



RL-6280

SURFACE MOUNT POWER INDUCTORS

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. 490

FEATURES & APPLICATIONS

- Inductance from 1.0 μ H to 820 μ H
- Operating currents from 0.24 A to 3.80 A
- Operating frequencies from DC to 8MHz
- Typical applications include: switching power supplies, and RFI/EMC filtering

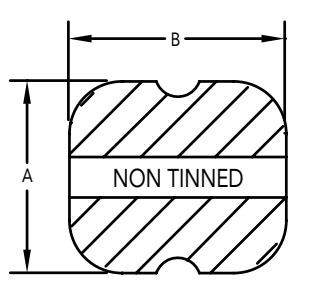
Verify operation with sample in actual circuit. Order samples at www.rencousa.com.

MECHANICAL DIMENSIONS

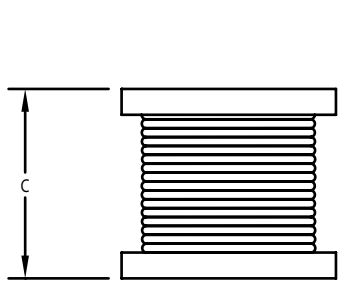
U.S. Standard (mm)

PART NUMBER	A (MAX.)	B (MAX.)	C (MAX.)	D (REF.)	E (REF.)	F (REF.)	PART WEIGHT
RL-6280-0	0.138 (3.50)	0.118 (3.00)	0.083 (2.10)	0.063 (1.60)	0.032 (0.80)	0.138 (3.50)	0.08g (0.003oz)
RL-6280-1	0.177 (4.50)	0.157 (4.00)	0.126 (3.20)	0.069 (1.75)	0.059 (1.50)	0.177 (4.50)	0.17g (0.006oz)
RL-6280-1.5	0.228 (5.80)	0.205 (5.20)	0.098 (2.50)	0.085 (2.15)	0.067 (1.70)	0.217 (5.50)	0.24g (0.008oz)
RL-6280-2	0.228 (5.80)	0.205 (5.20)	0.177 (4.50)	0.085 (2.15)	0.067 (1.70)	0.217 (5.50)	0.41g (0.014oz)
RL-6280-3	0.307 (7.80)	0.276 (7.00)	0.138 (3.50)	0.118 (3.00)	0.079 (2.00)	0.295 (7.50)	0.57g (0.020oz)
RL-6280-4	0.307 (7.80)	0.276 (7.00)	0.197 (5.00)	0.118 (3.00)	0.079 (2.00)	0.295 (7.50)	0.70g (0.025oz)
RL-6280-4.5	0.394 (10.00)	0.354 (9.00)	0.158 (4.00)	0.148 (3.75)	0.098 (2.50)	0.374 (9.50)	1.11g (0.039oz)
RL-6280-5	0.394 (10.00)	0.354 (9.00)	0.213 (5.40)	0.148 (3.75)	0.098 (2.50)	0.374 (9.50)	1.27g (0.045oz)

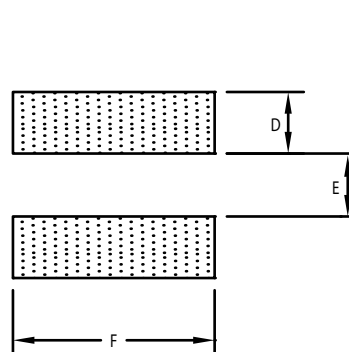
TOP VIEW



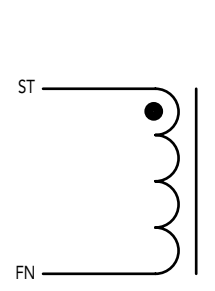
SIDE VIEW



RECOMMENDED LAND PATTERN



SCHEMATIC



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RL-6280-0, RL-6280-1

Renco Part No. RL-6280-0	Inductance (μ H)	DCR Max. (Ohms)	Isat (A)	Irms (A)
RL-6280-0-1.0	1.0 $\pm$ 20%	0.04	1.50	1.50
RL-6280-0-1.4	1.4 $\pm$ 20%	0.05	1.50	1.50
RL-6280-0-1.8	1.8 $\pm$ 20%	0.06	0.80	0.80
RL-6280-0-2.2	2.2 $\pm$ 20%	0.08	0.75	0.75
RL-6280-0-2.7	2.7 $\pm$ 20%	0.10	0.75	0.75
RL-6280-0-3.3	3.3 $\pm$ 20%	0.15	0.60	0.60
RL-6280-0-3.9	3.9 $\pm$ 20%	0.20	0.50	0.50
RL-6280-0-4.7	4.7 $\pm$ 20%	0.20	0.50	0.50
RL-6280-0-5.6	5.6 $\pm$ 20%	0.23	0.45	0.45
RL-6280-0-6.8	6.8 $\pm$ 20%	0.25	0.40	0.40
RL-6280-0-8.2	8.2 $\pm$ 20%	0.30	0.40	0.40
RL-6280-0-10	10 $\pm$ 20%	0.35	0.35	0.35
RL-6280-0-12	12 $\pm$ 20%	0.40	0.35	0.35
RL-6280-0-15	15 $\pm$ 20%	0.50	0.30	0.30
RL-6280-0-18	18 $\pm$ 20%	0.55	0.30	0.30
RL-6280-0-22	22 $\pm$ 20%	0.60	0.30	0.30
RL-6280-0-27	27 $\pm$ 20%	0.70	0.30	0.30
RL-6280-0-33	33 $\pm$ 20%	1.00	0.25	0.25
RL-6280-0-39	39 $\pm$ 20%	1.20	0.25	0.25
RL-6280-0-47	47 $\pm$ 10%	1.50	0.20	0.20
RL-6280-0-56	56 $\pm$ 10%	1.80	0.20	0.20
RL-6280-0-68	68 $\pm$ 10%	2.00	0.18	0.18
RL-6280-0-82	82 $\pm$ 10%	2.50	0.16	0.16
RL-6280-0-100	100 $\pm$ 10%	3.00	0.15	0.15
RL-6280-0-120	120 $\pm$ 10%	3.50	0.14	0.14
RL-6280-0-150	150 $\pm$ 10%	4.00	0.13	0.13
RL-6280-0-180	180 $\pm$ 10%	5.00	0.12	0.12
RL-6280-0-220	220 $\pm$ 10%	5.50	0.10	0.10
RL-6280-0-270	270 $\pm$ 10%	6.00	0.10	0.10
RL-6280-0-330	330 $\pm$ 10%	7.00	0.10	0.10
RL-6280-0-390	390 $\pm$ 10%	8.00	0.10	0.10
RL-6280-0-470	470 $\pm$ 10%	12.00	0.09	0.09

Renco Part No. RL-6280-1	Inductance (μ H)	DCR Max. (Ohms)	Isat (A)	Irms (A)
RL-6280-1-1.0	1.0 $\pm$ 20%	0.033	3.80	3.80
RL-6280-1-1.4	1.4 $\pm$ 20%	0.038	3.30	3.30
RL-6280-1-1.8	1.8 $\pm$ 20%	0.042	2.91	2.91
RL-6280-1-2.2	2.2 $\pm$ 20%	0.047	2.60	2.60
RL-6280-1-2.7	2.7 $\pm$ 20%	0.052	2.43	2.43
RL-6280-1-3.3	3.3 $\pm$ 20%	0.058	2.15	2.15
RL-6280-1-3.9	3.9 $\pm$ 20%	0.076	1.98	1.98
RL-6280-1-4.7	4.7 $\pm$ 20%	0.094	1.70	1.70
RL-6280-1-5.6	5.6 $\pm$ 20%	0.101	1.60	1.60
RL-6280-1-6.8	6.8 $\pm$ 20%	0.117	1.41	1.41
RL-6280-1-8.2	8.2 $\pm$ 20%	0.132	1.26	1.26
RL-6280-1-10	10 $\pm$ 20%	0.182	1.15	1.15
RL-6280-1-12	12 $\pm$ 20%	0.210	1.05	1.05
RL-6280-1-15	15 $\pm$ 20%	0.235	0.92	0.92
RL-6280-1-18	18 $\pm$ 20%	0.338	0.84	0.84
RL-6280-1-22	22 $\pm$ 20%	0.378	0.76	0.76
RL-6280-1-27	27 $\pm$ 20%	0.522	0.71	0.71
RL-6280-1-33	33 $\pm$ 20%	0.540	0.64	0.64
RL-6280-1-39	39 $\pm$ 20%	0.587	0.59	0.59
RL-6280-1-47	47 $\pm$ 10%	0.844	0.54	0.54
RL-6280-1-56	56 $\pm$ 10%	0.937	0.50	0.50
RL-6280-1-68	68 $\pm$ 10%	1.117	0.46	0.46

NOTES:

1. INDUCTANCE WITH NO D.C. TESTED AT 100 kHz, 0.1 Vrms
2. Irms - CURRENT THAT CAUSES THE TEMPERATURE TO RISE APPROX. 40°C ABOVE AMBIENT OF 25°C
3. Isat - DC CURRENT THAT WILL CAUSE INDUCTANCE TO DROP BY 10%
4. ELECTRICAL SPECIFICATIONS MEASURED AT 25°C



RL-6280-1.5, RL-6280-2

Renco Part No. RL-6280-1.5	Inductance (μ H)	DCR Max. (Ohms)	Isat (A)	Irms (A)
RL-6280-1.5-1.0	1.0 $\pm$ 20%	0.030	4.80	4.80
RL-6280-1.5-1.4	1.4 $\pm$ 20%	0.035	4.20	4.20
RL-6280-1.5-1.8	1.8 $\pm$ 20%	0.040	3.80	3.80
RL-6280-1.5-2.2	2.2 $\pm$ 20%	0.040	3.50	3.50
RL-6280-1.5-2.7	2.7 $\pm$ 20%	0.055	3.10	3.10
RL-6280-1.5-3.3	3.3 $\pm$ 20%	0.070	3.00	3.00
RL-6280-1.5-3.9	3.9 $\pm$ 20%	0.080	2.80	2.80
RL-6280-1.5-4.7	4.7 $\pm$ 20%	0.090	2.70	2.70
RL-6280-1.5-5.6	5.6 $\pm$ 20%	0.110	2.20	2.20
RL-6280-1.5-6.8	6.8 $\pm$ 20%	0.140	1.90	1.90
RL-6280-1.5-8.2	8.2 $\pm$ 20%	0.150	1.90	1.90
RL-6280-1.5-10	10 $\pm$ 20%	0.165	1.50	1.50
RL-6280-1.5-12	12 $\pm$ 20%	0.250	1.40	1.40
RL-6280-1.5-15	15 $\pm$ 20%	0.280	1.20	1.20
RL-6280-1.5-18	18 $\pm$ 20%	0.320	1.10	1.10
RL-6280-1.5-22	22 $\pm$ 20%	0.420	1.00	1.00
RL-6280-1.5-27	27 $\pm$ 20%	0.450	0.90	0.90
RL-6280-1.5-33	33 $\pm$ 20%	0.550	0.80	0.80
RL-6280-1.5-39	39 $\pm$ 20%	0.580	0.75	0.75
RL-6280-1.5-47	47 $\pm$ 10%	0.830	0.70	0.70
RL-6280-1.5-56	56 $\pm$ 10%	0.900	0.65	0.65
RL-6280-1.5-68	68 $\pm$ 10%	0.970	0.60	0.60
RL-6280-1.5-82	82 $\pm$ 10%	1.200	0.55	0.55
RL-6280-1.5-100	100 $\pm$ 10%	1.500	0.50	0.50
RL-6280-1.5-120	120 $\pm$ 10%	1.700	0.47	0.47
RL-6280-1.5-150	150 $\pm$ 10%	1.955	0.45	0.45
RL-6280-1.5-180	180 $\pm$ 10%	2.600	0.14	0.14
RL-6280-1.5-220	220 $\pm$ 10%	3.400	0.35	0.35
RL-6280-1.5-270	270 $\pm$ 10%	4.000	0.30	0.30
RL-6280-1.5-330	330 $\pm$ 10%	4.500	0.27	0.27
RL-6280-1.5-390	390 $\pm$ 10%	5.000	0.25	0.25
RL-6280-1.5-470	470 $\pm$ 10%	7.000	0.23	0.23
RL-6280-1.5-560	560 $\pm$ 10%	8.000	0.21	0.21

Renco Part No. RL-6280-2	Inductance (μ H)	DCR Max. (Ohms)	Isat (A)	Irms (A)
RL-6280-2-10	10 $\pm$ 20%	0.10	1.44	1.44
RL-6280-2-12	12 $\pm$ 20%	0.12	1.40	1.40
RL-6280-2-15	15 $\pm$ 20%	0.14	1.30	1.30
RL-6280-2-18	18 $\pm$ 20%	0.15	1.23	1.23
RL-6280-2-22	22 $\pm$ 20%	0.18	1.11	1.11
RL-6280-2-27	27 $\pm$ 20%	0.20	0.97	0.97
RL-6280-2-33	33 $\pm$ 20%	0.23	0.88	0.88
RL-6280-2-39	39 $\pm$ 20%	0.32	0.80	0.80
RL-6280-2-47	47 $\pm$ 10%	0.37	0.72	0.72
RL-6280-2-56	56 $\pm$ 10%	0.42	0.68	0.68
RL-6280-2-68	68 $\pm$ 10%	0.46	0.61	0.61
RL-6280-2-82	82 $\pm$ 10%	0.60	0.58	0.58
RL-6280-2-100	100 $\pm$ 10%	0.70	0.52	0.52
RL-6280-2-120	120 $\pm$ 10%	0.93	0.48	0.48
RL-6280-2-150	150 $\pm$ 10%	1.10	0.40	0.40
RL-6280-2-180	180 $\pm$ 10%	1.38	0.38	0.38
RL-6280-2-220	220 $\pm$ 10%	1.57	0.35	0.35

NOTES:

1. INDUCTANCE WITH NO D.C. TESTED AT 100 kHz, 0.1 Vrms
2. Irms - CURRENT THAT CAUSES THE TEMPERATURE TO RISE APPROX. 40°C ABOVE AMBIENT OF 25°C
3. Isat - DC CURRENT THAT WILL CAUSE INDUCTANCE TO DROP BY 10%
4. ELECTRICAL SPECIFICATIONS MEASURED AT 25°C



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RL-6280-3, RL-6280-4

Renco Part No. RL-6280-3	Inductance (μ H)	DCR Max. (Ohms)	Isat (A)	Irms (A)
RL-6280-3-10	10 $\pm$ 20%	0.08	1.44	1.44
RL-6280-3-12	12 $\pm$ 20%	0.09	1.39	1.39
RL-6280-3-15	15 $\pm$ 20%	0.10	1.24	1.24
RL-6280-3-18	18 $\pm$ 20%	0.11	1.12	1.12
RL-6280-3-22	22 $\pm$ 20%	0.13	1.07	1.07
RL-6280-3-27	27 $\pm$ 20%	0.15	0.94	0.94
RL-6280-3-33	33 $\pm$ 20%	0.17	0.85	0.85
RL-6280-3-39	39 $\pm$ 20%	0.22	0.74	0.74
RL-6280-3-47	47 $\pm$ 10%	0.25	0.68	0.68
RL-6280-3-56	56 $\pm$ 10%	0.28	0.64	0.64
RL-6280-3-68	68 $\pm$ 10%	0.33	0.59	0.59
RL-6280-3-82	82 $\pm$ 10%	0.41	0.54	0.54
RL-6280-3-100	100 $\pm$ 10%	0.48	0.51	0.51
RL-6280-3-120	120 $\pm$ 10%	0.54	0.49	0.49
RL-6280-3-150	150 $\pm$ 10%	0.75	0.40	0.40
RL-6280-3-180	180 $\pm$ 10%	1.02	0.36	0.36
RL-6280-3-220	220 $\pm$ 10%	1.20	0.31	0.31
RL-6280-3-270	270 $\pm$ 10%	1.31	0.29	0.29
RL-6280-3-330	330 $\pm$ 10%	1.50	0.28	0.28

Renco Part No. RL-6280-4	Inductance (μ H)	DCR Max. (Ohms)	Isat (A)	Irms (A)
RL-6280-4-10	10 $\pm$ 20%	0.07	2.30	2.30
RL-6280-4-12	12 $\pm$ 20%	0.08	2.00	2.00
RL-6280-4-15	15 $\pm$ 20%	0.09	1.80	1.80
RL-6280-4-18	18 $\pm$ 20%	0.10	1.60	1.60
RL-6280-4-22	22 $\pm$ 20%	0.11	1.50	1.50
RL-6280-4-27	27 $\pm$ 20%	0.12	1.30	1.30
RL-6280-4-33	33 $\pm$ 20%	0.13	1.20	1.20
RL-6280-4-39	39 $\pm$ 20%	0.16	1.10	1.10
RL-6280-4-47	47 $\pm$ 10%	0.18	1.10	1.10
RL-6280-4-56	56 $\pm$ 10%	0.24	0.94	0.94
RL-6280-4-68	68 $\pm$ 10%	0.28	0.85	0.85
RL-6280-4-82	82 $\pm$ 10%	0.37	0.78	0.78
RL-6280-4-100	100 $\pm$ 10%	0.43	0.72	0.72
RL-6280-4-120	120 $\pm$ 10%	0.47	0.66	0.66
RL-6280-4-150	150 $\pm$ 10%	0.64	0.58	0.58
RL-6280-4-180	180 $\pm$ 10%	0.71	0.51	0.51
RL-6280-4-220	220 $\pm$ 10%	0.96	0.49	0.49
RL-6280-4-270	270 $\pm$ 10%	1.11	0.42	0.42
RL-6280-4-330	330 $\pm$ 10%	1.26	0.40	0.40
RL-6280-4-390	390 $\pm$ 10%	1.77	0.36	0.36
RL-6280-4-470	470 $\pm$ 10%	1.96	0.34	0.34

NOTES:

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RL-6280-4.5, RL-6280-5

Renco Part No. RL-6280-4.5	Inductance (μH)	DCR Max. (Ohms)	Isat (A)	Irms (A)
RL-6280-4.5-10	10 ± 20%	0.053	2.38	2.38
RL-6280-4.5-12	12 ± 20%	0.061	2.13	2.13
RL-6280-4.5-15	15 ± 20%	0.070	1.87	1.87
RL-6280-4.5-18	18 ± 20%	0.081	1.73	1.73
RL-6280-4.5-22	22 ± 20%	0.088	1.60	1.60
RL-6280-4.5-27	27 ± 20%	0.100	1.44	1.44
RL-6280-4.5-33	33 ± 20%	0.120	1.26	1.26
RL-6280-4.5-39	39 ± 20%	0.151	1.20	1.20
RL-6280-4.5-47	47 ± 10%	0.170	1.10	1.10
RL-6280-4.5-56	56 ± 10%	0.199	1.07	1.07
RL-6280-4.5-68	68 ± 10%	0.233	0.91	0.91
RL-6280-4.5-82	82 ± 10%	0.252	0.85	0.85
RL-6280-4.5-100	100 ± 10%	0.344	0.74	0.74
RL-6280-4.5-120	120 ± 10%	0.396	0.69	0.69
RL-6280-4.5-150	150 ± 10%	0.544	0.61	0.61
RL-6280-4.5-180	180 ± 10%	0.621	0.58	0.58
RL-6280-4.5-220	220 ± 10%	0.721	0.53	0.53
RL-6280-4.5-270	270 ± 10%	0.949	0.45	0.45
RL-6280-4.5-330	330 ± 10%	1.100	0.42	0.42
RL-6280-4.5-390	390 ± 10%	1.245	0.38	0.38
RL-6280-4.5-470	470 ± 10%	1.526	0.35	0.35
RL-6280-4.5-560	560 ± 10%	1.904	0.32	0.32

Renco Part No. RL-6280-5	Inductance (μH)	DCR Max. (Ohms)	Isat (A)	Irms (A)
RL-6280-5-10	10 ± 20%	0.06	2.60	2.60
RL-6280-5-12	12 ± 20%	0.07	2.45	2.45
RL-6280-5-15	15 ± 20%	0.08	2.27	2.27
RL-6280-5-18	18 ± 20%	0.09	2.15	2.15
RL-6280-5-22	22 ± 20%	0.10	1.95	1.95
RL-6280-5-27	27 ± 20%	0.11	1.76	1.76
RL-6280-5-33	33 ± 20%	0.12	1.50	1.50
RL-6280-5-39	39 ± 20%	0.14	1.37	1.37
RL-6280-5-47	47 ± 10%	0.17	1.28	1.28
RL-6280-5-56	56 ± 10%	0.19	1.17	1.17
RL-6280-5-68	68 ± 10%	0.22	1.11	1.11
RL-6280-5-82	82 ± 10%	0.25	1.00	1.00
RL-6280-5-100	100 ± 10%	0.35	0.97	0.97
RL-6280-5-120	120 ± 10%	0.40	0.89	0.89
RL-6280-5-150	150 ± 10%	0.47	0.78	0.78
RL-6280-5-180	180 ± 10%	0.63	0.72	0.72
RL-6280-5-220	220 ± 10%	0.73	0.66	0.66
RL-6280-5-270	270 ± 10%	0.97	0.57	0.57
RL-6280-5-330	330 ± 10%	1.15	0.52	0.52
RL-6280-5-390	390 ± 10%	1.30	0.48	0.48
RL-6280-5-470	470 ± 10%	1.48	0.42	0.42
RL-6280-5-560	560 ± 10%	1.90	0.33	0.33
RL-6280-5-680	680 ± 10%	2.25	0.28	0.28
RL-6280-5-820	820 ± 10%	2.55	0.24	0.24

NOTES:

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