



# RL-8054-1

## RL-8054-2, RL-8054-3 SHIELDED RADIAL CHOKE COIL WITH STAND-OFF

### DESCRIPTION

- Shielded Radial Choke Coil

### ENVIRONMENTAL DATA

- Storage temperature range: -55°C to +130°C
- Operating temperature range: -40°C to +130°C

### PACKAGING INFORMATION

- Packaging information: pg. 495

### FEATURES & APPLICATIONS

- Magnetically shielded with stand-off is incorporated to core body
- Rugged reliability and performance-fixed inductor
- Excellent as DC-DC converter boost or buck inductors
- Used for noise filtering applications

Verify operation with sample in actual circuit. Order samples at [www.rencousa.com](http://www.rencousa.com).

### MECHANICAL DIMENSIONS

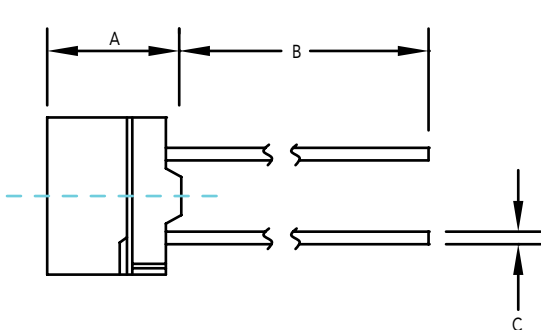
U.S. Standard (mm)

PART NUMBER	A (MAX.)	B (MIN.)	C $\pm 0.004$ (0.10)	D (MAX.)	E $\pm 0.02$ (0.50)
RL-8054-1	0.295 (7.50)	0.185 (4.70)	0.026 (0.65)	0.335 (8.30)	0.197 (5.00)
RL-8054-2	0.335 (8.50)	0.185 (4.70)	0.032 (0.80)	0.410 (10.50)	0.252 (6.40)
RL-8054-3	0.433 (11.0)	0.185 (4.70)	0.032 (0.80)	0.410 (10.50)	0.252 (6.40)

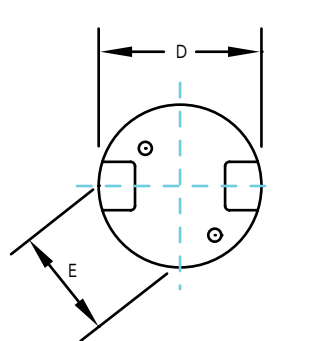
### PART NUMBER PART WEIGHT

RL-8054-1	6.0g (0.21oz)
RL-8054-2	8.0g (0.28oz)
RL-8054-3	10.0g (0.35oz)

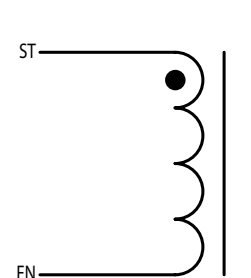
SIDE VIEW



BOTTOM VIEW



SCHEMATIC



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# RL-8054-1, RL-8054-2,

Renco Part No. RL-8054-1	Inductance ( $\mu$ H)	DCR Max. (Ohms)	Isat (A)	Irms (A)
RL-8054-1-220L1R6-S	22 $\pm$ 15%	0.08	1.60	1.60
RL-8054-1-270L1R4-S	27 $\pm$ 15%	0.10	1.40	1.40
RL-8054-1-330L1R3-S	33 $\pm$ 15%	0.14	1.30	1.30
RL-8054-1-390L1R2-S	39 $\pm$ 15%	0.15	1.20	1.20
RL-8054-1-470L1R1-S	47 $\pm$ 15%	0.17	1.10	1.10
RL-8054-1-560KR99-S	56 $\pm$ 10%	0.19	0.99	0.99
RL-8054-1-680KR89-S	68 $\pm$ 10%	0.21	0.89	0.89
RL-8054-1-820KR81-S	82 $\pm$ 10%	0.27	0.81	0.81
RL-8054-1-101KR74-S	100 $\pm$ 10%	0.32	0.74	0.74
RL-8054-1-121KR67-S	120 $\pm$ 10%	0.36	0.67	0.67
RL-8054-1-151KR60-S	150 $\pm$ 10%	0.51	0.60	0.60
RL-8054-1-181KR55-S	180 $\pm$ 10%	0.57	0.55	0.55
RL-8054-1-221KR50-S	220 $\pm$ 10%	0.76	0.50	0.50
RL-8054-1-271KR45-S	270 $\pm$ 10%	0.86	0.45	0.45
RL-8054-1-331KR41-S	330 $\pm$ 10%	0.97	0.41	0.41
RL-8054-1-391KR37-S	390 $\pm$ 10%	1.28	0.37	0.37
RL-8054-1-471KR34-S	470 $\pm$ 10%	1.44	0.34	0.34
RL-8054-1-561KR31-S	560 $\pm$ 10%	1.61	0.31	0.31
RL-8054-1-681KR28-S	680 $\pm$ 10%	2.07	0.28	0.28
RL-8054-1-821KR26-S	820 $\pm$ 10%	2.33	0.26	0.26
RL-8054-1-102KR23-S	1000 $\pm$ 10%	2.72	0.23	0.23
RL-8054-1-122KR21-S	1200 $\pm$ 10%	3.98	0.21	0.21
RL-8054-1-152KR19-S	1500 $\pm$ 10%	4.50	0.19	0.19
RL-8054-1-182KR17-S	1800 $\pm$ 10%	6.81	0.17	0.17
RL-8054-1-222KR16-S	2200 $\pm$ 10%	7.56	0.16	0.16
RL-8054-1-272KR14-S	2700 $\pm$ 10%	8.54	0.14	0.14
RL-8054-1-332KR13-S	3300 $\pm$ 10%	9.74	0.13	0.13
RL-8054-1-392KR12-S	3900 $\pm$ 10%	12.90	0.12	0.12
RL-8054-1-472KR11-S	4700 $\pm$ 10%	14.70	0.11	0.11
RL-8054-1-562KR10-S	5600 $\pm$ 10%	20.40	0.099	0.099
RL-8054-1-682KR09-S	6800 $\pm$ 10%	23.00	0.089	0.089
RL-8054-1-822KR08-S	8200 $\pm$ 10%	30.60	0.081	0.081
RL-8054-1-103KR07-S	10000 $\pm$ 10%	35.00	0.074	0.074

Renco Part No. RL-8054-2	Inductance ( $\mu$ H)	DCR Max. (Ohms)	Isat (A)	Irms (A)
RL-8054-2-100M2R8-S	10 $\pm$ 20%	0.05	2.80	2.80
RL-8054-2-120M2R5-S	12 $\pm$ 20%	0.06	2.50	2.50
RL-8054-2-150M2R3-S	15 $\pm$ 20%	0.07	2.30	2.30
RL-8054-2-180M2R1-S	18 $\pm$ 20%	0.08	2.10	2.10
RL-8054-2-220M2R0-S	22 $\pm$ 20%	0.09	2.00	2.00
RL-8054-2-270M1R7-S	27 $\pm$ 20%	0.10	1.76	1.76
RL-8054-2-330M1R6-S	33 $\pm$ 20%	0.11	1.60	1.60
RL-8054-2-390M1R3-S	39 $\pm$ 20%	0.12	1.38	1.38
RL-8054-2-470M1R2-S	47 $\pm$ 20%	0.14	1.28	1.28
RL-8054-2-560K1R2-S	56 $\pm$ 10%	0.15	1.20	1.20
RL-8054-2-680K1R0-S	68 $\pm$ 10%	0.16	1.00	1.00
RL-8054-2-820KR96-S	82 $\pm$ 10%	0.18	0.96	0.96
RL-8054-2-101KR92-S	100 $\pm$ 10%	0.20	0.92	0.92
RL-8054-2-121KR80-S	120 $\pm$ 10%	0.24	0.80	0.80
RL-8054-2-151KR73-S	150 $\pm$ 10%	0.35	0.73	0.73
RL-8054-2-181KR64-S	180 $\pm$ 10%	0.40	0.64	0.64
RL-8054-2-221KR61-S	220 $\pm$ 10%	0.54	0.61	0.61
RL-8054-2-271KR56-S	270 $\pm$ 10%	0.76	0.56	0.56
RL-8054-2-331KR50-S	330 $\pm$ 10%	0.86	0.50	0.50
RL-8054-2-391KR44-S	390 $\pm$ 10%	0.93	0.44	0.44
RL-8054-2-471KR41-S	470 $\pm$ 10%	1.23	0.41	0.41
RL-8054-2-561KR38-S	560 $\pm$ 10%	1.34	0.38	0.38
RL-8054-2-681KR34-S	680 $\pm$ 10%	1.53	0.34	0.34
RL-8054-2-821KR32-S	820 $\pm$ 10%	2.10	0.32	0.32
RL-8054-2-102KR28-S	1000 $\pm$ 10%	2.30	0.28	0.28

**NOTES:**

1. ELECTRICAL SPECIFICATIONS MEASURED AT 25°C
2. Isat - DC CURRENT THAT WILL CAUSE INDUCTANCE TO DROP BY 5%
3. I rms - CURRENT THAT CAUSES THE TEMPERATURE TO RISE APPROX. 40°C ABOVE AMBIENT OF 25°C
4. INDUCTANCE TESTED AT 2.52 MHz, 1.0 V rms VALUES 100 THRU 820
5. INDUCTANCE TESTED AT 1 kHz, 1.0 V rms VALUES 101 THRU 103

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# RL-8054-3

Renco Part No. RL-8054-3	Inductance ( $\mu$ H)	DCR Max. (Ohms)	Isat (A)	Irms (A)
RL-8054-3-100M3R5-S	10 $\pm$ 20%	0.023	3.51	3.51
RL-8054-3-120M3R2-S	12 $\pm$ 20%	0.024	3.24	3.24
RL-8054-3-150M2R8-S	15 $\pm$ 20%	0.036	2.88	2.88
RL-8054-3-180M2R6-S	18 $\pm$ 20%	0.039	2.61	2.61
RL-8054-3-220M2R3-S	22 $\pm$ 20%	0.042	2.34	2.34
RL-8054-3-270M2R1-S	27 $\pm$ 20%	0.045	2.16	2.16
RL-8054-3-330M1R8-S	33 $\pm$ 20%	0.057	1.89	1.89
RL-8054-3-390M1R8-S	39 $\pm$ 20%	0.076	1.80	1.80
RL-8054-3-470M1R6-S	47 $\pm$ 20%	0.100	1.62	1.62
RL-8054-3-560K1R4-S	56 $\pm$ 10%	0.110	1.44	1.44
RL-8054-3-680K1R3-S	68 $\pm$ 10%	0.150	1.35	1.35
RL-8054-3-820K1R2-S	82 $\pm$ 10%	0.160	1.26	1.26
RL-8054-3-101K1R0-S	100 $\pm$ 10%	0.190	1.08	1.08
RL-8054-3-121KR99-S	120 $\pm$ 10%	0.210	0.99	0.99
RL-8054-3-151KR90-S	150 $\pm$ 10%	0.230	0.90	0.90
RL-8054-3-181KR82-S	180 $\pm$ 10%	0.260	0.82	0.82
RL-8054-3-221KR74-S	220 $\pm$ 10%	0.290	0.74	0.74
RL-8054-3-271KR67-S	270 $\pm$ 10%	0.360	0.67	0.67
RL-8054-3-331KR61-S	330 $\pm$ 10%	0.510	0.61	0.61
RL-8054-3-391KR55-S	390 $\pm$ 10%	0.690	0.55	0.55
RL-8054-3-471KR51-S	470 $\pm$ 10%	0.980	0.51	0.51
RL-8054-3-561KR46-S	560 $\pm$ 10%	1.100	0.46	0.46
RL-8054-3-681KR42-S	680 $\pm$ 10%	1.200	0.42	0.42
RL-8054-3-821KR38-S	820 $\pm$ 10%	1.300	0.38	0.38
RL-8054-3-102KR35-S	1000 $\pm$ 10%	1.500	0.35	0.35

**NOTES:**

1. ELECTRICAL SPECIFICATIONS MEASURED AT 25°C
2. Isat - DC CURRENT THAT WILL CAUSE INDUCTANCE TO DROP BY 5%
3. Iirms - CURRENT THAT CAUSES THE TEMPERATURE TO RISE  
APPROX. 40°C ABOVE AMBIENT OF 25°C
4. INDUCTANCE TESTED AT 2.52 MHz, 1.0 Vrms VALUES 100 THRU 820
5. INDUCTANCE TESTED AT 1 kHz, 1.0 Vrms VALUES 101 THRU 103



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