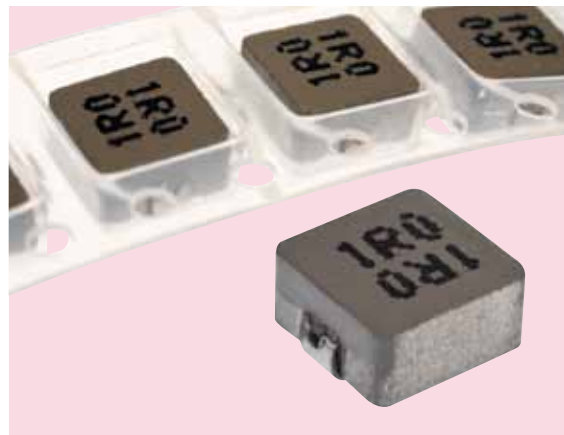


RL-9580-3

HIGH CURRENT SMD INDUCTOR



DESCRIPTION

- High Current SMD Inductor

ENVIRONMENTAL DATA

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

PACKAGING INFORMATION

- Packaging information: pg. 492

FEATURES & APPLICATIONS

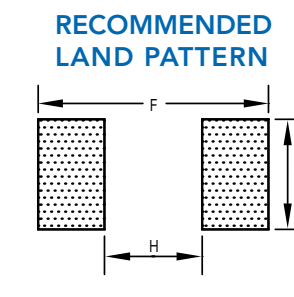
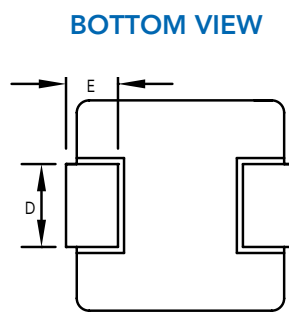
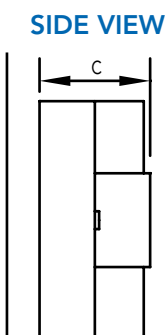
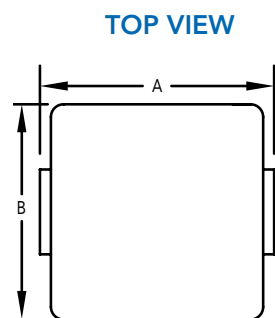
- Lowest height in this package footprint
- Shielded construction
- Lowest DCR/μH in this package size
- Handles high transient current spikes without saturation
- Ultra low EMI due to composite construction
- Frequency up to 5 MHz
- Typical applications include: notebook computers, desktop computers, server applications, high current POL converters, and low-profile, high-current power supplies

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

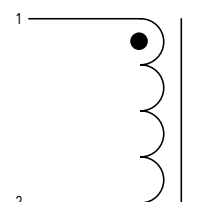
MECHANICAL DIMENSIONS

U.S. Standard (mm)

PART NUMBER	A (MAX.)	B (MAX.)	C (MAX.)	D ±0.012 (0.3)	E ±0.012 (0.3)	F (REF.)
RL-9580-3-1.2	0.299 (7.60)	0.272 (6.90)	0.047 (1.20)	0.098 (2.50)	0.071 (1.80)	0.331 (8.40)
RL-9580-3-1.5	0.299 (7.60)	0.272 (6.90)	0.059 (1.50)	0.118 (3.00)	0.071 (1.80)	0.276 (8.40)
RL-9580-3-1.8	0.299 (7.60)	0.272 (6.90)	0.071 (1.80)	0.118 (3.00)	0.071 (1.80)	0.276 (8.40)
RL-9580-3-2.0	0.299 (7.60)	0.272 (6.90)	0.078 (2.00)	0.118 (3.00)	0.071 (1.80)	0.276 (8.40)
RL-9580-3-2.4	0.299 (7.60)	0.272 (6.90)	0.094 (2.40)	0.118 (3.00)	0.071 (1.80)	0.276 (8.40)
RL-9580-3-3.0	0.299 (7.60)	0.272 (6.90)	0.118 (3.00)	0.118 (3.00)	0.071 (1.80)	0.276 (8.40)
RL-9580-3-5.0	0.299 (7.60)	0.272 (6.90)	0.197 (5.00)	0.118 (3.00)	0.071 (1.80)	0.276 (8.40)



SCHEMATIC



G (REF.)	H (REF.)
0.118 (3.00)	0.146 (3.70)
0.138 (3.50)	0.098 (2.50)
0.138 (3.50)	0.098 (2.50)
0.138 (3.50)	0.146 (3.70)
0.138 (3.50)	0.146 (3.70)
0.138 (3.50)	0.146 (3.70)
0.138 (3.50)	0.146 (3.70)



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RL-9580-3

Renco Part No. RL-9580-3-1.2	Inductance (μ H)	Isat (A)	Irms (A)	DCR (mOhms) TYP. @ 25°C	DCR (mOhms) MAX. @ 25°C
RL-9580-3-1.2-R22M	0.22 $\pm$ 30%	19.0	11.0	6.5	7.5
RL-9580-3-1.2-R33M	0.33 $\pm$ 20%	16.0	9.5	9.0	10.0
RL-9580-3-1.2-R47M	0.47 $\pm$ 20%	12.0	8.5	13.0	17.0
RL-9580-3-1.2-R68M	0.68 $\pm$ 20%	9.0	7.0	17.0	19.0
RL-9580-3-1.2-1R0M	1.00 $\pm$ 20%	7.0	6.0	27.0	30.0
RL-9580-3-1.2-1R2M	1.20 $\pm$ 20%	6.8	5.0	31.0	36.0
RL-9580-3-1.2-1R5M	1.50 $\pm$ 20%	6.5	4.5	35.0	40.0
RL-9580-3-1.2-2R2M	2.20 $\pm$ 20%	5.0	4.0	53.0	61.0
RL-9580-3-1.2-3R3M	3.30 $\pm$ 20%	4.5	3.2	90.0	103.0
RL-9580-3-1.2-4R7M	4.70 $\pm$ 20%	3.8	2.5	130.0	150.0
RL-9580-3-1.2-6R8M	6.80 $\pm$ 20%	3.0	2.1	172.0	198.0
RL-9580-3-1.2-100M	10.00 $\pm$ 20%	2.5	1.8	280.0	290.0

Renco Part No. RL-9580-3-1.5	Inductance (μ H)	Isat (A)	Irms (A)	DCR (mOhms) TYP. @ 25°C	DCR (mOhms) MAX. @ 25°C
RL-9580-3-1.5-R22M	0.22 $\pm$ 30%	22.0	14.0	4.3	5.2
RL-9580-3-1.5-R33M	0.33 $\pm$ 20%	18.0	11.0	6.6	7.6
RL-9580-3-1.5-R47M	0.47 $\pm$ 20%	16.0	9.5	9.0	10.3
RL-9580-3-1.5-R68M	0.68 $\pm$ 20%	15.0	7.5	13.8	15.2
RL-9580-3-1.5-1R0M	1.00 $\pm$ 20%	12.0	6.5	23.0	25.6
RL-9580-3-1.5-1R2M	1.20 $\pm$ 20%	10.5	5.6	29.0	34.0
RL-9580-3-1.5-1R5M	1.50 $\pm$ 20%	9.5	5.0	37.0	42.5
RL-9580-3-1.5-2R2M	2.20 $\pm$ 20%	6.5	4.5	48.0	55.0
RL-9580-3-1.5-3R3M	3.30 $\pm$ 20%	6.0	4.2	62.0	74.0
RL-9580-3-1.5-4R7M	4.70 $\pm$ 20%	5.0	3.8	96.0	111.0
RL-9580-3-1.5-5R6M	5.60 $\pm$ 20%	4.5	3.0	115.0	138.0
RL-9580-3-1.5-6R8M	6.80 $\pm$ 20%	3.5	2.6	128.0	148.0
RL-9580-3-1.5-8R2M	8.20 $\pm$ 20%	3.2	2.4	153.0	184.0
RL-9580-3-1.5-100M	10.00 $\pm$ 20%	2.8	2.3	180.0	216.0

NOTES:

1. Isat - DC CURRENT THAT WILL CAUSE INDUCTANCE TO DROP BY 20%
2. Irms - CURRENT THAT CAUSES THE TEMPERATURE TO RISE APPROX. 40°C ABOVE AMBIENT OF 25°C
3. ELECTRICAL SPECIFICATIONS MEASURED AT 25°C
4. INDUCTANCE TESTED AT 100 kHz, 1.0Vrms



RL-9580-3

Renco Part No. RL-9580-3-1.8	Inductance (μ H)	Isat (A)	Irms (A)	DCR (mOhms) TYP. @ 25°C	DCR (mOhms) MAX. @ 25°C
RL-9580-3-1.8-R33M	0.33 $\pm$ 20%	22.0	14.0	4.8	5.8
RL-9580-3-1.8-R47M	0.47 $\pm$ 20%	18.0	12.0	6.4	7.4
RL-9580-3-1.8-R68M	0.68 $\pm$ 20%	17.0	10.0	9.5	11.0
RL-9580-3-1.8-1R0M	1.00 $\pm$ 20%	14.0	7.0	14.5	17.0
RL-9580-3-1.8-1R2M	1.20 $\pm$ 20%	13.5	6.5	20.0	24.0
RL-9580-3-1.8-1R5M	1.50 $\pm$ 20%	13.0	6.0	21.0	25.2
RL-9580-3-1.8-2R2M	2.20 $\pm$ 20%	11.0	6.0	31.0	35.0
RL-9580-3-1.8-3R3M	3.30 $\pm$ 20%	9.0	5.0	40.0	46.0
RL-9580-3-1.8-4R7M	4.70 $\pm$ 20%	7.0	4.0	68.0	76.0
RL-9580-3-1.8-5R6M	5.60 $\pm$ 20%	6.0	3.5	78.0	86.0
RL-9580-3-1.8-6R8M	6.80 $\pm$ 20%	5.5	3.0	93.0	104.0
RL-9580-3-1.8-8R2M	8.20 $\pm$ 20%	4.5	2.6	123.0	140.0
RL-9580-3-1.8-100M	10.00 $\pm$ 20%	3.5	2.3	143.0	160.0

Renco Part No. RL-9580-3-2.0	Inductance (μ H)	Isat (A)	Irms (A)	DCR (mOhms) TYP. @ 25°C	DCR (mOhms) MAX. @ 25°C
RL-9580-3-2.0-R10Y	0.10 $\pm$ 30%	40.0	21.0	2.0	2.4
RL-9580-3-2.0-R20Y	0.20 $\pm$ 30%	35.0	18.0	2.5	3.0
RL-9580-3-2.0-R33M	0.33 $\pm$ 20%	25.0	14.0	4.5	5.0
RL-9580-3-2.0-R47M	0.47 $\pm$ 20%	20.0	11.7	7.1	8.3
RL-9580-3-2.0-R68M	0.68 $\pm$ 20%	16.0	10.5	8.3	10.0
RL-9580-3-2.0-1R0M	1.00 $\pm$ 20%	14.0	8.0	16.5	18.0
RL-9580-3-2.0-1R5M	1.50 $\pm$ 20%	12.0	7.0	23.0	27.0
RL-9580-3-2.0-2R2M	2.20 $\pm$ 20%	10.0	6.0	32.0	37.0
RL-9580-3-2.0-3R3M	3.30 $\pm$ 20%	8.0	5.0	43.0	48.0
RL-9580-3-2.0-4R7M	4.70 $\pm$ 20%	7.0	4.5	53.0	60.0
RL-9580-3-2.0-5R6M	5.60 $\pm$ 20%	6.0	4.0	59.0	68.0
RL-9580-3-2.0-6R8M	6.80 $\pm$ 20%	5.5	4.0	63.0	73.0
RL-9580-3-2.0-8R2M	8.20 $\pm$ 20%	5.0	3.2	101.0	116.0
RL-9580-3-2.0-100M	10.00 $\pm$ 20%	4.0	2.8	134.0	154.0
RL-9580-3-2.0-220M	22.00 $\pm$ 20%	2.5	1.5	236.0	280.0

NOTES:

1. Isat - DC CURRENT THAT WILL CAUSE INDUCTANCE TO DROP BY 20%
2. Irms - CURRENT THAT CAUSES THE TEMPERATURE TO RISE APPROX. 40°C ABOVE AMBIENT OF 25°C
3. ELECTRICAL SPECIFICATIONS MEASURED AT 25°C
4. INDUCTANCE TESTED AT 100 kHz, 1.0Vrms



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RL-9580-3

Renco Part No. RL-9580-3-2.4	Inductance (μ H)	Isat (A)	Irms (A)	DCR (mOhms) TYP. @ 25°C	DCR (mOhms) MAX. @ 25°C
RL-9580-3-2.4-R33M	0.33 $\pm$ 20%	30.0	18.0	3.6	4.4
RL-9580-3-2.4-R47M	0.47 $\pm$ 20%	26.0	15.0	4.8	5.1
RL-9580-3-2.4-R56M	0.56 $\pm$ 20%	24.0	13.0	5.5	6.5
RL-9580-3-2.4-R68M	0.68 $\pm$ 20%	21.0	13.0	6.4	7.2
RL-9580-3-2.4-R82M	0.82 $\pm$ 20%	17.0	11.0	8.0	9.5
RL-9580-3-2.4-1R0M	1.00 $\pm$ 20%	16.0	11.0	10.5	13.5
RL-9580-3-2.4-1R5M	1.50 $\pm$ 20%	15.0	9.0	17.0	20.0
RL-9580-3-2.4-2R2M	2.20 $\pm$ 20%	14.0	7.0	23.0	28.0
RL-9580-3-2.4-3R3M	3.30 $\pm$ 20%	10.0	6.0	34.0	39.0
RL-9580-3-2.4-4R7M	4.70 $\pm$ 20%	9.0	5.5	41.0	50.0
RL-9580-3-2.4-5R6M	5.60 $\pm$ 20%	8.0	5.0	56.0	62.0
RL-9580-3-2.4-6R8M	6.80 $\pm$ 20%	7.0	4.0	65.0	72.0
RL-9580-3-2.4-100M	10.00 $\pm$ 20%	5.0	3.2	92.0	101.0

Renco Part No. RL-9580-3-3.0	Inductance (μ H)	Isat (A)	Irms (A)	DCR (mOhms) TYP. @ 25°C	DCR (mOhms) MAX. @ 25°C
RL-9580-3-3.0-R22M	0.20 $\pm$ 20%	40.0	23.0	2.1	2.8
RL-9580-3-3.0-R33M	0.33 $\pm$ 20%	32.0	20.0	3.5	3.9
RL-9580-3-3.0-R47M	0.47 $\pm$ 20%	26.0	17.5	4.0	4.2
RL-9580-3-3.0-R56M	0.56 $\pm$ 20%	25.5	16.5	4.7	5.0
RL-9580-3-3.0-R68M	0.68 $\pm$ 20%	25.0	15.5	4.8	5.5
RL-9580-3-3.0-R82M	0.82 $\pm$ 20%	24.0	13.0	6.7	8.0
RL-9580-3-3.0-1R0M	1.00 $\pm$ 20%	22.0	11.0	8.3	10.0
RL-9580-3-3.0-1R5M	1.50 $\pm$ 20%	18.0	9.0	13.0	15.0
RL-9580-3-3.0-1R8M	1.80 $\pm$ 20%	16.0	8.5	14.0	17.0
RL-9580-3-3.0-2R2M	2.20 $\pm$ 20%	14.0	8.0	18.0	20.0
RL-9580-3-3.0-2R5M	2.50 $\pm$ 20%	13.0	7.0	20.0	22.0
RL-9580-3-3.0-3R3M	3.30 $\pm$ 20%	13.5	6.0	28.0	30.0
RL-9580-3-3.0-4R7M	4.70 $\pm$ 20%	10.0	5.5	37.0	40.0
RL-9580-3-3.0-5R6M	5.60 $\pm$ 20%	9.0	5.0	43.0	48.0
RL-9580-3-3.0-6R8M	6.80 $\pm$ 20%	8.0	4.5	54.0	60.0
RL-9580-3-3.0-8R2M	8.20 $\pm$ 20%	7.5	4.0	64.0	68.0
RL-9580-3-3.0-100M	10.00 $\pm$ 20%	6.0	3.5	75.0	85.0
RL-9580-3-3.0-220M	22.00 $\pm$ 20%	3.5	2.0	165.0	190.0

NOTES:

1. Isat - DC CURRENT THAT WILL CAUSE INDUCTANCE TO DROP BY 20%
2. Irms - CURRENT THAT CAUSES THE TEMPERATURE TO RISE APPROX. 40°C ABOVE AMBIENT OF 25°C
3. ELECTRICAL SPECIFICATIONS MEASURED AT 25°C
4. INDUCTANCE TESTED AT 100 kHz, 1.0Vrms



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RL-9580-3

Renco Part No. RL-9580-3-5.0	Inductance (μ H)	Isat (A)	Irms (A)	DCR (mOhms) TYP. @ 25°C	DCR (mOhms) MAX. @ 25°C
RL-9580-3-5.0-R47M	0.47 $\pm$ 20%	30.0	22.0	3.5	3.9
RL-9580-3-5.0-R56M	0.56 $\pm$ 20%	27.0	20.0	3.6	4.2
RL-9580-3-5.0-R68M	0.68 $\pm$ 20%	24.0	18.0	4.0	4.5
RL-9580-3-5.0-R82M	0.82 $\pm$ 20%	22.0	16.5	4.6	4.9
RL-9580-3-5.0-1R0M	1.00 $\pm$ 20%	20.0	15.0	6.1	6.5
RL-9580-3-5.0-1R2M	1.20 $\pm$ 20%	18.0	14.0	6.7	7.5
RL-9580-3-5.0-1R5M	1.50 $\pm$ 20%	16.5	12.0	8.6	9.0
RL-9580-3-5.0-2R2M	2.20 $\pm$ 20%	14.0	10.0	11.2	12.0
RL-9580-3-5.0-3R3M	3.30 $\pm$ 20%	12.0	8.0	19.0	20.9
RL-9580-3-5.0-4R7M	4.70 $\pm$ 20%	10.0	6.5	28.0	30.8
RL-9580-3-5.0-5R6M	5.60 $\pm$ 20%	9.0	6.0	43.5	49.0
RL-9580-3-5.0-6R8M	6.80 $\pm$ 20%	8.5	5.5	46.0	51.5
RL-9580-3-5.0-8R2M	8.20 $\pm$ 20%	8.0	5.0	56.0	63.0
RL-9580-3-5.0-100M	10.00 $\pm$ 20%	7.5	4.0	60.0	69.0
RL-9580-3-5.0-220M	22.00 $\pm$ 20%	5.5	2.5	140.0	170.0

PART NUMBER	PART WEIGHT
RL-9580-3-1.2	0.282g (0.010oz)
RL-9580-3-1.5	0.385g (0.014oz)
RL-9580-3-1.8	0.436g (0.015oz)
RL-9580-3-2.0	0.462g (0.016oz)
RL-9580-3-2.4	0.540g (0.019oz)
RL-9580-3-3.0	0.749g (0.026oz)
RL-9580-3-5.0	1.281g (0.045oz)

NOTES:

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