

LMax SMD Power Inductor



LMXN Series – Non-Shielded Style D

FEATURES

- Open Magnetic Circuit Construction
- Small Surface Area

APPLICATIONS

- LCD Televisions
- Notebooks
- Portable Communication
- DC/DC Converters, etc.

CHARACTERISTICS

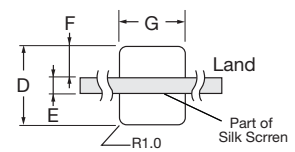
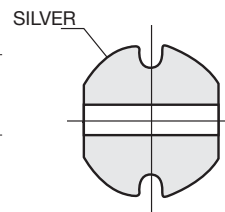
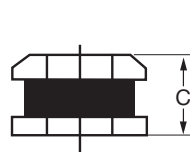
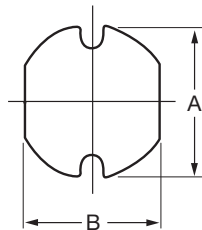
- Rated Current (IDC): The DC current that will cause an approximate ΔT of 40°C. (Ta=25°C)
- Operating temperature range: -40°C ~ +125°C

INDUCTANCE AND RATED CURRENT RANGES

- 0504 1.0 μ H ~ 33 μ H 3.30 ~ 0.56A
- 0605 10.0 μ H ~ 220 μ H 1.44 ~ 0.35A
- 0808 10.0 μ H ~ 330 μ H 1.44 ~ 0.28A
- 08G8 10.0 μ H ~ 470 μ H 2.30 ~ 0.34A
- 1009 10.0 μ H ~ 560 μ H 2.38 ~ 0.32A
- 10F9 10.0 μ H ~ 820 μ H 2.6 ~ 0.24A
- Electrical specifications at 25°C



DIMENSIONS



mm (inches)

| Type | A | B | C | D | E | F | G |
|------|-------------------------------|--------------------------------|--------------------------------|-----------------|-----------------|-----------------|-----------------|
| 0504 | 4.50 ± 0.30 (0.177 ± .012) | 4.00 ± 0.30 (0.158 ± 0.012) | 3.20 ± 0.30 (0.126 ± 0.012) | 5.00 (0.197) | 1.50 (0.059) | 1.75 (0.069) | 4.50 (0.177) |
| 0605 | 5.80 ± 0.30 (0.228 ± .012) | 5.20 ± 0.30 (0.205 ± 0.012) | 4.50 ± 0.35 (0.177 ± 0.014) | 6.00 (0.236) | 1.70 (0.067) | 2.15 (0.085) | 5.50 (0.217) |
| 0808 | 7.80 ± 0.30 (0.307 ± .012) | 7.30 ± 0.30 (0.276 ± 0.012) | 3.50 ± 0.50 (0.140 ± 0.020) | 8.00 (0.315) | 2.00 (0.079) | 3.00 (0.118) | 7.50 (0.295) |
| 08G8 | 7.80 ± 0.30 (0.307 ± .012) | 7.30 ± 0.30 (0.287 ± 0.012) | 5.08 ± 0.50 (0.200 ± 0.020) | 8.00 (0.315) | 2.00 (0.079) | 3.00 (0.118) | 7.50 (0.295) |
| 1009 | 10.0 ± 0.30 (0.394 ± .012) | 9.00 ± 0.30 (0.354 ± 0.012) | 4.00 ± 0.50 (0.158 ± 0.020) | 10.0 (0.394) | 2.50 (0.098) | 3.75 (0.148) | 9.50 (0.374) |
| 10F9 | 10.0 ± 0.40 (0.394 ± .016) | 9.00 ± 0.40 (0.354 ± 0.016) | 5.40 ± 0.40 (0.213 ± 0.016) | 10.0 (0.394) | 2.50 (0.098) | 3.75 (0.148) | 9.50 (0.374) |

HOW TO ORDER

LM

Family

LM = Power Inductor

XN

Series

XN = Non-shielded

1009

Size

1009 = 10x9xh
10F9 = 10x9xF(h)
(h = see catalog)

M

Tolerance

M = ±20%

R04

Inductance

1R0 = 1.00 μ H
390 = 39.00 μ H
391 = 390.0 μ H

D

Style

T

Termination

T = Sn Plate

A

Special

A = Standard

S

Packaging

S = 13" Reel



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LMXN Series – Non-Shielded Style D

ELECTRICAL CHARACTERISTICS

0504

| Codes | L (μH) | Tolerance | Test Condition | DCR (Ω) max. | IDC (A) max. |
|-------|--------|-----------|----------------|--------------|--------------|
| 1R0 | 1.0 | M | 100KHz, 1.0V | 0.048 | 3.30 |
| 1R4 | 1.4 | M | 100KHz, 1.0V | 0.056 | 2.80 |
| 1R8 | 1.8 | M | 100KHz, 1.0V | 0.063 | 2.45 |
| 2R2 | 2.2 | M | 100KHz, 1.0V | 0.071 | 2.21 |
| 2R7 | 2.7 | M | 100KHz, 1.0V | 0.078 | 2.00 |
| 3R3 | 3.3 | M | 100KHz, 1.0V | 0.086 | 1.81 |
| 3R9 | 3.9 | M | 100KHz, 1.0V | 0.093 | 1.66 |
| 4R7 | 4.7 | M | 100KHz, 1.0V | 0.108 | 1.51 |
| 5R6 | 5.6 | M | 100KHz, 1.0V | 0.125 | 1.40 |
| 6R8 | 6.8 | M | 100KHz, 1.0V | 0.131 | 1.26 |
| 8R2 | 8.2 | M | 100KHz, 1.0V | 0.146 | 1.14 |
| 100 | 10 | M | 100KHz, 1.0V | 0.182 | 1.04 |
| 120 | 12 | M | 100KHz, 1.0V | 0.210 | 0.97 |
| 150 | 15 | M | 100KHz, 1.0V | 0.235 | 0.85 |
| 180 | 18 | M | 100KHz, 1.0V | 0.338 | 0.74 |
| 220 | 22 | M | 100KHz, 1.0V | 0.378 | 0.68 |
| 270 | 27 | M | 100KHz, 1.0V | 0.522 | 0.62 |
| 330 | 33 | M | 100KHz, 1.0V | 0.540 | 0.56 |

0605

| Codes | L (μH) | Tolerance | Test Condition | DCR (Ω) max. | IDC (A) max. |
|-------|--------|-----------|----------------|--------------|--------------|
| 100 | 10 | M | 100KHz, 1.0V | 0.100 | 1.44 |
| 120 | 12 | M | 100KHz, 1.0V | 0.120 | 1.40 |
| 150 | 15 | M | 100KHz, 1.0V | 0.140 | 1.30 |
| 180 | 18 | M | 100KHz, 1.0V | 0.150 | 1.23 |
| 220 | 22 | M | 100KHz, 1.0V | 0.180 | 1.11 |
| 270 | 27 | M | 100KHz, 1.0V | 0.200 | 0.97 |
| 330 | 33 | M | 100KHz, 1.0V | 0.230 | 0.88 |
| 390 | 39 | M | 100KHz, 1.0V | 0.320 | 0.80 |
| 470 | 47 | M | 100KHz, 1.0V | 0.370 | 0.72 |
| 560 | 56 | M | 100KHz, 1.0V | 0.420 | 0.68 |
| 680 | 68 | M | 100KHz, 1.0V | 0.460 | 0.61 |
| 820 | 82 | M | 100KHz, 1.0V | 0.600 | 0.58 |
| 101 | 100 | M | 100KHz, 1.0V | 0.700 | 0.52 |
| 121 | 120 | M | 100KHz, 1.0V | 0.930 | 0.48 |
| 151 | 150 | M | 100KHz, 1.0V | 1.100 | 0.40 |
| 181 | 180 | M | 100KHz, 1.0V | 1.380 | 0.38 |
| 221 | 220 | M | 100KHz, 1.0V | 1.570 | 0.35 |

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LMXN Series – Non-Shielded Style D

0808

| Codes | L (μH) | Tolerance | Test Condition | DCR (Ω) max. | IDC (A) max. |
|-------|--------|-----------|----------------|--------------|--------------|
| 100 | 10 | M | 100KHz, 1.0V | 1.44 | 0.081 |
| 120 | 12 | M | 100KHz, 1.0V | 1.39 | 0.089 |
| 150 | 15 | M | 100KHz, 1.0V | 1.24 | 0.104 |
| 180 | 18 | M | 100KHz, 1.0V | 1.12 | 0.111 |
| 220 | 22 | M | 100KHz, 1.0V | 1.07 | 0.129 |
| 270 | 27 | M | 100KHz, 1.0V | 0.94 | 0.153 |
| 330 | 33 | M | 100KHz, 1.0V | 0.85 | 0.170 |
| 390 | 39 | M | 100KHz, 1.0V | 0.74 | 0.217 |
| 470 | 47 | M | 100KHz, 1.0V | 0.68 | 0.252 |
| 560 | 56 | M | 100KHz, 1.0V | 0.64 | 0.282 |
| 680 | 68 | M | 100KHz, 1.0V | 0.59 | 0.332 |
| 820 | 82 | M | 100KHz, 1.0V | 0.54 | 0.406 |
| 101 | 100 | M | 100KHz, 1.0V | 0.51 | 0.481 |
| 121 | 120 | M | 100KHz, 1.0V | 0.49 | 0.536 |
| 151 | 150 | M | 100KHz, 1.0V | 0.40 | 0.755 |
| 181 | 180 | M | 100KHz, 1.0V | 0.36 | 1.022 |
| 221 | 220 | M | 100KHz, 1.0V | 0.31 | 1.200 |
| 271 | 270 | M | 100KHz, 1.0V | 0.29 | 1.306 |
| 331 | 330 | M | 100KHz, 1.0V | 0.28 | 1.495 |

08G8

| Codes | L (μH) | Tolerance | Test Condition | DCR (Ω) max. | IDC (A) max. |
|-------|--------|-----------|----------------|--------------|--------------|
| 100 | 10 | M | 100KHz, 1.0V | 0.070 | 2.30 |
| 120 | 12 | M | 100KHz, 1.0V | 0.080 | 2.00 |
| 150 | 15 | M | 100KHz, 1.0V | 0.090 | 1.80 |
| 180 | 18 | M | 100KHz, 1.0V | 0.100 | 1.60 |
| 220 | 22 | M | 100KHz, 1.0V | 0.110 | 1.50 |
| 270 | 27 | M | 100KHz, 1.0V | 0.120 | 1.30 |
| 330 | 33 | M | 100KHz, 1.0V | 0.130 | 1.20 |
| 470 | 47 | M | 100KHz, 1.0V | 0.180 | 1.00 |
| 560 | 56 | M | 100KHz, 1.0V | 0.240 | 0.94 |
| 680 | 68 | M | 100KHz, 1.0V | 0.280 | 0.85 |
| 820 | 82 | M | 100KHz, 1.0V | 0.370 | 0.78 |
| 101 | 100 | M | 100KHz, 1.0V | 0.430 | 0.72 |
| 121 | 120 | M | 100KHz, 1.0V | 0.470 | 0.66 |
| 151 | 150 | M | 100KHz, 1.0V | 0.640 | 0.58 |
| 221 | 220 | M | 100KHz, 1.0V | 0.960 | 0.49 |
| 331 | 330 | M | 100KHz, 1.0V | 1.260 | 0.40 |
| 391 | 390 | M | 100KHz, 1.0V | 1.770 | 0.36 |
| 471 | 470 | M | 100KHz, 1.0V | 1.960 | 0.34 |

LMax SMD Power Inductor



LMXN Series – Non-Shielded Style D

1009

| Codes | L (μH) | Tolerance | Test Condition | DCR (Ω) max. | IDC (A) max. |
|-------|--------|-----------|----------------|--------------|--------------|
| 100 | 10 | M | 100KHz, 1.0V | 0.053 | 2.38 |
| 120 | 12 | M | 100KHz, 1.0V | 0.061 | 2.13 |
| 150 | 15 | M | 100KHz, 1.0V | 0.070 | 1.87 |
| 180 | 18 | M | 100KHz, 1.0V | 0.081 | 1.73 |
| 220 | 22 | M | 100KHz, 1.0V | 0.088 | 1.60 |
| 330 | 33 | M | 100KHz, 1.0V | 0.120 | 1.26 |
| 470 | 47 | M | 100KHz, 1.0V | 0.170 | 1.10 |
| 560 | 56 | M | 100KHz, 1.0V | 0.199 | 1.01 |
| 680 | 68 | M | 100KHz, 1.0V | 0.223 | 0.91 |
| 820 | 82 | M | 100KHz, 1.0V | 0.252 | 0.85 |
| 101 | 100 | M | 100KHz, 1.0V | 0.344 | 0.74 |
| 121 | 120 | M | 100KHz, 1.0V | 0.396 | 0.69 |
| 181 | 180 | M | 100KHz, 1.0V | 0.621 | 0.56 |
| 221 | 220 | M | 100KHz, 1.0V | 0.721 | 0.53 |
| 331 | 330 | M | 100KHz, 1.0V | 1.100 | 0.42 |
| 471 | 470 | M | 100KHz, 1.0V | 1.526 | 0.35 |
| 561 | 560 | M | 100KHz, 1.0V | 1.904 | 0.32 |

10F9

| Codes | L (μH) | Tolerance | Test Condition | DCR (Ω) max. | IDC (A) max. |
|-------|--------|-----------|----------------|--------------|--------------|
| 100 | 10 | M | 100KHz, 1.0V | 0.060 | 2.60 |
| 120 | 12 | M | 100KHz, 1.0V | 0.070 | 2.45 |
| 150 | 15 | M | 100KHz, 1.0V | 0.080 | 2.27 |
| 220 | 22 | M | 100KHz, 1.0V | 0.100 | 1.95 |
| 330 | 33 | M | 100KHz, 1.0V | 0.120 | 1.50 |
| 390 | 39 | M | 100KHz, 1.0V | 0.140 | 1.37 |
| 470 | 47 | M | 100KHz, 1.0V | 0.170 | 1.28 |
| 560 | 56 | M | 100KHz, 1.0V | 0.190 | 1.17 |
| 680 | 68 | M | 100KHz, 1.0V | 0.220 | 1.11 |
| 820 | 82 | M | 100KHz, 1.0V | 0.250 | 1.00 |
| 101 | 100 | M | 100KHz, 1.0V | 0.350 | 0.97 |
| 121 | 120 | M | 100KHz, 1.0V | 0.400 | 0.89 |
| 151 | 150 | M | 100KHz, 1.0V | 0.470 | 0.78 |
| 221 | 220 | M | 100KHz, 1.0V | 0.730 | 0.66 |
| 271 | 270 | M | 100KHz, 1.0V | 0.970 | 0.57 |
| 331 | 330 | M | 100KHz, 1.0V | 1.150 | 0.52 |
| 471 | 470 | M | 100KHz, 1.0V | 1.480 | 0.42 |
| 561 | 560 | M | 100KHz, 1.0V | 1.900 | 0.33 |
| 821 | 820 | M | 100KHz, 1.0V | 2.550 | 0.24 |