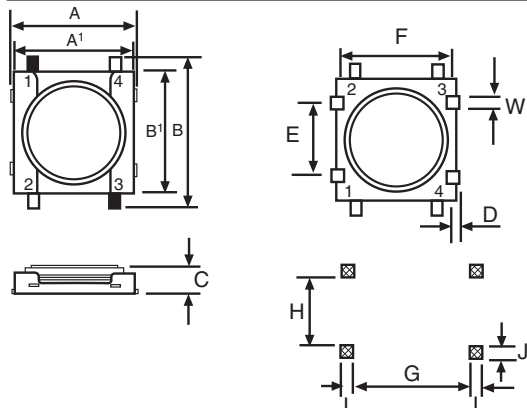




# RL-7600-1, RL-7600-2 RL-7600-3, RL-7600-4

## ULTRA SUPER LOW PROFILE SMD INDUCTORS



### FEATURES

- Constructed in a rugged case to provide optimum pick and place operations.
- Low profile. Great for applications when space is at a premium.

### APPLICATIONS

Excellent as DC-DC Converter used in notebook computers, PDA, cell phones, step-up or step-down converters and flash memory.

### MATERIALS CONSTRUCTION

- Core: Ferrite DR Core
- Base: LCP
- Wire: Enameled Copper Wire
- Terminal: Tinned Copper Plate
- Adhesive: Epoxy Resin

### GENERAL SPECIFICATIONS

Temperature rise: 20°C Typical at I rms 1  
 40°C Typical at I rms 2  
 Operating Temperature: -25°C to +85°C  
 Storage Temperature: -40°C to +105°C  
 Resistance to solder heat: 260°C for 10 seconds  
 Rated current: Based on temperature  
 &  $\Delta L/LOA = 10\%$  Typical at  $I_{sat}$

### TAPE AND REEL PACKAGING

| Part Number | Pieces per reel | Plastic reel size |
|-------------|-----------------|-------------------|
| RL-7600-1   | 3,000           | 13"               |
| RL-7600-2   | 3,000           | 13"               |
| RL-7600-3   | 3,000           | 13"               |
| RL-7600-4   | 2,000           | 13"               |

### MECHANICAL DIMENSIONS (m/m)

| Part Number | A           | A <sup>1</sup> | B          | B <sup>1</sup> | C          | D            | E            | F            | W            | G (Ref) | H (Ref) | I (Ref) | J (Ref) |
|-------------|-------------|----------------|------------|----------------|------------|--------------|--------------|--------------|--------------|---------|---------|---------|---------|
| RL-7600-1   | 5.2<br>±0.1 | 5.0<br>±0.1    | 6.50<br>+0 | 5.00<br>±0.1   | 1.05<br>+0 | 0.40<br>±0.1 | 3.00<br>±0.1 | 4.80<br>±0.1 | 0.50<br>±0.1 | 4.20    | 2.20    | 0.60    | 0.80    |
| RL-7600-2   | 5.2<br>±0.1 | 5.0<br>±0.1    | 6.50<br>+0 | 5.00<br>±0.1   | 1.25<br>+0 | 0.40<br>±0.1 | 3.00<br>±0.1 | 4.80<br>±0.1 | 0.50<br>±0.1 | 4.20    | 2.20    | 0.60    | 0.80    |
| RL-7600-3   | 5.2<br>±0.1 | 5.0<br>±0.1    | 6.50<br>+0 | 5.00<br>±0.1   | 1.55<br>+0 | 0.40<br>±0.1 | 3.00<br>±0.1 | 4.80<br>±0.1 | 0.50<br>±0.1 | 4.20    | 2.20    | 0.60    | 0.80    |
| RL-7600-4   | 5.2<br>±0.1 | 5.0<br>±0.1    | 6.50<br>+0 | 5.00<br>±0.1   | 2.55<br>+0 | 0.40<br>±0.1 | 3.00<br>±0.1 | 4.80<br>±0.1 | 0.50<br>±0.1 | 4.20    | 2.20    | 0.60    | 0.80    |



## RENCO ELECTRONICS, INC.

595 International Place, Rockledge, FL 32955-4200 USA

(321) 637-1000 • Toll Free Engineering Hot line 800-645-5828

SINCE 1955 Fax: (321) 637-1600 Web Site: www.rencousa.com E-mail: sales@rencousa.com

| Part Number    | Inductance ( $\mu\text{H}$ ) | Testing Freq (Hz) | DCR ( $\Omega$ ) Max | I <sub>rms1</sub> (A) | I <sub>rms2</sub> (A) | I <sub>sat</sub> (A) |
|----------------|------------------------------|-------------------|----------------------|-----------------------|-----------------------|----------------------|
| RL-7600-1-2R2M | 2.2 $\pm$ 20%                | 0.1 V/ 100K       | 0.18                 | 0.51                  | 0.76                  | 1.70                 |
| RL-7600-1-3R3M | 3.3 $\pm$ 20%                | 0.1 V/ 100K       | 0.22                 | 0.46                  | 0.69                  | 1.50                 |
| RL-7600-1-4R7M | 4.7 $\pm$ 20%                | 0.1 V/ 100K       | 0.28                 | 0.41                  | 0.61                  | 1.32                 |
| RL-7600-1-6R8M | 6.8 $\pm$ 20%                | 0.1 V/ 100K       | 0.38                 | 0.35                  | 0.52                  | 1.12                 |
| RL-7600-1-100M | 10.0 $\pm$ 20%               | 0.1 V/ 100K       | 0.61                 | 0.27                  | 0.41                  | 0.90                 |
| RL-7600-1-150M | 15.0 $\pm$ 20%               | 0.1 V/ 100K       | 0.82                 | 0.24                  | 0.35                  | 0.73                 |
| RL-7600-1-220M | 22.0 $\pm$ 20%               | 0.1 V/ 100K       | 1.10                 | 0.20                  | 0.31                  | 0.62                 |
| RL-7600-1-330M | 33.0 $\pm$ 20%               | 0.1 V/ 100K       | 1.88                 | 0.15                  | 0.23                  | 0.52                 |
| RL-7600-1-470M | 47.0 $\pm$ 20%               | 0.1 V/ 100K       | 2.34                 | 0.14                  | 0.21                  | 0.42                 |

Other non standard inductance values are available to meet your exact requirements.

Note:

1. Inductance measured by LCR meter HP 4294/HP 4291.
2. DCR measured by Milliohm meter CH 502AC.

| Part Number    | Inductance ( $\mu\text{H}$ ) | Testing Freq (Hz) | DCR ( $\Omega$ ) Max | I <sub>rms1</sub> (A) | I <sub>rms2</sub> (A) | I <sub>sat</sub> (A) |
|----------------|------------------------------|-------------------|----------------------|-----------------------|-----------------------|----------------------|
| RL-7600-2-2R2M | 2.2 $\pm$ 20%                | 0.1 V/ 100K       | 0.18                 | 0.55                  | 0.82                  | 1.97                 |
| RL-7600-2-3R3M | 3.3 $\pm$ 20%                | 0.1 V/ 100K       | 0.22                 | 0.50                  | 0.74                  | 1.82                 |
| RL-7600-2-4R7M | 4.7 $\pm$ 20%                | 0.1 V/ 100K       | 0.27                 | 0.45                  | 0.67                  | 1.54                 |
| RL-7600-2-6R8M | 6.8 $\pm$ 20%                | 0.1 V/ 100K       | 0.37                 | 0.38                  | 0.57                  | 1.30                 |
| RL-7600-2-100M | 10.0 $\pm$ 20%               | 0.1 V/ 100K       | 0.48                 | 0.33                  | 0.50                  | 1.10                 |
| RL-7600-2-150M | 15.0 $\pm$ 20%               | 0.1 V/ 100K       | 0.62                 | 0.29                  | 0.44                  | 0.95                 |
| RL-7600-2-220M | 22.0 $\pm$ 20%               | 0.1 V/ 100K       | 1.00                 | 0.23                  | 0.35                  | 0.77                 |
| RL-7600-2-330M | 33.0 $\pm$ 20%               | 0.1 V/ 100K       | 1.40                 | 0.19                  | 0.29                  | 0.60                 |
| RL-7600-2-470M | 47.0 $\pm$ 20%               | 0.1 V/ 100K       | 2.16                 | 0.15                  | 0.23                  | 0.51                 |

Other non standard inductance values are available to meet your exact requirements.

Note:

1. Inductance measured by LCR meter HP 4294/HP 4291.
2. DCR measured by Milliohm meter CH 502AC.



**RENCO ELECTRONICS, INC.**

595 International Place, Rockledge, FL 32955-4200 USA

(321) 637-1000 • Toll Free Engineering Hot line 800-645-5828

Fax: (321) 637-1600 Web Site: [www.rencousa.com](http://www.rencousa.com) E-mail: [sales@rencousa.com](mailto:sales@rencousa.com)

| Part Number    | Inductance ( $\mu$ H) | Testing Freq (Hz) | DCR ( $\Omega$ ) Max | Irms1 (A) | Irms2 (A) | Isat (A) |
|----------------|-----------------------|-------------------|----------------------|-----------|-----------|----------|
| RL-7600-3-101M | 100.0 $\pm$ 20%       | 0.1 V/ 100K       | 3.2                  | 0.160     | 0.240     | 0.50     |
| RL-7600-3-151M | 150.0 $\pm$ 20%       | 0.1 V/ 100K       | 5.0                  | 0.130     | 0.190     | 0.35     |
| RL-7600-3-221M | 220.0 $\pm$ 20%       | 0.1 V/ 100K       | 6.5                  | 0.115     | 0.170     | 0.30     |
| RL-7600-3-331M | 330.0 $\pm$ 20%       | 0.1 V/ 100K       | 12.0                 | 0.085     | 0.125     | 0.22     |
| RL-7600-3-471M | 470.0 $\pm$ 20%       | 0.1 V/ 100K       | 22.0                 | 0.060     | 0.090     | 0.17     |
| RL-7600-3-631M | 630.0 $\pm$ 20%       | 0.1 V/ 100K       | 27.0                 | 0.055     | 0.080     | 0.15     |
| RL-7600-3-102M | 1000.0 $\pm$ 20%      | 0.1 V/ 100K       | 33.0                 | 0.050     | 0.075     | 0.13     |

Other non standard inductance values are available to meet your exact requirements.

Note:

1. Inductance measured by LCR meter HP 4294/HP 4291.
2. DCR measured by Milliohm meter CH 502AC.

| Part Number    | Inductance ( $\mu$ H) | Testing Freq (Hz) | DCR ( $\Omega$ ) Max | Irms1 (A) | Irms2 (A) | Isat (A) |
|----------------|-----------------------|-------------------|----------------------|-----------|-----------|----------|
| RL-7600-4-101M | 100 $\pm$ 20%         | 0.1 V/ 100K       | 1.6                  | 0.240     | 0.360     | 0.45     |
| RL-7600-4-151M | 150 $\pm$ 20%         | 0.1 V/ 100K       | 2.5                  | 0.190     | 0.290     | 0.35     |
| RL-7600-4-221M | 220 $\pm$ 20%         | 0.1 V/ 100K       | 3.8                  | 0.160     | 0.230     | 0.30     |
| RL-7600-4-331M | 330 $\pm$ 20%         | 0.1 V/ 100K       | 5.9                  | 0.130     | 0.190     | 0.25     |
| RL-7600-4-471M | 470 $\pm$ 20%         | 0.1 V/ 100K       | 7.5                  | 0.110     | 0.170     | 0.22     |
| RL-7600-4-681M | 680 $\pm$ 20%         | 0.1 V/ 100K       | 12.0                 | 0.090     | 0.130     | 0.18     |
| RL-7600-4-102M | 1000 $\pm$ 20%        | 0.1 V/ 100K       | 20.0                 | 0.070     | 0.100     | 0.14     |
| RL-7600-4-152M | 1500 $\pm$ 20%        | 0.1 V/ 100K       | 25.0                 | 0.060     | 0.090     | 0.12     |
| RL-7600-4-222M | 2200 $\pm$ 20%        | 0.1 V/ 100K       | 45.0                 | 0.045     | 0.065     | 0.09     |
| RL-7600-4-332M | 3300 $\pm$ 20%        | 0.1 V/ 100K       | 60.0                 | 0.040     | 0.060     | 0.08     |

Other non standard inductance values are available to meet your exact requirements.

Note:

1. Inductance measured by LCR meter HP 4294/HP 4291.
2. DCR measured by Milliohm meter CH 502AC.



**RENCO ELECTRONICS, INC.**

✉ 595 International Place, Rockledge, FL 32955-4200 USA

☎ (321) 637-1000 • Toll Free Engineering Hot line 800-645-5828

**SINCE 1955** 📠 Fax: (321) 637-1600 🌐 Web Site: www.rencousa.com 📧 E-mail: sales@rencousa.com