

LMax Low Profile Power Inductor

LMLP Series – Style C

FEATURES

- Small and low profile inductor
- It corresponds to high current
- Simple and original magnetic shield structure

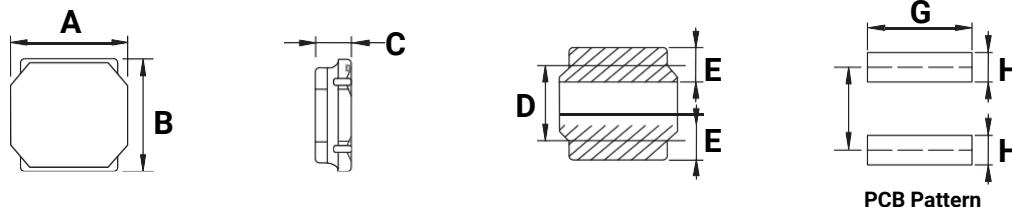
APPLICATIONS

- For small DC/DC converter
(cellular phone, HDD, DVC, DSC, PDA, LCD display etc.)

CHARACTERISTICS

- Operating Temperature Range: -40°C to +125°C
- Storage Temperature Range: -40°C to +85°C
- Saturation Current: The saturation current value (ISAT) is the DC current value when the inductance decreases by 30% of its initial value (at 20°C).
- Temperature Rise Current: The temperature rise current value (IRMS) is the DC current value that increases component temperature by up to 40°C.

DIMENSIONS



| Type | A | B | C max | D | E | F | G | H |
|------|--------------------------------|--------------------------------|-----------------|--------------------------------|--------------------------------|-----------------|-----------------|-----------------|
| 0202 | 2.50 ± 0.20 (0.095 ± 0.004) | 2.00 ± 0.20 (0.095 ± 0.004) | 1.05 (0.039) | 1.45 ± 0.20 (0.057 ± 0.008) | 0.60 ± 0.20 (0.240 ± 0.008) | 1.45 (0.057) | 2.00 (0.079) | 0.70 (0.028) |
| 0303 | 3.00 ± 0.20 (0.118 ± 0.008) | 3.00 ± 0.20 (0.118 ± 0.008) | 1.00 (0.039) | 1.90 ± 0.20 (0.075 ± 0.008) | 0.90 ± 0.20 (0.035 ± 0.008) | 2.20 (0.087) | 2.70 (0.106) | 0.80 (0.032) |
| 03A2 | 3.00 ± 0.20 (0.118 ± 0.008) | 3.00 ± 0.20 (0.118 ± 0.008) | 1.20 (0.047) | 1.90 ± 0.20 (0.075 ± 0.008) | 0.90 ± 0.20 (0.035 ± 0.008) | 2.20 (0.087) | 2.70 (0.106) | 0.80 (0.032) |
| 03B3 | 3.00 ± 0.20 (0.118 ± 0.008) | 3.00 ± 0.20 (0.118 ± 0.008) | 1.50 (0.059) | 1.90 ± 0.20 (0.075 ± 0.008) | 0.90 ± 0.20 (0.035 ± 0.008) | 2.20 (0.087) | 2.70 (0.106) | 0.80 (0.032) |
| 04A4 | 4.00 ± 0.20 (0.157 ± 0.008) | 4.00 ± 0.20 (0.157 ± 0.008) | 1.20 (0.047) | 2.50 ± 0.20 (0.099 ± 0.008) | 1.10 ± 0.20 (0.043 ± 0.008) | 2.80 (0.110) | 3.70 (0.146) | 1.20 (0.047) |
| 04B4 | 4.00 ± 0.20 (0.157 ± 0.008) | 4.00 ± 0.20 (0.157 ± 0.008) | 1.85 (0.071) | 2.50 ± 0.20 (0.099 ± 0.008) | 1.10 ± 0.20 (0.043 ± 0.008) | 2.80 (0.110) | 3.70 (0.146) | 1.20 (0.047) |
| 05B5 | 5.00 ± 0.20 (0.197 ± 0.008) | 5.00 ± 0.20 (0.197 ± 0.008) | 2.00 (0.078) | 3.50 ± 0.20 (0.138 ± 0.008) | 1.50 ± 0.20 (0.059 ± 0.008) | 3.80 (0.150) | 4.70 (0.185) | 1.60 (0.063) |
| 05D5 | 5.00 ± 0.20 (0.197 ± 0.008) | 5.00 ± 0.20 (0.197 ± 0.008) | 4.00 (0.157) | 3.50 ± 0.20 (0.138 ± 0.008) | 1.50 ± 0.20 (0.059 ± 0.008) | 3.80 (0.150) | 4.70 (0.185) | 1.60 (0.063) |
| 06B6 | 6.00 ± 0.30 (0.236 ± 0.008) | 6.00 ± 0.30 (0.236 ± 0.008) | 2.00 (0.078) | 4.00 ± 0.20 (0.157 ± 0.008) | 1.35 ± 0.20 (0.053 ± 0.008) | 4.70 (0.185) | 5.70 (0.224) | 1.60 (0.063) |
| 06C6 | 6.00 ± 0.30 (0.236 ± 0.008) | 6.00 ± 0.30 (0.236 ± 0.008) | 2.80 (0.110) | 4.00 ± 0.20 (0.157 ± 0.008) | 1.35 ± 0.20 (0.053 ± 0.008) | 4.70 (0.185) | 5.70 (0.224) | 1.60 (0.063) |
| 06D6 | 6.00 ± 0.20 (0.236 ± 0.008) | 6.00 ± 0.20 (0.236 ± 0.008) | 4.50 (0.177) | 4.00 ± 0.20 (0.157 ± 0.008) | 1.35 ± 0.20 (0.053 ± 0.008) | 4.70 (0.185) | 5.70 (0.224) | 1.60 (0.063) |
| 0808 | 8.00 ± 0.20 (0.315 ± 0.008) | 8.00 ± 0.20 (0.315 ± 0.008) | 4.20 (0.165) | 5.60 ± 0.30 (0.220 ± 0.011) | 1.60 ± 0.30 (0.063 ± 0.011) | 5.60 (0.220) | 7.50 (0.188) | 1.80 (0.071) |

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HOW TO ORDER

| LM T | LP T | 0303 T | M T | R04 T | C T | T T | A T | S T |
|----------------------------------|----------------------------|--|---------------------------------|--|--------|-----------------------------|-------------------------|--|
| Family LM = Power Inductor | Series LP = Low Profile | Size 0303 = 3x3xh 03A3 = 3x3xA(h) (h = see catalog) | Tolerance M = 20% N = 30% | Inductance R39 = 0.390µH 3R9 = 3.900µH 390 = 39.00µH 391 = 390.0µH | Style | Termination T = Sn Plate | Special A = Standard | Packaging R = 7" Reel S = 13" Reel |

ELECTRICAL CHARACTERISTICS

0202

| Part Number | L (µH) at 100KHz 1.0V | Tolerance | I _{SAT} * (A) | I _{RMS} ** (A) | DCR ±20% (Ω) |
|------------------|--------------------------|-----------|---------------------------|----------------------------|-----------------|
| LMLP0202N2R2CTAR | 2.2 | ±30% | 1.29 | 0.97 | 0.15 |
| LMLP0202N3R3CTAR | 3.3 | ±30% | 1 | 0.77 | 0.22 |
| LMLP0202N4R7CTAR | 4.7 | ±30% | 0.88 | 0.67 | 0.29 |
| LMLP0202N6R8CTAR | 6.8 | ±30% | 0.75 | 0.57 | 0.41 |
| LMLP0202M100CTAR | 10 | ±20% | 0.55 | 0.45 | 0.69 |
| LMLP0202M150CTAR | 15 | ±20% | 0.47 | 0.37 | 1.02 |

0303

| Part Number | L (µH) at 100KHz 1.0V | Tolerance | I _{SAT} * (A) | I _{RMS} ** (A) | DCR ±20% (Ω) |
|------------------|--------------------------|-----------|---------------------------|----------------------------|-----------------|
| LMLP0303N1R5CTAR | 1.5 | ±30% | 1.2 | 1.3 | 0.08 |
| LMLP0303N2R2CTAR | 2.2 | ±30% | 1.1 | 1.1 | 0.095 |
| LMLP0303N3R3CTAR | 3.3 | ±30% | 0.87 | 0.94 | 0.14 |
| LMLP0303N4R7CTAR | 4.7 | ±30% | 0.75 | 0.78 | 0.19 |
| LMLP0303N6R8CTAR | 6.8 | ±30% | 0.61 | 0.63 | 0.3 |
| LMLP0303M100CTAR | 10 | ±20% | 0.5 | 0.51 | 0.45 |
| LMLP0303M150CTAR | 15 | ±20% | 0.4 | 0.4 | 0.74 |
| LMLP0303M220CTAR | 22 | ±20% | 0.35 | 0.35 | 1.03 |

03A2

| Part Number | L (µH) at 100KHz 1.0V | Tolerance | I _{SAT} * (A) | I _{RMS} ** (A) | DCR ±20% (Ω) |
|------------------|--------------------------|-----------|---------------------------|----------------------------|-----------------|
| LMLP03A2N1R5CTAR | 1.5 | ±30% | 1.36 | 1.4 | 0.06 |
| LMLP03A2N2R2CTAR | 2.2 | ±30% | 1.1 | 1.2 | 0.08 |
| LMLP03A2N3R3CTAR | 3.3 | ±30% | 0.91 | 1.05 | 0.1 |
| LMLP03A2N4R7CTAR | 4.7 | ±30% | 0.77 | 0.98 | 0.13 |
| LMLP03A2N6R8CTAR | 6.8 | ±30% | 0.67 | 0.74 | 0.19 |
| LMLP03A2M100CTAR | 10 | ±20% | 0.54 | 0.63 | 0.29 |
| LMLP03A2M150CTAR | 15 | ±20% | 0.44 | 0.485 | 0.45 |
| LMLP03A2M220CTAR | 22 | ±20% | 0.37 | 0.42 | 0.63 |

*The saturation current value (ISAT) is the DC current value when the inductance decreases by 30% of its initial value (at 20°C).

**The temperature rise current value (IRMS) is the DC current value that increases component temperature by up to 40°C.

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03B3

| Part Number | L (μ H) at 100KHz 1.0V | Tolerance | I_{SAT}^* (A) | I_{RMS}^{**} (A) | DCR $\pm 20\%$ (Ω) |
|------------------|--------------------------------|------------|--------------------|-----------------------|--------------------------------|
| LMLP03B3N1R0CTAR | 1.0 | $\pm 30\%$ | 2.1 | 2.1 | 0.03 |
| LMLP03B3N1R5CTAR | 1.5 | $\pm 30\%$ | 1.8 | 1.82 | 0.04 |
| LMLP03B3N2R2CTAR | 2.2 | $\pm 30\%$ | 1.48 | 1.5 | 0.06 |
| LMLP03B3N3R3CTAR | 3.3 | $\pm 30\%$ | 1.21 | 1.23 | 0.08 |
| LMLP03B3N4R7CTAR | 4.7 | $\pm 30\%$ | 1.02 | 1.04 | 0.12 |
| LMLP03B3N6R8CTAR | 6.8 | $\pm 30\%$ | 0.87 | 0.88 | 0.16 |
| LMLP03B3M100CTAR | 10 | $\pm 20\%$ | 0.7 | 0.71 | 0.23 |
| LMLP03B3M220CTAR | 22 | $\pm 20\%$ | 0.47 | 0.47 | 0.52 |

04A4

| Part Number | L (μ H) at 100KHz 1.0V | Tolerance | I_{SAT}^* (A) | I_{RMS}^{**} (A) | DCR $\pm 20\%$ (Ω) |
|------------------|--------------------------------|------------|--------------------|-----------------------|--------------------------------|
| LMLP04A4N1R0CTAS | 1.0 | $\pm 30\%$ | 2.5 | 1.5 | 0.06 |
| LMLP04A4N2R2CTAS | 2.2 | $\pm 30\%$ | 1.65 | 1.2 | 0.09 |
| LMLP04A4N3R3CTAS | 3.3 | $\pm 30\%$ | 1.2 | 0.98 | 0.13 |
| LMLP04A4N4R7CTAS | 4.7 | $\pm 30\%$ | 1.05 | 0.96 | 0.14 |
| LMLP04A4N6R8CTAS | 6.8 | $\pm 30\%$ | 0.9 | 0.84 | 0.18 |
| LMLP04A4M100CTAS | 10 | $\pm 20\%$ | 0.74 | 0.77 | 0.24 |
| LMLP04A4M150CTAS | 15 | $\pm 20\%$ | 0.56 | 0.6 | 0.4 |
| LMLP04A4M220CTAS | 22 | $\pm 20\%$ | 0.51 | 0.54 | 0.48 |

*The saturation current value (I_{SAT}) is the DC current value when the inductance decreases by 30% of its initial value (at 20°C).

**The temperature rise current value (I_{RMS}) is the DC current value that increases component temperature by up to 40°C.

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04B4

| Part Number | L (μ H) at 100KHz 1.0V | Tolerance | I_{SAT}^* (A) | I_{RMS}^{**} (A) | DCR $\pm 20\%$ (Ω) |
|------------------|-----------------------------|------------|-----------------|--------------------|-----------------------------|
| LMLP04B4N1R0CTAS | 1.0 | $\pm 30\%$ | 4 | 1.83 | 0.03 |
| LMLP04B4N2R2CTAS | 2.2 | $\pm 30\%$ | 2.7 | 1.44 | 0.06 |
| LMLP04B4N3R3CTAS | 3.3 | $\pm 30\%$ | 2 | 1.23 | 0.07 |
| LMLP04B4N4R7CTAS | 4.7 | $\pm 30\%$ | 1.7 | 1.2 | 0.09 |
| LMLP04B4N6R8CTAS | 6.8 | $\pm 30\%$ | 1.45 | 1.06 | 0.11 |
| LMLP04B4M100CTAS | 10 | $\pm 20\%$ | 1.2 | 0.84 | 0.18 |
| LMLP04B4M150CTAS | 15 | $\pm 20\%$ | 0.94 | 0.65 | 0.28 |
| LMLP04B4M220CTAS | 22 | $\pm 20\%$ | 0.8 | 0.59 | 0.36 |
| LMLP04B4M330CTAS | 33 | $\pm 20\%$ | 0.65 | 0.49 | 0.53 |
| LMLP04B4M470CTAS | 47 | $\pm 20\%$ | 0.57 | 0.42 | 0.65 |
| LMLP04B4M680CTAS | 68 | $\pm 20\%$ | 0.47 | 0.32 | 1 |
| LMLP04B4M101CTAS | 100 | $\pm 20\%$ | 0.4 | 0.27 | 1.5 |
| LMLP04B4M221CTAS | 220 | $\pm 20\%$ | 0.27 | 0.17 | 4 |

05B5

| Part Number | L (μ H) at 100KHz 1.0V | Tolerance | I_{SAT}^* (A) | I_{RMS}^{**} (A) | DCR $\pm 20\%$ (Ω) |
|------------------|-----------------------------|------------|-----------------|--------------------|-----------------------------|
| LMLP05B5N1R5CTAS | 1.5 | $\pm 30\%$ | 3.35 | 3.2 | 0.026 |
| LMLP05B5N2R2CTAS | 2.2 | $\pm 30\%$ | 2.9 | 2.9 | 0.035 |
| LMLP05B5N3R3CTAS | 3.3 | $\pm 30\%$ | 2.4 | 2.4 | 0.048 |
| LMLP05B5N4R7CTAS | 4.7 | $\pm 30\%$ | 2 | 2 | 0.06 |
| LMLP05B5N6R8CTAS | 6.8 | $\pm 30\%$ | 1.6 | 1.65 | 0.09 |
| LMLP05B5M100CTAS | 10 | $\pm 20\%$ | 1.3 | 1.45 | 0.12 |
| LMLP05B5M150CTAS | 15 | $\pm 20\%$ | 1.1 | 1.2 | 0.165 |
| LMLP05B5M220CTAS | 22 | $\pm 20\%$ | 0.9 | 1 | 0.26 |

05D5

| Part Number | L (μ H) at 100KHz 1.0V | Tolerance | I_{SAT}^* (A) | I_{RMS}^{**} (A) | DCR $\pm 20\%$ (Ω) |
|------------------|-----------------------------|------------|-----------------|--------------------|-----------------------------|
| LMLP05D5N1R5CTAS | 1.5 | $\pm 30\%$ | 6 | 3.6 | 0.02 |
| LMLP05D5N2R2CTAS | 2.2 | $\pm 30\%$ | 4.6 | 3.5 | 0.022 |
| LMLP05D5N3R3CTAS | 3.3 | $\pm 30\%$ | 3.8 | 3.3 | 0.027 |
| LMLP05D5N4R7CTAS | 4.7 | $\pm 30\%$ | 3.3 | 3.1 | 0.029 |
| LMLP05D5N6R8CTAS | 6.8 | $\pm 30\%$ | 2.6 | 2.3 | 0.049 |
| LMLP05D5M100CTAS | 10 | $\pm 20\%$ | 2.3 | 2.1 | 0.056 |
| LMLP05D5M150CTAS | 15 | $\pm 20\%$ | 2 | 1.8 | 0.08 |
| LMLP05D5M220CTAS | 22 | $\pm 20\%$ | 1.6 | 1.4 | 0.126 |
| LMLP05D5M330CTAS | 33 | $\pm 20\%$ | 1.3 | 1.2 | 0.18 |
| LMLP05D5M470CTAS | 47 | $\pm 20\%$ | 1.1 | 0.9 | 0.31 |

*The saturation current value (ISAT) is the DC current value when the inductance decreases by 30% of its initial value (at 20°C).

**The temperature rise current value (IRMS) is the DC current value that increases component temperature by up to 40°C.

LMax Low Profile Power Inductor

LMLP Series – Style C

06B6

| Part Number | L (μ H) at 100KHz 1.0V | Tolerance | I_{SAT}^* (A) | I_{RMS}^{**} (A) | DCR $\pm 20\%$ (Ω) |
|------------------|--------------------------------|------------|--------------------|-----------------------|--------------------------------|
| LMLP06B6N1R5CTAS | 1.5 | $\pm 30\%$ | 4 | 3.2 | 0.026 |
| LMLP06B6N2R2CTAS | 2.2 | $\pm 30\%$ | 3.2 | 2.7 | 0.034 |
| LMLP06B6N3R3CTAS | 3.3 | $\pm 30\%$ | 2.8 | 2.6 | 0.04 |
| LMLP06B6N4R7CTAS | 4.7 | $\pm 30\%$ | 2.4 | 2 | 0.058 |
| LMLP06B6N6R8CTAS | 6.8 | $\pm 30\%$ | 2 | 1.8 | 0.085 |
| LMLP06B6M100CTAS | 10 | $\pm 20\%$ | 1.7 | 1.4 | 0.125 |
| LMLP06B6M220CTAS | 22 | $\pm 20\%$ | 1.05 | 0.95 | 0.29 |

06C6

| Part Number | L (μ H) at 100KHz 1.0V | Tolerance | I_{SAT}^* (A) | I_{RMS}^{**} (A) | DCR $\pm 20\%$ (Ω) |
|------------------|--------------------------------|------------|--------------------|-----------------------|--------------------------------|
| LMLP06C6N1R5CTAS | 1.5 | $\pm 30\%$ | 5 | 4.2 | 0.016 |
| LMLP06C6N2R2CTAS | 2.2 | $\pm 30\%$ | 4.2 | 3.7 | 0.02 |
| LMLP06C6N3R0CTAS | 3 | $\pm 30\%$ | 3.6 | 3.4 | 0.023 |
| LMLP06C6N4R7CTAS | 4.7 | $\pm 30\%$ | 2.7 | 3 | 0.031 |
| LMLP06C6N6R0CTAS | 6 | $\pm 30\%$ | 2.5 | 2.5 | 0.04 |
| LMLP06C6M100CTAS | 10 | $\pm 20\%$ | 1.9 | 1.9 | 0.065 |
| LMLP06C6M150CTAS | 15 | $\pm 20\%$ | 1.6 | 1.8 | 0.095 |
| LMLP06C6M220CTAS | 22 | $\pm 20\%$ | 1.3 | 1.4 | 0.135 |
| LMLP06C6M330CTAS | 33 | $\pm 20\%$ | 1.1 | 1.1 | 0.22 |
| LMLP06C6M470CTAS | 47 | $\pm 20\%$ | 0.95 | 0.92 | 0.3 |
| LMLP06C6M680CTAS | 68 | $\pm 20\%$ | 0.76 | 0.77 | 0.42 |
| LMLP06C6M101CTAS | 100 | $\pm 20\%$ | 0.62 | 0.66 | 0.6 |

*The saturation current value (I_{SAT}) is the DC current value when the inductance decreases by 30% of its initial value (at 20°C).

**The temperature rise current value (I_{RMS}) is the DC current value that increases component temperature by up to 40°C.

LMax Low Profile Power Inductor

LMLP Series – Style C

06D6

| Part Number | L (μ H) at 100KHz 1.0V | Tolerance | I _{SAT} * (A) | I _{RMS} ** (A) | DCR \pm 20% (Ω) |
|------------------|--------------------------------|-----------|---------------------------|----------------------------|-------------------------------|
| LMLP06D6N1R3CTAS | 1.3 | \pm 30% | 8 | 4 | 0.016 |
| LMLP06D6N1R8CTAS | 1.8 | \pm 30% | 7 | 3.7 | 0.018 |
| LMLP06D6N2R3CTAS | 2.3 | \pm 30% | 6 | 3.5 | 0.021 |
| LMLP06D6N3R0CTAS | 3 | \pm 30% | 5 | 3.2 | 0.024 |
| LMLP06D6N4R5CTAS | 4.5 | \pm 30% | 4 | 3 | 0.031 |
| LMLP06D6N6R3CTAS | 6.3 | \pm 30% | 3.8 | 2.8 | 0.038 |
| LMLP06D6M100CTAS | 10 | \pm 20% | 3 | 2.5 | 0.047 |
| LMLP06D6M150CTAS | 15 | \pm 20% | 2.3 | 1.9 | 0.077 |
| LMLP06D6M220CTAS | 22 | \pm 20% | 1.9 | 1.5 | 0.115 |
| LMLP06D6M330CTAS | 33 | \pm 20% | 1.5 | 1.4 | 0.145 |
| LMLP06D6M470CTAS | 47 | \pm 20% | 1.3 | 1.1 | 0.22 |
| LMLP06D6M680CTAS | 68 | \pm 20% | 1 | 0.9 | 0.33 |
| LMLP06D6M101CTAS | 100 | \pm 20% | 0.8 | 0.7 | 0.5 |

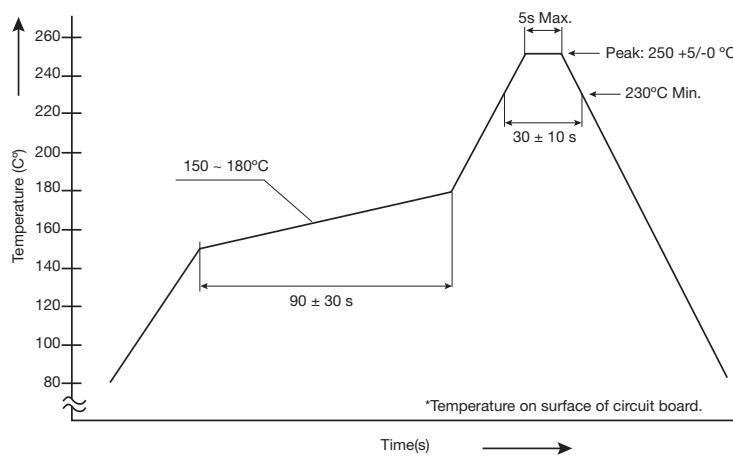
0808

| Part Number | L (μ H) at 100KHz 1.0V | Tolerance | I _{SAT} * (A) | I _{RMS} ** (A) | DCR \pm 20% (Ω) |
|------------------|--------------------------------|-----------|---------------------------|----------------------------|-------------------------------|
| LMLP0808N0R9CTAS | 0.9 | \pm 30% | 11 | 7.8 | 0.006 |
| LMLP0808N1R4CTAS | 1.4 | \pm 30% | 9 | 7 | 0.007 |
| LMLP0808N2R0CTAS | 2 | \pm 30% | 7.4 | 6.3 | 0.009 |
| LMLP0808N3R6CTAS | 3.6 | \pm 30% | 5.3 | 4.9 | 0.015 |
| LMLP0808N4R7CTAS | 4.7 | \pm 30% | 4.7 | 4.1 | 0.018 |
| LMLP0808N6R8CTAS | 6.8 | \pm 30% | 4 | 3.7 | 0.025 |
| LMLP0808M100CTAS | 10 | \pm 20% | 3.4 | 3.1 | 0.034 |
| LMLP0808M150CTAS | 15 | \pm 20% | 2.7 | 2.4 | 0.05 |
| LMLP0808M220CTAS | 22 | \pm 20% | 2.2 | 2.2 | 0.066 |

*The saturation current value (ISAT) is the DC current value when the inductance decreases by 30% of its initial value (at 20°C).

**The temperature rise current value (IRMS) is the DC current value that increases component temperature by up to 40°C.

RECOMMENDED REFLOW PROFILE

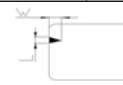
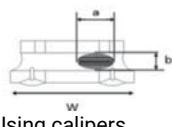
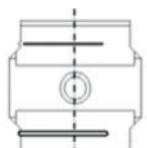
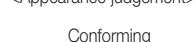


The products may be exposed to reflow soldering process of above profile up to two times.

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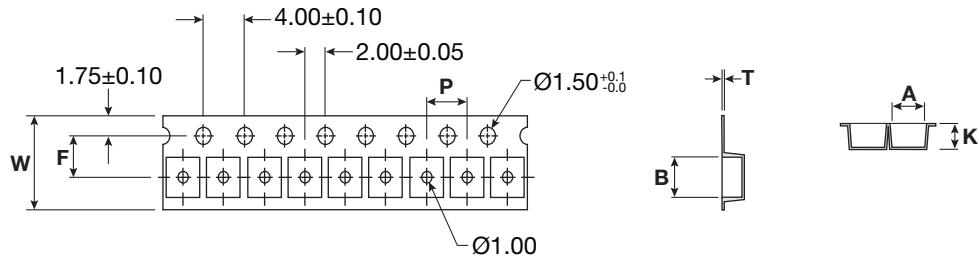
TEST CONDITIONS

| ITEM | SPECIFICATION DESCRIPTION | TEST METHOD | |
|---|---|---|-------------------|
| Temperature Range | Operation temp.: -40°C ~ +125°C (Including self-generated heat) Storage temp.: -40°C ~ +85°C | – | |
| Appearance | No defects or abnormalities. | Visual inspection | |
| Core Chipping | The appearance standard of the chipping size in top side, of bottom side ferrite core is following dimension. L: 0.5 mm (max) W: 0.5 mm (max) |  Using calipers | |
| Void Appearance Exposed | Size of voids occurring to coating resin is specified as following. 1. Width direction (dimension a): acceptable when $a \leq w/2$ nonconforming when $a > w/2$ 2. Length direction (dimension b): it is not specified. 3. When total area of voids (including one exposing coil) occurring to each sides is not greater than 50% of coating resin area that is acceptable |  Using calipers | |
| Electrode Appearance Criterion for Exposed Wire |  <Cross section of wire joint part>  Only top side of wire exposed. (regardless of whole top side of wire exposed)  Wire is soldered insufficiently and less than half of outer diameter is covered with solder. |  <Appearance judgement> Conforming Less than 1/2 of joint side Length (More than 1/2 is selected as defect) | Visual inspection |
| Solderability | | Solder heat proof: 1. Preheating: 160±10°C 90s 2. Retention time: 245±5°C for 3 ± 1 sec | |
| Vibration | Inductance change: within ± 10% without mechanical damage such as break | 1. Vibration frequency: (10Hz to 55Hz to 10Hz) in 60 sec. as a period 2. Vibration time: period cycled for 2 hr in each of 3 mutual perpendicular directions 3. Amplitude: 1.5mm max. | |
| Terminal Strength | No detachment of terminal pin and no breakage of wire | Add static load 4.9N(500gf) to inductor through hole of test board for 10 ± 2 sec | |
| Thermal Shock | Inductance change: within ± 10% without mechanical damage such as break | 1. Repeat 100 cycles as follow: (-40°C ± 2°C, 30 ± 3 minutes) → (room temperature, 5 minutes) → (+125°C ± 2°C, 30 ± 3 minutes) → (room temperature, 5 minutes) 2. Recovery: 48 +4/-0 hours of recovery under the standard condition after the test. | |
| High Temperature Resistance | Inductance change: within ± 10% without mechanical damage such as break | 1. Environment condition: 85°C ± 2°C 2. Applied current: rated current 3. Duration: 500 +4/-0 hours | |
| Humidity Resistance | Inductance change: within ± 10% without mechanical damage such as break | 1. Environment condition: 60°C ± 2°C 2. Humidity: 90~95% 3. Applied current: rated current 4. Duration: 500 +4/-0 hours | |
| Low Temperature Storage | Inductance change: within ± 10% without mechanical damage such as break | Store temperature: -40°C ± 2°C for total 500 +4/-0 hours | |
| High Temperature Storage | Inductance change: within ± 10% without mechanical damage such as break | Store temperature: +125°C ± 2°C for total 500 +4/-0 hours | |
| Inductance | a. Temperature: 25 ± 3°C b. Relative Humidity: 45 to 75%RH c. Measuring equipment: Current measure: Chroma 3302 + Chroma 1320 | Within specified tolerance | |
| DC Resistance | Measuring instrument: Chroma A165022 | In accordance with electrical specification. | |

LMax Low Profile Power Inductor

LMLP Series – Style C

PACKAGING SPECIFICATIONS – CARRIER TAPE DIMENSIONS



| Part Number | A | B | P | F | W | T | K | Reel Size | SPQ |
|------------------|-------------------------------|-------------------------------|-------------------------------|------------------------------|-------------------------------|--------------------------------|------------------------------|-----------|------|
| LMLP0202****CTAR | 2.6 ± 0.1 (0.102 ± 0.004) | 2.6 ± 0.1 (0.102 ± 0.004) | 4 ± 0.1 (0.157 ± 0.004) | 3.5 ± 0.1 (0.138 ± 0.004) | 8.0 ± 0.2 (0.315 ± 0.008) | 0.25 ± 0.05 (0.009 ± 0.002) | 1.3 ± 0.1 (0.051 ± 0.004) | 7" | 2000 |
| LMLP0303****CTAR | 3.2 ± 0.1 (0.126 ± 0.004) | 3.2 ± 0.1 (0.126 ± 0.004) | 4.0 ± 0.1 (0.157 ± 0.004) | 3.5 ± 0.1 (0.138 ± 0.004) | 8.0 ± 0.2 (0.315 ± 0.008) | 0.3 ± 0.05 (0.012 ± 0.002) | 1.4 ± 0.1 (0.055 ± 0.004) | 7" | 2000 |
| LMLP03A2****CTAR | 3.2 ± 0.1 (0.126 ± 0.004) | 3.2 ± 0.1 (0.126 ± 0.004) | 4.0 ± 0.1 (0.157 ± 0.004) | 3.5 ± 0.1 (0.138 ± 0.004) | 8.0 ± 0.2 (0.315 ± 0.008) | 0.3 ± 0.05 (0.012 ± 0.002) | 1.6 ± 0.1 (0.063 ± 0.004) | 7" | 2000 |
| LMLP03B3****CTAR | 3.2 ± 0.1 (0.126 ± 0.004) | 3.2 ± 0.1 (0.126 ± 0.004) | 4.0 ± 0.1 (0.157 ± 0.004) | 3.5 ± 0.1 (0.138 ± 0.004) | 8.0 ± 0.2 (0.315 ± 0.008) | 0.3 ± 0.05 (0.012 ± 0.002) | 1.9 ± 0.1 (0.075 ± 0.004) | 7" | 2000 |
| LMLP04A4****CTAS | 4.3 ± 0.1 (0.169 ± 0.004) | 4.3 ± 0.1 (0.169 ± 0.004) | 8.0 ± 0.1 (0.315 ± 0.004) | 5.5 ± 0.1 (0.217 ± 0.004) | 12.0 ± 0.3 (0.472 ± 0.012) | 0.3 ± 0.1 (0.012 ± 0.004) | 1.6 ± 0.1 (0.063 ± 0.004) | 13" | 4500 |
| LMLP04B4****CTAS | 4.3 ± 0.1 (0.169 ± 0.004) | 4.3 ± 0.1 (0.169 ± 0.004) | 8.0 ± 0.1 (0.315 ± 0.004) | 5.5 ± 0.1 (0.217 ± 0.004) | 12.0 ± 0.3 (0.472 ± 0.012) | 0.3 ± 0.1 (0.012 ± 0.004) | 2.1 ± 0.1 (0.083 ± 0.004) | 13" | 3000 |
| LMLP05B5****CTAR | 5.25 ± 0.1 (0.207 ± 0.004) | 5.25 ± 0.1 (0.207 ± 0.004) | 8.0 ± 0.1 (0.315 ± 0.004) | 5.5 ± 0.1 (0.217 ± 0.004) | 12.0 ± 0.3 (0.472 ± 0.012) | 0.3 ± 0.1 (0.012 ± 0.004) | 2.3 ± 0.1 (0.091 ± 0.004) | 13" | 3000 |
| LMLP05D5****CTAS | 5.15 ± 0.1 (0.203 ± 0.004) | 5.15 ± 0.1 (0.203 ± 0.004) | 8.0 ± 0.1 (0.315 ± 0.004) | 5.5 ± 0.1 (0.217 ± 0.004) | 12.0 ± 0.3 (0.472 ± 0.012) | 0.4 ± 0.1 (0.016 ± 0.004) | 4.2 ± 0.1 (0.165 ± 0.004) | 13" | 1500 |
| LMLP06B6****CTAS | 6.3 ± 0.1 (0.248 ± 0.004) | 6.3 ± 0.1 (0.248 ± 0.004) | 8.0 ± 0.1 (0.315 ± 0.004) | 5.5 ± 0.1 (0.217 ± 0.004) | 12.0 ± 0.3 (0.472 ± 0.012) | 0.4 ± 0.1 (0.016 ± 0.004) | 2.3 ± 0.1 (0.091 ± 0.004) | 13" | 3000 |
| LMLP06C6****CTAS | 6.3 ± 0.1 (0.248 ± 0.004) | 6.3 ± 0.1 (0.248 ± 0.004) | 8.0 ± 0.1 (0.315 ± 0.004) | 5.5 ± 0.1 (0.217 ± 0.004) | 12.0 ± 0.3 (0.472 ± 0.012) | 0.4 ± 0.1 (0.016 ± 0.004) | 3.1 ± 0.1 (0.122 ± 0.004) | 13" | 2000 |
| LMLP06D6****CTAS | 6.3 ± 0.1 (0.248 ± 0.004) | 6.3 ± 0.1 (0.248 ± 0.004) | 8.0 ± 0.1 (0.315 ± 0.004) | 5.5 ± 0.1 (0.217 ± 0.004) | 12.0 ± 0.3 (0.472 ± 0.012) | 0.4 ± 0.1 (0.016 ± 0.004) | 4.7 ± 0.1 (0.185 ± 0.004) | 13" | 1500 |
| LMLP0808****CTAS | 8.3 ± 0.1 (0.327 ± 0.004) | 8.3 ± 0.1 (0.327 ± 0.004) | 12.0 ± 0.1 (0.472 ± 0.004) | 7.5 ± 0.1 (0.295 ± 0.004) | 16.0 ± 0.3 (0.630 ± 0.012) | 0.5 ± 0.1 (0.020 ± 0.004) | 4.5 ± 0.1 (0.177 ± 0.004) | 13" | 1000 |

PACKAGING SPECIFICATIONS – REEL DIMENSIONS

