

RL-6100

TOROIDAL Switched-mode INDUCTORS

DESCRIPTION

- Toroidal Switched-mode Inductor

ENVIRONMENTAL DATA

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

PACKAGING INFORMATION

- Packaging information: pg. 510

FEATURES & APPLICATIONS

- Designed for switching power supply applications
- Operates efficiently up to 200 kHz switching frequencies
- Use of linear, low loss core material make these inductors suitable for many other applications requiring a toroid

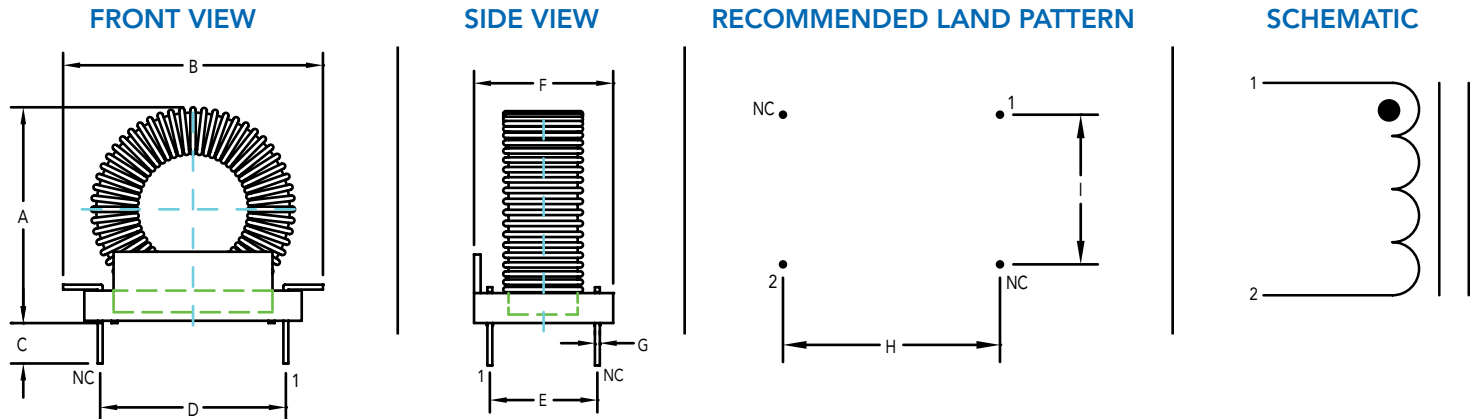
Verify operation with sample in actual circuit. Order samples at www.rencousa.com.

MECHANICAL DIMENSIONS

U.S. Standard (mm)

PART NUMBER	A (MAX.)	B (MAX.)	C (MIN.)	D/H (MAX.)	E/I (MAX.)	F (MAX.)	G (MAX.)
RL-6100-B1	0.700 (17.75)	0.780 (19.81)	0.130 (3.30)	0.600 (15.24)	0.260 (6.60)	0.650 (16.51)	0.025 (0.635)
RL-6100-B2	0.950 (24.13)	1.250 (31.75)	0.250 (6.35)	0.800 (20.32)	0.410 (10.41)	0.625 (15.88)	0.038 (0.97)
RL-6100-B3	1.100 (27.94)	1.250 (31.75)	0.250 (6.35)	0.800 (20.32)	0.410 (10.41)	0.625 (15.88)	0.038 (0.97)
RL-6100-B4	1.350 (34.29)	1.430 (36.32)	0.250 (6.35)	0.900 (22.86)	0.610 (15.49)	0.850 (21.59)	0.038 (0.97)
RL-6100-B5	1.550 (39.37)	1.430 (36.32)	0.250 (6.35)	0.900 (22.86)	0.610 (15.49)	0.850 (21.59)	0.038 (0.97)
RL-6100-B6	1.825 (46.36)	1.700 (43.18)	0.250 (6.35)	1.200 (30.48)	0.710 (17.03)	0.925 (23.50)	0.038 (0.97)
RL-6100-B7	2.100 (53.34)	2.000 (50.80)	0.250 (6.35)	1.500 (38.10)	0.910 (23.11)	1.125 (28.58)	0.038 (0.97)

RL-6100-B VERTICAL BASED MOUNTING



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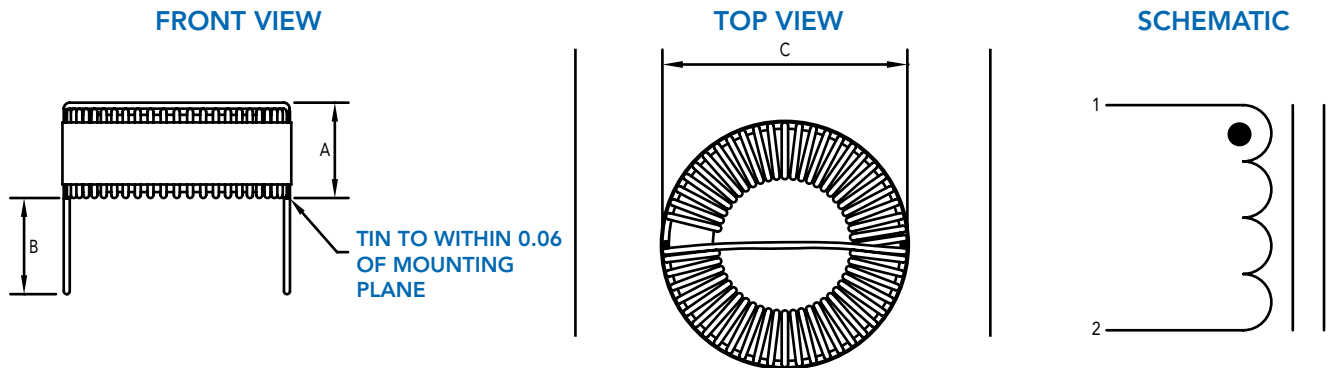
RL-6100

MECHANICAL DIMENSIONS

U.S. Standard (mm)

PART NUMBER	A (MAX.)	B (MIN.)	C (MAX.)
RL-6100-H1	0.350 (8.90)	0.500 (12.70)	0.670 (17.02)
RL-6100-H2	0.425 (10.80)	0.500 (12.70)	0.900 (22.86)
RL-6100-H3	0.425 (10.80)	0.500 (12.70)	1.00 (25.40)
RL-6100-H4	0.550 (13.97)	0.500 (12.70)	1.00 (25.40)
RL-6100-H5	0.650 (16.51)	0.500 (12.70)	1.35 (34.30)
RL-6100-H6	0.700 (17.78)	0.500 (12.70)	1.55 (39.37)
RL-6100-H7	0.800 (20.32)	0.500 (12.70)	1.80 (45.72)
RL-6100-H8	0.900 (22.86)	0.500 (12.70)	2.10 (53.35)

RL-6100-H SELF LEADED, HORIZONTAL

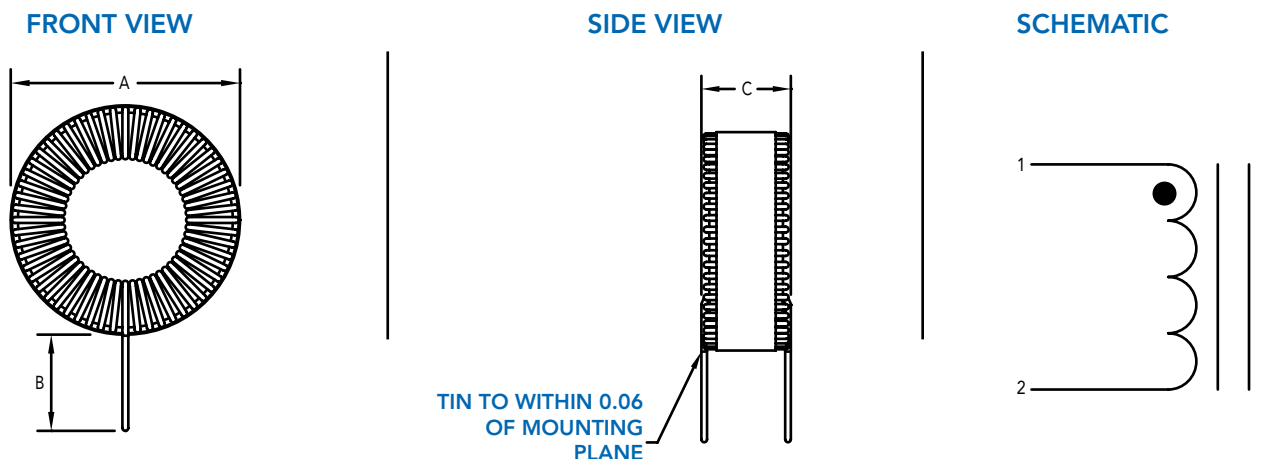


MECHANICAL DIMENSIONS

U.S. Standard (mm)

PART NUMBER	A (MAX.)	B (MIN.)	C (MAX.)
RL-6100-V1	0.67 (17.02)	0.500 (12.70)	0.350 (8.90)
RL-6100-V2	0.90 (22.86)	0.500 (12.70)	0.425 (10.80)
RL-6100-V3	1.00 (25.40)	0.500 (12.70)	0.425 (10.80)
RL-6100-V4	1.00 (25.40)	0.500 (12.70)	0.550 (13.97)
RL-6100-V5	1.35 (34.30)	0.500 (12.70)	0.650 (16.51)
RL-6100-V6	1.55 (39.37)	0.500 (12.70)	0.700 (17.78)
RL-6100-V7	1.80 (45.72)	0.500 (12.70)	0.800 (20.32)
RL-6100-V8	2.10 (53.35)	0.500 (12.70)	0.900 (22.86)

RL-6100-V SELF LEADED, VERTICAL



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RL-6100

RL-6100	REFERENCE OPERATING VALUES			DESIGN CONTROL VALUES				
	Inductance (μH)	DCR Max. (Ohms)	Isat	Inductance @ 10 kHz NO DC ±15%	E _{Top} (v-μsec)	Mounting Codes ONLY	Dia. (±.003) For Self-Leaded (μj)	Energy Storage (μJ)
RL-6100-20-1-XX	20.0	0.072	1.0	20.0	4.0	V1/H1/B1	0.020	10.0
RL-6100-48-1-XX	48.0	0.080	1.0	57.0	10.0	V1/H1/B1	0.020	24.0
RL-6100-68-1-XX	68.0	0.125	1.0	73.0	14.0	V1/H1/B1	0.020	34.0
RL-6100-100-1-XX	100.0	0.145	1.0	111.0	20.0	V1/H1/B1	0.020	50.0
RL-6100-150-1-XX	150.0	0.200	1.0	170.0	30.0	V2/H2/B2	0.020	75.0
RL-6100-220-1-XX	220.0	0.235	1.0	247.0	44.0	V2/H2/B2	0.020	110.0
RL-6100-330-1-XX	330.0	0.265	1.0	388.0	66.0	V2/H2/B2	0.020	165.0
RL-6100-470-1-XX	470.0	0.370	1.0	564.0	95.0	V2/H2/B2	0.020	235.0
RL-6100-680-1-XX	680.0	0.600	1.0	850.0	137.0	V3/H3/B3	0.020	340.0
RL-6100-1K-1-XX	1000.0	0.700	1.0	1250.0	200.0	V4/H4/B3	0.020	500.0
RL-6100-20-3-XX	20.0	0.031	3.0	22.0	12.0	V2/H2/B2	0.032	90.0
RL-6100-48-3-XX	48.0	0.060	3.0	55.0	29.0	V3/H3/B3	0.032	216.0
RL-6100-68-3-XX	68.0	0.075	3.0	83.0	41.0	V3/H3/B3	0.032	306.0
RL-6100-100-3-XX	100.0	0.095	3.0	133.0	60.0	V3/H3/B3	0.032	450.0
RL-6100-150-3-XX	150.0	0.118	3.0	172.0	90.0	V5/H5/B4	0.032	675.0
RL-6100-220-3-XX	220.0	0.140	3.0	262.0	133.0	V5/H5/B4	0.032	990.0
RL-6100-330-3-XX	330.0	0.180	3.0	429.0	200.0	V5/H5/B4	0.032	1485.0
RL-6100-470-3-XX	470.0	0.220	3.0	595.0	284.0	V6/H6/B5	0.032	2115.0
RL-6100-680-3-XX	680.0	0.320	3.0	850.0	410.0	V7/H7/B6	0.032	3060.0
RL-6100-1K-3-XX	1000.0	0.320	3.0	1500.0	604.0	V8/H8/B7	0.032	4500.0
RL-6100-20-5-XX	20.0	0.020	5.0	23.0	21.0	V2/H2/B2	0.040	250.0
RL-6100-48-5-XX	48.0	0.040	5.0	60.0	46.0	V3/H3/B3	0.040	600.0
RL-6100-68-5-XX	68.0	0.042	5.0	72.0	69.0	V5/H5/B4	0.040	850.0
RL-6100-100-5-XX	100.0	0.058	5.0	110.0	100.0	V5/H5/B4	0.040	1250.0
RL-6100-150-5-XX	150.0	0.070	5.0	182.0	150.0	V5/H5/B4	0.040	1875.0

PART NUMBER PART WEIGHT

RL-6100-1 B,H,V	3.0g (0.11oz)
RL-6100-2 B,H,V	10.0g (0.35oz)
RL-6100-3 B,H,V	14.0g (0.49oz)
RL-6100-4 B,H,V	20.0g (0.71oz)
RL-6100-5 B,H,V	37.0g (1.31oz)
RL-6100-6 B,H,V	63.0g (2.22oz)
RL-6100-7 B,H,V	97.0g (3.42oz)
RL-6100-8 B,H,V	180.0g (6.35oz)

ORDERING INFORMATION: PART NUMBER SYSTEM

RL-6100-RENCO PART NUMBER-XX

SELECT MOUNTING STYLE AND CORRESPONDING SIZE FROM MOUNTING CODES IN ABOVE CHART

THREE MOUNTING STYLES AVAILABLE:
SELF-LEADED, VERTICAL (SELECT -V)
SELF-LEADED, HORIZONTAL (SELECT -H)
VERTICAL-BASE MOUNTED (SELECT -B)

NOTES:

1. ELECTRICAL SPECIFICATIONS MEASURED AT 25°C
2. Isat - DC CURRENT THAT WILL CAUSE INDUCTANCE TO DROP BY 5%
3. INDUCTANCE TESTED AT 10 kHz, 0.1 V_{rms}



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