



# RL-2012-S

## SHIELDED SMD POWER INDUCTORS

### DESCRIPTION

- Shielded 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 and shielded
- 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](http://www.rencousa.com).

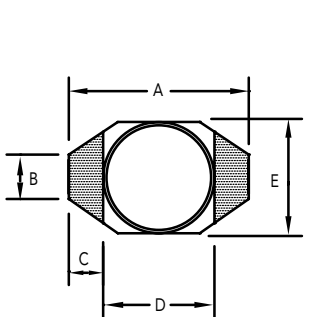
### MECHANICAL DIMENSIONS

U.S. Standard (mm)

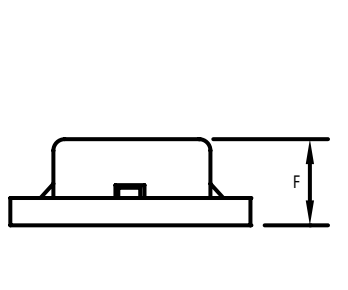
PART NUMBER	A (MAX.)	B ±0.008 (0.2)	C ±0.008 (0.2)	D ±0.012 (0.3)	E (MAX.)
RL-2012-S	0.41 (10.52)	0.08 (2.00)	0.083 (2.10)	0.24 (6.00)	0.32 (8.02)

PART NUMBER	PART WEIGHT	F ±0.012 (0.3)	G (REF.)	H (REF.)	I (REF.)
RL-2012-S	1.0g (0.04oz)	0.20 (5.00)	0.09 (2.20)	0.09 (2.40)	0.22 (5.70)

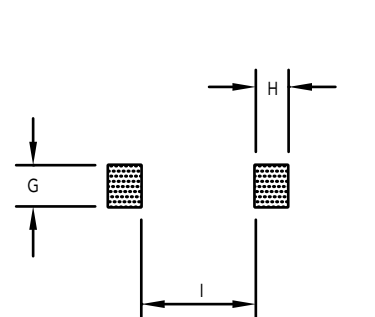
TOP VIEW



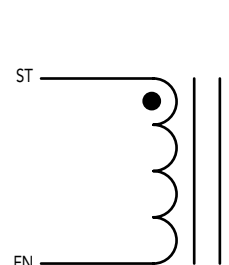
SIDE VIEW



RECOMMENDED LAND PATTERN



SCHEMATIC



# RL-2012-S

Renco Part No. RL-2012-S	Inductance ( $\mu$ H)	DCR Max. (Ohms)	Isat (A)	Irms (A)	SRF Typ. (MHz)
RL-2012-S-2R2M	2.2 $\pm$ 20%	0.040	6.00	2.50	75.0
RL-2012-S-3R9M	3.9 $\pm$ 20%	0.055	4.50	2.10	50.0
RL-2012-S-5R6M	5.6 $\pm$ 20%	0.065	4.00	1.95	40.0
RL-2012-S-8R2M	8.2 $\pm$ 20%	0.080	3.00	1.75	32.0
RL-2012-S-100M	10.0 $\pm$ 20%	0.100	2.50	1.50	28.0
RL-2012-S-120M	12.0 $\pm$ 20%	0.120	2.00	1.40	24.0
RL-2012-S-150M	15.0 $\pm$ 20%	0.140	1.80	1.30	22.0
RL-2012-S-180L	18.0 $\pm$ 15%	0.160	1.60	1.20	19.0
RL-2012-S-220L	22.0 $\pm$ 15%	0.180	1.50	1.10	17.0
RL-2012-S-270L	27.0 $\pm$ 15%	0.200	1.40	1.00	15.5
RL-2012-S-330L	33.0 $\pm$ 15%	0.240	1.30	0.92	13.5
RL-2012-S-390L	39.0 $\pm$ 15%	0.260	1.00	0.84	12.0
RL-2012-S-470L	47.0 $\pm$ 15%	0.280	0.90	0.75	10.5
RL-2012-S-560K	56.0 $\pm$ 10%	0.380	0.80	0.68	9.5
RL-2012-S-680K	68.0 $\pm$ 10%	0.440	0.70	0.60	9.0
RL-2012-S-820K	82.0 $\pm$ 10%	0.550	0.60	0.54	8.5
RL-2012-S-101K	100.0 $\pm$ 10%	0.600	0.50	0.50	7.5
RL-2012-S-121K	120.0 $\pm$ 10%	0.750	0.45	0.45	7.0
RL-2012-S-151K	150.0 $\pm$ 10%	0.900	0.40	0.40	6.5
RL-2012-S-181K	180.0 $\pm$ 10%	1.050	0.37	0.35	4.8
RL-2012-S-221K	220.0 $\pm$ 10%	1.180	0.35	0.30	4.5
RL-2012-S-271K	270.0 $\pm$ 10%	1.400	0.32	0.27	4.2
RL-2012-S-331K	330.0 $\pm$ 10%	1.800	0.30	0.24	3.8
RL-2012-S-391K	390.0 $\pm$ 10%	2.100	0.28	0.22	3.6
RL-2012-S-471K	470.0 $\pm$ 10%	2.250	0.26	0.20	3.5
RL-2012-S-561K	560.0 $\pm$ 20%	3.000	0.25	0.18	3.0
RL-2012-S-681K	680.0 $\pm$ 20%	3.400	0.23	0.17	2.8
RL-2012-S-821K	820.0 $\pm$ 20%	4.000	0.22	0.16	2.5
RL-2012-S-102K	1000.0 $\pm$ 20%	5.000	0.20	0.15	2.2

**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



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