±20% | 100KHz, 0.25V | 2.5 | 3 | 18 | 35 |
| LMLP0707MR22DTAS | 0.22 | ±20% | 100KHz, 0.25V | 3.5 | 4 | 15 | 32 |
| LMLP0707MR24DTAS | 0.24 | ±20% | 100KHz, 0.25V | 3.6 | 4.3 | 14.5 | 32 |
| LMLP0707MR33DTAS | 0.33 | ±20% | 100KHz, 0.25V | 4.5 | 5 | 14 | 25 |
| LMLP0707MR47DTAS | 0.47 | ±20% | 100KHz, 0.25V | 7.1 | 8.3 | 11.7 | 20 |
| LMLP0707MR56DTAS | 0.56 | ±20% | 100KHz, 0.25V | 7.9 | 9.3 | 11 | 18 |
| LMLP0707MR68DTAS | 0.68 | ±20% | 100KHz, 0.25V | 8.3 | 10 | 10.5 | 16 |
| LMLP0707M1R0DTAS | 1 | ±20% | 100KHz, 0.25V | 16.5 | 18 | 8 | 14 |
| LMLP0707M1R2DTAS | 1.2 | ±20% | 100KHz, 0.25V | 19 | 23 | 7.5 | 13 |
| LMLP0707M1R5DTAS | 1.5 | ±20% | 100KHz, 0.25V | 23 | 27 | 7 | 12 |
| LMLP0707M2R2DTAS | 2.2 | ±20% | 100KHz, 0.25V | 32 | 37 | 6 | 10 |
| LMLP0707M3R3DTAS | 3.3 | ±20% | 100KHz, 0.25V | 43 | 48 | 5 | 8 |
| LMLP0707M4R7DTAS | 4.7 | ±20% | 100KHz, 0.25V | 53 | 60 | 4.5 | 7 |
| LMLP0707M5R6DTAS | 5.6 | ±20% | 100KHz, 0.25V | 59 | 68 | 4 | 6 |
| LMLP0707M6R8DTAS | 6.8 | ±20% | 100KHz, 0.25V | 63 | 73 | 4 | 5.5 |
| LMLP0707M8R2DTAS | 8.2 | ±20% | 100KHz, 0.25V | 101 | 116 | 3.2 | 5 |
| LMLP0707M100DTAS | 10 | ±20% | 100KHz, 0.25V | 134 | 154 | 2.8 | 4 |
| LMLP0707M150DTAS | 15 | ±20% | 100KHz, 0.25V | 190 | 210 | 2.1 | 3.3 |
| LMLP0707M220DTAS | 22 | ±20% | 100KHz, 0.25V | 236 | 280 | 1.5 | 2.5 |

I_{SAT}: The current that causes an inductance drop of approximately 25% (30% on 0405 size).
 I_{DC}: DC Current that causes an approximate ΔT of 40°C.

LMax Low Profile/High Current Power Inductor

LMLP Series – Style D



07B7

| AVX PN | Inductance (µH) | Tolerance | Test Condition | DCR (mΩ) Typical | DCR (mΩ) Max | I _{DC} (A) Typical | I _{sat} (A) Typical |
|------------------|-----------------|-----------|----------------|------------------|--------------|-----------------------------|------------------------------|
| LMLP07B7MR10DTAS | 0.1 | ±20% | 100KHz, 0.25V | 1.4 | 1.7 | 30 | 70 |
| LMLP07B7MR15DTAS | 0.15 | ±20% | 100KHz, 0.25V | 1.8 | 2.3 | 30 | 45 |
| LMLP07B7MR20DTAS | 0.2 | ±20% | 100KHz, 0.25V | 1.9 | 2.8 | 23 | 40 |
| LMLP07B7MR22DTAS | 0.22 | ±20% | 100KHz, 0.25V | 2 | 3.2 | 21 | 34 |
| LMLP07B7MR33DTAS | 0.33 | ±20% | 100KHz, 0.25V | 3.6 | 4.4 | 18 | 30 |
| LMLP07B7MR36DTAS | 0.36 | ±20% | 100KHz, 0.25V | 3.8 | 4.6 | 17 | 29 |
| LMLP07B7MR47DTAS | 0.47 | ±20% | 100KHz, 0.25V | 4.8 | 5.1 | 15 | 26 |
| LMLP07B7MR56DTAS | 0.56 | ±20% | 100KHz, 0.25V | 5.5 | 6.5 | 13 | 24 |
| LMLP07B7MR60DTAS | 0.6 | ±20% | 100KHz, 0.25V | 5.7 | 6.9 | 13 | 22 |
| LMLP07B7MR68DTAS | 0.68 | ±20% | 100KHz, 0.25V | 6.4 | 7.2 | 13 | 21 |
| LMLP07B7MR82DTAS | 0.82 | ±20% | 100KHz, 0.25V | 8 | 9.5 | 11 | 17 |
| LMLP07B7M1R0DTAS | 1 | ±20% | 100KHz, 0.25V | 10.5 | 13.5 | 11 | 16 |
| LMLP07B7M1R5DTAS | 1.5 | ±20% | 100KHz, 0.25V | 17 | 20 | 9 | 15 |
| LMLP07B7M2R2DTAS | 2.2 | ±20% | 100KHz, 0.25V | 23 | 28 | 7 | 14 |
| LMLP07B7M3R3DTAS | 3.3 | ±20% | 100KHz, 0.25V | 34 | 39 | 6 | 10 |
| LMLP07B7M4R7DTAS | 4.7 | ±20% | 100KHz, 0.25V | 41 | 50 | 5.5 | 9 |
| LMLP07B7M5R6DTAS | 5.6 | ±20% | 100KHz, 0.25V | 56 | 62 | 5 | 8 |
| LMLP07B7M6R8DTAS | 6.8 | ±20% | 100KHz, 0.25V | 65 | 72 | 4 | 7 |
| LMLP07B7M8R2DTAS | 8.2 | ±20% | 100KHz, 0.25V | 81 | 95 | 3.6 | 6 |
| LMLP07B7M100DTAS | 10 | ±20% | 100KHz, 0.25V | 92 | 101 | 3.2 | 5 |
| LMLP07B7M150DTAS | 15 | ±20% | 100KHz, 0.25V | 150 | 180 | 2.5 | 3.5 |
| LMLP07B7M220DTAS | 22 | ±20% | 100KHz, 0.25V | 185 | 215 | 1.8 | 3 |

07A7

| AVX PN | Inductance (µH) | Tolerance | Test Condition | DCR (mΩ) Typical | DCR (mΩ) Max | I _{DC} (A) Typical | I _{sat} (A) Typical |
|------------------|-----------------|-----------|----------------|------------------|--------------|-----------------------------|------------------------------|
| LMLP07A7MR22DTAS | 0.22 | ±20% | 100KHz, 0.25V | 2.5 | 2.8 | 23 | 40 |
| LMLP07A7MR33DTAS | 0.33 | ±20% | 100KHz, 0.25V | 3.5 | 3.9 | 20 | 30 |
| LMLP07A7MR47DTAS | 0.47 | ±20% | 100KHz, 0.25V | 4 | 4.2 | 17.5 | 26 |
| LMLP07A7MR56DTAS | 0.56 | ±20% | 100KHz, 0.25V | 4.7 | 5 | 16.5 | 25.5 |
| LMLP07A7MR68DTAS | 0.68 | ±20% | 100KHz, 0.25V | 5 | 5.5 | 15.5 | 25 |
| LMLP07A7MR82DTAS | 0.82 | ±20% | 100KHz, 0.25V | 6.7 | 8 | 13 | 20 |
| LMLP07A7M1R0DTAS | 1 | ±20% | 100KHz, 0.25V | 9 | 10 | 11 | 20 |
| LMLP07A7M1R5DTAS | 1.5 | ±20% | 100KHz, 0.25V | 14 | 15 | 9 | 16 |
| LMLP07A7M2R2DTAS | 2.2 | ±20% | 100KHz, 0.25V | 17 | 20 | 8 | 12 |
| LMLP07A7M3R3DTAS | 3.3 | ±20% | 100KHz, 0.25V | 28 | 30 | 6 | 10 |
| LMLP07A7M4R7DTAS | 4.7 | ±20% | 100KHz, 0.25V | 37 | 40 | 5.5 | 7 |
| LMLP07A7M5R6DTAS | 5.6 | ±20% | 100KHz, 0.25V | 40 | 44 | 5.5 | 6 |
| LMLP07A7M6R8DTAS | 6.8 | ±20% | 100KHz, 0.25V | 54 | 60 | 4.5 | 6.5 |
| LMLP07A7M8R2DTAS | 8.2 | ±20% | 100KHz, 0.25V | 54 | 60 | 4.5 | 6 |
| LMLP07A7M100DTAS | 10 | ±20% | 100KHz, 0.25V | 62 | 68 | 4 | 5.5 |

I_{SAT}: The current that causes an inductance drop of approximately 25% (30% on 0405 size).
 I_{DC}: DC Current that causes an approximate ΔT of 40°C.

LMax Low Profile/High Current Power Inductor

LMLP Series – Style D



07C7

| AVX PN | Inductance (µH) | Tolerance | Test Condition | DCR (mΩ) Typical | DCR (mΩ) Max | I _{DC} (A) Typical | I _{sat} (A) Typical |
|------------------|-----------------|-----------|----------------|------------------|--------------|-----------------------------|------------------------------|
| LMLP07C7MR33DTAS | 0.33 | ±20% | 100KHz, 0.25V | 2.5 | 3 | 25 | 32 |
| LMLP07C7MR40DTAS | 0.4 | ±20% | 100KHz, 0.25V | 3.1 | 3.7 | 23 | 31 |
| LMLP07C7MR47DTAS | 0.47 | ±20% | 100KHz, 0.25V | 3.5 | 3.9 | 22 | 30 |
| LMLP07C7MR56DTAS | 0.56 | ±20% | 100KHz, 0.25V | 3.6 | 4.2 | 20 | 27 |
| LMLP07C7MR60DTAS | 0.6 | ±20% | 100KHz, 0.25V | 3.8 | 4.3 | 19 | 25 |
| LMLP07C7MR68DTAS | 0.68 | ±20% | 100KHz, 0.25V | 4 | 4.5 | 18 | 24 |
| LMLP07C7MR82DTAS | 0.82 | ±20% | 100KHz, 0.25V | 4.6 | 4.9 | 15 | 22 |
| LMLP07C7M1R0DTAS | 1 | ±20% | 100KHz, 0.25V | 6.1 | 6.5 | 15 | 20 |
| LMLP07C7M1R2DTAS | 1.2 | ±20% | 100KHz, 0.25V | 6.7 | 7.5 | 14 | 18 |
| LMLP07C7M1R5DTAS | 1.5 | ±20% | 100KHz, 0.25V | 8.6 | 9 | 12 | 16.5 |
| LMLP07C7M1R8DTAS | 1.8 | ±20% | 100KHz, 0.25V | 9.5 | 11 | 12 | 15 |
| LMLP07C7M2R2DTAS | 2.2 | ±20% | 100KHz, 0.25V | 11.2 | 12 | 10 | 14 |
| LMLP07C7M3R3DTAS | 3.3 | ±20% | 100KHz, 0.25V | 19 | 20.9 | 8 | 12 |
| LMLP07C7M4R7DTAS | 4.7 | ±20% | 100KHz, 0.25V | 28 | 30.8 | 6.5 | 10 |
| LMLP07C7M5R6DTAS | 5.6 | ±20% | 100KHz, 0.25V | 43.5 | 49 | 6 | 9 |
| LMLP07C7M6R8DTAS | 6.8 | ±20% | 100KHz, 0.25V | 46 | 51.5 | 5.5 | 8.5 |
| LMLP07C7M8R2DTAS | 8.2 | ±20% | 100KHz, 0.25V | 56 | 63 | 5 | 8 |
| LMLP07C7M100DTAS | 10 | ±20% | 100KHz, 0.25V | 60 | 69 | 4 | 7.5 |
| LMLP07C7M150DTAS | 15 | ±20% | 100KHz, 0.25V | 81 | 92 | 3.5 | 6 |
| LMLP07C7M220DTAS | 22 | ±20% | 100KHz, 0.25V | 140 | 170 | 2.5 | 5.5 |
| LMLP07C7M330DTAS | 33 | ±20% | 100KHz, 0.25V | 173 | 200 | 2 | 3.5 |
| LMLP07C7M470DTAS | 47 | ±20% | 100KHz, 0.25V | 290 | 330 | 1.9 | 2.7 |
| LMLP07C7M560DTAS | 56 | ±20% | 100KHz, 0.25V | 342 | 396 | 1.6 | 2.1 |
| LMLP07C7M680DTAS | 68 | ±20% | 100KHz, 0.25V | 386 | 445 | 1.2 | 2 |

1011

| AVX PN | Inductance (µH) | Tolerance | Test Condition | DCR (mΩ) Typical | DCR (mΩ) Max | I _{DC} (A) Typical | I _{sat} (A) Typical |
|------------------|-----------------|-----------|----------------|------------------|--------------|-----------------------------|------------------------------|
| LMLP1011MR22DTAS | 0.22 | ±20% | 100KHz, 0.25V | 0.8 | 1 | 30 | 50 |
| LMLP1011MR36DTAS | 0.36 | ±20% | 100KHz, 0.25V | 1.1 | 1.2 | 34 | 40 |
| LMLP1011MR47DTAS | 0.47 | ±20% | 100KHz, 0.25V | 1.3 | 1.55 | 25 | 35 |
| LMLP1011MR56DTAS | 0.56 | ±20% | 100KHz, 0.25V | 1.6 | 1.8 | 25 | 32 |
| LMLP1011MR68DTAS | 0.68 | ±20% | 100KHz, 0.25V | 2.4 | 2.7 | 22 | 30 |
| LMLP1011M1R0DTAS | 1 | ±20% | 100KHz, 0.25V | 3 | 3.3 | 18 | 28 |
| LMLP1011M1R5DTAS | 1.5 | ±20% | 100KHz, 0.25V | 3.8 | 4.2 | 16 | 21 |
| LMLP1011M2R2DTAS | 2.2 | ±20% | 100KHz, 0.25V | 6.7 | 7 | 12 | 18 |
| LMLP1011M3R3DTAS | 3.3 | ±20% | 100KHz, 0.25V | 10.8 | 11.8 | 10 | 16 |
| LMLP1011M4R7DTAS | 4.7 | ±20% | 100KHz, 0.25V | 17 | 20 | 8.5 | 15 |
| LMLP1011M6R8DTAS | 6.8 | ±20% | 100KHz, 0.25V | 22.5 | 25 | 6.5 | 9 |
| LMLP1011M8R2DTAS | 8.2 | ±20% | 100KHz, 0.25V | 26 | 29 | 7 | 9 |
| LMLP1011M100DTAS | 10 | ±20% | 100KHz, 0.25V | 27 | 30 | 7.5 | 8.5 |
| LMLP1011M150DTAS | 15 | ±20% | 100KHz, 0.25V | 40 | 45 | 6.25 | 7 |
| LMLP1011M220DTAS | 22 | ±20% | 100KHz, 0.25V | 60 | 66 | 5 | 5.5 |
| LMLP1011M470DTAS | 47 | ±20% | 100KHz, 0.25V | 130 | 145 | 3.3 | 3.5 |

I_{SAT}: The current that causes an inductance drop of approximately 25% (30% on 0405 size).
 I_{DC}: DC Current that causes an approximate ΔT of 40°C.

LMax Low Profile/High Current Power Inductor

LMLP Series – Style D



1313

| AVX PN | Inductance (µH) | Tolerance | Test Condition | DCR (mΩ) Typical | DCR (mΩ) Max | I _{DC} (A) Typical | I _{sat} (A) Typical |
|------------------|-----------------|-----------|----------------|------------------|--------------|-----------------------------|------------------------------|
| LMLP1313MR10DTAS | 0.1 | ±20% | 100KHz, 0.25V | 0.53 | 0.6 | 55 | 118 |
| LMLP1313MR22DTAS | 0.22 | ±20% | 100KHz, 0.25V | 0.64 | 0.8 | 51 | 110 |
| LMLP1313MR33DTAS | 0.33 | ±20% | 100KHz, 0.25V | 0.85 | 1.1 | 42 | 80 |
| LMLP1313MR47DTAS | 0.47 | ±20% | 100KHz, 0.25V | 1.1 | 1.3 | 38 | 65 |
| LMLP1313MR56DTAS | 0.56 | ±20% | 100KHz, 0.25V | 1.3 | 1.5 | 36 | 55 |
| LMLP1313MR68DTAS | 0.68 | ±20% | 100KHz, 0.25V | 1.5 | 1.7 | 34 | 54 |
| LMLP1313MR82DTAS | 0.82 | ±20% | 100KHz, 0.25V | 2 | 2.3 | 31 | 53 |
| LMLP1313M1R0DTAS | 1 | ±20% | 100KHz, 0.25V | 2.1 | 2.5 | 29 | 50 |
| LMLP1313M1R2DTAS | 1.2 | ±20% | 100KHz, 0.25V | 2.8 | 3.5 | 25 | 49 |
| LMLP1313M1R5DTAS | 1.5 | ±20% | 100KHz, 0.25V | 3.4 | 4.1 | 23 | 48 |
| LMLP1313M1R8DTAS | 1.8 | ±20% | 100KHz, 0.25V | 4.2 | 4.9 | 19 | 40 |
| LMLP1313M2R2DTAS | 2.2 | ±20% | 100KHz, 0.25V | 4.6 | 5.5 | 20 | 32 |
| LMLP1313M3R3DTAS | 3.3 | ±20% | 100KHz, 0.25V | 7.7 | 9.2 | 15 | 32 |
| LMLP1313M4R7DTAS | 4.7 | ±20% | 100KHz, 0.25V | 12.8 | 15 | 12 | 27 |
| LMLP1313M5R6DTAS | 5.6 | ±20% | 100KHz, 0.25V | 14 | 16.5 | 11.5 | 22 |
| LMLP1313M6R8DTAS | 6.8 | ±20% | 100KHz, 0.25V | 15.4 | 18.5 | 11 | 21 |
| LMLP1313M7R8DTAS | 7.8 | ±20% | 100KHz, 0.25V | 17.2 | 20.5 | 10 | 18 |
| LMLP1313M8R2DTAS | 8.2 | ±20% | 100KHz, 0.25V | 18.9 | 22.5 | 9.5 | 18 |
| LMLP1313M100DTAS | 10 | ±20% | 100KHz, 0.25V | 21.4 | 25.5 | 9 | 16 |

13B3

| AVX PN | Inductance (µH) | Tolerance | Test Condition | DCR (mΩ) Typical | DCR (mΩ) Max | I _{DC} (A) Typical | I _{sat} (A) Typical |
|------------------|-----------------|-----------|----------------|------------------|--------------|-----------------------------|------------------------------|
| LMLP13B3MR10DTAS | 0.1 | ±20% | 100KHz, 0.25V | 0.47 | 0.5 | 60 | 120 |
| LMLP13B3MR15DTAS | 0.15 | ±20% | 100KHz, 0.25V | 0.53 | 0.6 | 55 | 118 |
| LMLP13B3MR22DTAS | 0.22 | ±20% | 100KHz, 0.25V | 0.63 | 0.7 | 53 | 112 |
| LMLP13B3MR30DTAS | 0.3 | ±20% | 100KHz, 0.25V | 0.7 | 0.8 | 48 | 72 |
| LMLP13B3MR33DTAS | 0.33 | ±20% | 100KHz, 0.25V | 0.83 | 0.9 | 46 | 65 |
| LMLP13B3MR47DTAS | 0.47 | ±20% | 100KHz, 0.25V | 1 | 1.2 | 41 | 63 |
| LMLP13B3MR56DTAS | 0.56 | ±20% | 100KHz, 0.25V | 1.2 | 1.4 | 37 | 62 |
| LMLP13B3MR68DTAS | 0.68 | ±20% | 100KHz, 0.25V | 1.4 | 1.6 | 35 | 60 |
| LMLP13B3MR82DTAS | 0.82 | ±20% | 100KHz, 0.25V | 1.6 | 1.9 | 33 | 50 |
| LMLP13B3M1R0DTAS | 1 | ±20% | 100KHz, 0.25V | 1.7 | 2 | 32 | 49 |
| LMLP13B3M1R2DTAS | 1.2 | ±20% | 100KHz, 0.25V | 2.1 | 2.5 | 30 | 48 |
| LMLP13B3M1R5DTAS | 1.5 | ±20% | 100KHz, 0.25V | 2.5 | 3 | 27 | 45 |
| LMLP13B3M1R8DTAS | 1.8 | ±20% | 100KHz, 0.25V | 2.8 | 3.2 | 24 | 41 |
| LMLP13B3M2R2DTAS | 2.2 | ±20% | 100KHz, 0.25V | 3.5 | 4.2 | 22 | 40 |
| LMLP13B3M3R3DTAS | 3.3 | ±20% | 100KHz, 0.25V | 5.7 | 6.8 | 18 | 35 |
| LMLP13B3M4R7DTAS | 4.7 | ±20% | 100KHz, 0.25V | 9.3 | 11.2 | 13.5 | 30 |
| LMLP13B3M5R6DTAS | 5.6 | ±20% | 100KHz, 0.25V | 11.8 | 12.8 | 12 | 26.5 |
| LMLP13B3M6R8DTAS | 6.8 | ±20% | 100KHz, 0.25V | 13.1 | 14 | 11.5 | 16.5 |
| LMLP13B3M8R2DTAS | 8.2 | ±20% | 100KHz, 0.25V | 14.5 | 15.5 | 10.5 | 16 |
| LMLP13B3M100DTAS | 10 | ±20% | 100KHz, 0.25V | 15.8 | 16.8 | 10 | 15.5 |
| LMLP13B3M150DTAS | 15 | ±20% | 100KHz, 0.25V | 25 | 29 | 6 | 9 |
| LMLP13B3M220DTAS | 22 | ±20% | 100KHz, 0.25V | 34 | 39.5 | 5 | 7.5 |
| LMLP13B3M330DTAS | 33 | ±20% | 100KHz, 0.25V | 55 | 65 | 4 | 6 |
| LMLP13B3M470DTAS | 47 | ±20% | 100KHz, 0.25V | 80 | 92 | 3 | 5 |
| LMLP13B3M680DTAS | 68 | ±20% | 100KHz, 0.25V | 122 | 134 | 2 | 3.5 |

I_{SAT}: The current that causes an inductance drop of approximately 25% (30% on 0405 size).
 I_{DC}: DC Current that causes an approximate ΔT of 40°C.

LMax Low Profile/High Current Power Inductor

LMLP Series – Style D



GENERAL CHARACTERISTICS

| Items | Requirement | Test Methods | | |
|------------------------|---|---|------------------|-------------|
| Solderability | More than 90% of the terminal electrode should be covered with solder. | 230±5°C for 4±1 seconds | | |
| Solder Heat Resistance | Inductance value must remain within 20% of initial value. No disconnection or short circuit. No change in appearance. | 260±5°C for 4±1 seconds | | |
| Heat Resistance | Inductance value must remain within 20% of initial value. No disconnection or short circuit. No change in appearance. | Temperature: 125±5°C | | |
| | | Time: 500 hours | | |
| Cold Resistance | Inductance value must remain within 20% of initial value. No disconnection or short circuit. No change in appearance. | Tested after 2 hours at room temperature | | |
| | | Temperature: -40±5°C | | |
| Thermal Shock | Inductance value must remain within 20% of initial value. No disconnection or short circuit. No change in appearance. | Time: 500 hours | | |
| | | Tested after 2 hours at room temperature | | |
| | | One Cycle | | |
| | | Step | Temperature (°C) | Time (min.) |
| | | 1 | -40±5°C | 30 |
| Humidity Resistance | Inductance value must remain within 20% of initial value. No disconnection or short circuit. No change in appearance. | 2 | Room Temperature | 3 |
| | | 3 | 125±5°C | 30 |
| Vibration Test | Inductance value must remain within ±5% of initial value. No change in appearance | 4 | Room Temperature | 3 |
| | | Temperature: 40±2°C at 90~95% relative humidity . | | |
| | | Time: 500 Hours | | |
| | | Tested after 2 hours at room temperature | | |
| | | After 1 hour of vibrations testing, in each of three orientations at 10Hz, then increase to 55Hz, then decrease to 10Hz with 1.52mm P-P amplitudes. | | |

LMax Low Profile/High Current Power Inductor

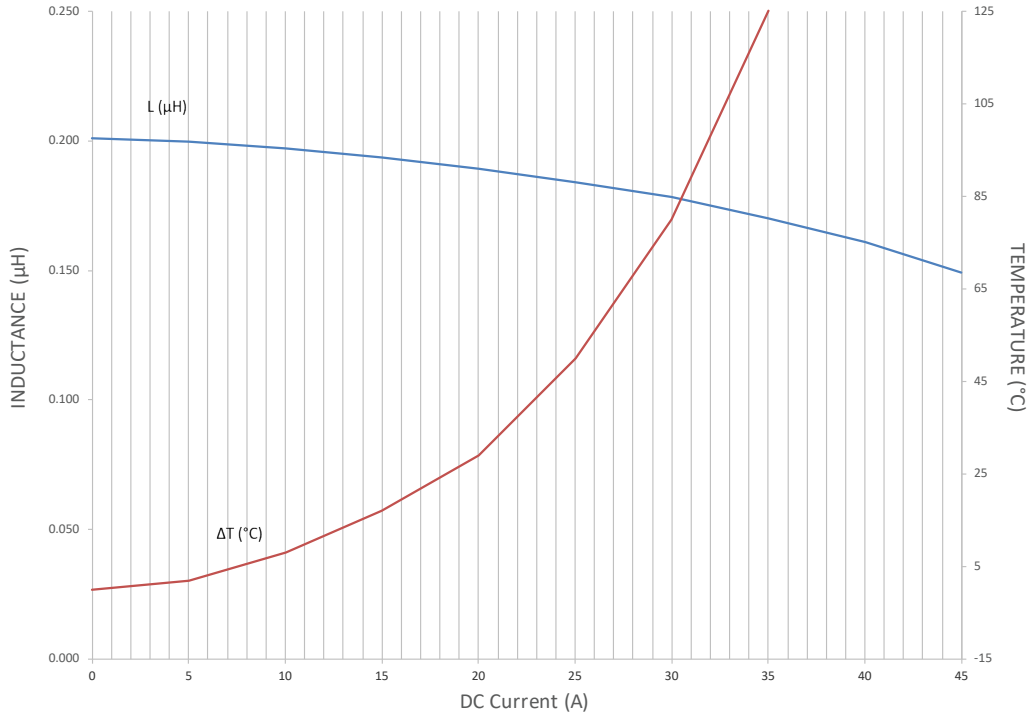
LMLP Series – Style D



LMLP07A7M-R22

L&I Curve

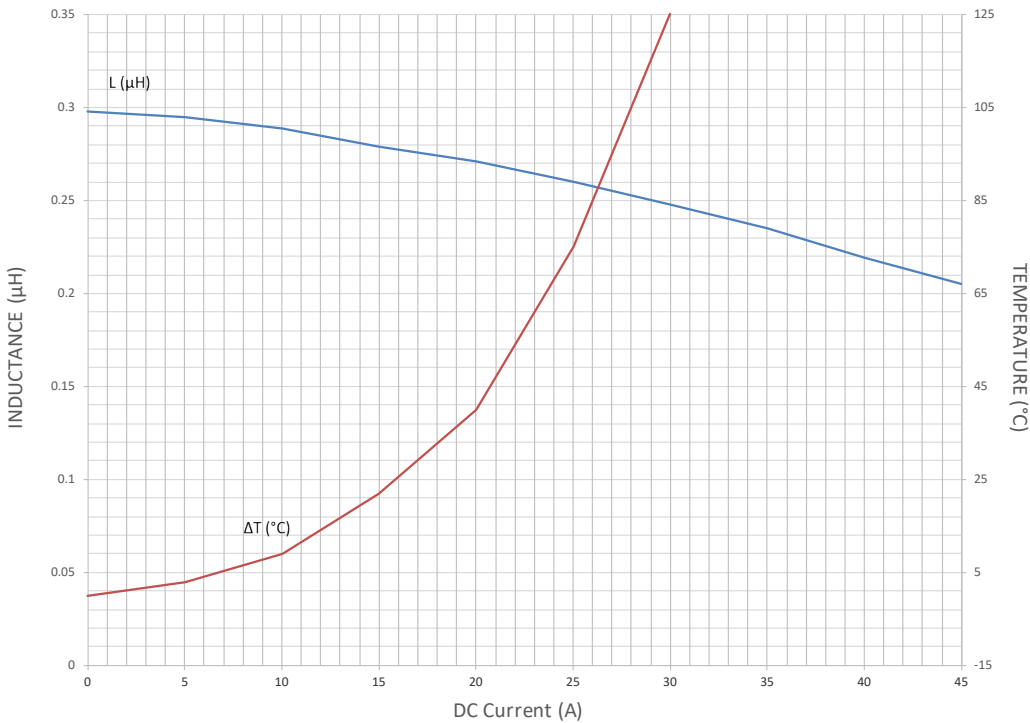
R22



LMLP07A7M-R33

L&I Curve

R33



LMax Low Profile/High Current Power Inductor

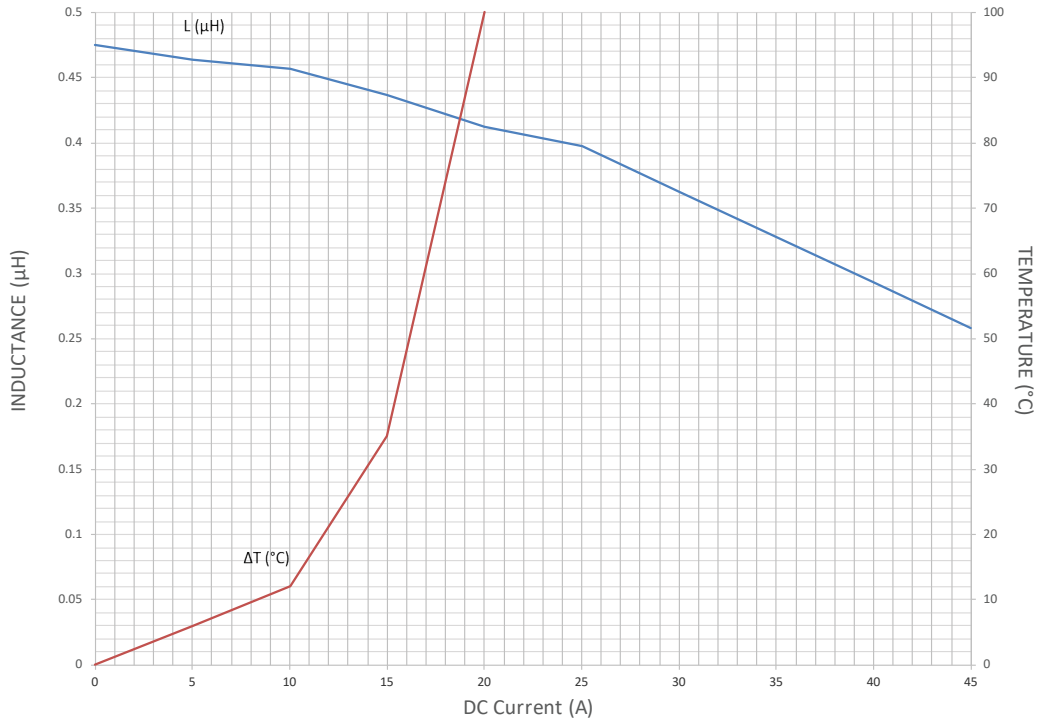
LMLP Series – Style D



LMLP07A7M-R47

L&I Curve

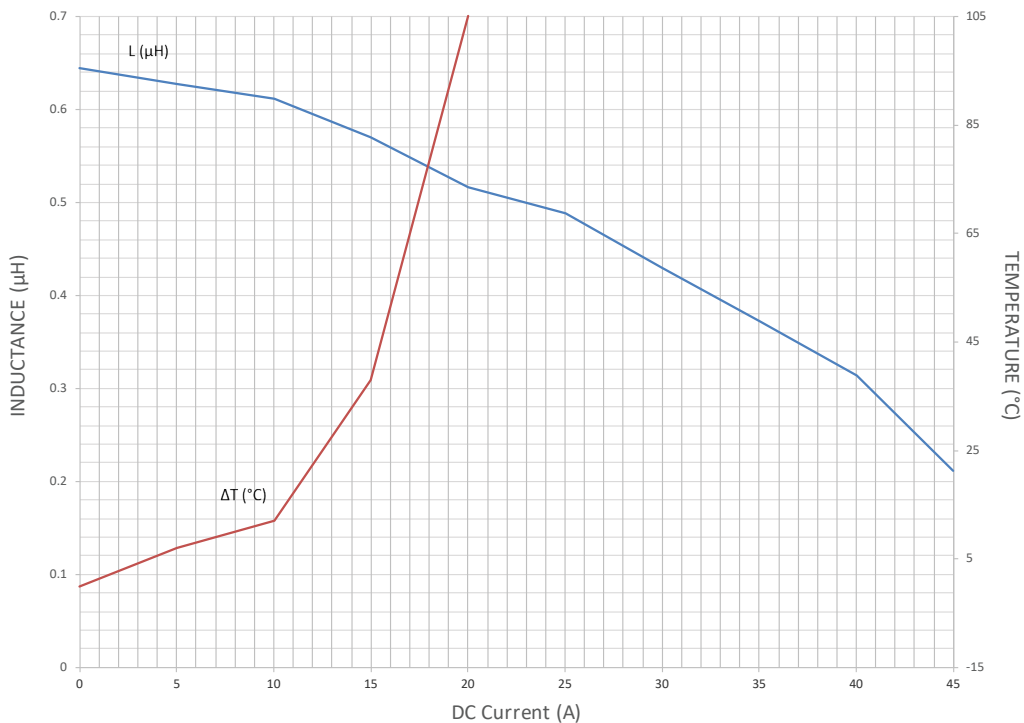
R47



LMLP07A7M-R68

L&I Curve

R68



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LMax Low Profile/High Current Power Inductor

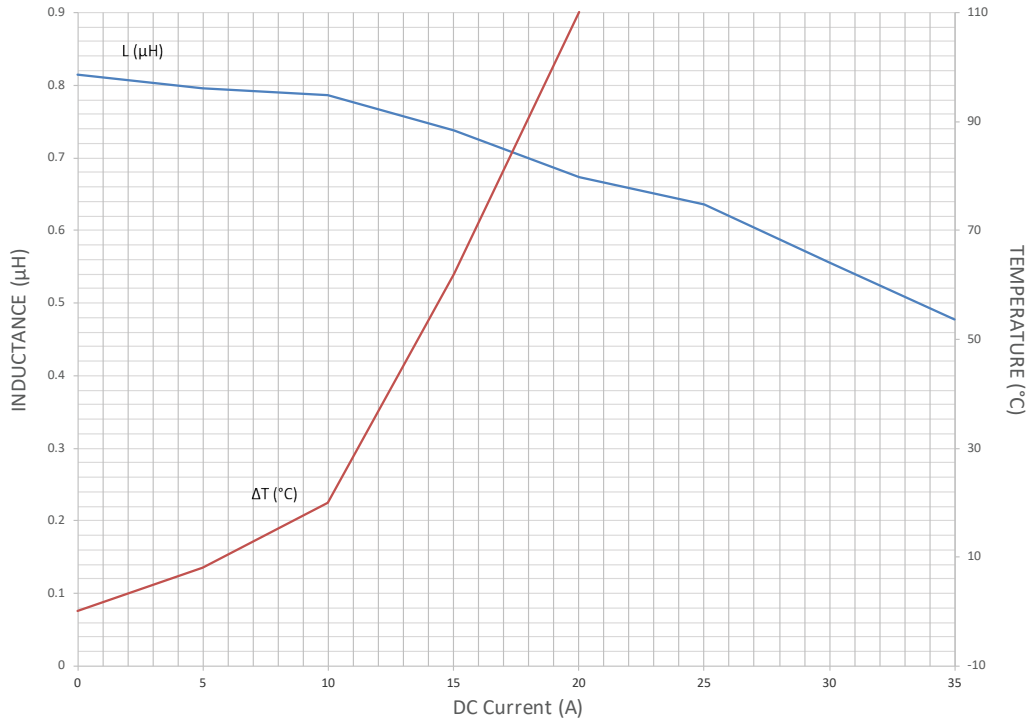
LMLP Series – Style D



LMLP07A7M-R82

L&I Curve

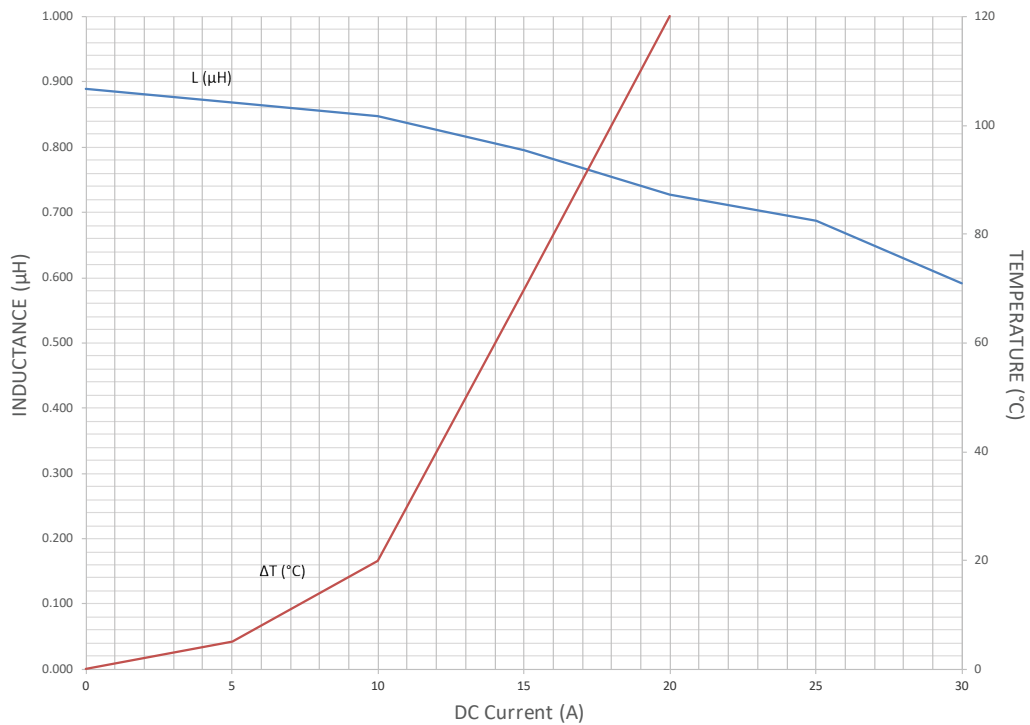
R82



LMLP07A7M-1R0

L&I Curve

1R0



LMax Low Profile/High Current Power Inductor

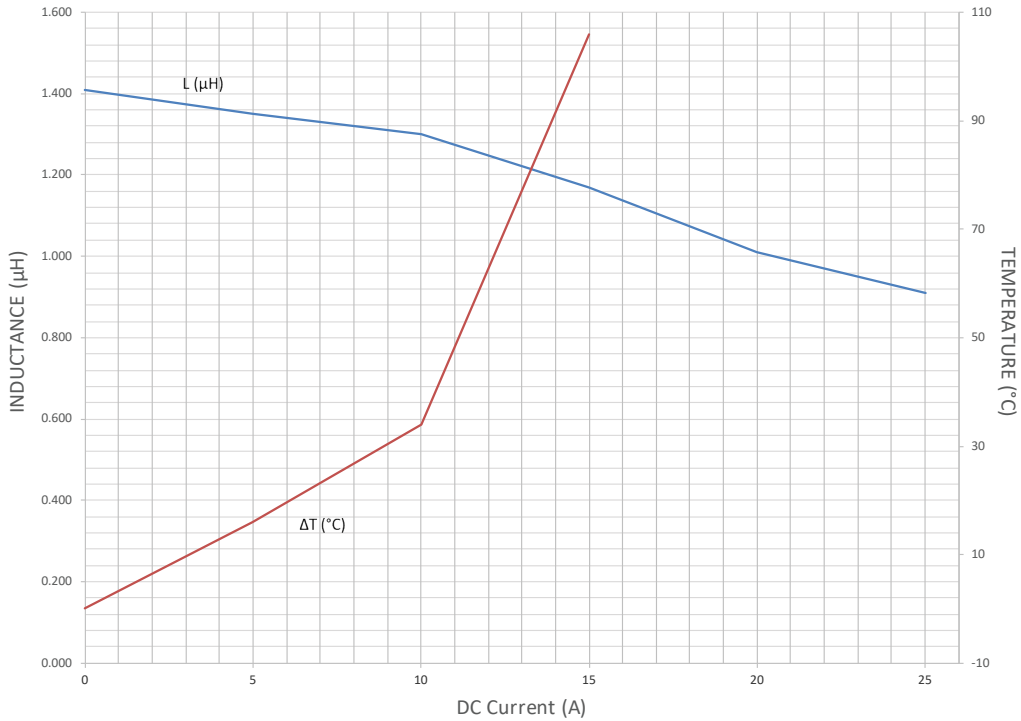
LMLP Series – Style D



LMLP07A7M-1R5

L&I Curve

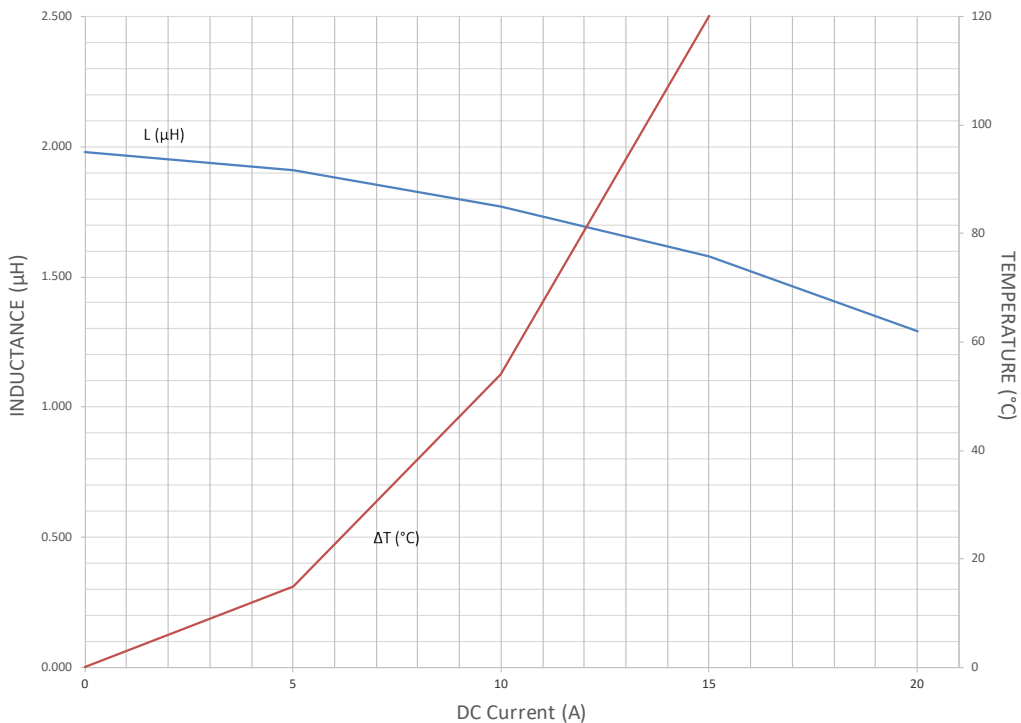
1R5



LMLP07A7M-2R2

L&I Curve

2R2



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LMax Low Profile/High Current Power Inductor

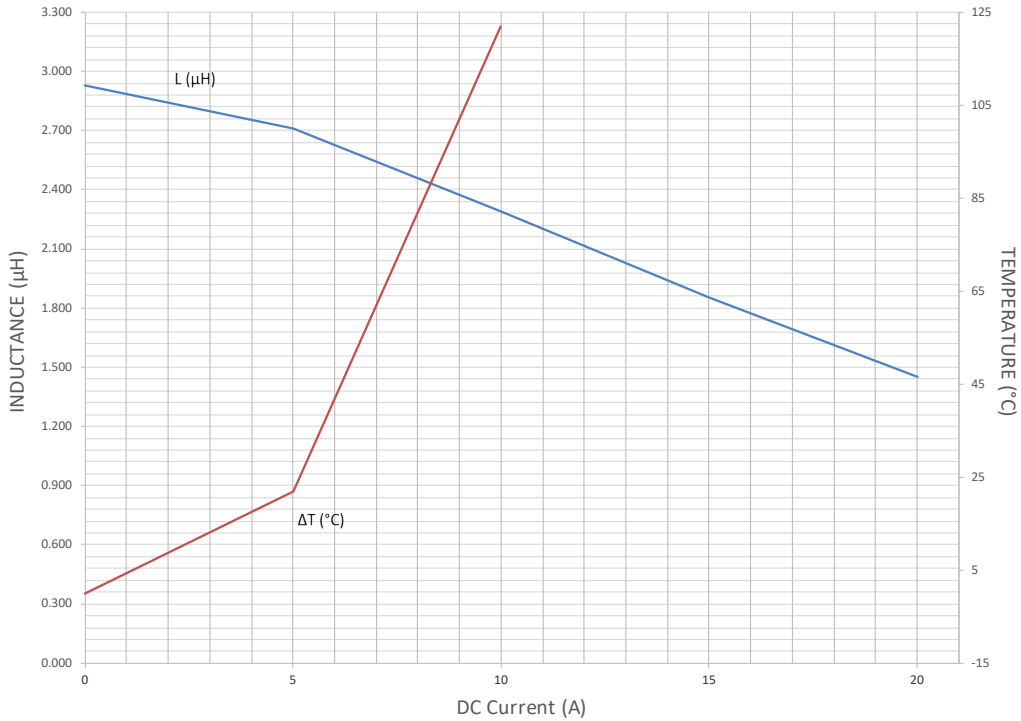
LMLP Series – Style D



LMLP07A7M-3R3

L&I Curve

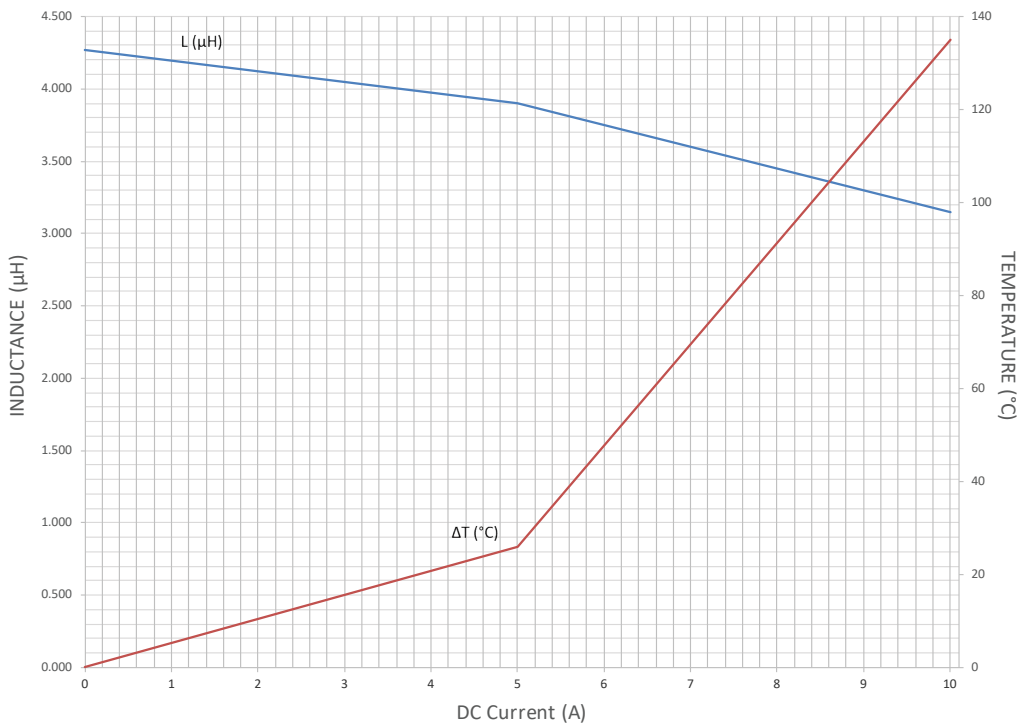
3R3



LMLP07A7M-4R7

L&I Curve

4R7



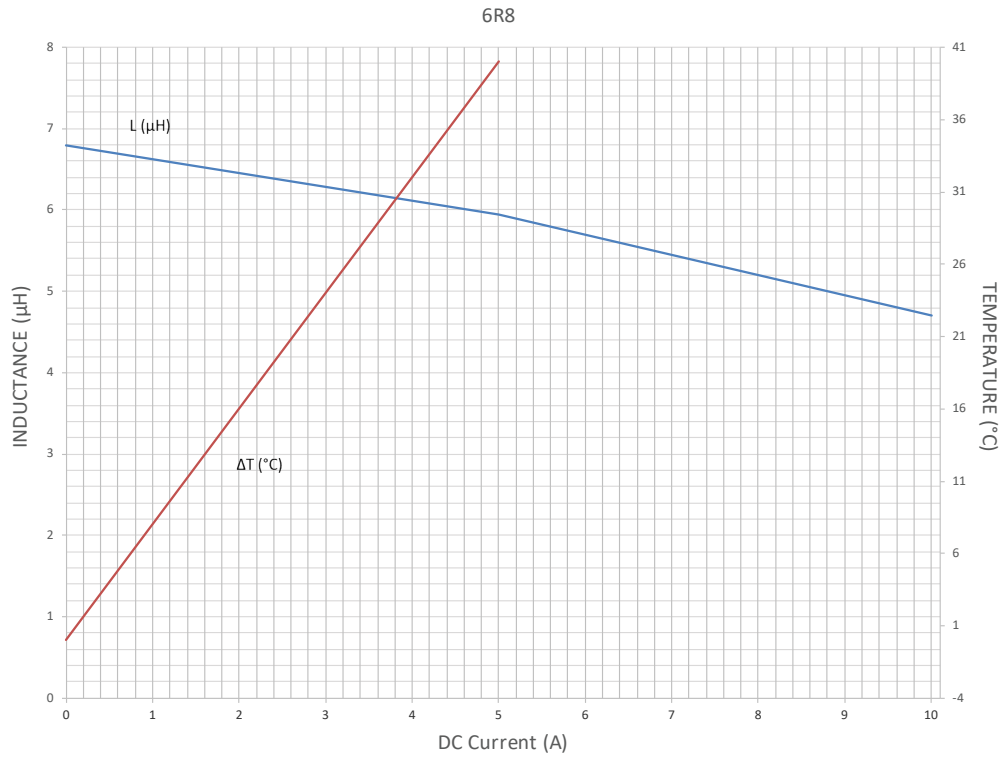
LMax Low Profile/High Current Power Inductor

LMLP Series – Style D



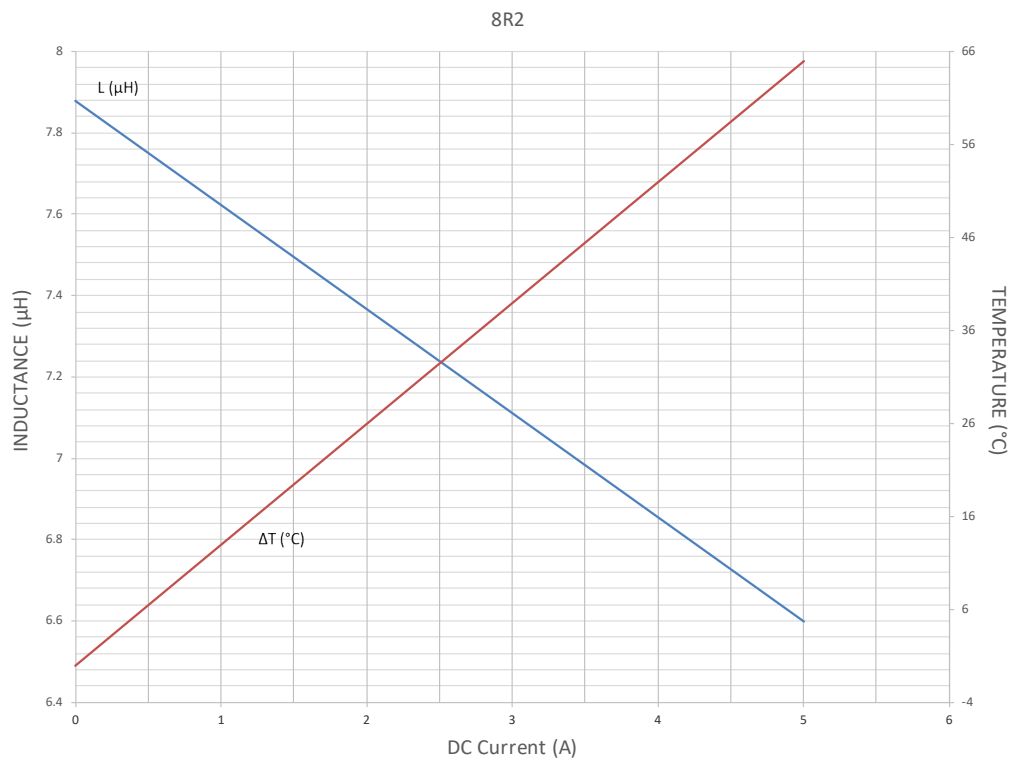
LMLP07A7M-6R8

L&I Curve



LMLP07A7M-8R2

L&I Curve



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LMax Low Profile/High Current Power Inductor

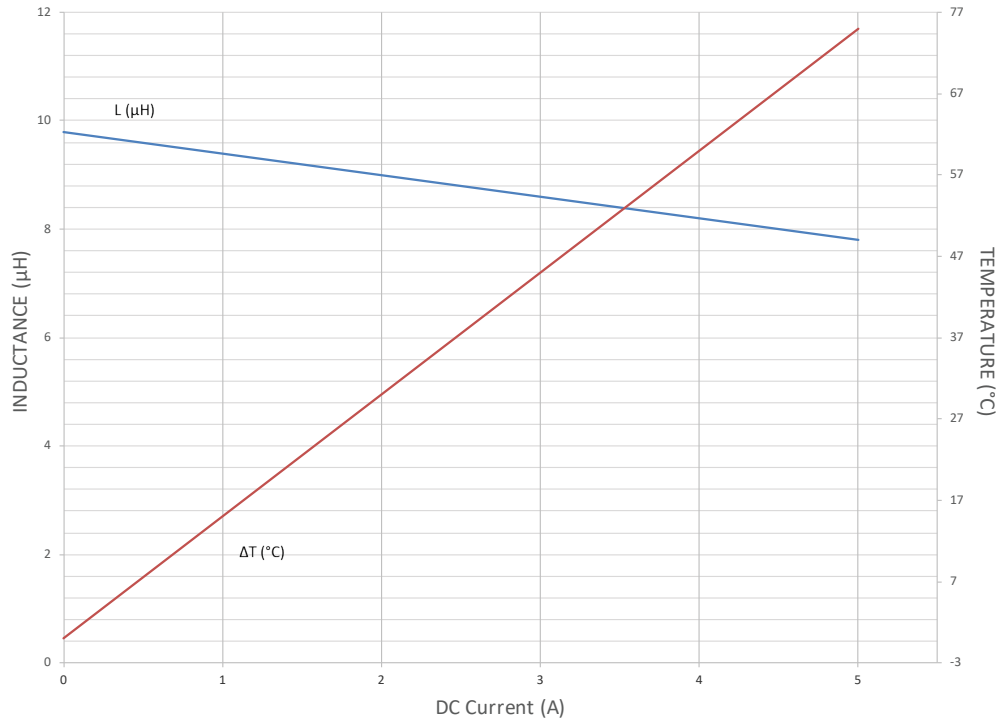
LMLP Series – Style D



LMLP07A7M-100

L&I Curve

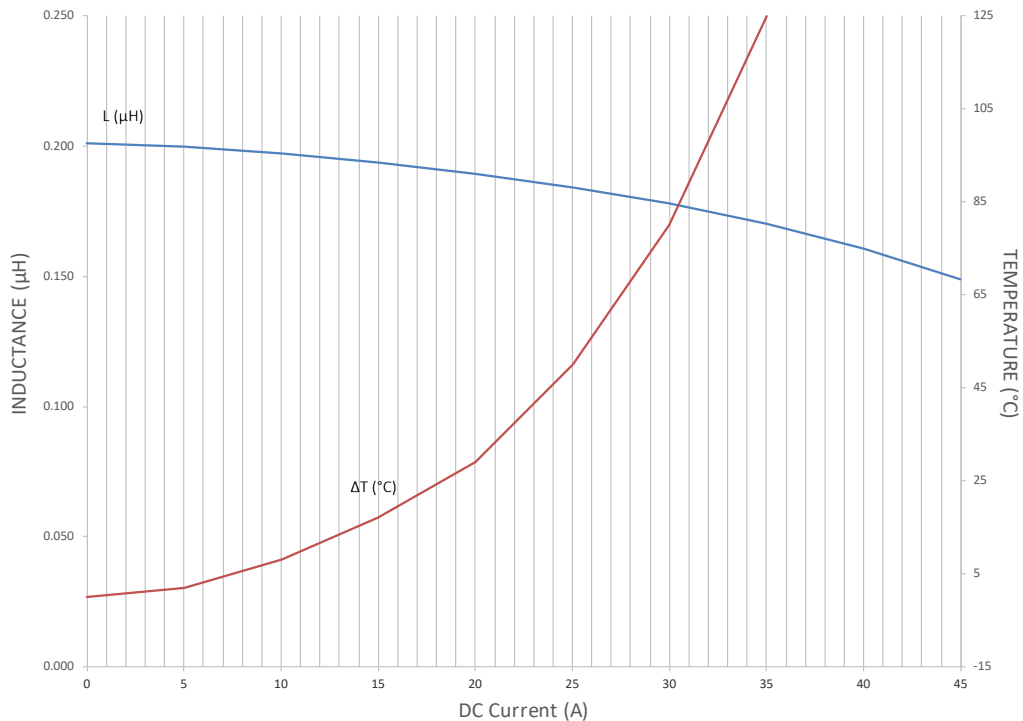
100



LMLP07A7M-R22

I&T Curve

R22



LMax Low Profile/High Current Power Inductor

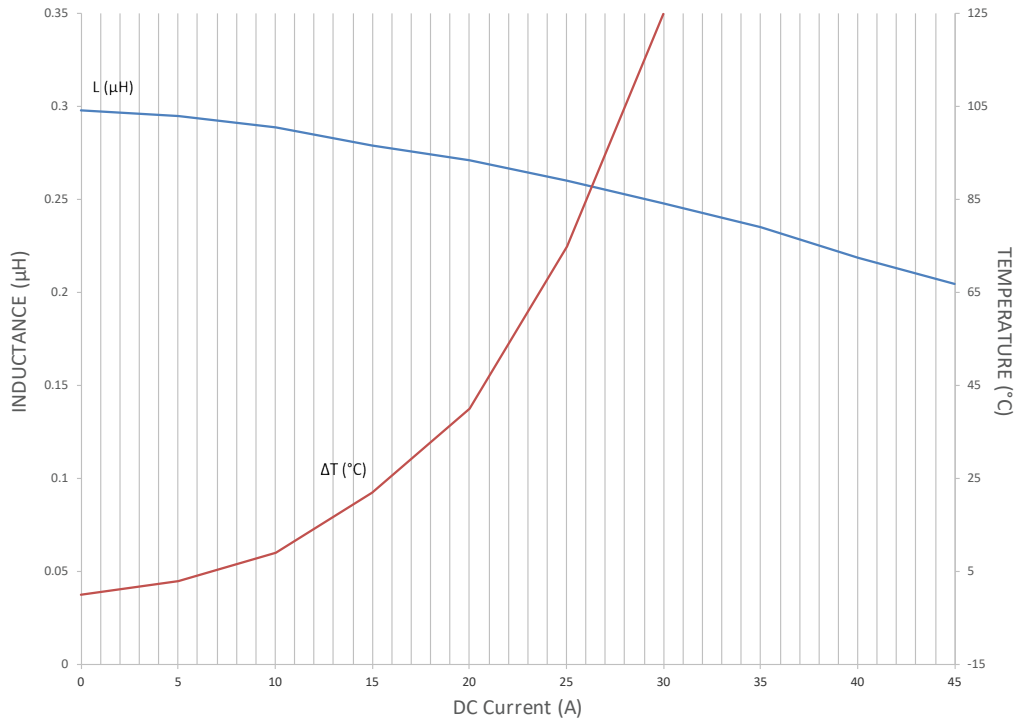
LMLP Series – Style D



LMLP07A7M-R33

I&T Curve

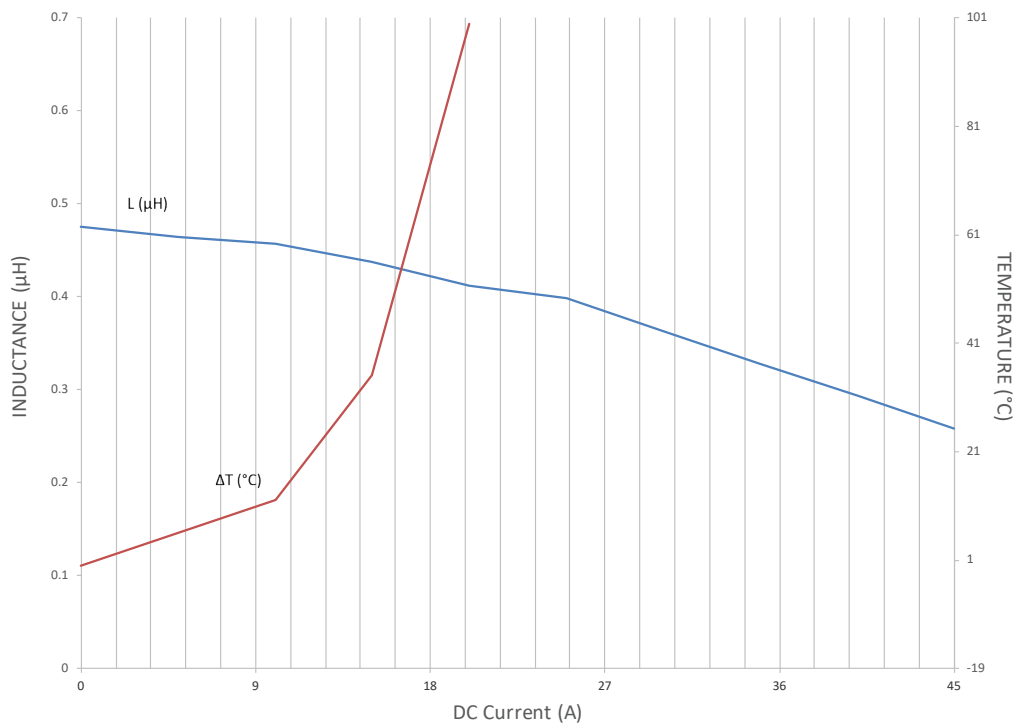
R33



LMLP07A7M-R47

I&T Curve

R47



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LMax Low Profile/High Current Power Inductor

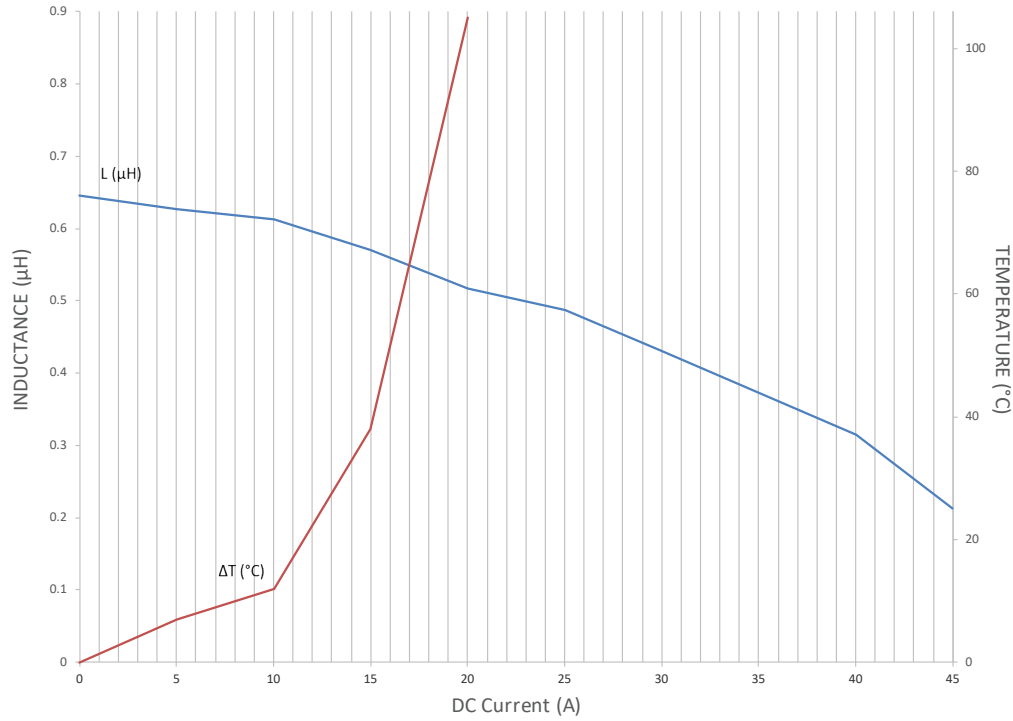
LMLP Series – Style D



LMLP07A7M-R68

I&T Curve

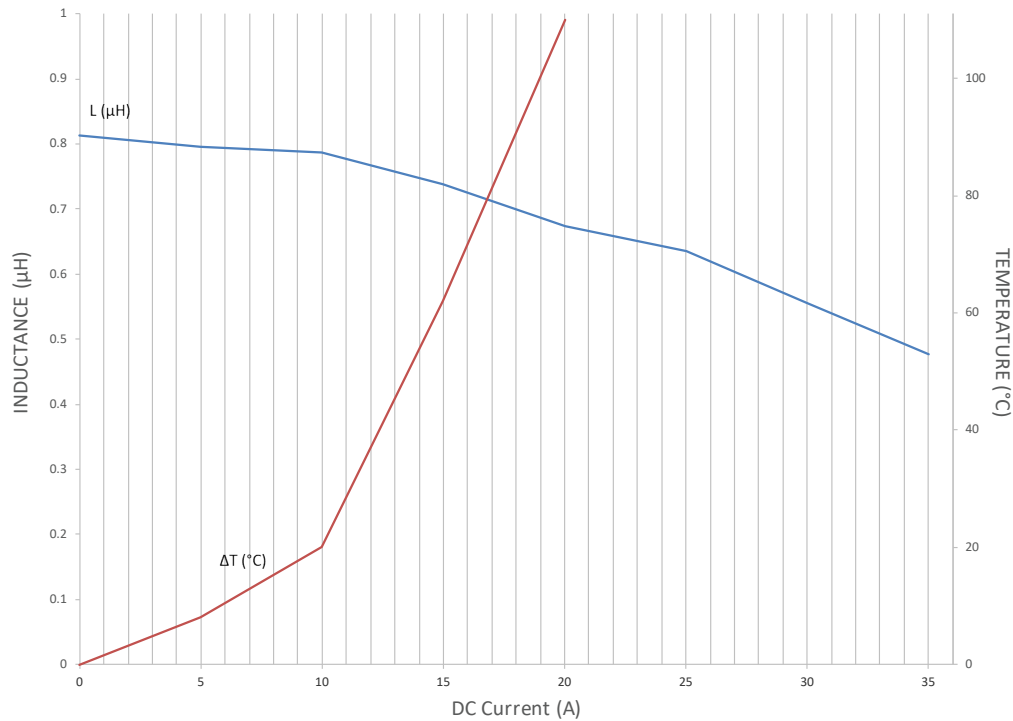
R68



LMLP07A7M-R82

I&T Curve

R82



LMax Low Profile/High Current Power Inductor

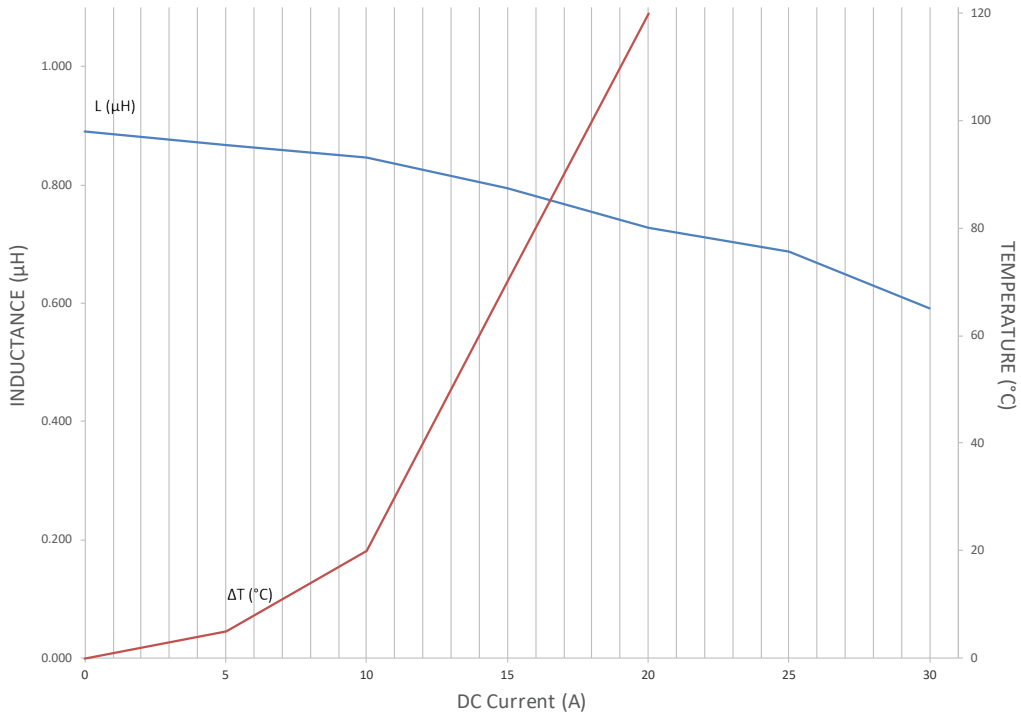
LMLP Series – Style D



LMLP07A7M-1R0

I&T Curve

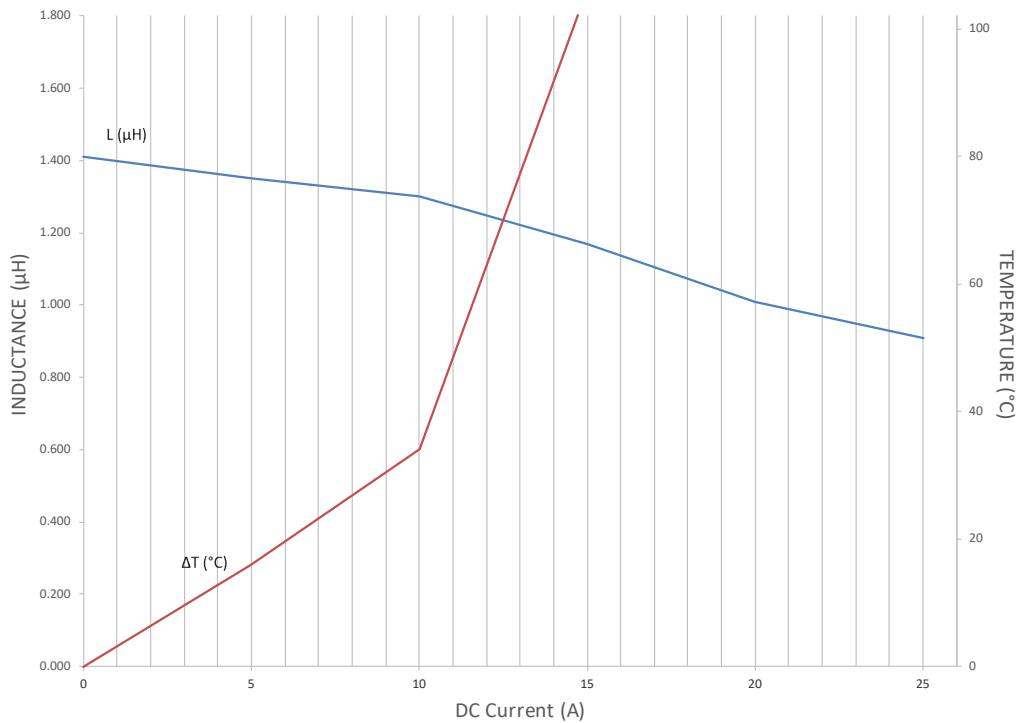
1R0



LMLP07A7M-1R5

I&T Curve

1R5



LMax Low Profile/High Current Power Inductor

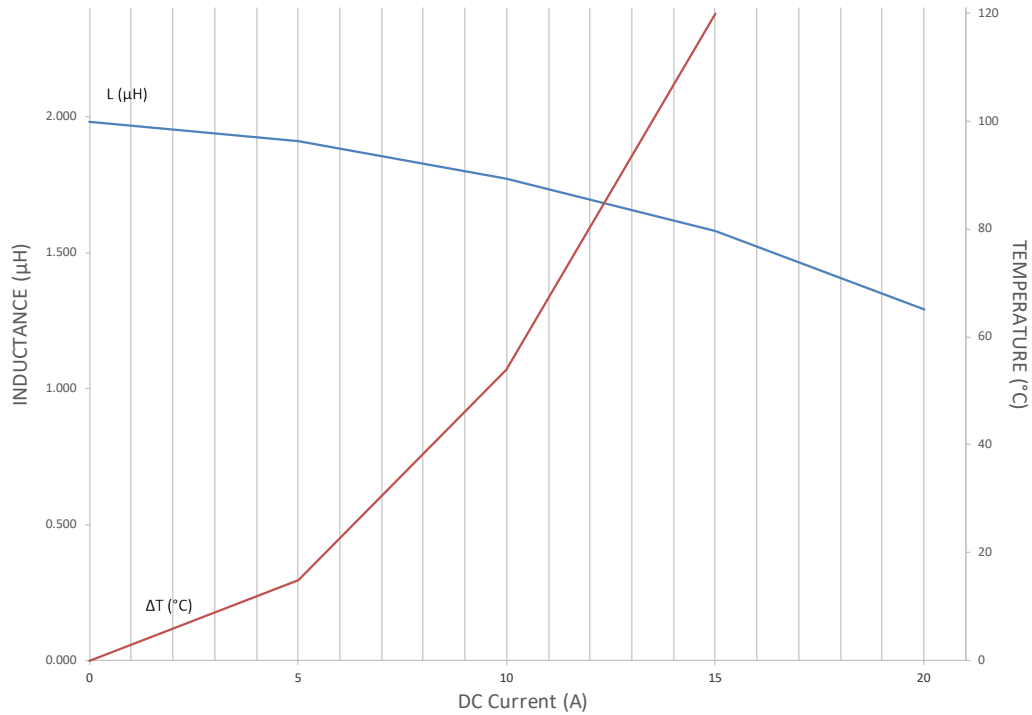
LMLP Series – Style D



LMLP07A7M-2R2

I&T Curve

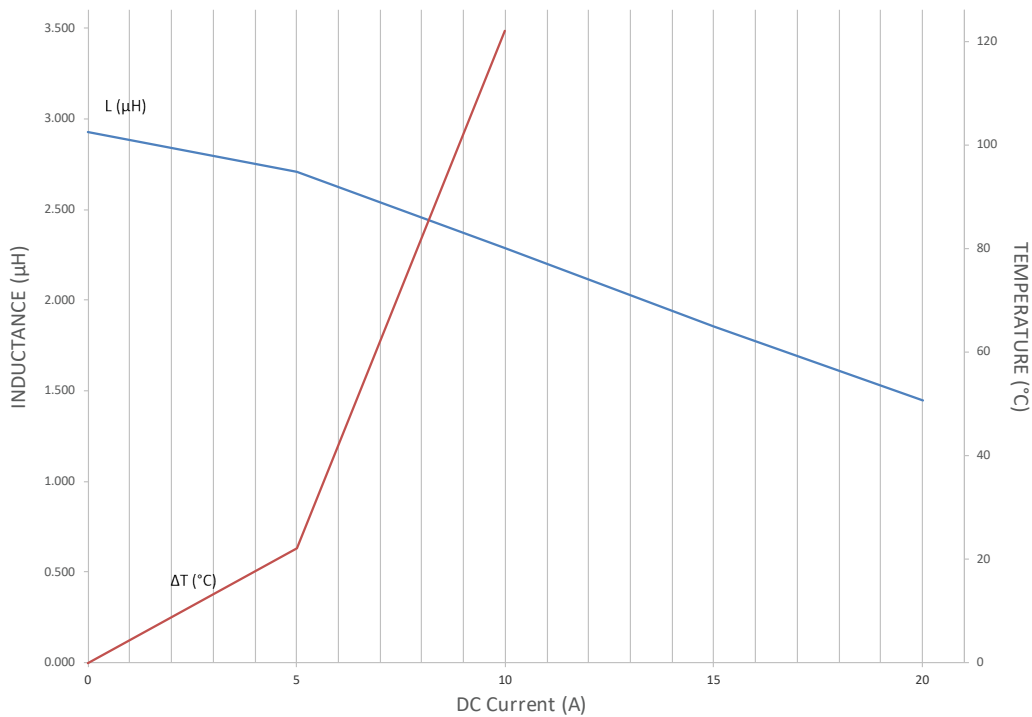
2R2



LMLP07A7M-3R3

I&T Curve

3R3



LMax Low Profile/High Current Power Inductor

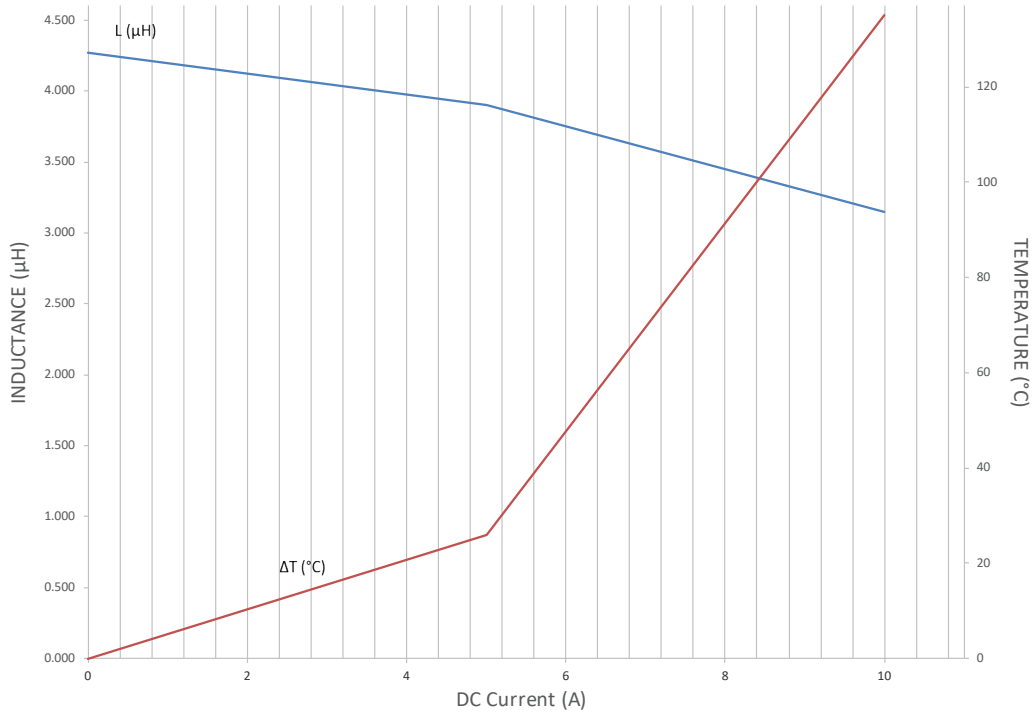
LMLP Series – Style D



LMLP07A7M-4R7

I&T Curve

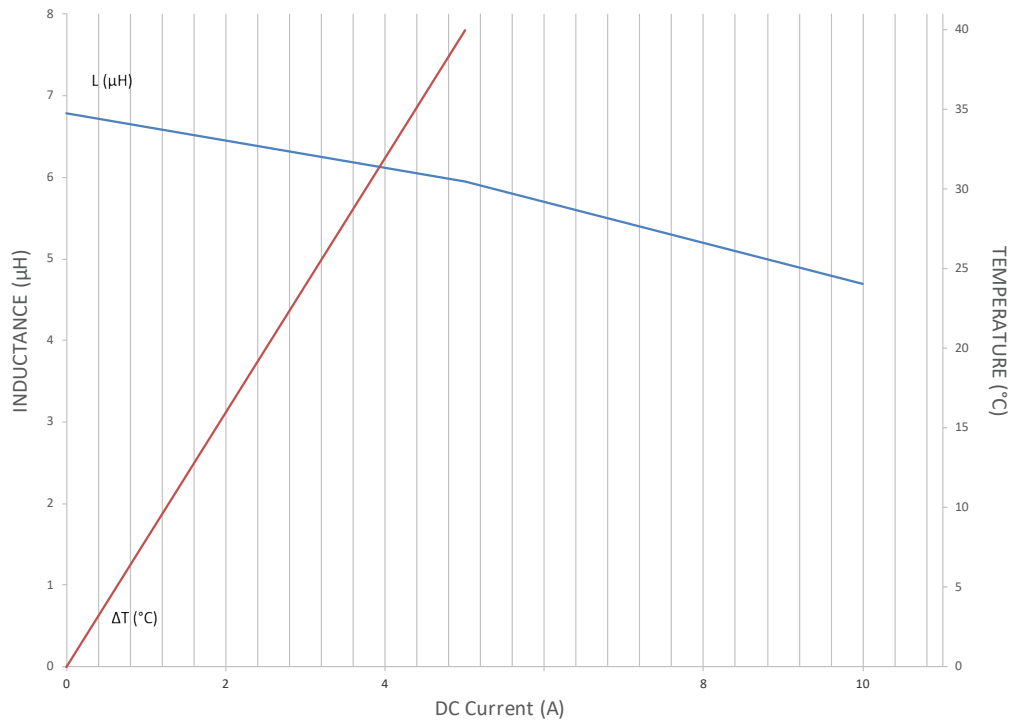
4R7



LMLP07A7M-6R8

I&T Curve

6R8



LMax Low Profile/High Current Power Inductor

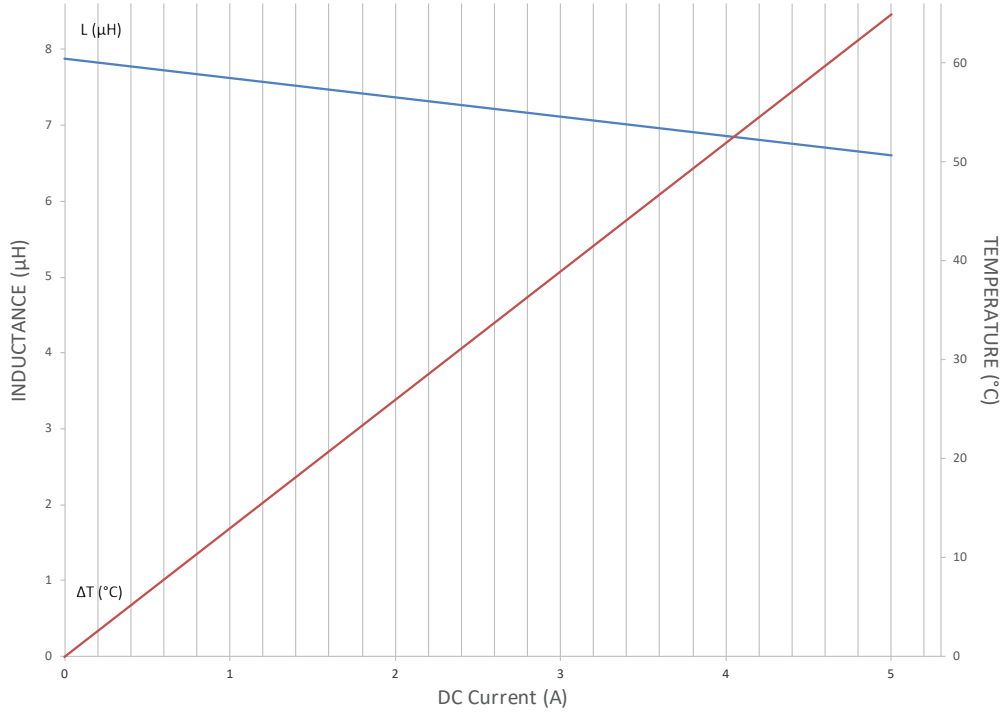
LMLP Series – Style D



LMLP07A7M-8R2

I&T Curve

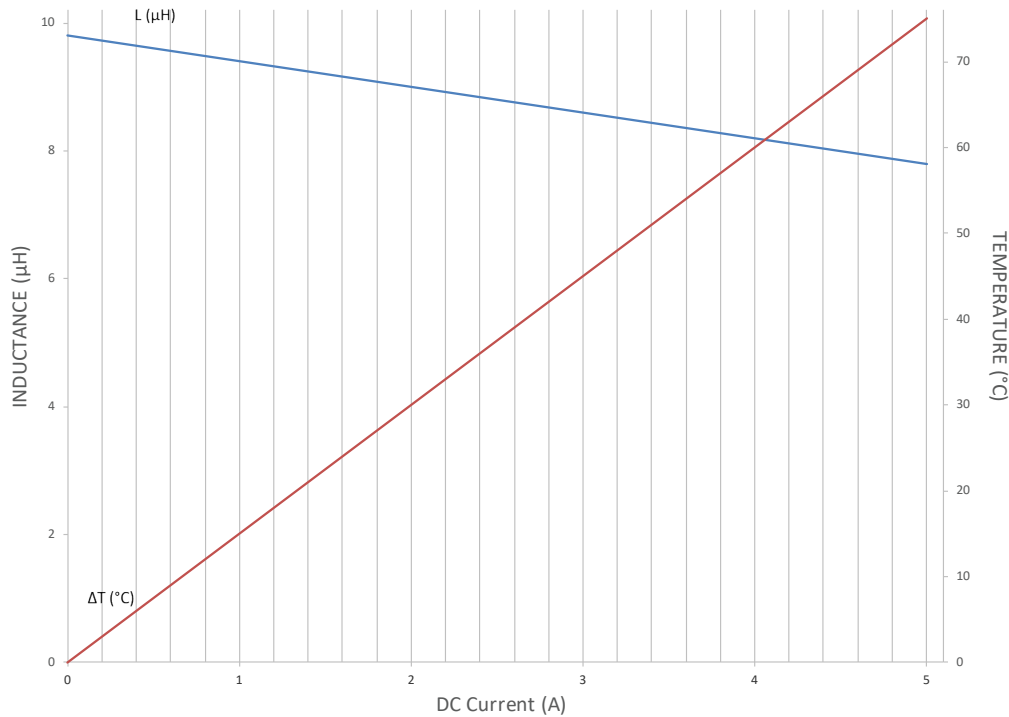
8R2



LMLP07A7M-100

I&T Curve

100



LMax Low Profile/High Current Power Inductor

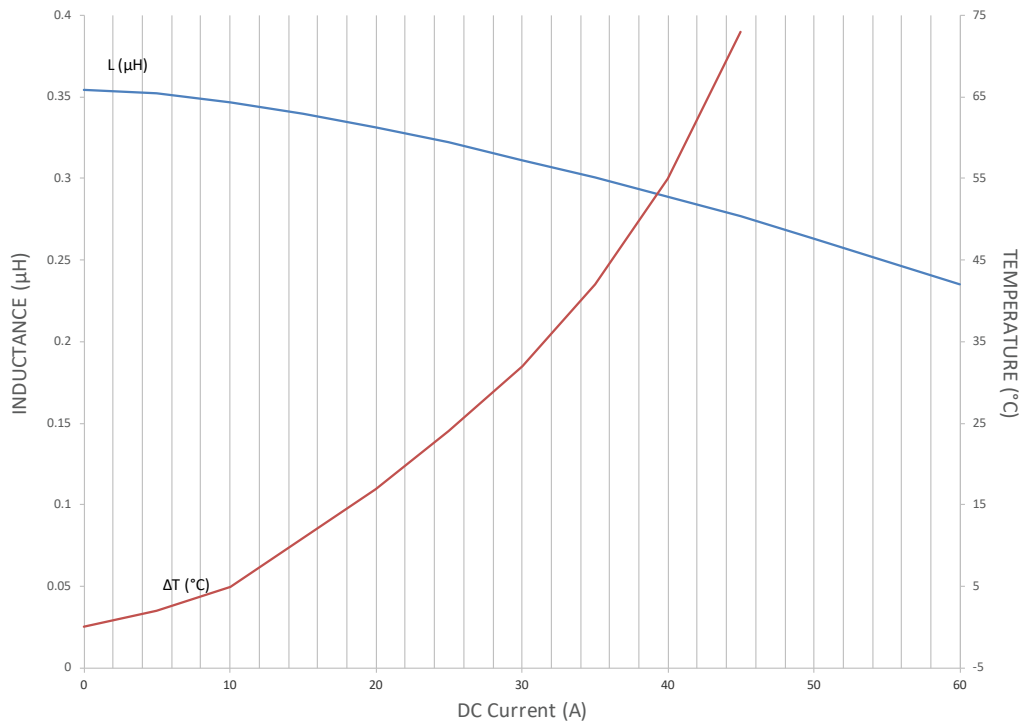
LMLP Series – Style D



LMLP1011M-R36

L&I Curve

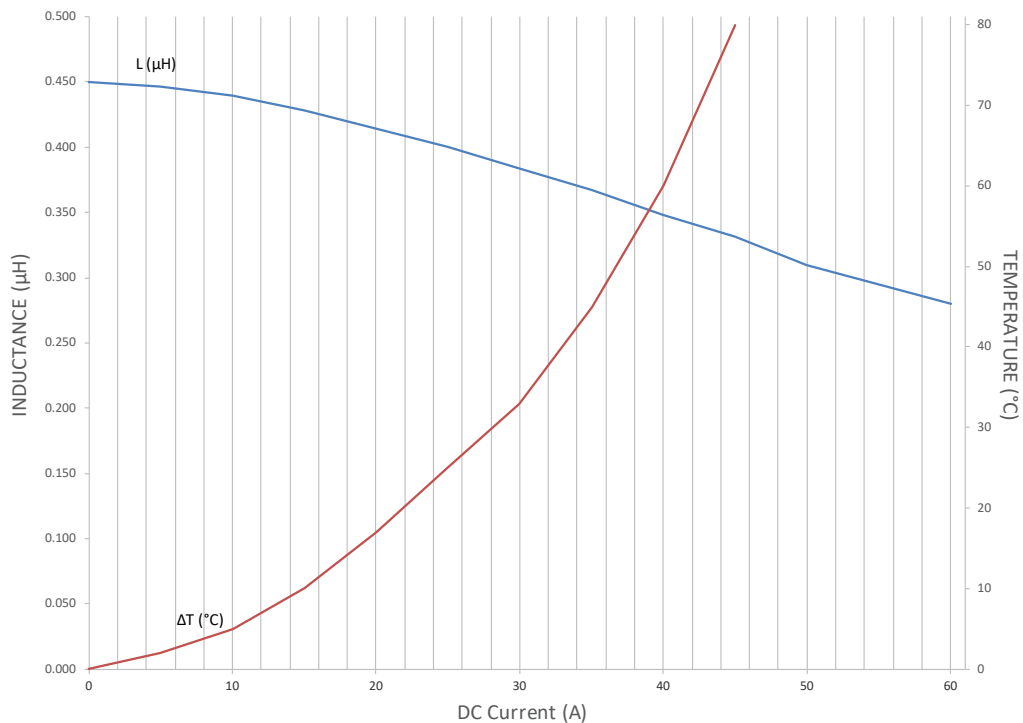
R36



LMLP1011M-R47

L&I Curve

R47



LMax Low Profile/High Current Power Inductor

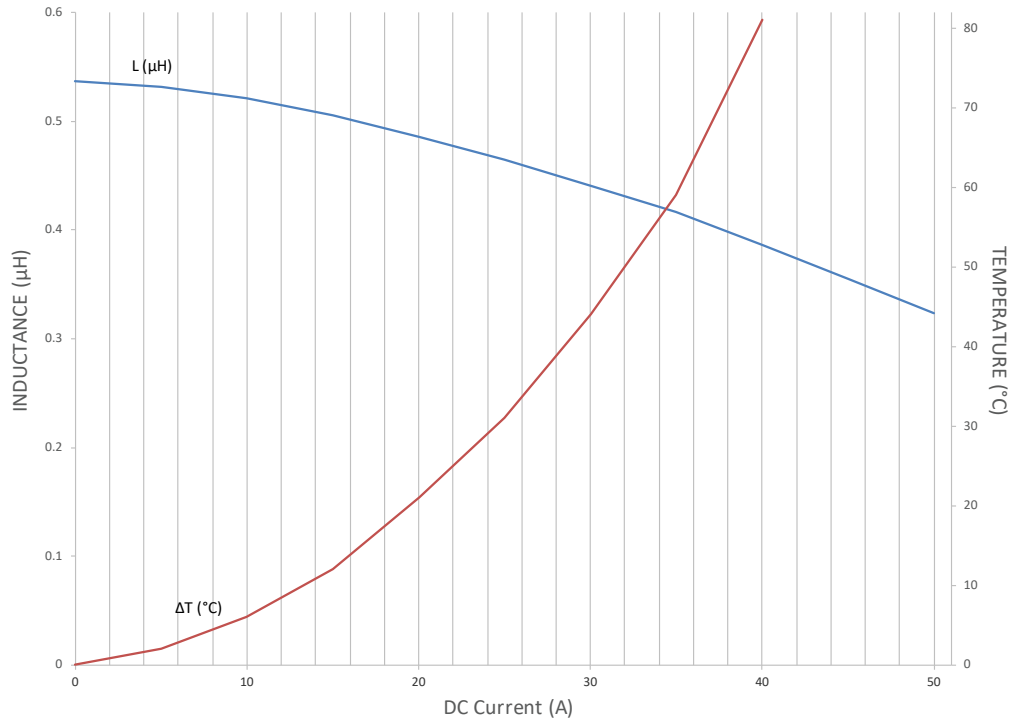
LMLP Series – Style D



LMLP1011M-R56

L&I Curve

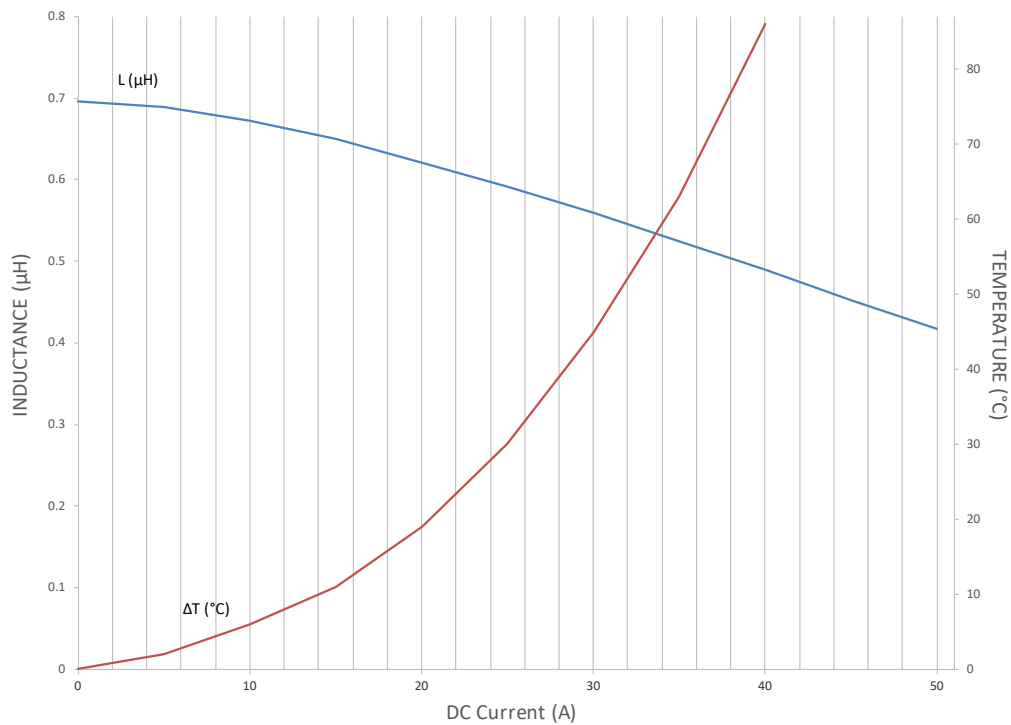
R56



LMLP1011M-R68

L&I Curve

R68



LMax Low Profile/High Current Power Inductor

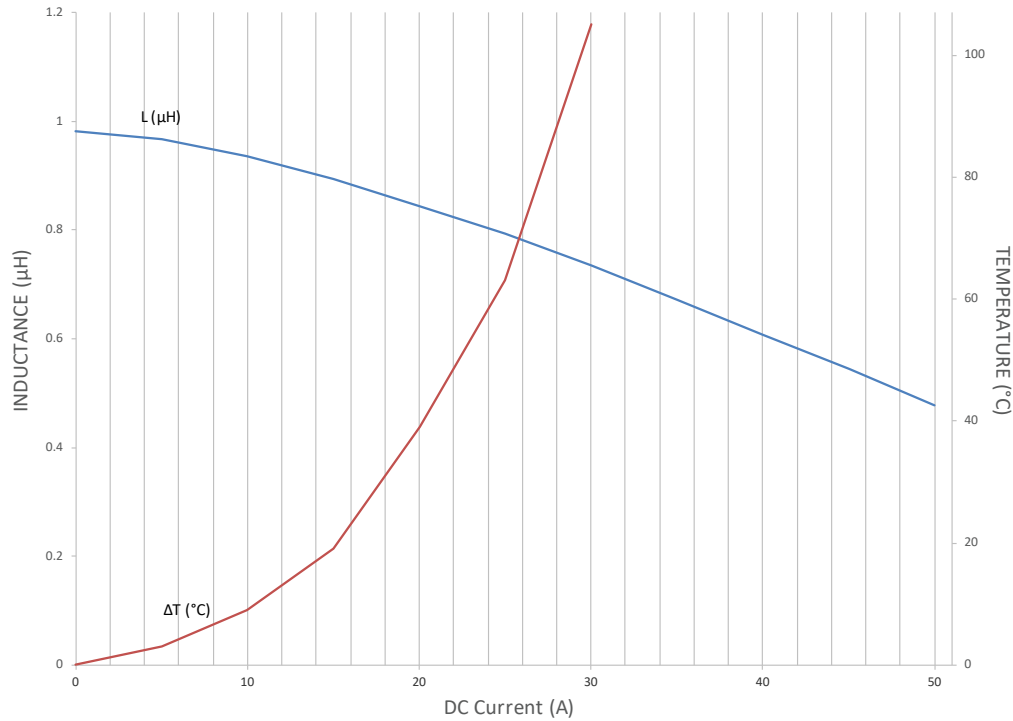
LMLP Series – Style D



LMLP1011M-1R0

L&I Curve

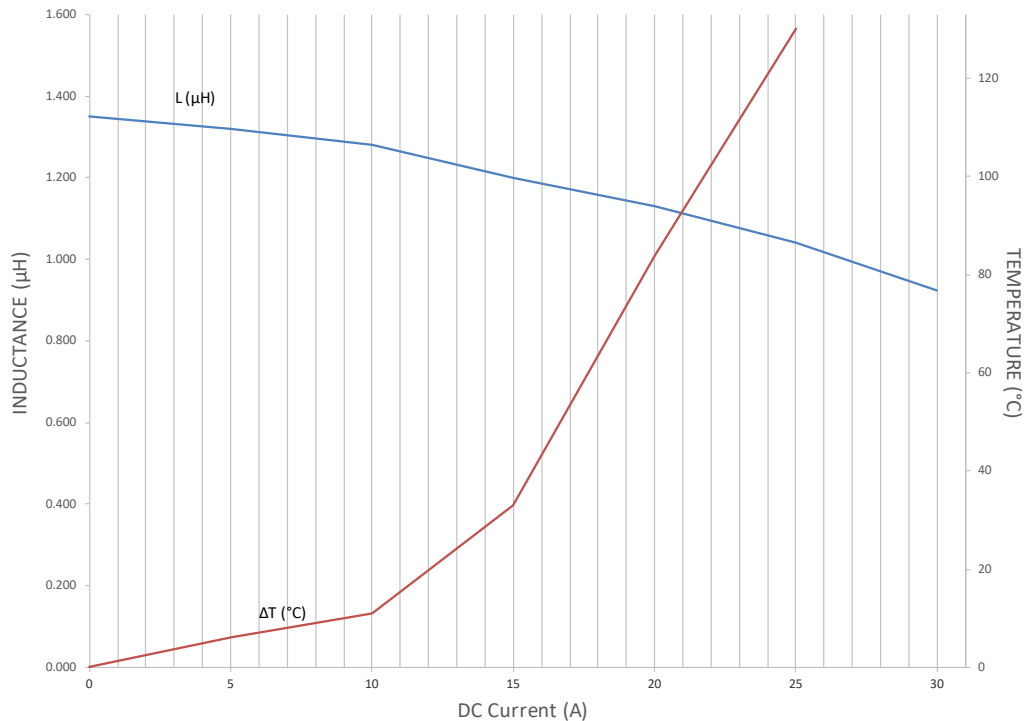
1R0



LMLP1011M-1R5

L&I Curve

1R5



LMax Low Profile/High Current Power Inductor

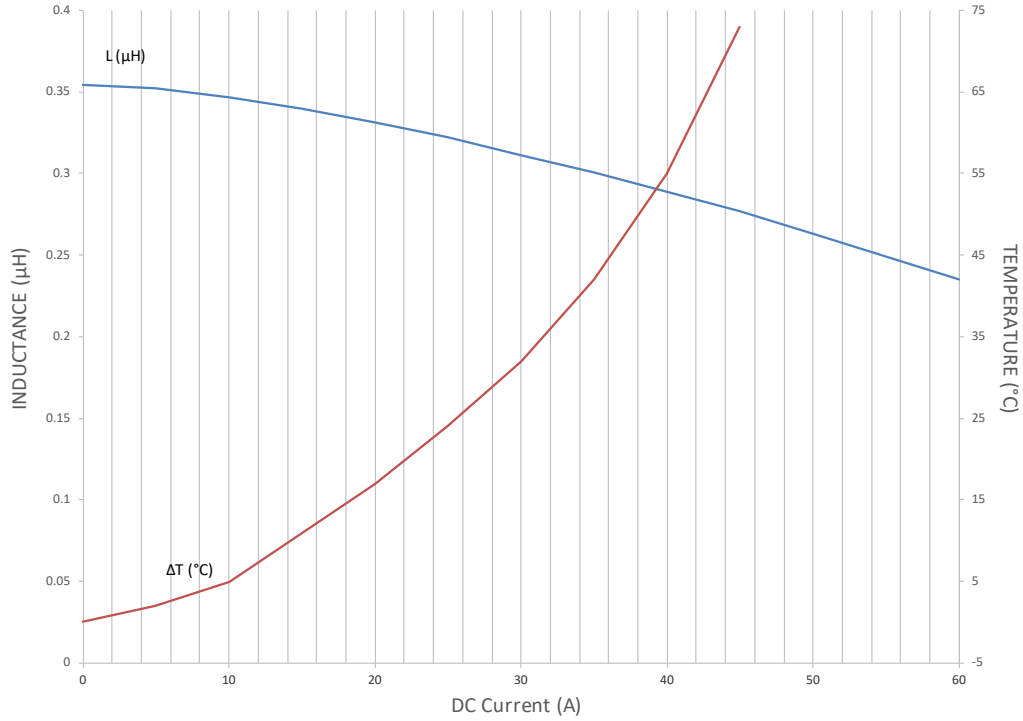
LMLP Series – Style D



LMLP1011M-R36

I&T Curve

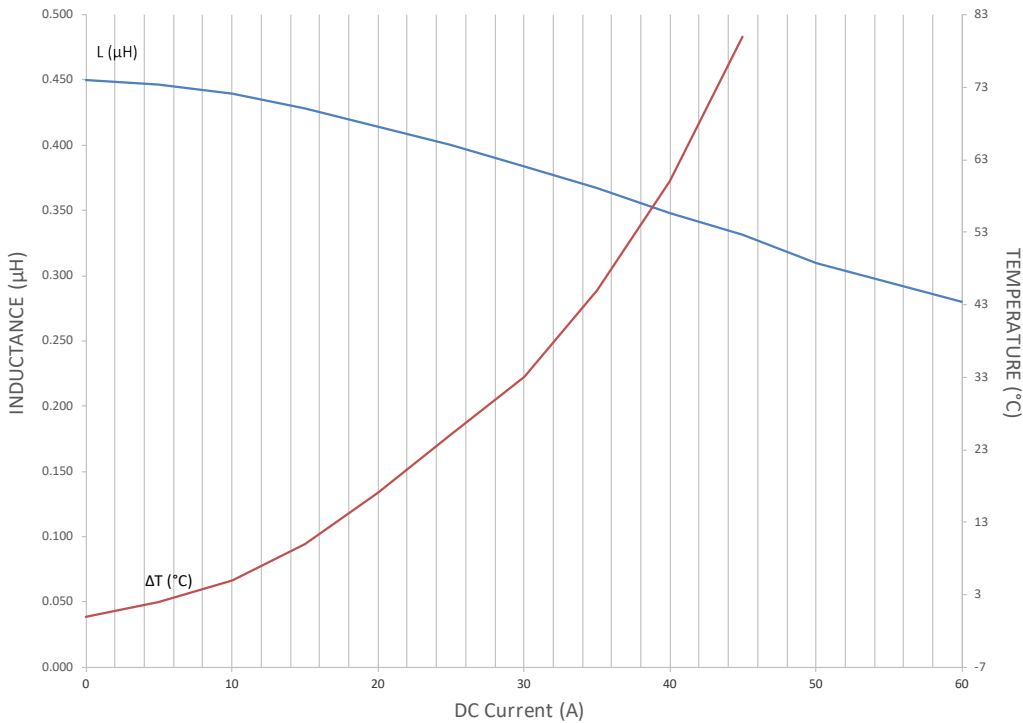
R36



LMLP1011M-R47

I&T Curve

R47



LMax Low Profile/High Current Power Inductor

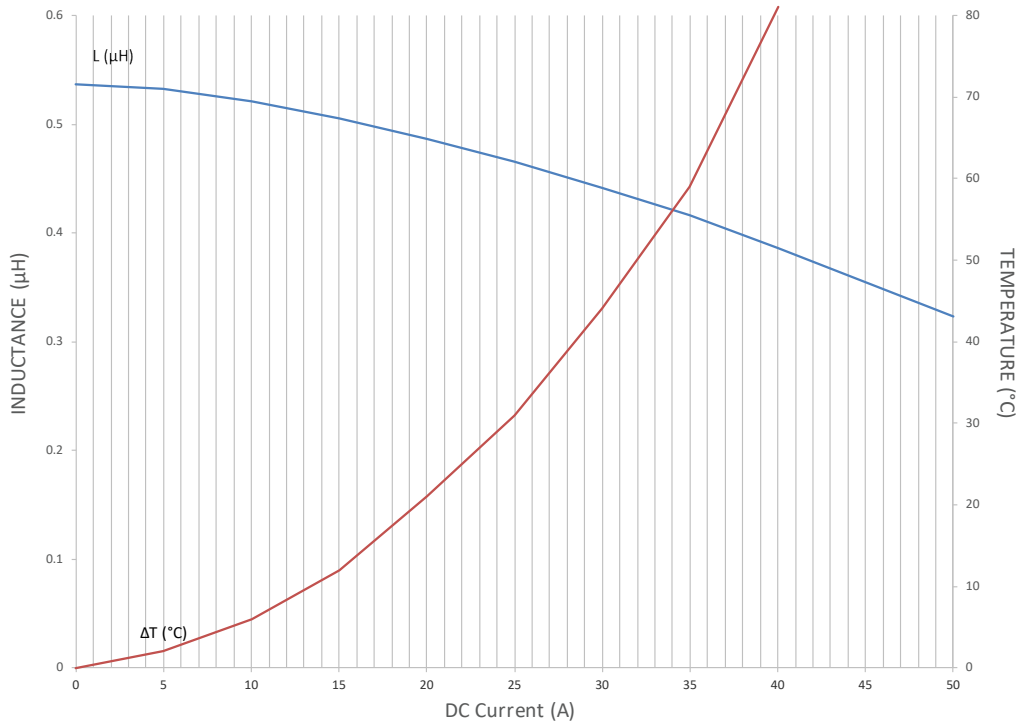
LMLP Series – Style D



LMLP1011M-R56

I&T Curve

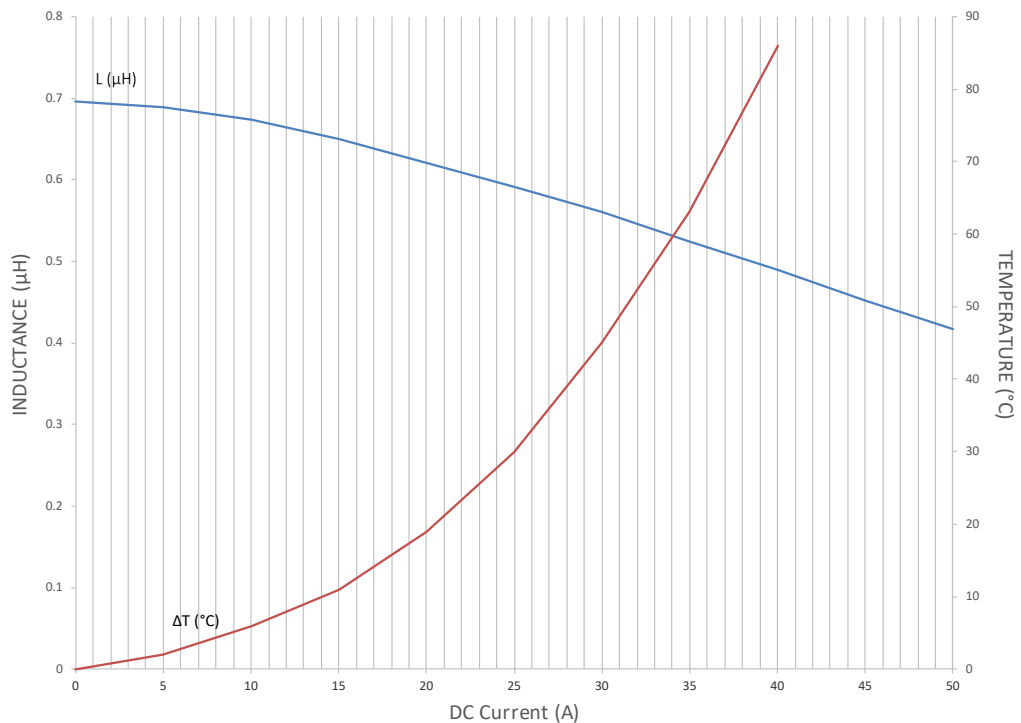
R56



LMLP1011M-R68

I&T Curve

R68



LMax Low Profile/High Current Power Inductor

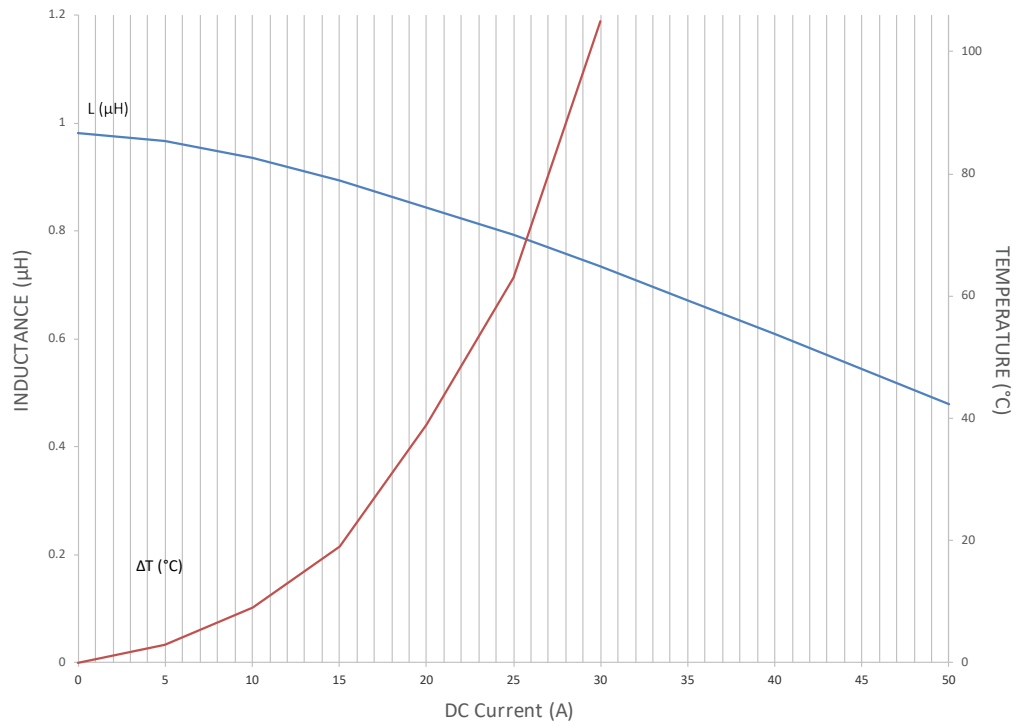
LMLP Series – Style D



LMLP1011M-1R0

I&T Curve

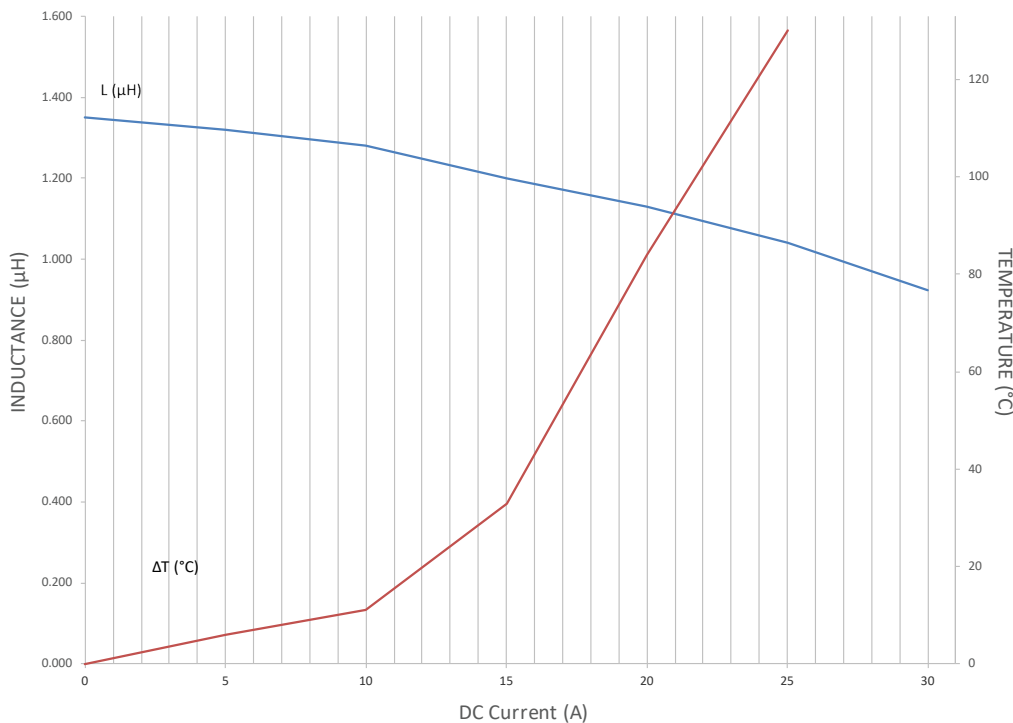
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LMLP1011M-1R5

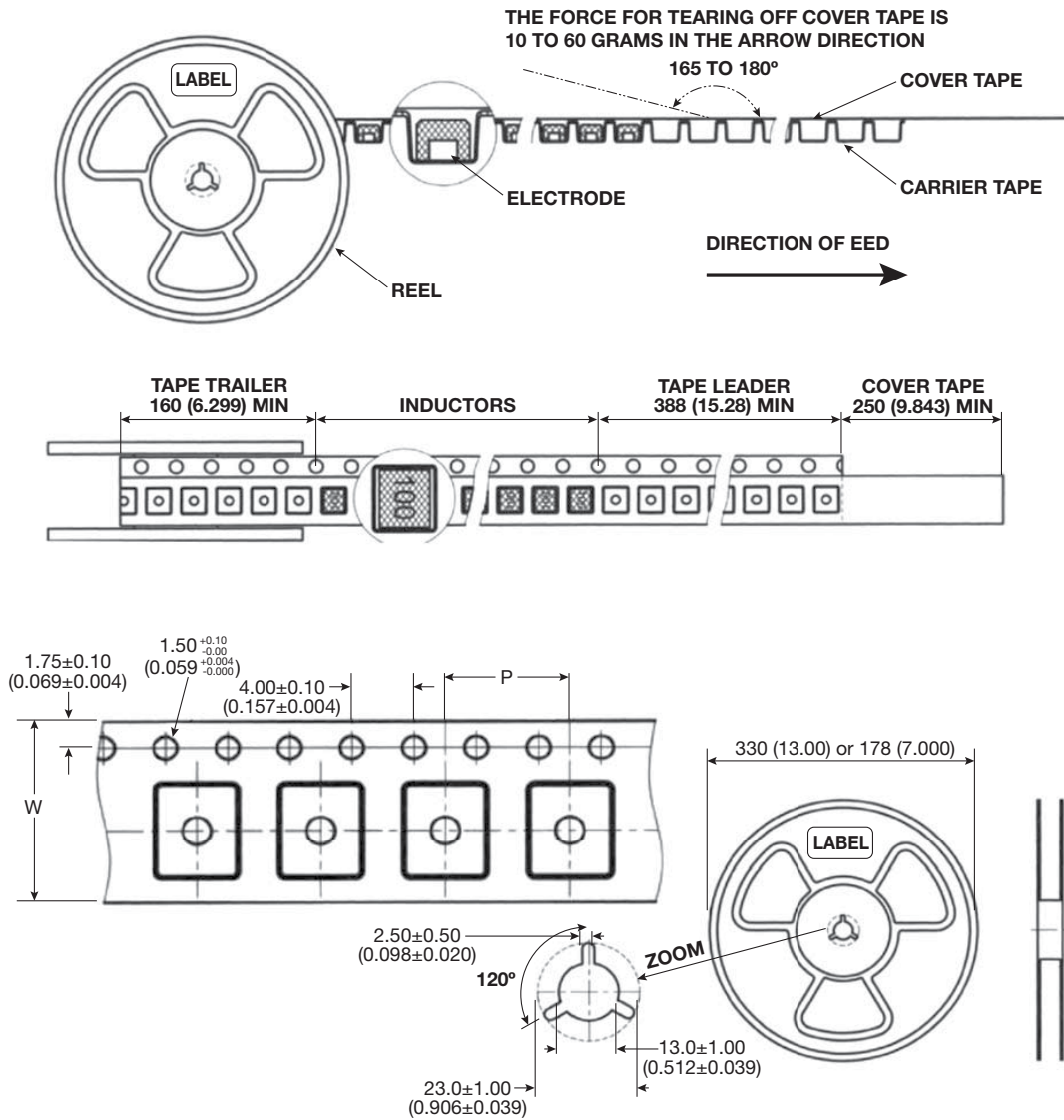
I&T Curve

1R5



LMax Low Profile/High Current Power Inductor

LMLP Series – Style D



| Size Code | Tape Size (mm) | | Reel Size | SPQ |
|-----------|----------------|----|-----------|------|
| | W | P | | |
| 0405 | 12 | 8 | 13" Reel | 2000 |
| 05A6 | 12 | 8 | 13" Reel | 3000 |
| 0506 | 12 | 8 | 13" Reel | 2000 |
| 0707 | 16 | 12 | 13" Reel | 1500 |
| 07B7 | 16 | 12 | 13" Reel | 1500 |
| 07A7 | 16 | 12 | 13" Reel | 1000 |
| 07C7 | 16 | 12 | 13" Reel | 800 |
| 1011 | 24 | 16 | 13" Reel | 500 |
| 1313 | 24 | 16 | 13" Reel | 500 |
| 13B3 | 24 | 20 | 13" Reel | 400 |