

RL-5470

RL-5471, RL-5472, RL-5473

**POWER INDUCTORS
FOR TEXAS INSTRUMENTS**
(FORMALLY NATIONAL SEMICONDUCTOR)



DESCRIPTION

- Power Inductors

ENVIRONMENTAL DATA

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

PACKAGING INFORMATION

- Packaging information: pg. 510

FEATURES & APPLICATIONS

- Inductances from 21μH to 400 μH with saturation currents available from 0.7 A to 5.0 A
- High-saturation material makes coils ideal for use in switching regulated power supply applications
- Size of through-hole coils allows easy installation in equipment
- Use of ferrite cores allows for low core loss operations
- Typical applications include: switching regulators, boost, buck and buck boost
- For simple switcher applications LM258X and LM259X

Verify operation with sample in actual circuit. Order samples at www.rencousa.com.

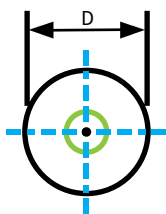
MECHANICAL DIMENSIONS

U.S. Standard (mm)

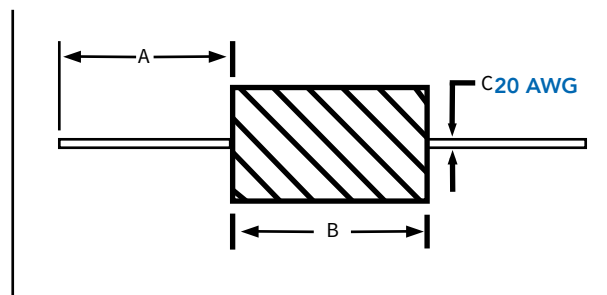
| PART NUMBER | A (MIN.) | B (MAX.) | C | D (MAX.) |
|-------------|---------------|---------------|--------------|---------------|
| RL-5470 | 1.000 (25.40) | 0.700 (17.78) | 0.032 (0.81) | 0.260 (6.60) |
| RL-5471 | 1.000 (25.40) | 0.900 (22.86) | 0.032 (0.81) | 0.453 (11.51) |
| RL-5472 | 1.000 (25.40) | 0.990 (25.15) | 0.032 (0.81) | 0.570 (14.48) |

| PART NUMBER | PART WEIGHT |
|-------------|----------------|
| RL-5470 | 1.0g (0.03oz) |
| RL-5471 | 9.0g (0.30oz) |
| RL-5472 | 13.0g (0.44oz) |

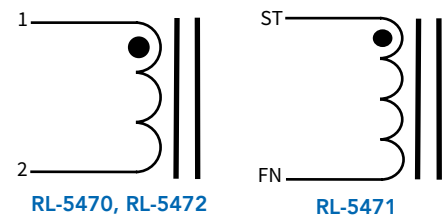
FRONT VIEW



SIDE VIEW



SCHEMATIC



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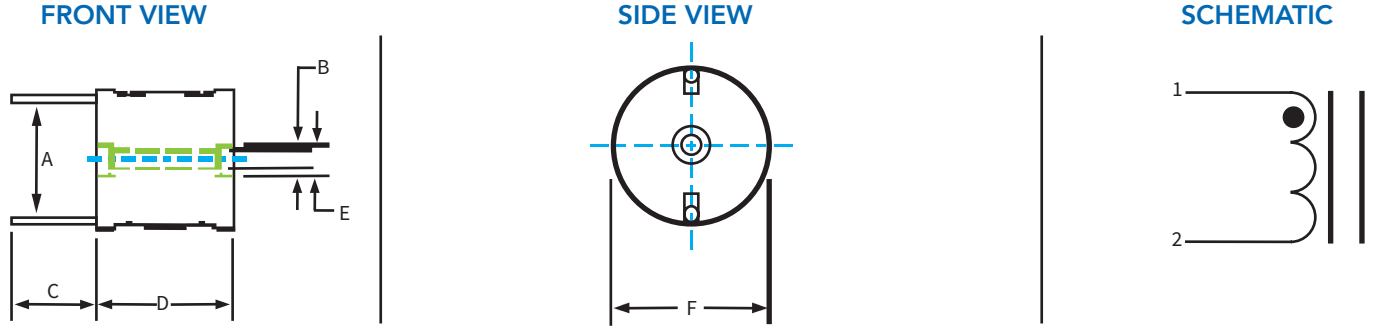
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RL-5470, RL-5471, RL-5472, RL-5473

U.S. Standard (mm)

| PART NUMBER | A | B (4/40 screw) | C | D (MAX.) | E | F (MAX.) |
|-------------|---------------|----------------|---------------|---------------|--------------|---------------|
| RL-5473-1 | 0.562 (14.27) | 0.100 (2.54) | 0.500 (12.70) | 0.840 (21.34) | 0.195 (4.95) | 0.825 (20.96) |
| RL-5473-2 | 0.593 (15.06) | 0.100 (2.54) | 0.500 (12.70) | 0.840 (21.34) | 0.195 (4.95) | 0.825 (20.96) |
| RL-5473-3 | 0.656 (16.66) | 0.100 (2.54) | 0.500 (12.70) | 0.840 (21.34) | 0.195 (4.95) | 0.825 (20.96) |



| NSC REF. NUMBER | L _{nom} NSC REF. IND.(μH) | RENCO PART NUMBER | CIRCUIT ENERGY RATING (μJ) | INDUCTOR CURRENT RATING IDC/RMS A | DCR MAX. (Ohms) @ 20° C | OPEN CIRCUIT INDUCTANCE (L _{oc}) ± 10% μH | I _{sat} (A) MIN |
|-----------------|------------------------------------|-------------------|----------------------------|-----------------------------------|-------------------------|---|--------------------------|
| L1 | 220.0 | RL-5470-3 | 3.0 | 0.240 | 0.603 | 275.0 | 1.54 |
| L2 | 150.0 | RL-5470-4 | 3.0 | 0.298 | 0.396 | 186.0 | 1.68 |
| L3 | 100.0 | RL-5470-5 | 3.0 | 0.370 | 0.299 | 122.0 | 1.80 |
| L4 | 68.0 | RL-1284-68-43 | 3.0 | 0.804 | 0.145 | 68.0 | 1.05 |
| L5 | 47.0 | RL-1284-47-43 | 3.0 | 0.804 | 0.109 | 47.0 | 1.25 |
| L6 | 33.0 | RL-1284-33-43 | 3.0 | 1.008 | 0.075 | 33.0 | 1.54 |
| L7 | 22.0 | RL-1284-22-43 | 3.0 | 1.280 | 0.050 | 22.0 | 1.89 |
| L8 | 330.0 | RL-5470-2 | 10.0 | 0.194 | 0.765 | 409.0 | 0.44 |
| L9 | 220.0 | RL-5470-3 | 10.0 | 0.240 | 0.603 | 275.0 | 0.54 |
| L10 | 150.0 | RL-5470-4 | 10.0 | 0.298 | 0.394 | 186.0 | 0.68 |
| L11 | 100.0 | RL-5470-5 | 10.0 | 0.370 | 0.299 | 122.0 | 0.80 |
| L12 | 68.0 | RL-5470-6 | 10.0 | 0.458 | 0.168 | 82.0 | 0.90 |
| L13 | 47.0 | RL-5470-7 | 10.0 | 0.565 | 0.133 | 57.0 | 1.00 |
| L14 | 33.0 | RL-1284-33-43 | 10.0 | 1.008 | 0.075 | 22.0 | 1.89 |
| L15 | 22.0 | RL-1284-22-43 | 10.0 | 1.280 | 0.050 | 22.0 | 1.89 |
| L16 | 15.0 | RL-1284-15-43 | 10.0 | 1.280 | 0.040 | 15.0 | 2.31 |
| L17 | 330.0 | RL-5471-1 | 30.0 | 0.650 | 0.247 | 390.0 | 0.96 |
| L18 | 220.0 | RL-5471-2 | 30.0 | 0.810 | 0.195 | 277.0 | 1.10 |
| L19 | 150.0 | RL-5471-3 | 30.0 | 1.000 | 0.150 | 187.0 | 1.20 |
| L20 | 100.0 | RL-5471-4 | 30.0 | 1.240 | 0.115 | 120.0 | 1.60 |

RL-5471 TABLE CONTINUES ON FOLLOWING PAGE



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| NSC REF. NUMBER | L _{nom} NSC REF. IND.(μH) | RENCO PART NUMBER | CIRCUIT ENERGY RATING (μJ) | INDUCTOR CURRENT RATING IDC/RMS A | DCR MAX. (Ohms) @ 20° C | OPEN CIRCUIT INDUCTANCE (L _{oc}) ± 10% μH | I _{sat} (A) MIN |
|-----------------|------------------------------------|-------------------|----------------------------|-----------------------------------|-------------------------|---|--------------------------|
| L21 | 68.0 | RL-5471-5 | 30.0 | 1.530 | 0.064 | 79.0 | 2.00 |
| L22 | 47.0 | RL-5471-6 | 30.0 | 1.870 | 0.045 | 54.0 | 2.50 |
| L23 | 33.0 | RL-5471-7 | 30.0 | 2.280 | 0.033 | 37.0 | 3.10 |
| L24 | 22.0 | RL-1283-22-43 | 30.0 | 4.000 | 0.026 | 22.0 | 4.25 |
| L25 | 15.0 | RL-1283-15-43 | 30.0 | 4.000 | 0.022 | 15.0 | 5.14 |
| L26 | 330.0 | RL-5471-1 | 100.0 | 0.65 | 0.247 | 390.0 | 0.96 |
| L27 | 220.0 | RL-5471-2 | 100.0 | 0.81 | 0.195 | 270.0 | 1.10 |
| L28 | 150.0 | RL-5471-3 | 100.0 | 1.09 | 0.150 | 187.0 | 1.20 |
| L29 | 100.0 | RL-5471-4 | 100.0 | 1.24 | 0.115 | 120.0 | 1.60 |
| L30 | 68.0 | RL-5471-5 | 100.0 | 1.53 | 0.064 | 79.0 | 2.00 |
| L31 | 47.0 | RL-5471-6 | 100.0 | 1.87 | 0.045 | 54.0 | 2.50 |
| L32 | 33.0 | RL-5471-7 | 100.0 | 2.28 | 0.033 | 37.0 | 3.10 |
| L33 | 22.0 | RL-1283-22-43 | 100.0 | 4.00 | 0.026 | 22.0 | 4.25 |
| L34 | 15.0 | RL-1283-15-43 | 100.0 | 4.00 | 0.022 | 15.0 | 9.00 |
| L35 | 220.0 | RL-5473-1 | 300.0 | 3.01 | 0.213 | 270.0 | 7.00 |
| L36 | 150.0 | RL-5473-4 | 300.0 | 4.00 | 0.110 | 180.0 | 7.80 |
| L37 | 100.0 | RL-5472-1 | 300.0 | 2.18 | 0.099 | 140.0 | 2.00 |
| L38 | 68.0 | RL-5472-2 | 300.0 | 2.67 | 0.053 | 88.0 | 2.50 |
| L39 | 47.0 | RL-5472-3 | 300.0 | 3.00 | 0.045 | 57.0 | 3.10 |
| L40 | 33.0 | RL-5472-4 | 300.0 | 3.00 | 0.028 | 37.0 | 3.80 |
| L41 | 22.0 | RL-5472-5 | 300.0 | 3.00 | 0.022 | 25.1 | 4.50 |
| L42 | 150.0 | RL-5473-4 | 570.0 | 4.00 | 0.110 | 180.0 | 7.80 |
| L43 | 100.0 | RL-5473-2 | 570.0 | 3.00 | 0.090 | 115.0 | 8.00 |
| L44 | 68.0 | RL-5473-3 | 405.0 | 3.00 | 0.053 | 79.0 | 12.0 |

NOTES:

1. ELECTRICAL SPECIFICATIONS MEASURED AT 25°C
2. I_{sat} - DC CURRENT THAT WILL CAUSE INDUCTANCE TO DROP BY 5%



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