

Molding SMD Power Inductors

Features:

- High performance (Isat) realized by metal dust core.
- Shielded construction.
- Handles high transient current spikes without saturation.
- Ultra Low buzz noise, due to composite construction.
- New technology hot-pressing.
- Ultra-high current, ultra-low loss.
- RoHS compliant.
- AEC-Q200 qualified.
- Operating temperature: -55°C ~+125°C.

Applications:

- Automotive applications
- High current POL converter
- Battery powered devices
- DC/DC converters in distributed power systems

Product Identification:

①	②	③		④	⑤	⑥		⑦
LML	0530A	E	-	1R0	M	R	-	06

①	Type
LML	Power inductors

③	Application Code
A	General use
E	Automotive use

②	(L×W×H) [mm] External Dimensions
LML0530A	5.4×5.2×3.0
LML0630A	7.1×6.6×3.0
LML0640A	7.1×6.6×4.0
LML0840A	8.3×8.1×4.0
LML1030A	11.1×10.0×3.0
LML1040A	11.1×10.0×4.0
LML1050A	11.1×10.0×5.0
LML1350A	13.45×12.6×5.0
LML1360A	13.45×12.6×6.0
LML1365A	13.45×12.6×6.5
LML1770A	17.9×17.0×7.0

④	Nominal Inductance
1R0	1.0μH
100	10.0μH

⑤	Inductance Tolerance
K	±10%
M	±20%
N	±30%

⑥	Packing
Standard	Tape Reel Package

⑦	Internal code
01	XXX
06	

Shape And Dimensions [Unit: mm]

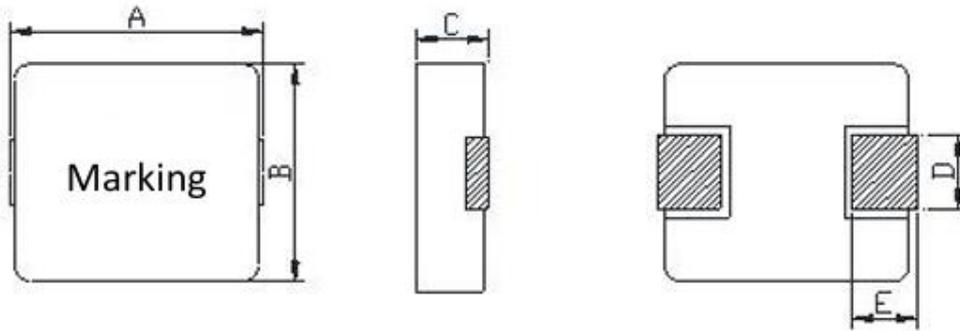


Figure 1

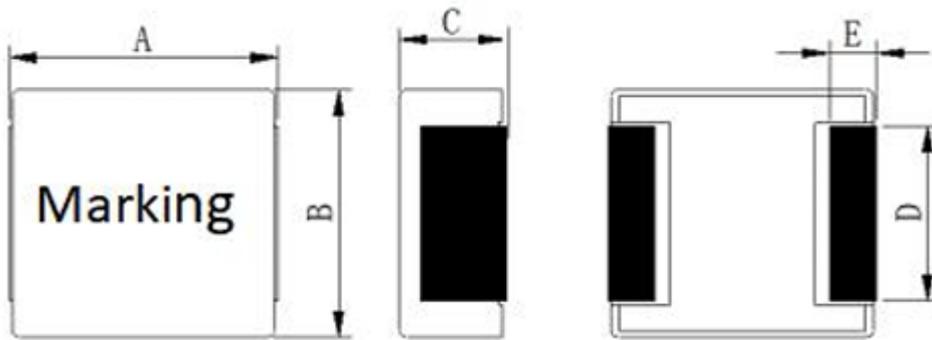
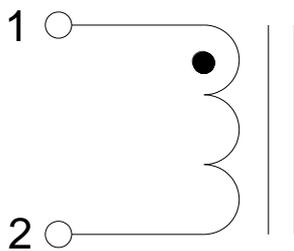
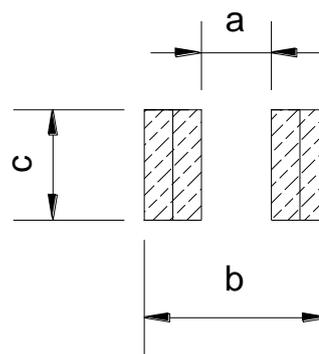


Figure 2



SCHEMATIC DRAWING



SUGGESTED PCB LAYOUT

	A	B	C	D	E	a (Typ.)	b (Typ.)	c (Typ.)	Figure
LML0530AE	5.4±0.3	5.2±0.2	3 Max.	2.2±0.5	1.2±0.5	2.2	6	2.7	1
LML0630AE	7.1±0.3	6.6±0.2	3 Max.	3±0.5	1.6±0.5	3.7	8.4	3.5	1
LML0640AE	7.1±0.3	6.6±0.2	4 Max.	3±0.5	1.6±0.5	3.7	8.4	3.5	1
LML0840AE	8.3±0.4	8.1±0.4	4 Max.	3±0.5	1.6±0.5	4.1	10.3	3.5	1
LML1030AE	11.1±0.4	10±0.3	3 Max.	3±0.5	2±0.5	5.4	13.6	4.1	1
LML1040AE	11.1±0.4	10±0.3	4 Max.	3±0.5	2±0.5	5.4	13.6	4.1	1
LML1050AE	11.1±0.4	10±0.3	5 Max.	3±0.5	2±0.5	5.4	13.6	4.1	1
LML1350AE	13.45±0.35	12.6±0.3	5 Max.	See Remarks A	2±0.5	8	15.5	5.5	1
LML1360AE	13.45±0.35	12.6±0.4	6 Max.	See Remarks B	2±0.5	8	15.5	5.5	1
LML1365AE	13.45±0.35	12.6±0.4	6.5 Max.	See Remarks C	2±0.5	8	15.5	5.5	1
LML1770AE	17.9±0.4	17.0±0.4	7 Max.	11.9±0.5	2.5±0.5	11.2	18.7	12.8	2

Remarks: A

Nominal Inductance	D
R22、R33、R47、R56、R68、1R0、1R5、2R2	3.85±0.5
2R7、3R3、4R7、5R6、6R8、8R2、100、150、220	5±0.4

Remarks: B

Nominal Inductance	D
1R5、2R2	3.85±0.5
3R3、4R7、5R6、6R8、8R2、100、120、150、180、220	5±0.4

Remarks: C

Nominal Inductance	D
1R0、2R2	3.85±0.5
3R3、4R7、5R6、6R8、8R2、100、150、220	5±0.4

Electrical Characteristics

LML0530AE Series						
P/N	Inductance (μ H)	Test Freq. (KHz/1.0V)	Tolerance (\pm %)	DCR (m Ω) Max.	Isat (A) Typ.	Irms (A) Typ.
LML0530AE-R10MR-06	0.10	100	20	3.5	30	20
LML0530AE-R22MR-06	0.22	100	20	4.5	17	14.5
LML0530AE-R33MR-06	0.33	100	20	5.5	17	13.5
LML0530AE-R47MR-06	0.47	100	20	8.5	15	11
LML0530AE-R68MR-06	0.68	100	20	12	13	9.6
LML0530AE-1R0MR-06	1.0	100	20	14	11	8.5
LML0530AE-1R2MR-06	1.2	100	20	16	11	8.0
LML0530AE-1R5MR-06	1.5	100	20	25	8.5	6.6
LML0530AE-2R2MR-06	2.2	100	20	29	7.5	6.0
LML0530AE-3R3MR-06	3.3	100	20	38	6.0	5.3
LML0530AE-4R7MR-06	4.7	100	20	60	5.0	4.2
LML0530AE-6R8MR-06	6.8	100	20	90	4.0	3.4
LML0530AE-100MR-06	10	100	20	125	3.5	2.9

LML0630AE Series						
P/N	Inductance (μ H)	Test Freq. (KHz/1.0V)	Tolerance (\pm %)	DCR (m Ω) Max.	Isat (A) Typ.	Irms (A) Typ.
LML0630AE-R10MR-06	0.10	100	20	1.8	45	29
LML0630AE-R15MR-06	0.15	100	20	2.5	40	24
LML0630AE-R22MR-06	0.22	100	20	3.0	34	19
LML0630AE-R33MR-06	0.33	100	20	3.9	30	17
LML0630AE-R47MR-06	0.47	100	20	4.1	20	16
LML0630AE-R56MR-06	0.56	100	20	4.5	18	15
LML0630AE-R68MR-06	0.68	100	20	5.3	17	14
LML0630AE-R82MR-06	0.82	100	20	6.0	16	13
LML0630AE-1R0MR-06	1.0	100	20	10	15	11
LML0630AE-1R5MR-06	1.5	100	20	15	14	9.0
LML0630AE-2R2MR-06	2.2	100	20	20	10	7.5
LML0630AE-2R7MR-06	2.7	100	20	30	10	6.0
LML0630AE-3R3MR-06	3.3	100	20	35	9.5	5.8
LML0630AE-4R7MR-06	4.7	100	20	40	6.5	5.5
LML0630AE-5R6MR-06	5.6	100	20	45	6.5	4.9
LML0630AE-6R8MR-06	6.8	100	20	60	6.0	4.5
LML0630AE-8R2MR-06	8.2	100	20	60	6.0	4.0
LML0630AE-100MR-06	10	100	20	68	5.0	3.8

LML0630AE-150MR-06	15	100	20	122	4.0	2.8
--------------------	----	-----	----	-----	-----	-----

LML0640AE Series						
P/N	Inductance (μ H)	Test Freq. (KHz/1.0V)	Tolerance (\pm %)	DCR (m Ω) Max.	Isat (A)Typ.	Irms (A) Typ.
LML0640AE-R15MR-06	0.15	100	20	1.0	30	28
LML0640AE-R22MR-06	0.22	100	20	1.5	28	26
LML0640AE-R33MR-06	0.33	100	20	3.6	25	20
LML0640AE-R47MR-06	0.47	100	20	4.5	21	18
LML0640AE-R68MR-06	0.68	100	20	4.8	19	16
LML0640AE-1R0MR-06	1.0	100	20	6.6	16	14
LML0640AE-1R5MR-06	1.5	100	20	10	12.5	12.4
LML0640AE-2R2MR-06	2.2	100	20	14	11	10
LML0640AE-3R3MR-06	3.3	100	20	20	10	8.0
LML0640AE-4R7MR-06	4.7	100	20	25	9.0	7.0
LML0640AE-6R8MR-06	6.8	100	20	45	6.5	5.5
LML0640AE-100MR-06	10	100	20	65	6.0	4.8

LML0840AE Series						
P/N	Inductance (μ H)	Test Freq. (KHz/1.0V)	Tolerance (\pm %)	DCR (m Ω) Max.	Isat (A) Typ.	Irms (A) Typ.
LML0840AE-R22MR-06	0.22	100	20	1.8	60	36
LML0840AE-R33MR-06	0.33	100	20	2.4	45	30
LML0840AE-R47MR-06	0.47	100	20	2.8	37	25
LML0840AE-R56MR-06	0.56	100	20	3.2	26	23.5
LML0840AE-R68MR-06	0.68	100	20	3.8	24	21.5
LML0840AE-R82MR-06	0.82	100	20	4.4	21	20
LML0840AE-1R0MR-06	1.0	100	20	5.5	19	18
LML0840AE-1R5MR-06	1.5	100	20	7.6	17	16.5
LML0840AE-1R8MR-06	1.8	100	20	11	15	15
LML0840AE-2R2MR-06	2.2	100	20	11.4	14	13
LML0840AE-3R3MR-06	3.3	100	20	15	12.5	10.5
LML0840AE-4R7MR-06	4.7	100	20	26.5	11.5	8.5
LML0840AE-5R6MR-06	5.6	100	20	30	11	8.2
LML0840AE-6R8MR-06	6.8	100	20	36.8	9.0	7.0
LML0840AE-8R2MR-06	8.2	100	20	46	8.7	6.0
LML0840AE-100MR-06	10	100	20	59	8.0	5.5
LML0840AE-150MR-06	15	100	20	71	5.5	5.0
LML0840AE-220MR-06	22	100	20	113	5.0	3.7

LML1030AE Series						
P/N	Inductance (μH)	Test Freq. (KHz/1.0V)	Tolerance (\pm%)	DCR (mΩ) Max.	Isat (A)Typ.	Irms (A) Typ.
LML1030AE-R22MR-06	0.22	100	20	1.2	50	30
LML1030AE-R33MR-06	0.33	100	20	1.6	32	23
LML1030AE-R36MR-06	0.36	100	20	1.6	28	23
LML1030AE-R47MR-06	0.47	100	20	2.5	26	22
LML1030AE-R68MR-06	0.68	100	20	4.0	23	20
LML1030AE-R82MR-06	0.82	100	20	5.0	21	17
LML1030AE-1R0MR-06	1.0	100	20	6.0	20.5	15
LML1030AE-1R5MR-06	1.5	100	20	7.5	19	13
LML1030AE-2R2MR-06	2.2	100	20	9.0	14	11
LML1030AE-3R3MR-06	3.3	100	20	17	12	9.0
LML1030AE-4R7MR-06	4.7	100	20	22.5	10	7.0
LML1030AE-8R2MR-06	8.2	100	20	45	7.0	5.0
LML1030AE-100MR-06	10	100	20	80	6.5	4.5

LM1040AE Series						
P/N	Inductance (μH)	Test Freq. (KHz/1.0V)	Tolerance (\pm%)	DCR (mΩ) Max.	Isat (A)Typ.	Irms (A) Typ.
LML1040AE-R15MR-06	0.15	100	20	0.65	75	45
LML1040AE-R22MR-06	0.22	100	20	1.0	50	38
LML1040AE-R36MR-06	0.36	100	20	1.2	45	30
LML1040AE-R47MR-06	0.47	100	20	1.7	40	27
LML1040AE-R56MR-06	0.56	100	20	1.8	33	25
LML1040AE-R68MR-06	0.68	100	20	2.4	30	23
LML1040AE-1R0MR-06	1.0	100	20	3.2	27	20
LML1040AE-1R5MR-06	1.5	100	20	4.2	22	16
LML1040AE-2R2MR-06	2.2	100	20	7.0	17	14
LML1040AE-3R3MR-06	3.3	100	20	11.8	16	11
LML1040AE-4R7MR-06	4.7	100	20	20	15	9.0
LML1040AE-6R8MR-06	6.8	100	20	25	12	8.5
LML1040AE-8R2MR-06	8.2	100	20	30	9.0	8.0
LML1040AE-100MR-06	10	100	20	30	8.5	7.5
LML1040AE-150MR-06	15	100	20	45	7.0	6.5
LML1040AE-220MR-06	22	100	20	66	5.5	5.0
LML1040AE-330MR-06	33	100	20	92	5.0	4.4

LML1050AE Series						
P/N	Inductance (μH)	Test Freq. (KHz/1.0V)	Tolerance (\pm%)	DCR (mΩ) Max.	Isat (A)Typ.	Irms (A) Typ.
LML1050AE-R22MR-06	0.22	100	20	0.8	65	37
LML1050AE-R47MR-06	0.47	100	20	1.6	40	32
LML1050AE-R68MR-06	0.68	100	20	1.95	37	23
LML1050AE-1R0MR-06	1.0	100	20	3.0	30	22
LML1050AE-1R5MR-06	1.5	100	20	3.8	25	21
LML1050AE-2R2MR-06	2.2	100	20	6.0	20	15
LML1050AE-3R3MR-06	3.3	100	20	10	16	13
LML1050AE-4R7MR-06	4.7	100	20	14	15	11
LML1050AE-5R6MR-06	5.6	100	20	17	14	9.5
LML1050AE-6R8MR-06	6.8	100	20	18.5	14	9.0
LML1050AE-100MR-06	10	100	20	28	10	8.0
LML1050AE-150MR-06	15	100	20	42	7.5	6.5
LML1050AE-220MR-06	22	100	20	50	6.0	5.5

LML1350AE Series						
P/N	Inductance (μH)	Test Freq. (KHz/1.0V)	Tolerance (\pm%)	DCR (mΩ) Max.	Isat (A)Typ.	Irms (A) Typ.
LML1350AE-R22MR-06	0.22	100	20	0.7	75	48
LML1350AE-R33MR-06	0.33	100	20	1.2	50	42
LML1350AE-R47MR-06	0.47	100	20	1.3	45	35
LML1350AE-R56MR-06	0.56	100	20	1.6	42	33
LML1350AE-R68MR-06	0.68	100	20	1.7	39	30
LML1350AE-R82MR-06	0.82	100	20	2.3	36	27
LML1350AE-1R0MR-06	1.0	100	20	2.5	35	26
LML1350AE-1R5MR-06	1.5	100	20	3.2	33	23
LML1350AE-2R2MR-06	2.2	100	20	5.5	32	19
LML1350AE-2R7MR-06	2.7	100	20	6.8	28	16
LML1350AE-3R3MR-06	3.3	100	20	9.2	25	13
LML1350AE-4R7MR-06	4.7	100	20	15	20	13
LML1350AE-5R6MR-06	5.6	100	20	16.5	17	11.5
LML1350AE-6R8MR-06	6.8	100	20	18	16	11
LML1350AE-8R2MR-06	8.2	100	20	22.5	15	8.0
LML1350AE-100MR-06	10	100	20	25	13	7.5
LML1350AE-150MR-06	15	100	20	30	10	7.0
LML1350AE-220MR-06	22	100	20	58	6.5	4.5

LML1360AE Series						
P/N	Inductance (μH)	Test Freq. (KHz/1.0V)	Tolerance (\pm%)	DCR (mΩ) Max.	Isat (A)Typ.	Irms (A) Typ.
LML1360AE-1R5MR-06	1.5	100	20	2.9	30	23
LML1360AE-2R2MR-06	2.2	100	20	4.2	28	17.5
LML1360AE-3R3MR-06	3.3	100	20	6.8	25	14
LML1360AE-4R7MR-06	4.7	100	20	9.0	24	12
LML1360AE-5R6MR-06	5.6	100	20	11	22.5	11
LML1360AE-6R8MR-06	6.8	100	20	13.5	19	10.5
LML1360AE-8R2MR-06	8.2	100	20	16	13.5	9.5
LML1360AE-100MR-06	10	100	20	20.7	12.5	9.0
LML1360AE-120MR-06	12	100	20	23	10	8.5
LML1360AE-150MR-06	15	100	20	29	9.0	6.5
LML1360AE-180MR-06	18	100	20	35	8.0	6.0
LML1360AE-220MR-06	22	100	20	39.5	7.50	5.3

LML1365AE Series						
P/N	Inductance (μH)	Test Freq. (KHz/1.0V)	Tolerance (\pm%)	DCR (mΩ) Max.	Isat (A)Typ.	Irms (A) Typ.
LML1365AE-1R0MR-06	1.0	100	20	2.0	45	29
LML1365AE-1R5MR-06	1.5	100	20	3.0	40	24
LML1365AE-2R2MR-06	2.2	100	20	4.5	37	19
LML1365AE-3R3MR-06	3.3	100	20	6.8	23	16.5
LML1365AE-4R7MR-06	4.7	100	20	11.2	22	14
LML1365AE-5R6MR-06	5.6	100	20	12.8	20	13
LML1365AE-6R8MR-06	6.8	100	20	14	18.5	12
LML1365AE-8R2MR-06	8.2	100	20	15.5	16	11.5
LML1365AE-100MR-06	10	100	20	16.5	15	10
LML1365AE-150MR-06	15	100	20	29	10	7.5
LML1365AE-220MR-06	22	100	20	39.5	9.0	6.3

LML1770AE Series						
P/N	Inductance (μH)	Test Freq. (KHz/1.0V)	Tolerance (\pm%)	DCR (mΩ) Max.	Isat (A)Typ.	Irms (A) Typ.
LML1770AE-1R5MR-06	1.5	100	20	2.0	46	32
LML1770AE-2R2MR-06	2.2	100	20	2.5	42	27
LML1770AE-3R3MR-06	3.3	100	20	3.95	30	22
LML1770AE-4R7MR-06	4.7	100	20	4.75	24	19

LML1770AE-5R6MR-06	5.6	100	20	7.2	22	18
LML1770AE-6R8MR-06	6.8	100	20	7.5	22	17
LML1770AE-8R2MR-06	8.2	100	20	8.7	20	13
LML1770AE-100MR-06	10	100	20	9.9	19	12
LML1770AE-150MR-06	15	100	20	17	14.5	11
LML1770AE-220MR-06	22	100	20	23	11.5	8.5
LML1770AE-330MR-06	33	100	20	37	10	8.0

NOTE :

1. All test data is referenced to 25°C ambient.
2. Isat: DC current at which the inductance drops approximate 30%TYP from its value without current.
3. Irms: DC current that causes the temperature rise($\Delta T=40^{\circ}\text{C}$) from 25°C ambient.
4. L tested by Wayne kerr 3260B LCR meter with Wayne kerr 3260B bias current source or equivalent.
5. DCR tested by Milli-ohmmeter.
6. Absolute maximum voltage 30VDC.

Packing Specification

	pcs / reel	Reel Size	Inner box (400*350*140mm)	Carton outside (430*380*320mm)
LML0530AE_Series	2K	13"	12K	24K
	pcs / reel	Reel Size	Inner box (400*350*140mm)	Carton outside (430*380*320mm)
LML0630AE_Series	1K	13"	6K	12K
	pcs / reel	Reel Size	Inner box (400*350*140mm)	Carton outside (430*380*320mm)
LML0640AE_Series	1K	13"	6K	12K
	pcs / reel	Reel Size	Inner box (400*350*140mm)	Carton outside (430*380*320mm)
LML0840AE_Series	1K	13"	6K	12K
	pcs / reel	Reel Size	Inner box (400*350*140mm)	Carton outside (430*380*320mm)
LML1030AE_Series	1K	13"	6K	12K
	pcs / reel	Reel Size	Inner box (400*350*140mm)	Carton outside (430*380*320mm)
LML1040AE_Series	0.5K	13"	3K	6K
	pcs / reel	Reel Size	Inner box (400*350*140mm)	Carton outside (430*380*320mm)
LML1050AE_Series	0.5K	13"	3K	6K
	pcs / reel	Reel Size	Inner box (400*350*140mm)	Carton outside (430*380*320mm)
LML1350AE_Series	0.5K	13"	3K	6K
	pcs / reel	Reel Size	Inner box (400*350*140mm)	Carton outside (430*380*320mm)
LML1360AE_Series	0.5K	13"	3K	6K
	pcs / reel	Reel Size	Inner box (400*350*140mm)	Carton outside (430*380*320mm)
LML1365AE_Series	0.5K	13"	3K	6K
	pcs / reel	Reel Size	Inner box (355*340*51mm)	Carton outside (370*365*285mm)
LML1770AE_Series	0.2K	13"	0.2K	1K