



# RL-3012

## LOW PROFILE SMD POWER INDUCTOR

### 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. 504

### FEATURES & APPLICATIONS

- Low profile for applications when space is at a minimum
- Excellent as a power inductor used in notebook computers, smartphones, cell phones, step-up or step-down converters, and Flash memory
- Available in 13 values with inductance ratings from 0.68  $\mu\text{H}$  to 47  $\mu\text{H}$  and currents up to 2.50 A

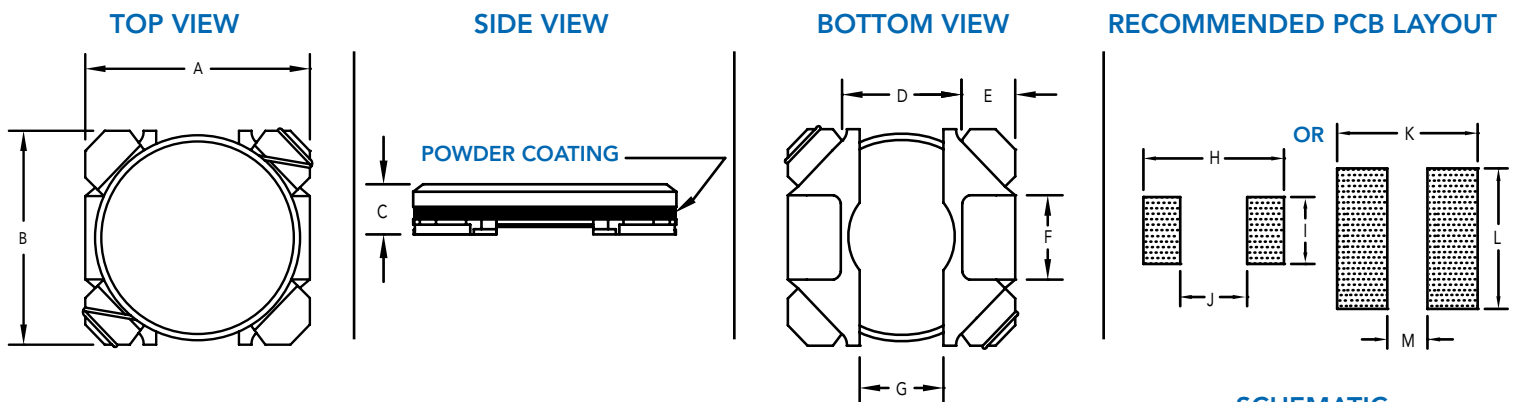
Verify operation with sample in actual circuit. Order samples at [www.rencousa.com](http://www.rencousa.com).

### MECHANICAL DIMENSIONS

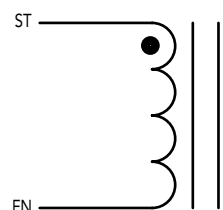
U.S. Standard (mm)

PART NUMBER	A (MAX.)	B (MAX.)	C (MAX.)	D (TYP.)	E (TYP.)	F (TYP.)	G (TYP.)
RL-3012	0.120 (3.10)	0.120 (3.10)	0.050 (1.20)	0.060 (1.50)	0.030 (0.70)	0.050 (1.20)	0.030 (0.70)

PART NUMBER	PART WEIGHT	H (REF.)	I (REF.)	J (REF.)	K (REF.)	L (REF.)	M (REF.)
RL-3012	0.9g (0.03oz)	0.130 (3.40)	0.062 (1.60)	0.055 (1.40)	0.125 (3.20)	0.129 (3.30)	0.020 (0.60)



### SCHEMATIC



# RL-3012

Renco Part No. RL-3012	Inductance ( $\mu$ H)	DCR Max. (Ohms)	Isat (A)	Irms (A)
RL-3012-R56N	0.56 $\pm$ 30%	0.038	2.50	1.95
RL-3012-R68N	0.68 $\pm$ 30%	0.044	2.10	1.85
RL-3012-1R0N	1.0 $\pm$ 30%	0.053	1.90	1.70
RL-3012-1R2N	1.2 $\pm$ 30%	0.053	1.90	1.70
RL-3012-1R5N	1.5 $\pm$ 30%	0.067	1.70	1.55
RL-3012-2R2N	2.2 $\pm$ 30%	0.093	1.30	1.40
RL-3012-3R3N	3.3 $\pm$ 30%	0.130	1.10	1.20
RL-3012-4R7M	4.7 $\pm$ 20%	0.190	0.95	0.95
RL-3012-5R6M	5.6 $\pm$ 20%	0.220	0.83	0.85
RL-3012-6R8M	6.8 $\pm$ 20%	0.260	0.80	0.80
RL-3012-100M	10.0 $\pm$ 20%	0.360	0.65	0.67
RL-3012-150M	15.0 $\pm$ 20%	0.530	0.55	0.56
RL-3012-220M	22.0 $\pm$ 20%	0.790	0.45	0.41
RL-3012-330M	33.0 $\pm$ 20%	1.140	0.36	0.31
RL-3012-470M	47.0 $\pm$ 20%	1.530	0.30	0.22

#### NOTES:

1. Isat - DC CURRENT THAT WILL CAUSE INDUCTANCE TO DROP BY 30%
2. Irms - CURRENT THAT CAUSES THE TEMPERATURE TO RISE APPROX. 40°C ABOVE AMBIENT OF 25°C
3. RESISTANCE TO SOLDER HEAT: 260°C FOR 10 SECONDS
4. ELECTRICAL SPECIFICATIONS MEASURED AT 25°C
5. INDUCTANCE TESTED AT 100 kHz, 0.1 Vrms



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