

LMax SMD Power Inductor

LMXS Series – Shielded Style C

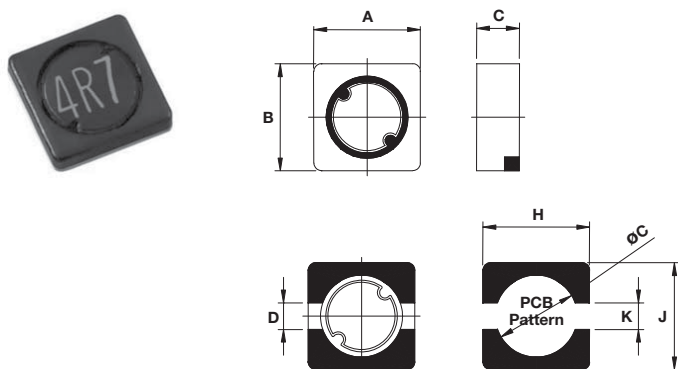
FEATURES

- Directly connected electrode on ferrite core
- Available in magnetically shielded
- Low DC resistance
- Suitable for large current
- Available on tape and reel for auto surface mounting

APPLICATIONS

- Power Supply For VTRs
- OA Equipment.
- Notebook PCs
- Portable Communication Equipment
- DC/DC Converters, etc.

DIMENSIONS



CHARACTERISTICS

- Rated Current:
0404/04B4/0505/05B5/05C5/0707/07B7/07D7: The DC current when the inductance becomes 30% lower than its initial value.
04C4/101B/101D/101H: The DC current when the inductance becomes 35% lower than its initial value. (Ta=25°C)
- Operating temperature range: -40 ~ +105°C

INDUCTANCE AND RATED CURRENT RANGES

- | | | |
|--------|---------------|---------------|
| • 0404 | 1.0 ~ 180μH | 1.60 ~ 0.110A |
| • 04B4 | 0.47 ~ 1800μH | 1.84 ~ 0.036A |
| • 04C4 | 1.5 ~ 560μH | 1.90 ~ 0.090A |
| • 0505 | 1.2 ~ 1000μH | 1.77 ~ 0.067A |
| • 05B5 | 1.0 ~ 820μH | 2.70 ~ 0.026A |
| • 05C5 | 1.0 ~ 2500μH | 4.00 ~ 0.045A |
| • 0707 | 1.0 ~ 820μH | 3.28 ~ 0.100A |
| • 07B7 | 1.0 ~ 1500μH | 3.52 ~ 0.095A |
| • 07D7 | 0.36 ~ 1000μH | 9.24 ~ 0.180A |
- Electrical specifications at 25°C



mm (inches)

Type	A	B	C max.	D	H	J	K	øC
0404	3.80 ± 0.30 (0.150 ± 0.012)	3.80 ± 0.30 (0.150 ± 0.012)	1.25 (0.049)	1.20 (0.047)	4.40 (0.173)	4.40 (0.173)	1.10 (0.043)	3.00 (0.118)
04B4	3.80 ± 0.30 (0.150 ± 0.012)	3.80 ± 0.30 (0.150 ± 0.012)	2.00 (0.079)	1.20 (0.047)	4.40 (0.173)	4.40 (0.173)	1.10 (0.043)	3.00 (0.118)
04C4	3.80 ± 0.30 (0.150 ± 0.012)	3.80 ± 0.30 (0.150 ± 0.012)	3.00 (0.118)	1.20 (0.047)	4.40 (0.173)	4.40 (0.173)	1.10 (0.043)	3.00 (0.118)
0505	5.00 ± 0.30 (0.197 ± 0.012)	5.00 ± 0.30 (0.197 ± 0.012)	1.20 (0.047)	2.00 (0.079)	5.90 (0.232)	5.90 (0.232)	1.90 (0.075)	4.20 (0.165)
05B5	5.00 ± 0.30 (0.197 ± 0.012)	5.00 ± 0.30 (0.197 ± 0.012)	2.00 (0.079)	2.00 (0.079)	5.90 (0.232)	5.90 (0.232)	1.90 (0.075)	4.20 (0.165)
05C5	5.00 ± 0.30 (0.197 ± 0.012)	5.00 ± 0.30 (0.197 ± 0.012)	3.00 (0.118)	2.00 (0.079)	5.90 (0.232)	5.90 (0.232)	1.90 (0.075)	4.20 (0.165)
0707	6.90 ± 0.30 (0.272 ± 0.012)	6.90 ± 0.30 (0.272 ± 0.012)	1.50 (0.059)	2.50 (0.098)	7.30 (0.287)	7.30 (0.287)	2.00 (0.079)	5.30 (0.209)
07B7	6.90 ± 0.30 (0.272 ± 0.012)	6.90 ± 0.30 (0.272 ± 0.012)	1.90 (0.075)	2.50 (0.098)	7.30 (0.287)	7.30 (0.287)	2.00 (0.079)	5.30 (0.209)
07D7	7.00 ± 0.40 (0.276 ± 0.016)	7.00 ± 0.40 (0.276 ± 0.016)	4.30 (0.169)	1.80 (0.071)	8.00 (0.315)	8.00 (0.315)	1.60 (0.063)	6.00 (0.236)

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HOW TO ORDER

LM	XS	0707	M	R04	C	T	A	S
Family	Series	Size	Tolerance	Inductance	Style	Termination	Special	Packaging
LM = Power Inductor	XS = Shielded	0707 = 7x7xh 07D7 = 7x7xD(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		T = Sn Plate	A = Standard	S = 13" Reel

ELECTRICAL CHARACTERISTICS

0404/04B4/04C4

Codes	L (µH)	Tolerance	Test Condition	DCR (Ω) max.			I sat (A) max*		
				0404	04B4	04C4	0404	04B4	04C4
R47	0.47	N	100KHz, 0.25V	-	0.017	-	-	1.840	-
1R0	1.0	M, N	100KHz, 0.25V	0.060	0.030	-	1.600	1.800	-
1R2	1.2	M, N	100KHz, 0.25V	0.065	0.043	-	1.400	1.700	-
1R5	1.5	M, N	100KHz, 0.25V	0.077	0.052	0.015	1.240	1.600	1.900
1R8	1.8	M, N	100KHz, 0.25V	0.093	-	0.018	1.220	-	1.760
2R2	2.2	M, N	100KHz, 0.25V	0.125	0.058	0.020	1.200	1.500	1.670
2R4	2.4	M, N	100KHz, 0.25V	0.139	-	0.022	0.980	-	1.650
2R5	2.5	M, N	100KHz, 0.25V	-	0.059	-	-	1.400	-
2R7	2.7	M, N	100KHz, 0.25V	-	0.059	0.028	-	1.400	1.450
3R3	3.3	M, N	100KHz, 0.25V	0.187	0.064	0.032	0.890	1.300	1.440
3R5	3.5	M, N	100KHz, 0.25V	0.210	0.127	-	0.850	1.300	-
3R6	3.6	M, N	100KHz, 0.25V	-	-	0.035	-	-	1.430
3R9	3.9	M, N	100KHz, 0.25V	0.220	0.135	0.037	0.780	1.120	1.320
4R3	4.3	M, N	100KHz, 0.25V	-	-	0.043	-	-	1.000
4R7	4.7	M, N	100KHz, 0.25V	0.240	0.146	0.045	0.710	1.100	0.970
5R1	5.1	M, N	100KHz, 0.25V	-	-	0.046	-	-	0.940
5R6	5.6	M, N	100KHz, 0.25V	0.320	0.176	-	0.620	0.950	-
6R2	6.2	M, N	100KHz, 0.25V	-	0.220	-	-	0.910	-
6R8	6.8	M, N	100KHz, 0.25V	0.350	0.238	0.065	0.570	0.900	0.870
7R5	7.5	M, N	100KHz, 0.25V	-	-	0.079	-	-	0.820
8R2	8.2	M, N	100KHz, 0.25V	0.470	0.272	0.071	0.520	0.800	0.770
100	10	M	1KHz, 0.25V	0.570	0.299	0.105	0.470	0.700	0.700
120	12	M	1KHz, 0.25V	0.750	-	0.119	0.430	-	0.670
150	15	M	1KHz, 0.25V	0.810	0.472	0.140	0.380	0.610	0.540
180	18	M	1KHz, 0.25V	1.060	-	0.175	0.350	-	0.500
220	22	M	1KHz, 0.25V	1.150	0.592	0.201	0.320	0.520	0.480
270	27	M	1KHz, 0.25V	1.670	0.630	0.227	0.290	0.440	0.400
330	33	M	1KHz, 0.25V	1.840	1.075	0.287	0.280	0.430	0.350
390	39	M	1KHz, 0.25V	2.310	-	0.341	0.250	-	0.330
470	47	M	1KHz, 0.25V	2.630	1.309	0.430	0.220	0.340	0.320
560	56	M	1KHz, 0.25V	2.860	-	0.471	0.200	-	0.300
680	68	M	1KHz, 0.25V	3.940	2.613	0.532	0.180	0.250	0.270
820	82	M	1KHz, 0.25V	4.900	2.950	0.675	0.160	0.200	0.230
101	100	M	1KHz, 0.25V	5.740	3.255	0.850	0.140	0.190	0.210
121	120	M	1KHz, 0.25V	7.310	-	1.110	0.130	-	0.200
151	150	M	1KHz, 0.25V	9.080	3.550	1.230	0.120	0.120	0.170
181	180	M	1KHz, 0.25V	9.500	-	1.560	0.110	-	0.150
221	220	M	1KHz, 0.25V	-	4.900	1.800	-	0.090	0.140
271	270	M	1KHz, 0.25V	-	-	2.200	-	-	0.130
331	330	M	1KHz, 0.25V	-	7.280	2.640	-	0.080	0.120
471	470	M	1KHz, 0.25V	-	-	3.820	-	-	0.100
561	560	M	1KHz, 0.25V	-	-	4.620	-	-	0.090
681	680	M	1KHz, 0.25V	-	13.370	-	-	0.070	-
102	1000	M	1KHz, 0.25V	-	19.550	-	-	0.065	-
152	1500	M	1KHz, 0.25V	-	36.150	-	-	0.038	-
182	1800	M	1KHz, 0.25V	-	57.620	-	-	0.036	-

*Saturation Current (0404/04B4): The DC current when the inductance becomes 30% lower than its initial value. (Ta=25°C)

*Saturation Current (04C4): The DC current when the inductance becomes 35% lower than its initial value. (Ta=25°C)

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LMXS Series – Shielded Style C



0505/05B5/05C5

Codes	L (μH)	Tolerance	Test Condition	DCR (Ω) max.			I sat (A) max*		
				0505	05B5	05C5	0505	05B5	05C5
1R0	1.0	M, N	100KHz, 0.25V	–	0.030	0.015	–	2.700	4.000
1R1	1.1	M, N	100KHz, 0.25V	–	–	0.020	–	–	3.870
1R2	1.2	M, N	100KHz, 0.25V	0.050	0.044	0.022	1.770	2.150	3.800
1R5	1.5	M, N	100KHz, 0.25V	0.069	–	–	1.710	–	–
2R0	2.0	M, N	100KHz, 0.25V	0.100	0.046	0.027	1.440	1.900	2.920
2R2	2.2	M, N	100KHz, 0.25V	0.110	0.059	0.029	1.400	1.630	2.410
3R3	3.3	M, N	100KHz, 0.25V	0.140	0.062	0.034	1.140	1.500	2.360
3R5	3.5	M, N	100KHz, 0.25V	0.150	0.073	–	1.100	1.340	–
4R1	4.1	M, N	100KHz, 0.25V	–	0.081	–	–	1.200	–
4R7	4.7	M, N	100KHz, 0.25V	0.190	0.087	0.045	0.950	1.140	1.870
5R6	5.6	M, N	100KHz, 0.25V	0.193	0.093	0.052	0.900	1.000	1.600
6R2	6.2	M, N	100KHz, 0.25V	0.200	–	–	0.840	–	–
6R8	6.8	M, N	100KHz, 0.25V	0.200	0.105	0.068	0.800	0.950	1.510
8R2	8.2	M, N	100KHz, 0.25V	0.300	0.139	0.084	0.750	0.900	1.380
100	10	M	1KHz, 0.25V	0.350	0.150	0.090	0.660	0.760	1.330
120	12	M	1KHz, 0.25V	0.430	0.170	–	0.620	0.660	–
150	15	M	1KHz, 0.25V	0.440	0.210	0.142	0.590	0.630	1.050
180	18	M	1KHz, 0.25V	0.750	–	–	0.570	–	–
220	22	M	1KHz, 0.25V	0.820	0.275	0.208	0.560	0.560	0.860
270	27	M	1KHz, 0.25V	–	–	0.222	–	–	0.750
330	33	M	1KHz, 0.25V	1.160	0.455	0.257	0.430	0.440	0.720
390	39	M	1KHz, 0.25V	–	0.540	–	–	0.380	–
470	47	M	1KHz, 0.25V	1.590	0.730	0.352	0.340	0.350	0.620
560	56	M	1KHz, 0.25V	–	0.800	–	–	0.320	–
680	68	M	1KHz, 0.25V	2.140	0.935	0.525	0.290	0.300	0.510
820	82	M	1KHz, 0.25V	2.720	–	–	0.250	–	–
101	100	M	1KHz, 0.25V	3.550	1.500	0.801	0.220	0.230	0.430
121	120	M	1KHz, 0.25V	4.890	1.910	0.850	0.200	0.220	0.340
151	150	M	1KHz, 0.25V	5.200	2.680	1.100	0.190	0.210	0.260
181	180	M	1KHz, 0.25V	7.550	3.045	1.190	0.170	0.200	0.240
221	220	M	1KHz, 0.25V	7.760	3.520	1.530	0.150	0.195	0.200
271	270	M	1KHz, 0.25V	10.13	4.380	–	0.145	0.193	–
331	330	M	1KHz, 0.25V	11.23	5.560	2.030	0.140	0.190	0.190
391	390	M	1KHz, 0.25V	–	–	3.000	–	–	0.160
471	470	M	1KHz, 0.25V	16.86	7.820	3.500	0.098	0.180	0.150
561	560	M	1KHz, 0.25V	22.78	9.790	4.450	0.097	0.170	0.140
681	680	M	1KHz, 0.25V	24.87	–	–	0.085	–	–
821	820	M	1KHz, 0.25V	28.09	15.00	–	0.077	0.120	–
102	1000	M	1KHz, 0.25V	45.07	–	–	0.067	–	–
122	1200	M	1KHz, 0.25V	–	–	8.500	–	–	0.070
152	1500	M	1KHz, 0.25V	–	–	10.00	–	–	0.065
182	1800	M	1KHz, 0.25V	–	–	13.15	–	–	0.062
222	2200	M	1KHz, 0.25V	–	–	19.00	–	–	0.050
252	2500	M	1KHz, 0.25V	–	–	20.00	–	–	0.045

*Saturation Current (0505/05B5/05C5): The DC current when the inductance becomes 30% lower than its initial value.

LMax SMD Power Inductor

LMXS Series – Shielded Style C



0707/07B7/07D7

Codes	L (μH)	Tolerance	Test Condition	DCR (Ω) max.			I sat (A) max*		
				0707	07B7	07D7	0707	07B7	07D7
R36	0.36	N	100KHz, 0.25V	-	-	0.005	-	-	9.240
R56	0.56	N	100KHz, 0.25V	-	-	0.006	-	-	8.500
R80	0.80	N	100KHz, 0.25V	-	-	0.009	-	-	5.800
1R0	1.0	M, N	100KHz, 0.25V	0.050	0.035	0.040	3.280	3.520	2.100
1R2	1.2	M, N	100KHz, 0.25V	-	-	0.040	-	-	2.100
1R5	1.5	M, N	100KHz, 0.25V	0.067	-	0.040	2.530	-	2.100
1R8	1.8	M, N	100KHz, 0.25V	-	0.052	0.040	-	3.050	2.090
2R0	2.0	M, N	100KHz, 0.25V	0.085	-	-	2.060	-	-
2R2	2.2	M, N	100KHz, 0.25V	-	0.071	0.0410	-	2.500	2.080
2R5	2.5	M, N	100KHz, 0.25V	-	-	0.0410	-	-	2.080
2R7	2.7	M, N	100KHz, 0.25V	0.110	-	-	1.870	-	-
3R0	3.0	M, N	100KHz, 0.25V	-	0.086	-	-	2.150	-
3R3	3.3	M, N	100KHz, 0.25V	0.130	-	0.0410	1.580	-	2.070
3R9	3.9	M, N	100KHz, 0.25V	0.160	0.110	-	1.460	2.010	-
4R3	4.3	M, N	100KHz, 0.25V	-	-	0.041	-	-	2.060
4R7	4.7	M, N	100KHz, 0.25V	0.200	0.130	0.042	1.300	1.950	2.050
5R6	5.6	M, N	100KHz, 0.25V	0.230	0.150	0.043	1.220	1.820	2.040
6R8	6.8	M, N	100KHz, 0.25V	0.280	0.170	0.044	1.160	1.670	2.040
8R2	8.2	M, N	100KHz, 0.25V	0.310	0.190	-	1.130	1.520	-
100	10	M	1KHz, 0.25V	0.330	0.240	0.049	1.030	1.390	2.000
120	12	M	1KHz, 0.25V	0.460	0.290	0.058	0.870	1.220	1.900
150	15	M	1KHz, 0.25V	0.530	0.380	0.081	0.800	1.090	1.600
180	18	M	1KHz, 0.25V	0.620	0.440	0.091	0.730	1.030	1.480
220	22	M	1KHz, 0.25V	0.700	0.490	0.110	0.710	0.950	1.320
270	27	M	1KHz, 0.25V	0.910	0.640	0.150	0.650	0.840	1.260
330	33	M	1KHz, 0.25V	1.150	0.740	0.170	0.570	0.800	1.100
390	39	M	1KHz, 0.25V	1.380	0.910	0.230	0.500	0.750	1.050
470	47	M	1KHz, 0.25V	1.540	1.020	0.260	0.480	0.690	1.000
560	56	M	1KHz, 0.25V	1.860	1.260	0.350	0.450	0.630	0.850
680	68	M	1KHz, 0.25V	2.320	1.570	0.380	0.410	0.560	0.780
820	82	M	1KHz, 0.25V	2.540	1.890	0.430	0.370	0.510	0.740
101	100	M	1KHz, 0.25V	3.20	2.12	0.61	0.32	0.47	0.70
121	120	M	1KHz, 0.25V	4.24	2.55	0.66	0.29	0.42	0.60
151	150	M	1KHz, 0.25V	4.77	3.37	0.88	0.27	0.37	0.52
181	180	M	1KHz, 0.25V	6.04	3.73	0.98	0.24	0.32	0.46
221	220	M	1KHz, 0.25V	7.95	4.54	1.17	0.22	0.29	0.40
271	270	M	1KHz, 0.25V	10.51	5.97	1.64	0.19	0.25	0.36
331	330	M	1KHz, 0.25V	11.63	7.74	1.86	0.18	0.23	0.32
391	390	M	1KHz, 0.25V	12.97	9.92	2.85	0.16	0.21	0.28
471	470	M	1KHz, 0.25V	16.87	12.95	3.01	0.15	0.18	0.26
561	560	M	1KHz, 0.25V	22.3	14.36	3.62	0.13	0.16	0.24
681	680	M	1KHz, 0.25V	25.11	18.52	4.63	0.12	0.14	0.22
821	820	M	1KHz, 0.25V	28.41	20.23	5.20	0.10	0.13	0.20
102	1000	M	1KHz, 0.25V	-	28.25	6.00	-	0.11	0.18
122	1200	M	1KHz, 0.25V	-	31.85	-	-	0.10	-
152	1500	M	1KHz, 0.25V	-	36.72	-	-	0.095	-

*Saturation Current (0707/07B7/07D7): The DC current when the inductance becomes 30% lower than its initial value.