

# NATIONAL SEMICONDUCTOR SIMPLE SWITCHER APPLICATIONS

## DESCRIPTION

- High Current Chokes

## ENVIRONMENTAL DATA

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

## PACKAGING INFORMATION

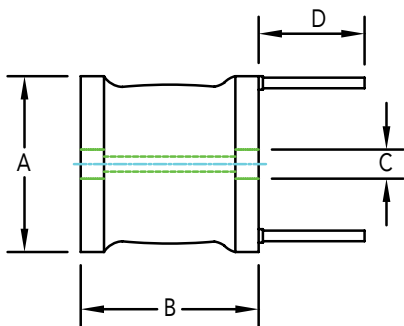
- Contact Customer Support 800.645.5828

## FEATURES & APPLICATIONS

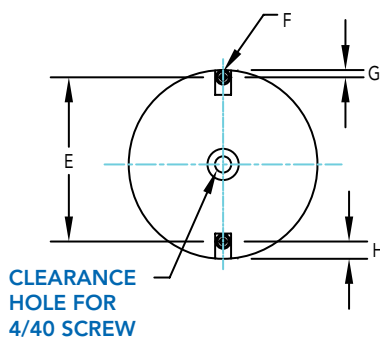
- Uses high saturation flux density material ideal for use in switching regulated power supplies and small-sized current chokes
- Inductance ranges from 47µH to 2200 µH with DC saturation currents up to 20 A

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

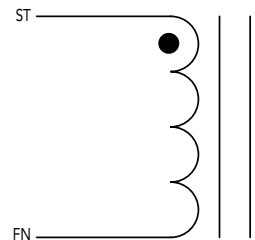
FRONT VIEW



SIDE VIEW



SCHEMATIC



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## MECHANICAL DIMENSIONS

U.S. Standard (mm)

PART NUMBER	A (MAX.)	B (MAX.)	C (REF.)	D (MIN.)	PART WEIGHT
RL-1954	0.825 (20.96)	0.850 (21.59)	0.195 (4.95)	0.5 (12.7)	27.0g (0.95oz)
RL-1956	0.825 (20.96)	0.850 (21.59)	0.195 (4.95)	0.5 (12.7)	23.9g (0.84oz)
RL-1957	1.100 (27.94)	0.850 (21.59)	0.195 (4.95)	0.5 (12.7)	43.8g (1.54oz)
RL-1958	0.825 (20.96)	0.850 (21.59)	0.195 (4.95)	0.5 (12.7)	21.2g (0.74oz)
RL-1959	0.825 (20.96)	0.850 (21.59)	0.195 (4.95)	0.5 (12.7)	24.6g (0.87oz)
RL-1960	0.825 (20.96)	0.850 (21.59)	0.195 (4.95)	0.5 (12.7)	28.6g (1.00oz)
RL-1961	1.100 (27.94)	0.850 (21.59)	0.195 (4.95)	0.5 (12.7)	46.8g (1.65oz)
RL-1962	1.100 (27.94)	0.850 (21.59)	0.195 (4.95)	0.5 (12.7)	44.1g (1.56oz)
RL-1963	1.100 (27.94)	0.850 (21.59)	0.195 (4.95)	0.5 (12.7)	42.5g (1.50oz)
RL-1964	1.600 (40.64)	1.100 (27.94)	0.290 (7.37)	0.5 (12.7)	110.1g (3.90oz)
RL-1965	1.600 (40.64)	1.100 (27.94)	0.290 (7.37)	0.5 (12.7)	111.2g (3.92oz)
RL-2442	0.825 (20.96)	0.850 (21.59)	0.195 (4.95)	0.5 (12.7)	22.1.0g (0.78oz)
RL-2443	0.825 (20.96)	0.850 (21.59)	0.195 (4.95)	0.5 (12.7)	25.4g (0.90oz)
RL-2444	0.825 (20.96)	0.850 (21.59)	0.195 (4.95)	0.5 (12.7)	24.4g (0.86oz)
RL-2445	0.825 (20.96)	0.850 (21.59)	0.195 (4.95)	0.5 (12.7)	26.5g (0.93oz)
RL-2446	1.100 (27.94)	0.850 (21.59)	0.195 (4.95)	0.5 (12.7)	43.4g (1.53oz)
RL-2447	1.100 (27.94)	0.850 (21.59)	0.195 (4.95)	0.5 (12.7)	47.5g (1.65oz)
RL-2448	0.825 (20.96)	0.850 (21.59)	0.195 (4.95)	0.5 (12.7)	contact factory

U.S. Standard (mm)

PART NUMBER	E	F	G	H
RL-1954	0.593 (15.06)	0.032 (0.813)	0.015 (0.38)	0.05 (1.27)
RL-1956	0.656 (16.66)	0.036 (0.914)	0.015 (0.38)	0.05 (1.27)
RL-1957	0.750 (19.05)	0.052 (1.320)	0.015 (0.38)	0.05 (1.27)
RL-1958	0.590 (14.97)	0.016 (0.406)	0.015 (0.38)	0.05 (1.27)
RL-1959	0.590 (14.97)	0.018 (0.457)	0.015 (0.38)	0.05 (1.27)
RL-1960	0.590 (14.97)	0.023 (0.584)	0.015 (0.38)	0.05 (1.27)
RL-1961	0.750 (19.05)	0.032 (0.813)	0.015 (0.38)	0.05 (1.27)
RL-1962	0.812 (20.62)	0.036 (0.914)	0.015 (0.38)	0.05 (1.27)
RL-1963	0.781 (19.84)	0.042 (1.830)	0.015 (0.38)	0.05 (1.27)
RL-1964	1.125 (28.59)	0.058 (1.470)	0.015 (0.38)	0.05 (1.27)
RL-1965	1.140 (28.97)	0.065 (1.650)	0.015 (0.38)	0.05 (1.27)
RL-2442	0.625 (15.88)	0.042 (1.830)	0.015 (0.38)	0.05 (1.27)
RL-2443	0.656 (16.66)	0.036 (0.914)	0.015 (0.38)	0.05 (1.27)
RL-2444	0.593 (15.06)	0.032 (0.813)	0.015 (0.38)	0.05 (1.27)
RL-2445	0.593 (15.06)	0.032 (0.813)	0.015 (0.38)	0.05 (1.27)
RL-2446	0.781 (19.84)	0.042 (1.830)	0.015 (0.38)	0.05 (1.27)
RL-2447	0.812 (20.62)	0.036 (0.914)	0.015 (0.38)	0.05 (1.27)
RL-2448	0.590 (14.97)	0.016 (0.406)	0.015 (0.38)	0.05 (1.27)



**RENCO ELECTRONICS INC.**

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PART NUMBER	Inductance ( $\mu$ H)	DCR Max. (Ohms)	Isat (A)	Irms (A)
RL-1954	150.0	0.098	8.6	4.0
RL-1956	68.0	0.053	12.7	4.8
RL-1957	47.0	0.024	18.1	9.0
RL-1958	1500.0	1.260	2.4	0.8
RL-1959	1000.0	0.818	3.1	1.0
RL-1960	680.0	0.430	3.7	1.6
RL-1961	470.0	0.187	6.0	4.0
RL-1962	330.0	0.122	7.1	4.5
RL-1963	220.0	0.080	8.7	5.5
RL-1964	150.0	0.040	16.4	11.4
RL-1965	100.0	0.025	20.0	14.4
RL-2442	47.0	0.035	15.0	5.5
RL-2443	68.0	0.053	12.7	4.8
RL-2444	100.0	0.080	10.4	4.0
RL-2445	150.0	0.098	8.6	4.0
RL-2446	220.0	0.080	8.7	5.5
RL-2447	330.0	0.122	7.1	4.5
RL-2448	2200.0	1.540	2.0	0.8

## NOTES:

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



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