



RL-2012

UNSHIELDED SMD POWER INDUCTORS

DESCRIPTION

- Unshielded 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. 489

FEATURES & APPLICATIONS

- Low profile great for applications when space is at a minimum
- Low-resistance and high-energy storage
- Excellent as DC-DC converter used in notebook computers, cell phones, step-up or step-down converters, and flash memory

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

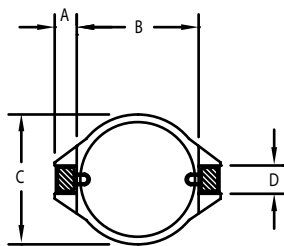
MECHANICAL DIMENSIONS

U.S. Standard (mm)

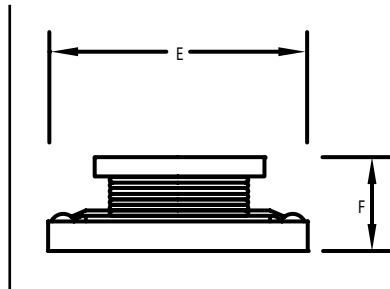
| PART NUMBER | A ±0.008 (0.2) | B ±0.012 (0.3) | C (MAX.) | D ±0.008 (0.2) | E (MAX.) |
|-------------|----------------|----------------|-------------|----------------|--------------|
| RL-2012 | 0.08 (2.10) | 0.24 (6.00) | 0.32 (8.02) | 0.08 (2.00) | 0.41 (10.52) |

| PART NUMBER | PART WEIGHT | F (MAX.) | G (REF.) | H (REF.) | I (REF.) |
|-------------|---------------|-------------|-------------|-------------|-------------|
| RL-2012 | 1.0g (0.04oz) | 0.20 (5.03) | 0.09 (2.20) | 0.09 (2.40) | 0.22 (5.70) |

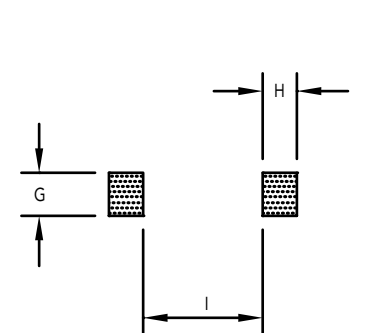
TOP VIEW



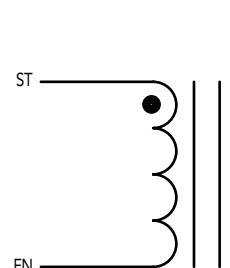
SIDE VIEW



RECOMMENDED LAND PATTERN



SCHEMATIC



RL-2012

| Renco Part No. RL-2012 | Inductance (μ H) | DCR Max. (Ohms) | Isat (A) | Irms (A) | SRF Typ. (MHz) |
|---------------------------|--------------------------|--------------------|-------------|-------------|-------------------|
| RL-2012-3R3M | 3.3 \pm 20% | 0.030 | 7.0 | 3.70 | 50.0 |
| RL-2012-4R7M | 4.7 \pm 20% | 0.035 | 6.0 | 3.30 | 40.0 |
| RL-2012-6R8M | 6.8 \pm 20% | 0.050 | 5.0 | 2.70 | 30.0 |
| RL-2012-100M | 10.0 \pm 20% | 0.060 | 4.0 | 2.30 | 23.0 |
| RL-2012-150M | 15.0 \pm 20% | 0.080 | 3.0 | 2.10 | 20.0 |
| RL-2012-220M | 22.0 \pm 20% | 0.130 | 2.5 | 1.60 | 16.0 |
| RL-2012-330M | 33.0 \pm 20% | 0.180 | 2.0 | 1.30 | 12.0 |
| RL-2012-470M | 47.0 \pm 20% | 0.260 | 1.8 | 1.10 | 11.0 |
| RL-2012-680M | 68.0 \pm 20% | 0.350 | 1.5 | 1.00 | 9.0 |
| RL-2012-101M | 100.0 \pm 20% | 0.580 | 1.0 | 0.70 | 7.0 |
| RL-2012-151M | 150.0 \pm 20% | 0.750 | 0.9 | 0.60 | 5.0 |
| RL-2012-221M | 220.0 \pm 20% | 1.050 | 0.8 | 0.50 | 4.0 |
| RL-2012-331M | 330.0 \pm 20% | 1.600 | 0.6 | 0.45 | 3.5 |

NOTES:

1. INDUCTANCE TESTED AT 100 kHz, 0.1 Vrms
2. ELECTRICAL SPECIFICATIONS MEASURED AT 25°C
3. Isat - DC CURRENT THAT WILL CAUSE INDUCTANCE TO DROP BY 10%
4. Irms - CURRENT THAT CAUSES THE TEMPERATURE TO RISE APPROX. 40°C ABOVE AMBIENT OF 25°C



RENCO ELECTRONICS INC.

595 International Place, Rockledge, FL 32955-4200 USA • www.rencousa.com • ISO 9001 Certified
Toll Free Engineering Hot Line: 800.645.5828 • P: 321.637.1000 • F: 321.637.1600

