

RL-6050

SURFACE MOUNT POWER INDUCTORS

DESCRIPTION

- SMD Power Inductor

ENVIRONMENTAL DATA

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

PACKAGING INFORMATION

- Packaging information: pg. 490, 495

FEATURES & APPLICATIONS

- High current, surface mount inductors offering 26 standard values ranging from 10 μ H to 1200 μ H
- Designed for high density surface mount applications including switching regulators, power amplifiers, power supplies and noise/EMI/RFI filtering
- Utilizes extremely rugged mounting pads with outstanding solderability and solder heat resistance

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

MECHANICAL DIMENSIONS

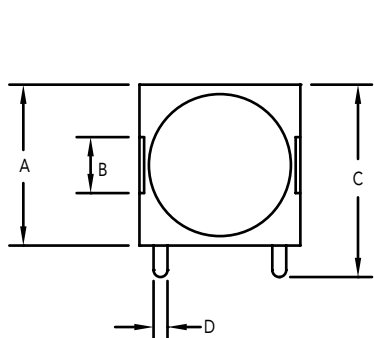
U.S. Standard (mm)

| PART NUMBER | A (MAX.) | B ± 0.02 (0.51) | C (MAX.) | D (TYP.) | E (MAX.) | F (MAX.) |
|-------------|--------------|---------------------|--------------|-------------|-------------|--------------|
| RL-6050 | 0.46 (11.68) | 0.16 (4.06) | 0.55 (13.97) | 0.12 (3.05) | 0.33 (8.38) | 0.46 (11.68) |

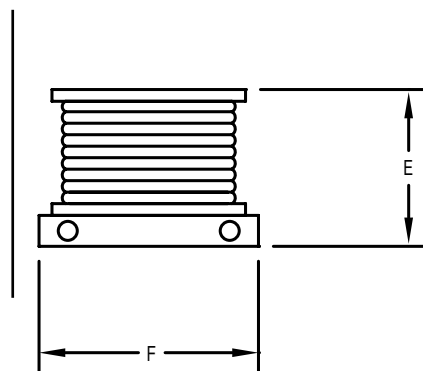
| PART NUMBER | PART WEIGHT |
|-------------|-----------------|
| RL-6050 | 2.70g (0.095oz) |

| G ± 0.02 (0.51) | H ± 0.02 (0.51) | I ± 0.02 (0.51) |
|---------------------|---------------------|---------------------|
| 0.24 (6.10) | 0.16 (4.06) | 0.10 (2.54) |

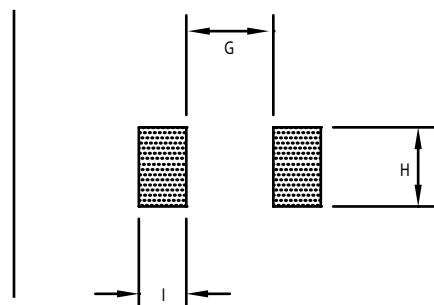
TOP VIEW



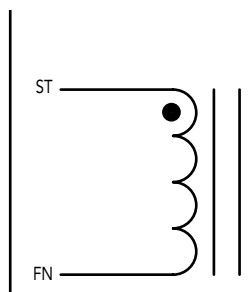
SIDE VIEW



RECOMMENDED LAND PATTERN



SCHEMATIC



RENCO ELECTRONICS INC.

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Toll Free Engineering Hot Line: 800.645.5828 • P: 321.637.1000 • F: 321.637.1600



RL-6050

| Renco Part No. RL-6050 | Inductance (μ H) | DCR Max. (Ohms) | Isat (A) | Irms (A) |
|---------------------------|--------------------------|--------------------|-------------|-------------|
| RL-6050-10 | 10.0 | 0.06 | 6.00 | 3.50 |
| RL-6050-12 | 12.0 | 0.07 | 5.60 | 3.40 |
| RL-6050-15 | 15.0 | 0.08 | 4.90 | 3.10 |
| RL-6050-18 | 18.0 | 0.09 | 4.30 | 3.00 |
| RL-6050-22 | 22.0 | 0.10 | 4.10 | 2.60 |
| RL-6050-27 | 27.0 | 0.11 | 3.60 | 2.40 |
| RL-6050-33 | 33.0 | 0.12 | 2.30 | 2.30 |
| RL-6050-39 | 39.0 | 0.14 | 3.00 | 2.10 |
| RL-6050-47 | 47.0 | 0.17 | 2.80 | 1.95 |
| RL-6050-56 | 56.0 | 0.19 | 2.50 | 1.85 |
| RL-6050-68 | 68.0 | 0.22 | 2.30 | 1.65 |
| RL-6050-82 | 82.0 | 0.25 | 2.00 | 1.50 |
| RL-6050-100 | 100.0 | 0.35 | 1.80 | 1.40 |
| RL-6050-120 | 120.0 | 0.40 | 1.70 | 1.30 |
| RL-6050-150 | 150.0 | 0.47 | 1.50 | 1.20 |
| RL-6050-180 | 180.0 | 0.63 | 1.40 | 1.00 |
| RL-6050-220 | 220.0 | 0.73 | 1.30 | 0.95 |
| RL-6050-270 | 270.0 | 0.97 | 1.20 | 0.90 |
| RL-6050-330 | 330.0 | 1.15 | 1.00 | 0.80 |
| RL-6050-390 | 390.0 | 1.30 | 0.96 | 0.75 |
| RL-6050-470 | 470.0 | 1.48 | 0.87 | 0.65 |
| RL-6050-560 | 560.0 | 1.90 | 0.80 | 0.60 |
| RL-6050-680 | 680.0 | 2.45 | 0.73 | 0.50 |
| RL-6050-820 | 820.0 | 2.55 | 0.66 | 0.48 |
| RL-6050-1000 | 1000.0 | 3.00 | 0.60 | 0.46 |
| RL-6050-1200 | 1200.0 | 3.50 | 0.54 | 0.35 |

NOTES:

1. Isat - DC CURRENT THAT WILL CAUSE INDUCTANCE TO DROP BY 5%
2. Irms - CURRENT THAT CAUSES THE TEMPERATURE TO RISE APPROX. 40°C ABOVE AMBIENT OF 25°C
3. INDUCTANCE \pm 20% TESTED AT 10 kHz, 0.1 Vrms
4. ELECTRICAL SPECIFICATIONS MEASURED AT 25°C



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