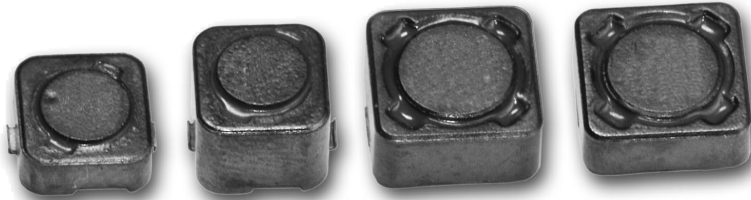




**DESIGNER KIT AVAILABLE**  
Order on-line P/N RL-8700-DK

# RL-8700

## SHIELDED SMD POWER INDUCTORS



### APPLICATIONS

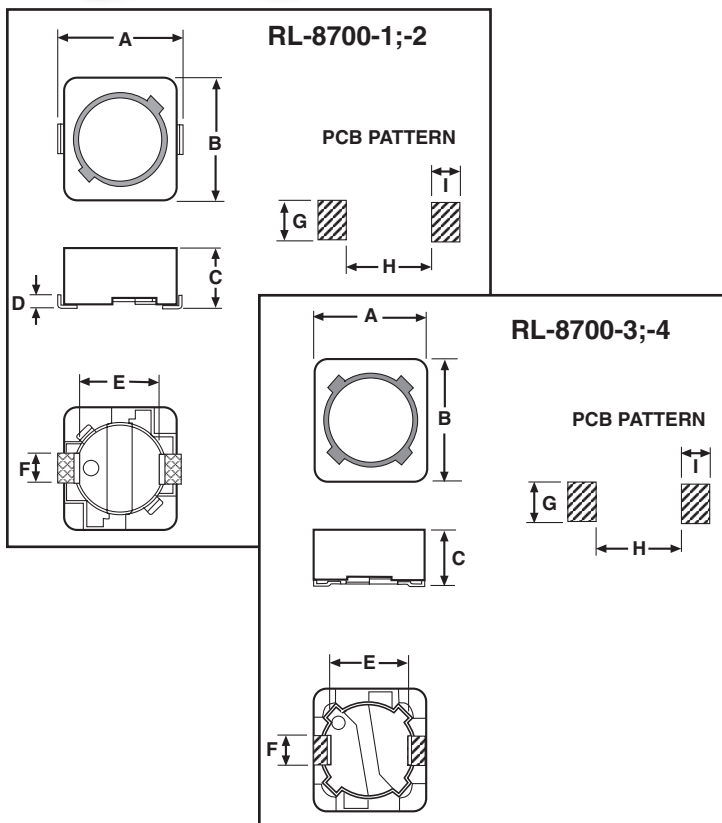
This series is ideal for DC – DC Converters used in Laptop computers and other electronic equipment requiring compact and low loss inductors.

### MATERIALS CONSTRUCTION

- a) Core: Ferrite DR
- b) Core: Ferrite RI Core
- c) Wire: Enameled Copper Wire
- d) Base: LCP
- d) Adhesive: Epoxy Resin
- e) Terminal: Tinned Copper Plate

### GENERAL SPECIFICATIONS

- Temperature rise: 40°C Typical at I dc
- Rated current: Based on temperature rise and  $\Delta L/LOA = 25\%$  Max.
- Operating Temperature: -25°C to +85°C
- Storage Temperature: -40°C to +125°C
- Resistance to solder heat: 260°C for 10 seconds
- ROHS Compliant



PART NUMBER	A	B	C	D	E	F	G	H	I
RL-8700-1	6.60mm+/-0.30 0.25" +/-0.01"	5.90mm+/-0.30 0.23" +/-0.01"	3.00mm Max 0.12"	0.60mm 0.023"	4.60mm 0.18"	1.50mm 0.06"	1.90mm 0.075"	4.60mm 0.18"	1.40mm 0.077"
RL-8700-2	6.60+/-0.30 0.25" +/-0.01"	5.90mm+/-0.30 0.23" +/-0.01"	5.00mm Max 0.20"	0.60mm 0.023"	4.60mm 0.18"	1.50mm 0.06"	1.90mm 0.075"	4.60mm 0.18"	1.40mm 0.077"
RL-8700-3	7.30mm+/-0.20 0.28" +/-0.01"	7.30mm+/-0.20 0.28" +/-0.01"	3.40mm Max 0.13"	N/A	5.00mm 0.19"	1.80mm 0.07"	2.20mm 0.086"	4.80mm 0.19"	1.60mm 0.062"
RL-8700-4	7.30mm+/-0.20 0.28" +/-0.01"	7.30mm+/-0.20 0.28" +/-0.01"	4.50mm Max 0.17"	N/A	5.00mm 0.19"	1.80mm 0.07"	2.20mm 0.086"	4.80mm 0.19"	1.60mm 0.062"



## RENCO ELECTRONICS, INC.

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## RL-8700-1

Part Number	Inductance ( $\mu$ H)*	Test Freq.	DCR ( $\Omega$ ) MAX.	IDC (A) MAX
RL-8700-1-2R9N	2.9	7.96MHz/0.25V	0.068	1.94
RL-8700-1-4R0N	4	7.96MHz/0.25V	0.08	1.63
RL-8700-1-5R5N	5.5	7.96MHz/0.25V	0.096	1.40
RL-8700-1-100M	10	1KHz/0.25V	0.15	1.10
RL-8700-1-120M	12	1KHz/0.25V	0.20	1.00
RL-8700-1-150M	15	1KHz/0.25V	0.23	0.90
RL-8700-1-180M	18	1KHz/0.25V	0.27	0.80
RL-8700-1-220M	22	1KHz/0.25V	0.34	0.74
RL-8700-1-270M	27	1KHz/0.25V	0.38	0.66
RL-8700-1-330M	33	1KHz/0.25V	0.45	0.59
RL-8700-1-470M	47	1KHz/0.25V	0.69	0.50
RL-8700-1-560M	56	1KHz/0.25V	0.78	0.46
RL-8700-1-680M	68	1KHz/0.25V	1.07	0.42
RL-8700-1-820M	82	1KHz/0.25V	1.21	0.38
RL-8700-1-101M	100	1KHz/0.25V	1.39	0.34
RL-8700-1-121M	120	1KHz/0.25V	1.90	0.31
RL-8700-1-151M	150	1KHz/0.25V	2.18	0.28
RL-8700-1-181M	180	1KHz/0.25V	2.77	0.26
RL-8700-1-221M	220	1KHz/0.25V	3.12	0.23
RL-8700-1-271M	270	1KHz/0.25V	4.38	0.22
RL-8700-1-331M	330	1KHz/0.25V	4.94	0.19

\* N = +40% -20%  
M =  $\pm$ 20%



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## RL-8700-2

Part Number	Inductance ( $\mu$ H) *	Test Freq.	DCR ( $\Omega$ ) MAX.	IDC (A) MAX
RL-8700-2-100M	10	1KHz/0.25V	0.12	1.35
RL-8700-2-120M	12	1KHz/0.25V	0.13	1.22
RL-8700-2-150M	15	1KHz/0.25V	0.18	1.11
RL-8700-2-180M	18	1KHz/0.25V	0.24	1.02
RL-8700-2-220M	22	1KHz/0.25V	0.27	0.91
RL-8700-2-270M	27	1KHz/0.25V	0.30	0.82
RL-8700-2-330M	33	1KHz/0.25V	0.33	0.74
RL-8700-2-470M	47	1KHz/0.25V	0.52	0.62
RL-8700-2-560M	56	1KHz/0.25V	0.56	0.58
RL-8700-2-680M	68	1KHz/0.25V	0.63	0.51
RL-8700-2-820M	82	1KHz/0.25V	0.71	0.46
RL-8700-2-101M	100	1KHz/0.25V	1.03	0.42
RL-8700-2-121M	120	1KHz/0.25V	1.15	0.38
RL-8700-2-151M	150	1KHz/0.25V	1.68	0.35
RL-8700-2-181M	180	1KHz/0.25V	1.87	0.32
RL-8700-2-221M	220	1KHz/0.25V	2.08	0.29
RL-8700-2-271M	270	1KHz/0.25V	2.37	0.26
RL-8700-2-331M	330	1KHz/0.25V	2.67	0.23
RL-8700-2-391M	390	1KHz/0.25V	2.94	0.22
RL-8700-2-471M	470	1KHz/0.25V	3.93	0.20
RL-8700-2-561M	560	1KHz/0.25V	5.43	0.18
RL-8700-2-681M	680	1KHz/0.25V	7.32	0.17
RL-8700-2-821M	820	1KHz/0.25V	8.24	0.15
RL-8700-2-102M	1000	1KHz/0.25V	9.26	0.14

\* M =  $\pm$ 20%



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## RL-8700-3

Part Number	Inductance ( $\mu$ H) *	Test Freq.	DCR ( $\Omega$ ) MAX.	IDC (A) MAX.
RL-8700-3-100M	10	1KHz/0.25V	0.072	1.68
RL-8700-3-120M	12	1KHz/0.25V	0.098	1.52
RL-8700-3-150M	15	1KHz/0.25V	0.13	1.33
RL-8700-3-180M	18	1KHz/0.25V	0.14	1.20
RL-8700-3-220M	22	1KHz/0.25V	0.19	1.07
RL-8700-3-270M	27	1KHz/0.25V	0.21	0.96
RL-8700-3-330M	33	1KHz/0.25V	0.24	0.91
RL-8700-3-470M	47	1KHz/0.25V	0.36	0.76
RL-8700-3-560M	56	1KHz/0.25V	0.47	0.68
RL-8700-3-680M	68	1KHz/0.25V	0.52	0.61
RL-8700-3-820M	82	1KHz/0.25V	0.69	0.57
RL-8700-3-101M	100	1KHz/0.25V	0.79	0.50
RL-8700-3-121M	120	1KHz/0.25V	0.89	0.49
RL-8700-3-151M	150	1KHz/0.25V	1.27	0.43
RL-8700-3-181M	180	1KHz/0.25V	1.45	0.39
RL-8700-3-221M	220	1KHz/0.25V	1.65	0.35
RL-8700-3-271M	270	1KHz/0.25V	2.31	0.32
RL-8700-3-331M	330	1KHz/0.25V	2.62	0.38
RL-8700-3-391M	390	1KHz/0.25V	2.94	0.26
RL-8700-3-471M	470	1KHz/0.25V	4.18	0.24
RL-8700-3-561M	560	1KHz/0.25V	4.67	0.22
RL-8700-3-681M	680	1KHz/0.25V	5.73	0.19
RL-8700-3-821M	820	1KHz/0.25V	6.54	0.18
RL-8700-3-102M	1000	1KHz/0.25V	9.44	0.16

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## RL-8700-4

Part Number	Inductance ( $\mu$ H) *	Test Freq.	DCR ( $\Omega$ ) MAX.	IDC (A) MAX.
RL-8700-4-3R3M	3.3	1KHz/0.25V	0.0245	3.94
RL-8700-4-100M	10	1KHz/0.25V	0.049	1.84
RL-8700-4-120M	12	1KHz/0.25V	0.058	1.71
RL-8700-4-150M	15	1KHz/0.25V	0.081	1.47
RL-8700-4-180M	18	1KHz/0.25V	0.091	1.31
RL-8700-4-220M	22	1KHz/0.25V	0.110	1.23
RL-8700-4-270M	27	1KHz/0.25V	0.150	1.12
RL-8700-4-330M	33	1KHz/0.25V	0.170	0.96
RL-8700-4-470M	47	1KHz/0.25V	0.260	0.88
RL-8700-4-560M	56	1KHz/0.25V	0.350	0.75
RL-8700-4-680M	68	1KHz/0.25V	0.380	0.69
RL-8700-4-820M	82	1KHz/0.25V	0.430	0.61
RL-8700-4-101M	100	1KHz/0.25V	0.610	0.60
RL-8700-4-121M	120	1KHz/0.25V	0.660	0.52
RL-8700-4-151M	150	1KHz/0.25V	0.880	0.46
RL-8700-4-181M	180	1KHz/0.25V	0.980	0.42
RL-8700-4-221M	220	1KHz/0.25V	1.170	0.36
RL-8700-4-271M	270	1KHz/0.25V	1.640	0.34
RL-8700-4-331M	330	1KHz/0.25V	1.860	0.32
RL-8700-4-391M	390	1KHz/0.25V	2.850	0.29
RL-8700-4-471M	470	1KHz/0.25V	3.010	0.26
RL-8700-4-561M	560	1KHz/0.25V	3.620	0.23
RL-8700-4-681M	680	1KHz/0.25V	4.630	0.22
RL-8700-4-821M	820	1KHz/0.25V	5.200	0.20
RL-8700-4-102M	1000	1KHz/0.25V	6.000	0.18

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