

LMax SMD Power Inductor



LMXS Series – Shielded Style D

FEATURES

- Magnetically shielded against radiation
- 0704 can help achieve longer battery life significantly in handheld communication devices.
- 1309 / 1915 designed for the higher current requirements of portable computers.
- 0704 has ceramic base with gold-plating
- 1309 / 1915 has LCP plastic base

APPLICATIONS

- Portable Telephones
- Personal Computers
- Other Various Electronic Appliances
- DC/DC Converters, etc.

CHARACTERISTICS

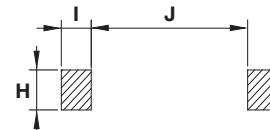
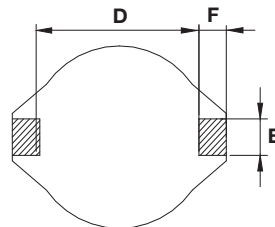
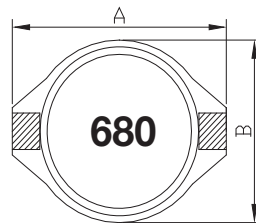
- Saturation Rated Current (IDC): The DC current when the inductance becomes 10% lower than its initial value. (Ta=25°C)
- Temperature Rise Current (I rms): The actual current when temperature of coil becomes $\Delta 40^{\circ}\text{C}$. (Ta=25°C)
- Operating temperature range: -40 ~ 85°C

INDUCTANCE AND RATED CURRENT RANGES

- 0704 1.0 ~ 10000 μH 3.0 ~ 0.02A
- 1309 1.0 ~ 1000 μH 5.0 ~ 0.17A
- 1915 10 ~ 1000 μH 3.9 ~ 0.53A
- Electrical specifications at 25°C



DIMENSIONS



mm (inches)

Type	A max.	B max.	C max.	D	E	F	H	I	J
0704	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)	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)
1915	18.54 (0.730)	15.24 (0.600)	7.62 (0.300)	12.70 (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

LM



Family

LM = Power Inductor

XS



Series

XS = Shielded

0704



Size

0704 = 7x4xh
1309 = 13x9xh
(h = see catalog)

M



Tolerance

M = $\pm 20\%$

R04



Inductance

R04 = 0.039 μH
R39 = 0.390 μH
3R9 = 3.900 μH
390 = 39.00 μH
391 = 390.0 μH
392 = 3900 μH

D



Style

T



Termination

T = Sn Plate

A



Special

A = Standard

S



Packaging

S = 13" Reel



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ELECTRICAL CHARACTERISTICS

0704

Codes	L (μ H)	Tolerance	Test Condition		DCR (Ω) max.	SRF ref (MHz)	Q min.	I rms (A) max.
			L	Q				
1R0	1.0	M	100KHz, 0.1V	200KHz, 0.1V	0.040	250	30	3.00
1R5	1.5	M	100KHz, 0.1V	200KHz, 0.1V	0.045	125	30	2.30
2R2	2.2	M	100KHz, 0.1V	200KHz, 0.1V	0.050	120	40	1.80
3R3	3.3	M	100KHz, 0.1V	200KHz, 0.1V	0.055	120	40	1.60
4R7	4.7	M	100KHz, 0.1V	200KHz, 0.1V	0.060	105	40	1.40
6R8	6.8	M	100KHz, 0.1V	200KHz, 0.1V	0.065	50	40	1.20
100	10	M	100KHz, 0.1V	200KHz, 0.1V	0.075	38	40	1.00
150	15	M	100KHz, 0.1V	100KHz, 0.1V	0.090	33	40	0.80
220	22	M	100KHz, 0.1V	100KHz, 0.1V	0.11	25	40	0.70
330	33	M	100KHz, 0.1V	100KHz, 0.1V	0.19	20	40	0.60
470	47	M	100KHz, 0.1V	100KHz, 0.1V	0.23	20	40	0.50
680	68	M	100KHz, 0.1V	100KHz, 0.1V	0.29	15	40	0.40
101	100	M	100KHz, 0.1V	100KHz, 0.1V	0.48	10	40	0.30
151	150	M	100KHz, 0.1V	100KHz, 0.1V	0.59	9	40	0.26
221	220	M	100KHz, 0.1V	100KHz, 0.1V	0.90	6	40	0.22
331	330	M	100KHz, 0.1V	100KHz, 0.1V	1.40	5	40	0.20
471	470	M	100KHz, 0.1V	100KHz, 0.1V	1.80	4	40	0.19
681	680	M	100KHz, 0.1V	100KHz, 0.1V	2.20	3	40	0.18
102	1000	M	100KHz, 0.1V	100KHz, 0.1V	3.40	2	40	0.15
152	1500	M	100KHz, 0.1V	100KHz, 0.1V	4.20	2	50	0.12
222	2200	M	100KHz, 0.1V	100KHz, 0.1V	8.50	2	50	0.10
332	3300	M	100KHz, 0.1V	100KHz, 0.1V	11.0	1	50	0.08
472	4700	M	100KHz, 0.1V	100KHz, 0.1V	13.9	1	50	0.06
682	6800	M	100KHz, 0.1V	100KHz, 0.1V	25.0	1	50	0.04
103	10000	M	100KHz, 0.1V	100KHz, 0.1V	32.8	0.8	50	0.02

1309

Codes	L (μ H)	Tolerance	Test Condition	DCR (Ω) max.	SRF ref (MHz)	IDC (A) max	I rms (A) max.
1R0	1.0	M	100KHz, 0.1V	0.021	140	5.6	5.0
1R5	1.5	M	100KHz, 0.1V	0.022	120	5.2	4.5
2R2	2.2	M	100KHz, 0.1V	0.032	80	5.0	3.8
3R3	3.3	M	100KHz, 0.1V	0.039	70	3.9	3.3
4R7	4.7	M	100KHz, 0.1V	0.054	40	3.2	2.7
6R8	6.8	M	100KHz, 0.1V	0.075	38	2.8	2.2
100	10	M	100KHz, 0.1V	0.101	35	2.4	2.0
150	15	M	100KHz, 0.1V	0.150	25	2.0	1.5
220	22	M	100KHz, 0.1V	0.207	19	1.6	1.3
330	33	M	100KHz, 0.1V	0.334	15	1.4	1.1
470	47	M	100KHz, 0.1V	0.472	13	1.0	0.8
680	68	M	100KHz, 0.1V	0.660	10	0.9	0.7
101	100	M	100KHz, 0.1V	1.110	7	0.8	0.6
151	150	M	100KHz, 0.1V	1.550	6	0.6	0.5
221	220	M	100KHz, 0.1V	2.000	5	0.5	0.37
102	1000	M	100KHz, 0.1V	8.300	2	0.32	0.17

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1915

Codes	L (μ H)	Tolerance	Test Condition	DCR (Ω) max.	SRF ref (MHz)	IDC (A) max.	I rms (A) max.
100	10	M	100KHz, 0.1V	0.040	30	8.0	3.9
150	15	M	100KHz, 0.1V	0.048	20	7.00	3.4
220	22	M	100KHz, 0.1V	0.059	18	6.00	3.1
330	33	M	100KHz, 0.1V	0.075	14	5.00	2.8
470	47	M	100KHz, 0.1V	0.097	10	4.00	2.4
680	68	M	100KHz, 0.1V	0.138	9.0	3.00	2.0
101	100	M	100KHz, 0.1V	0.207	7.0	2.40	1.7
151	150	M	100KHz, 0.1V	0.293	6.0	2.10	1.3
221	220	M	100KHz, 0.1V	0.470	5.0	1.90	1.1
331	330	M	100KHz, 0.1V	0.780	4.0	1.10	0.86
471	470	M	100KHz, 0.1V	1.080	3.0	1.10	0.73
681	680	M	100KHz, 0.1V	1.400	2.5	0.96	0.64
102	1000	M	100KHz, 0.1V	2.010	2.0	0.80	0.53