

# RL-9580-2

## 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. 491

### FEATURES & APPLICATIONS

- Lowest height in this package footprint
- Shielded construction
- Lowest DCR/ $\mu$ H 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

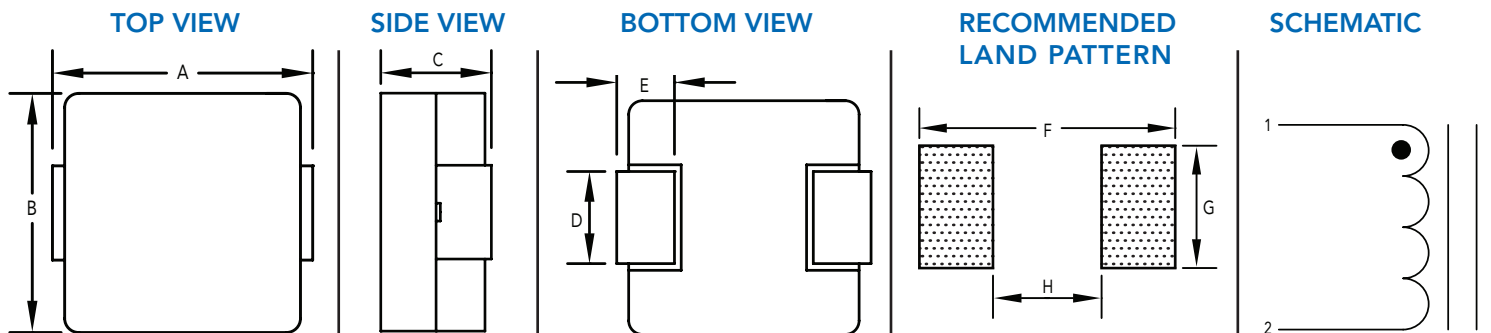
Verify operation with sample in actual circuit. Order samples at [www.rencousa.com](http://www.rencousa.com).

### MECHANICAL DIMENSIONS

U.S. Standard (mm)

PART NUMBER	A (MAX.)	B (MAX.)	C (MAX.)	D $\pm 0.008$ (0.2)	E $\pm 0.012$ (0.3)	F (REF.)
RL-9580-2-1.2	0.244 (6.20)	0.213 (5.40)	0.047 (1.20)	0.060 (1.50)	0.043 (1.10)	0.276 (7.00)
RL-9580-2-1.5	0.244 (6.20)	0.213 (5.40)	0.059 (1.50)	0.060 (1.50)	0.043 (1.10)	0.276 (7.00)
RL-9580-2-1.8	0.244 (6.20)	0.213 (5.40)	0.071 (1.80)	0.060 (1.50)	0.043 (1.10)	0.276 (7.00)
RL-9580-2-2.0	0.244 (6.20)	0.213 (5.40)	0.079 (2.00)	0.060 (1.50)	0.043 (1.10)	0.276 (7.00)
RL-9580-2-3.0	0.244 (6.20)	0.213 (5.40)	0.118 (3.00)	0.060 (1.50)	0.043 (1.10)	0.276 (7.00)

PART NUMBER	PART WEIGHT	G (REF.)	H (REF.)
RL-9580-2-1.2	0.189g (0.007oz)	0.098 (2.50)	0.118 (3.00)
RL-9580-2-1.5	0.227g (0.008oz)	0.098 (2.50)	0.118 (3.00)
RL-9580-2-1.8	0.385g (0.014oz)	0.098 (2.50)	0.118 (3.00)
RL-9580-2-2.0	0.280g (0.010oz)	0.098 (2.50)	0.118 (3.00)
RL-9580-2-3.0	0.442g (0.016oz)	0.098 (2.50)	0.118 (3.00)



SURFACE MOUNTS



**RENCO ELECTRONICS INC.**

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# RL-9580-2

Renco Part No. RL-9580-2-1.2	Inductance ( $\mu$ H)	Isat (A)	Irms (A)	DCR (mOhms) TYP. @ 25°C	DCR (mOhms) MAX. @ 25°C
RL-9580-2-1.2-R10Y	0.10 $\pm$ 30%	14.5	14.0	4.3	5.2
RL-9580-2-1.2-R22Y	0.22 $\pm$ 30%	14.0	10.7	5.5	6.7
RL-9580-2-1.2-R33Y	0.33 $\pm$ 30%	13.5	8.5	7.8	9.4
RL-9580-2-1.2-R36M	0.36 $\pm$ 20%	13.0	8.0	10.0	11.5
RL-9580-2-1.2-R47M	0.47 $\pm$ 20%	11.0	7.0	13.6	15.8
RL-9580-2-1.2-R68M	0.68 $\pm$ 20%	9.0	6.0	21.5	24.5
RL-9580-2-1.2-1R0M	1.00 $\pm$ 20%	6.0	5.0	26.0	30.0
RL-9580-2-1.2-1R2M	1.20 $\pm$ 20%	5.5	4.5	33.0	40.0
RL-9580-2-1.2-1R5M	1.50 $\pm$ 20%	5.0	4.0	38.0	44.0
RL-9580-2-1.2-2R2M	2.20 $\pm$ 20%	4.0	3.5	65.0	75.0
RL-9580-2-1.2-3R3M	3.30 $\pm$ 20%	3.8	3.0	75.0	86.0
RL-9580-2-1.2-4R7M	4.70 $\pm$ 20%	3.2	2.5	100.0	115.0
RL-9580-2-1.2-5R6M	5.60 $\pm$ 20%	3.2	2.4	175.0	201.0
RL-9580-2-1.2-6R8M	6.80 $\pm$ 20%	3.0	2.0	193.0	222.0
RL-9580-2-1.2-8R2M	8.20 $\pm$ 20%	2.8	1.7	327.0	378.0
RL-9580-2-1.2-100M	10.00 $\pm$ 20%	1.8	1.5	335.0	385.0

Renco Part No. RL-9580-2-1.5	Inductance ( $\mu$ H)	Isat (A)	Irms (A)	DCR (mOhms) TYP. @ 25°C	DCR (mOhms) MAX. @ 25°C
RL-9580-2-1.5-R33M	0.33 $\pm$ 20%	16.0	9.0	8.5	9.8
RL-9580-2-1.5-R47M	0.47 $\pm$ 20%	15.0	8.0	12.0	13.8
RL-9580-2-1.5-R68M	0.68 $\pm$ 20%	13.0	7.0	14.0	16.2
RL-9580-2-1.5-1R0M	1.00 $\pm$ 20%	9.0	6.0	22.0	25.3
RL-9580-2-1.5-1R5M	1.50 $\pm$ 20%	7.0	4.5	39.0	45.0
RL-9580-2-1.5-2R2M	2.20 $\pm$ 20%	6.0	4.0	45.0	52.0
RL-9580-2-1.5-3R3M	3.30 $\pm$ 20%	4.5	3.2	78.0	90.0
RL-9580-2-1.5-4R7M	4.70 $\pm$ 20%	4.0	2.7	103.0	118.0
RL-9580-2-1.5-5R6M	5.60 $\pm$ 20%	3.2	2.4	126.0	152.0
RL-9580-2-1.5-6R8M	6.80 $\pm$ 20%	3.0	2.3	142.0	171.0
RL-9580-2-1.5-8R2M	8.20 $\pm$ 20%	2.6	2.1	175.0	210.0
RL-9580-2-1.5-100M	10.0 $\pm$ 20%	2.3	2.0	210.0	235.0

Renco Part No. RL-9580-2-1.8	Inductance ( $\mu$ H)	Isat (A)	Irms (A)	DCR (mOhms) TYP. @ 25°C	DCR (mOhms) MAX. @ 25°C
RL-9580-2-1.8-R33M	0.33 $\pm$ 20%	15.0	11.0	7.5	8.6
RL-9580-2-1.8-R47M	0.47 $\pm$ 20%	14.0	10.0	9.8	11.3
RL-9580-2-1.8-R68M	0.68 $\pm$ 20%	13.0	9.0	12.4	14.3
RL-9580-2-1.8-1R0M	1.00 $\pm$ 20%	10.0	6.8	18.2	21.0

RL-9580-2 TABLE CONTINUES ON FOLLOWING PAGE

**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-9580-2

Renco Part No. RL-9580-2-1.8	Inductance ( $\mu$ H)	Isat (A)	Irms (A)	DCR (mOhms) TYP. @ 25°C	DCR (mOhms) MAX. @ 25°C
RL-9580-2-1.8-1R5M	1.50 $\pm$ 20%	9.0	6.0	26.0	30.0
RL-9580-2-1.8-2R2M	2.20 $\pm$ 20%	7.5	4.5	42.0	48.3
RL-9580-2-1.8-3R3M	3.30 $\pm$ 20%	5.0	3.5	60.0	69.0
RL-9580-2-1.8-4R7M	4.70 $\pm$ 20%	4.5	3.0	85.0	98.0
RL-9580-2-1.8-5R6M	5.60 $\pm$ 20%	4.0	2.5	110.0	127.0
RL-9580-2-1.8-6R8M	6.80 $\pm$ 20%	3.5	2.4	118.0	137.0
RL-9580-2-1.8-8R2M	8.20 $\pm$ 20%	3.0	2.3	143.0	165.0
RL-9580-2-1.8-100M	10.0 $\pm$ 20%	2.8	2.3	165.0	190.0

Renco Part No. RL-9580-2-2.0	Inductance ( $\mu$ H)	Isat (A)	Irms (A)	DCR (mOhms) TYP. @ 25°C	DCR (mOhms) MAX. @ 25°C
RL-9580-2-2.0-R33M	0.33 $\pm$ 20%	21.3	12.0	6.3	7.3
RL-9580-2-2.0-R47M	0.47 $\pm$ 20%	18.0	11.5	7.3	8.6
RL-9580-2-2.0-R68M	0.68 $\pm$ 20%	12.8	10.0	11.0	12.4
RL-9580-2-2.0-1R0M	1.00 $\pm$ 20%	13.7	7.0	17.5	20.0
RL-9580-2-2.0-1R2M	1.20 $\pm$ 20%	11.0	6.2	23.0	28.0
RL-9580-2-2.0-1R5M	1.50 $\pm$ 20%	9.8	5.5	26.5	30.5
RL-9580-2-2.0-2R2M	2.20 $\pm$ 20%	9.0	4.2	42.0	50.0
RL-9580-2-2.0-3R3M	3.30 $\pm$ 20%	7.3	3.3	66.0	76.0
RL-9580-2-2.0-4R7M	4.70 $\pm$ 20%	5.0	2.8	103.0	116.0
RL-9580-2-2.0-5R6M	5.60 $\pm$ 20%	4.0	2.5	112.0	122.0
RL-9580-2-2.0-6R8M	6.80 $\pm$ 20%	3.8	2.4	130.0	150.0
RL-9580-2-2.0-8R2M	8.20 $\pm$ 20%	3.5	2.3	148.0	171.0
RL-9580-2-2.0-100M	10.00 $\pm$ 20%	3.4	2.3	180.0	199.0

Renco Part No. RL-9580-2-3.0	Inductance ( $\mu$ H)	Isat (A)	Irms (A)	DCR (mOhms) TYP. @ 25°C	DCR (mOhms) MAX. @ 25°C
RL-9580-2-3.0-R33M	0.33 $\pm$ 20%	18.0	14.00	4.3	5.0
RL-9580-2-3.0-R47M	0.47 $\pm$ 20%	16.0	12.00	6.4	7.4
RL-9580-2-3.0-R68M	0.68 $\pm$ 20%	14.0	8.50	10.0	12.0
RL-9580-2-3.0-1R0M	1.00 $\pm$ 20%	11.0	7.00	13.0	14.0
RL-9580-2-3.0-1R5M	1.50 $\pm$ 20%	11.0	6.50	14.0	16.0
RL-9580-2-3.0-2R2M	2.20 $\pm$ 20%	10.0	6.00	16.0	25.0
RL-9580-2-3.0-3R3M	3.30 $\pm$ 20%	9.0	5.50	25.0	35.0
RL-9580-2-3.0-4R7M	4.70 $\pm$ 20%	8.0	5.00	32.0	38.0
RL-9580-2-3.0-5R6M	5.60 $\pm$ 20%	6.0	4.60	50.0	53.0
RL-9580-2-3.0-6R8M	6.80 $\pm$ 20%	4.5	4.25	55.0	63.0
RL-9580-2-3.0-8R2M	8.20 $\pm$ 20%	4.3	4.00	68.0	76.2
RL-9580-2-3.0-100M	10.00 $\pm$ 20%	3.5	2.75	110.0	128.0

## NOTES:

1. Isat - DC CURRENT THAT WILL CAUSE INDUCTANCE TO DROP BY 20%
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