

# LMax SMD Power Inductor

## LMXN Series – Non-Shielded Style C

### FEATURES

- High power, High saturation inductors
- Ideal inductors for DC-DC converters in notebook computers, PDAs, Step-up or step-down converters, flash memory programmers, etc.
- 0705 has ceramic base with gold-plating
- Others have LCP plastic base

### APPLICATIONS

- Portable Telephones
- Personal Computers
- DC/DC Converters
- Various Electronic Appliances

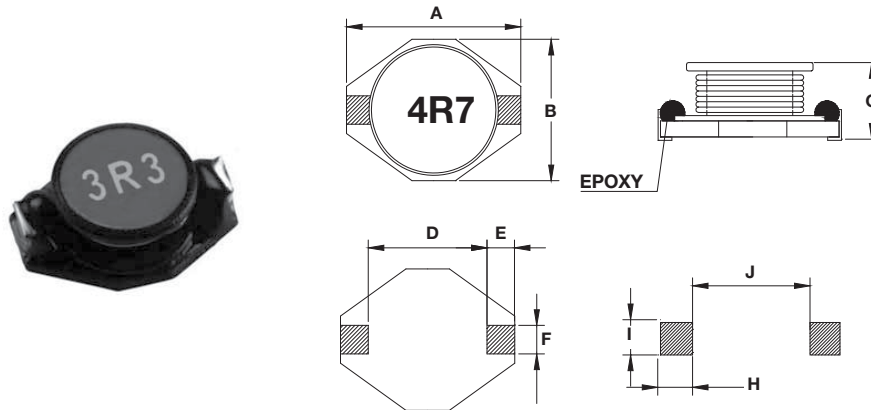
### DIMENSIONS

### CHARACTERISTICS

- Saturation Rated Current: The current when the inductance becomes 10% lower than its initial value. (Ta=25°C)
- Operating temperature range: -40 ~ 125°C

### INDUCTANCE AND RATED CURRENT RANGES

- 0705 1.0μH ~ 1000μH 2.9 ~ 0.10A
- 1309 4.7μH ~ 1000μH 4.2 ~ 0.29A
- 13E9 1.0μH ~ 1000μH 9.0 ~ 0.30A
- 13L9 0.47μH ~ 1000μH 40 ~ 0.8A
- 1915 1.0μH ~ 1000μH 20 ~ 1.0A
- Electrical specifications at 25°C



mm (inches)

Type	A max.	B max.	C max.	D	E	F	H	I	J
0705	6.60 (0.260)	4.45 (0.175)	2.92 (0.115)	4.32 (0.170)	1.27 (0.050)	1.02 (0.040)	3.56 (0.140)	1.40 (0.055)	4.06 (0.160)
1309	12.95 (0.510)	9.40 (0.370)	3.00 (0.118)	7.62 (0.300)	2.54 (0.100)	2.54 (0.100)	2.79 (0.110)	2.92 (0.115)	7.37 (0.290)
13E9	12.95 (0.510)	9.40 (0.370)	5.21 (0.205)	7.62 (0.300)	2.54 (0.100)	2.54 (0.100)	2.79 (0.110)	2.92 (0.115)	7.37 (0.290)
13L9	12.95 (0.510)	9.40 (0.370)	11.43 (0.450)	7.62 (0.300)	2.54 (0.100)	2.54 (0.100)	2.79 (0.110)	2.92 (0.115)	7.37 (0.290)
1915	18.54 (0.730)	15.24 (0.600)	7.11 (0.280)	12.7 (0.500)	2.54 (0.100)	2.54 (0.100)	2.79 (0.110)	2.92 (0.115)	12.45 (0.490)

### HOW TO ORDER

<b>LM</b>	<b>XN</b>	<b>1309</b>	<b>M</b>	<b>R04</b>	<b>C</b>	<b>T</b>	<b>A</b>	<b>S</b>
<b>Family</b>	<b>Series</b>	<b>Size</b>	<b>Tolerance</b>	<b>Inductance</b>	<b>Style</b>	<b>Termination</b>	<b>Special</b>	<b>Packaging</b>
LM = Power Inductor	XN = Non-Shielded	1309 = 13x9xh 13E9 = 13x9xE(h) (h = see catalog)	M = ±20% N = ±30%	R04 = 0.039μH R39 = 0.390μH 3R9 = 3.900μH 390 = 39.00μH 391 = 390.0μH 392 = 3900μH	Style	T = Sn Plate	A = Standard	S = 13" Reel

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### ELECTRICAL CHARACTERISTICS

#### 0705

Codes	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	I sat (A) max*
1R0	1.0	M	100KHz, 0.1V	0.05	2.90
1R5	1.5	M	100KHz, 0.1V	0.06	2.60
2R2	2.2	M	100KHz, 0.1V	0.07	2.30
3R3	3.3	M	100KHz, 0.1V	0.08	2.00
4R7	4.7	M	100KHz, 0.1V	0.09	1.50
6R8	6.8	M	100KHz, 0.1V	0.13	1.20
8R2	8.2	M	100KHz, 0.1V	0.16	1.15
100	10	M	100KHz, 0.1V	0.16	1.10
150	15	M	100KHz, 0.1V	0.23	0.90
220	22	M	100KHz, 0.1V	0.37	0.70
330	33	M	100KHz, 0.1V	0.51	0.58
470	47	M	100KHz, 0.1V	0.64	0.50
680	68	M	100KHz, 0.1V	0.86	0.40
101	100	M	100KHz, 0.1V	1.27	0.31
151	150	M	100KHz, 0.1V	2.00	0.27
221	220	M	100KHz, 0.1V	3.11	0.22
331	330	M	100KHz, 0.1V	3.80	0.18
471	470	M	100KHz, 0.1V	5.06	0.16
681	680	M	100KHz, 0.1V	9.20	0.14
102	1000	M	100KHz, 0.1V	13.8	0.10

#### 10309

Codes	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	I sat (A) max*
4R7	4.7	M	100KHz, 0.1V	0.036	4.20
6R8	6.8	M	100KHz, 0.1V	0.060	3.90
100	10	M	100KHz, 0.1V	0.085	2.70
150	15	M	100KHz, 0.1V	0.12	2.30
220	22	M	100KHz, 0.1V	0.18	1.80
330	33	M	100KHz, 0.1V	0.25	1.60
470	47	M	100KHz, 0.1V	0.32	1.30
680	68	M	100KHz, 0.1V	0.54	1.10
101	100	M	100KHz, 0.1V	0.69	0.87
151	150	M	100KHz, 0.1V	0.94	0.74
221	220	M	100KHz, 0.1V	1.60	0.56
331	330	M	100KHz, 0.1V	2.15	0.50
471	470	M	100KHz, 0.1V	3.30	0.40
681	680	M	100KHz, 0.1V	4.40	0.33
102	1000	M	100KHz, 0.1V	7.00	0.29

\*Saturation Current: The current when the inductance becomes 10% lower than its initial value. (Ta=25°C)

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### 13E9

Codes	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	I sat (A) max*
1R0	1.0	M	100KHz, 0.1V	0.009	9.00
1R5	1.5	M	100KHz, 0.1V	0.010	8.00
2R2	2.2	M	100KHz, 0.1V	0.012	7.00
3R3	3.3	M	100KHz, 0.1V	0.015	6.40
4R7	4.7	M	100KHz, 0.1V	0.018	5.40
6R8	6.8	M	100KHz, 0.1V	0.027	4.60
100	10	M	100KHz, 0.1V	0.038	3.80
150	15	M	100KHz, 0.1V	0.046	3.00
220	22	M	100KHz, 0.1V	0.085	2.60
330	33	M	100KHz, 0.1V	0.100	2.00
470	47	M	100KHz, 0.1V	0.140	1.60
680	68	M	100KHz, 0.1V	0.200	1.40
101	100	M	100KHz, 0.1V	0.280	1.20
151	150	M	100KHz, 0.1V	0.400	1.00
221	220	M	100KHz, 0.1V	0.610	0.80
331	330	M	100KHz, 0.1V	1.020	0.60
471	470	M	100KHz, 0.1V	1.270	0.50
681	680	M	100KHz, 0.1V	2.020	0.40
102	1000	M	100KHz, 0.1V	3.000	0.30

### 13L9

Codes	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	I sat (A) max*
R47	0.47	N	100KHz, 0.1V	0.008	40.0
R82	0.82	N	100KHz, 0.1V	0.009	34.7
1R2	1.2	N	100KHz, 0.1V	0.010	28.4
1R5	1.5	N	100KHz, 0.1V	0.010	25.7
2R2	2.2	N	100KHz, 0.1V	0.012	23.0
3R5	3.5	N	100KHz, 0.1V	0.015	21.0
4R7	4.7	N	100KHz, 0.1V	0.020	18.0
5R6	5.6	N	100KHz, 0.1V	0.022	16.0
6R8	6.8	N	100KHz, 0.1V	0.030	15.0
8R2	8.2	N	100KHz, 0.1V	0.033	10.0
100	10	M	100KHz, 0.1V	0.040	8.00
150	15	M	100KHz, 0.1V	0.050	7.00
220	22	M	100KHz, 0.1V	0.066	5.50
330	33	M	100KHz, 0.1V	0.080	4.00
470	47	M	100KHz, 0.1V	0.11	3.80
680	68	M	100KHz, 0.1V	0.17	3.00
101	100	M	100KHz, 0.1V	0.22	2.50
151	150	M	100KHz, 0.1V	0.34	2.00
221	220	M	100KHz, 0.1V	0.44	1.60
331	330	M	100KHz, 0.1V	0.70	1.20
471	470	M	100KHz, 0.1V	0.95	1.00
681	680	M	100KHz, 0.1V	1.20	1.00
102	1000	M	100KHz, 0.1V	2.00	0.80

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1915

Codes	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	I sat (A) max*
1R0	1.0	M	100KHz, 0.1V	0.009	20
2R2	2.2	M	100KHz, 0.1V	0.014	16
3R3	3.3	M	100KHz, 0.1V	0.018	14
5R6	5.6	M	100KHz, 0.1V	0.020	12
100	10	M	100KHz, 0.1V	0.031	10
150	15	M	100KHz, 0.1V	0.036	8.0
220	22	M	100KHz, 0.1V	0.047	7.0
330	33	M	100KHz, 0.1V	0.066	5.5
470	47	M	100KHz, 0.1V	0.095	4.5
680	68	M	100KHz, 0.1V	0.130	3.5
101	100	M	100KHz, 0.1V	0.190	3.0
151	150	M	100KHz, 0.1V	0.250	2.6
221	220	M	100KHz, 0.1V	0.380	2.4
331	330	M	100KHz, 0.1V	0.560	1.9
471	470	M	100KHz, 0.1V	0.850	1.4
681	680	M	100KHz, 0.1V	1.100	1.2
102	1000	M	100KHz, 0.1V	1.800	1.0

\*Saturation Current: The current when the inductance becomes 10% lower than its initial value. (Ta=25°C)