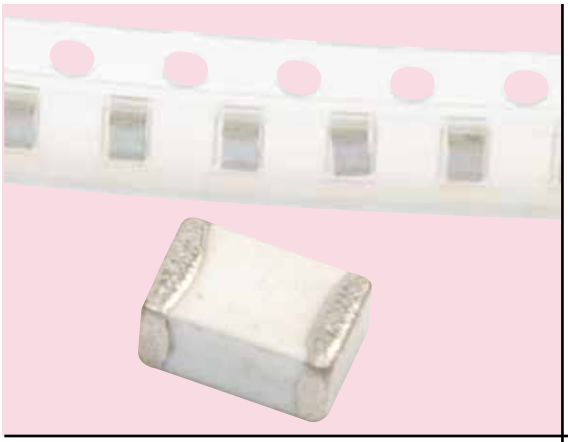


RL-7800-1

RL-7800-2, RL-7800-3
MULTI-LAYER CERAMIC CHIP INDUCTORS

DESCRIPTION
- Multi-layer Chip Inductors

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

PACKAGING INFORMATION
- Packaging information: pg. 491

FEATURES & APPLICATIONS
- Advanced monolithic construction with high frequency ceramic and conductive materials
- Excellent high Q characteristics
- Support operating frequency bands up to 10GHz
- Excellent reliability
- Applications include: wireless communications, celluar phones, cordless phones, etc., miscellaneous high-frequency circuits and EMI countermeasure in high-frequency circuits

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

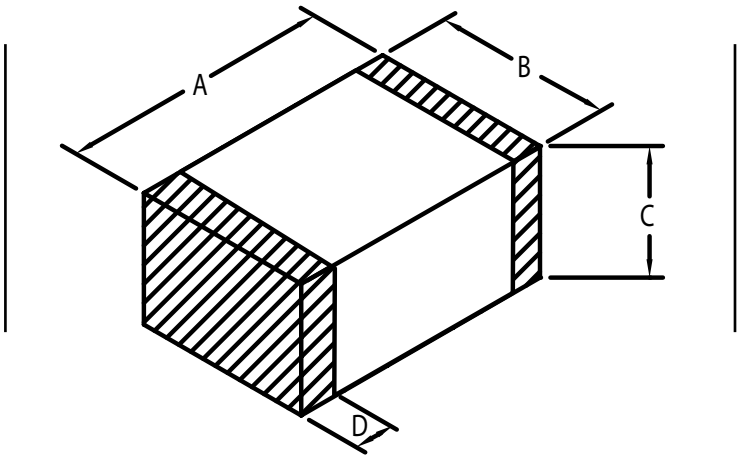
MECHANICAL DIMENSIONS

U.S. Standard (mm)

PART NUMBER	EIA (Std.)	A (MAX.)	B (MAX.)	C (MAX.)	D
RL-7800-1	0402	0.043 (1.10)	0.022 (0.55)	0.020 (0.60)	0.009 (0.25) ± 0.004 (0.1)
RL-7800-2	0603	0.070 (1.75)	0.037 (0.95)	0.037 (0.95)	0.011 (0.30) ± 0.008 (0.2)
RL-7800-3	0805	0.090 (2.20)	0.060 (1.45)	0.041 (1.05)	0.019 (0.50) ± 0.012 (0.3)

PART NUMBER	PART WEIGHT
RL-7800-1-3	0.11g (0.004oz)

ISOMETRIC VIEW



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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

RoHS COMPLIANT

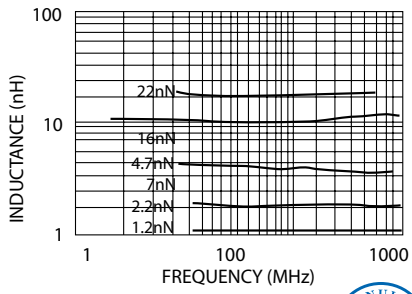
RL-7800-1

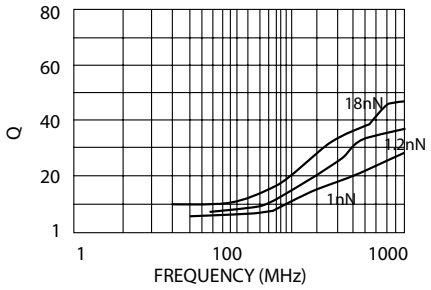
Renco Part No. RL-7800-1	EIA Size	L (nH)	DCR Max. (Ohms)	SRF (MHz) Min.	SRF (MHz) Typ.	Q Min.	Q TYPICAL (MHz)					Testing Freq. (MHz)	Irms (mA) Max.
							100	300	500	800	1000		
RL-7800-1-1N0S	0402	1.0±0.3nH	0.08	10000	>13000	8	11	20	26	34	39	100	300
RL-7800-1-1N2S	0402	1.2±0.3nH	0.09	10000	>13000	8	11	20	26	34	39	100	300
RL-7800-1-1N5S	0402	1.5±0.3nH	0.10	6000	>13000	8	11	20	26	34	39	100	300
RL-7800-1-1N8S	0402	1.8±0.3nH	0.12	6000	11000	8	11	18	24	30	35	100	300
RL-7800-1-2N2S	0402	2.2±0.3nH	0.13	6000	10000	8	10	17	24	29	35	100	300
RL-7800-1-2N7S	0402	2.7±0.3nH	0.13	6000	9000	8	10	17	23	29	34	100	300
RL-7800-1-3N3X	0402	3.3±10% or ±0.3nH	0.16	6000	8000	8	10	17	23	28	34	100	300
RL-7800-1-3N9X	0402	3.9±10% or ±0.3nH	0.21	4000	7000	8	10	17	23	28	33	100	300
RL-7800-1-4N7X	0402	4.7±10% or ±0.3nH	0.21	4000	6000	8	10	17	23	28	33	100	300
RL-7800-1-5N6X	0402	5.6±10% or ±0.3nH	0.23	4000	5700	8	10	17	22	28	33	100	300
RL-7800-1-6N8X	0402	6.8±10% or ±5%	0.25	3900	5500	8	10	16	22	27	33	100	300
RL-7800-1-8N2X	0402	8.2±10% or ±5%	0.28	3600	4900	8	10	17	22	28	32	100	300
RL-7800-1-10NX	0402	10±10% or ±5%	0.31	3200	4300	8	10	17	22	30	32	100	300
RL-7800-1-12NX	0402	12±10% or ±5%	0.40	2700	3900	8	11	18	24	31	34	100	300
RL-7800-1-15NX	0402	15±10% or ±5%	0.46	2300	3500	8	11	18	24	30	33	100	300
RL-7800-1-18NX	0402	18±10% or ±5%	0.55	2100	3100	8	11	18	24	30	32	100	300
RL-7800-1-22NX	0402	22±10% or ±5%	0.60	1900	2800	8	11	18	24	30	31	100	300
RL-7800-1-27NX	0402	27±10% or ±5%	0.70	1600	2300	8	11	18	23	27	29	100	300
RL-7800-1-33NX	0402	33±10% or ±5%	0.80	1300	1900	8	11	18	22	25	25	100	200
RL-7800-1-39NX	0402	39±10% or ±5%	0.90	1200	1700	8	11	18	22	24	23	100	200
RL-7800-1-47NX	0402	47±10% or ±5%	1.00	1000	1500	8	11	18	21	23	21	100	200

NOTES:

1. ELECTRICAL SPECIFICATIONS MEASURED AT 25°C
2. Irms - CURRENT THAT CAUSES THE TEMPERATURE TO RISE APPROX. 40°C ABOVE AMBIENT OF 25°C
3. TEST EQUIPMENT: RF IMPEDANCE ANALYZER HP4291A + HP4195A

DC BIAS, FREQ Vs IMPEDANCE & Q CHARACTERISTICS





PART NUMBER IDENTIFICATION

RL-7800 -2 4N7 K
(1) (2) (3) (4)

(1) SERIES NAME
(2) DIMENSIONS
(3) INDUCTANCE CODE
(4) TOLERANCE CODE
S = ±0.3 nH
J = ±5%
K = ±10%

SURFACE MOUNTS

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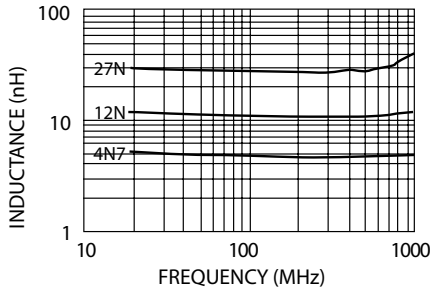
RoHS COMPLIANT

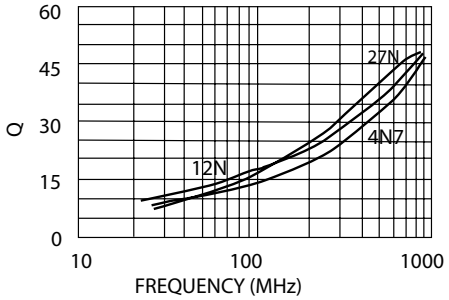
RL-7800-2

Renco Part No. RL-7800-2	EIA Size	L (nH)	DCR Max. (Ohms)	SRF (MHz) Min	SRF (MHz) Typ	Q Min.	Q TYPICAL (MHz)					Testing Freq. (MHz)	Irms (mA) Max.
							100	300	500	800	1000		
RL-7800-2-1N0S	0603	1.0±0.3nH	0.05	10000	>13000	8	14	30	40	70	90	100	300
RL-7800-2-1N2S	0603	1.2±0.3nH	0.05	10000	>13000	8	14	30	40	70	90	100	300
RL-7800-2-1N5S	0603	1.5±0.3nH	0.10	6000	>13000	8	14	26	34	47	50	100	300
RL-7800-2-1N8S	0603	1.8±0.3nH	0.10	6000	>13000	8	10	18	24	30	34	100	300
RL-7800-2-2N2S	0603	2.2±0.3nH	0.10	6000	12000	8	12	22	29	37	40	100	300
RL-7800-2-2N7S	0603	2.7±0.3nH	0.10	6000	11000	10	13	24	32	41	45	100	300
RL-7800-2-3N3X	0603	3.3±10% or ±0.3nH	0.12	6000	9000	10	14	25	33	42	47	100	300
RL-7800-2-3N9X	0603	3.9±10% or ±0.3nH	0.14	6000	8000	10	13	25	33	42	46	100	300
RL-7800-2-4N7X	0603	4.7±10% or ±0.3nH	0.16	4000	6500	10	13	25	33	42	47	100	300
RL-7800-2-5N6X	0603	5.6±10% or ±0.3nH	0.18	4000	5800	10	14	25	33	42	46	100	300
RL-7800-2-6N8X	0603	6.8±10% or ±5%	0.22	4000	5600	10	14	25	33	43	47	100	300
RL-7800-2-8N2X	0603	8.2±10% or ±5%	0.24	3500	5200	10	14	26	34	44	48	100	300
RL-7800-2-10NX	0603	10±10% or ±5%	0.26	3400	4600	12	14	26	34	43	47	100	300
RL-7800-2-12NX	0603	12±10% or ±5%	0.28	2600	4000	12	14	27	35	45	49	100	300
RL-7800-2-15NX	0603	15±10% or ±5%	0.32	2300	3400	12	15	28	37	46	51	100	300
RL-7800-2-18NX	0603	18±10% or ±5%	0.35	2000	3000	12	15	27	36	44	48	100	300
RL-7800-2-22NX	0603	22±10% or ±5%	0.40	1600	2900	12	16	28	36	44	47	100	300
RL-7800-2-27NX	0603	27±10% or ±5%	0.45	1400	2200	12	16	29	37	45	46	100	300
RL-7800-2-33NX	0603	33±10% or ±5%	0.55	1200	1800	12	17	31	40	46	47	100	300
RL-7800-2-39NX	0603	39±10% or ±5%	0.60	1100	1600	12	18	31	39	44	44	100	300
RL-7800-2-47NX	0603	47±10% or ±5%	0.70	900	1600	12	17	28	34	35	34	100	300
RL-7800-2-56NX	0603	56±10% or ±5%	0.75	900	1400	12	17	28	34	34	31	100	300
RL-7800-2-68NX	0603	68±10% or ±5%	0.85	700	1200	12	18	29	34	30	22	100	300
RL-7800-2-82NX	0603	82±10% or ±5%	0.95	600	1100	12	18	28	33	27	-	100	300
RL-7800-2-R10X	0603	100±10% or ±5%	1.00	600	1000	12	18	27	28	16	-	100	300

NOTES:
1. ELECTRICAL SPECIFICATIONS MEASURED AT 25°C
2. Irms - CURRENT THAT CAUSES THE TEMPERATURE TO RISE APPROX. 40°C ABOVE AMBIENT OF 25°C
3. TEST EQUIPMENT: RF IMPEDANCE ANALYZER HP4291A + HP4195A

DC BIAS, FREQ Vs IMPEDANCE & Q CHARACTERISTICS





X = MULTI-TOLERANCE CODE

PART NUMBER IDENTIFICATION

RL-7800 -2 4N7 K
(1) (2) (3) (4)

(1) SERIES NAME
(2) DIMENSIONS
(3) INDUCTANCE CODE
(4) TOLERANCE CODE
S = ±0.3 nH
J = ±5%
K = ±10%

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RoHS COMPLIANT

RL-7800-3

Renco Part No. RL-7800-3	EIA Size	L (nH)	DCR Max. (Ohms)	Q Min.	SRF (MHz) Min.	SRF (MHz) Typ.	Q TYPICAL (MHz) 100	300	500	800	1000	Testing Freq. (MHz)	Irms (mA) Max.
RL-7800-3-1N5S	0805	1.5±0.3nH	0.10	10	4000	>6000	21	39	57	61	68	100	300
RL-7800-3-1N8S	0805	1.8±0.3nH	0.10	10	4000	>6000	18	35	49	55	59	100	300
RL-7800-3-2N2S	0805	2.2±0.3nH	0.10	10	4000	>6000	18	33	46	53	58	100	300
RL-7800-3-2N7S	0805	2.7±0.3nH	0.10	12	4000	>6000	19	36	50	56	60	100	300
RL-7800-3-3N3X	0805	3.3±10% or ±0.3nH	0.13	12	4000	>6000	16	29	40	47	51	100	300
RL-7800-3-3N9X	0805	3.9±10% or ±0.3nH	0.15	12	4000	>6000	18	33	46	54	60	100	300
RL-7800-3-4N7X	0805	4.7±10% or ±0.3nH	0.20	12	3500	>6000	18	34	46	55	60	100	300
RL-7800-3-5N6X	0805	5.6±10% or ±0.3nH	0.23	15	3200	5400	20	38	51	60	66	100	300
RL-7800-3-6N8X	0805	6.8±10% or 5%	0.25	15	2800	4200	20	39	52	63	69	100	300
RL-7800-3-8N2X	0805	8.2±10% or 5%	0.28	15	2400	3700	21	40	54	63	70	100	300
RL-7800-3-10NX	0805	10±10% or 5%	0.30	15	2100	3100	20	38	51	60	67	100	300
RL-7800-3-12NX	0805	12±10% or 5%	0.35	15	1900	3000	21	39	52	60	67	100	300
RL-7800-3-15NX	0805	15±10% or 5%	0.40	15	1600	2600	22	42	55	63	72	100	300
RL-7800-3-18NX	0805	18±10% or 5%	0.45	15	1500	2300	24	4	57	63	72	100	300
RL-7800-3-22NX	0805	22±10% or 5%	0.50	18	1400	2100	23	43	55	60	69	100	300
RL-7800-3-27NX	0805	27±10% or 5%	0.55	18	1300	1800	23	42	53	58	68	100	300
RL-7800-3-33NX	0805	33±10% or 5%	0.60	18	1200	1700	24	43	54	55	6	100	300
RL-7800-3-39NX	0805	39±10% or 5%	0.65	18	1000	1400	23	41	50	47	47	100	300
RL-7800-3-47NX	0805	47±10% or 5%	0.70	18	900	1200	23	41	49	43	41	100	300
RL-7800-3-56NX	0805	56±10% or 5%	0.75	18	800	1100	23	42	48	39	38	100	300
RL-7800-3-68NX	0805	68±10% or 5%	0.80	18	700	900	25	42	45	30	-	100	300
RL-7800-3-82NX	0805	82±10% or 5%	0.90	18	600	800	24	41	41	-	-	100	300
RL-7800-3-R10X	0805	100±10% or 5%	0.90	18	600	800	23	37	37	-	-	100	300
RL-7800-3-R12X	0805	120±10% or 5%	0.95	13	500	700	22	33	29	-	-	50	300
RL-7800-3-R15X	0805	150±10% or 5%	1.00	13	500	700	22	34	26	-	-	50	300
RL-7800-3-R18X	0805	180±10% or 5%	1.10	13	400	600	23	34	20	-	-	50	300
RL-7800-3-R22X	0805	220±10% or 5%	1.20	12	350	550	20	23	-	-	-	50	300
RL-7800-3-R27X	0805	270±10% or 5%	1.30	12	300	480	20	19	-	-	-	50	300
RL-7800-3-R33X	0805	330±10% or 5%	1.40	12	250	400	22	15	-	-	-	50	300
RL-7800-3-R39X	0805	390±10% or 5%	1.40	10	250	400	17	12	-	-	-	50	300
RL-7800-3-R47X	0805	470±10% or 5%	1.50	17	200	350	-	-	-	-	-	50	300

NOTES:
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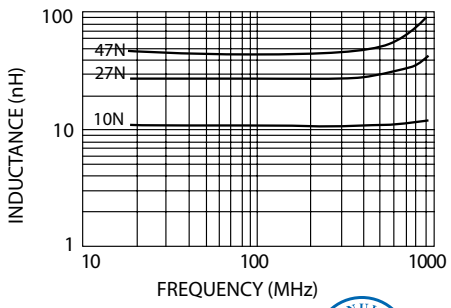
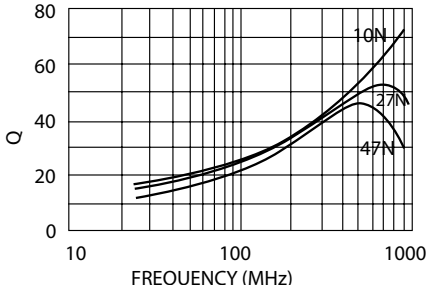
DC BIAS, FREQ Vs IMPEDANCE & Q CHARACTERISTICS





X = MULTI-TOLERANCE CODE

PART NUMBER IDENTIFICATION

RL-7800 -2 4N7 K
(1) (2) (3) (4)

(1) SERIES NAME
(2) DIMENSIONS
(3) INDUCTANCE CODE
(4) TOLERANCE CODE
S = ±0.3 nH
J = ±5%
K = ±10%

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