

RL-1608-S

SHIELDED SMD POWER INDUCTORS



DESCRIPTION

- Shielded Power Inductors

ENVIRONMENTAL DATA

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

PACKAGING INFORMATION

- Packaging information: pg. 489

FEATURES & APPLICATIONS

- Small package with a footprint of 0.26" X 0.175"
- Low-cost, high-energy storage and low resistance make it ideal for communications, computer and converter applications
- Specifically designed with a flat top for reliable pick and place operations
- Available in 25 values with inductance ratings from 1.0 μ H to 10 mH and currents up to 3 A

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

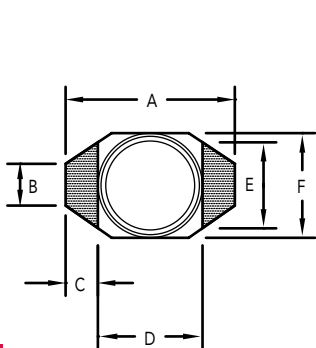
MECHANICAL DIMENSIONS

U.S. Standard (mm)

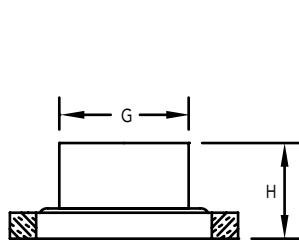
| PART NUMBER | A (MAX.) | B | C | D | E | F (MAX.) |
|-------------|--------------|--------------|--------------|--------------|--------------|--------------|
| RL-1608-S | 0.260 (6.60) | 0.050 (1.27) | 0.040 (1.02) | 0.170 (4.32) | 0.120 (3.05) | 0.175 (4.45) |

| PART NUMBER | PART WEIGHT | G | H (MAX.) | I (REF.) | J (REF.) | K (REF.) | L (REF.) |
|-------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|
| RL-1608-S | 0.35g (0.012oz) | 0.160 (4.06) | 0.115 (2.92) | 0.140 (3.56) | 0.160 (4.06) | 0.270 (6.86) | 0.055 (1.40) |

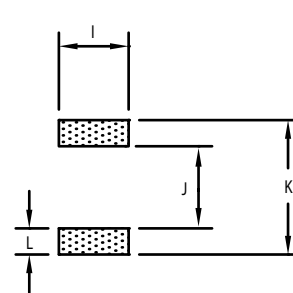
TOP VIEW



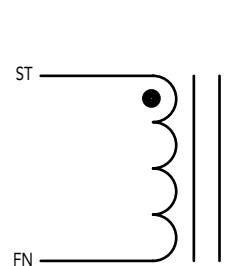
SIDE VIEW



RECOMMENDED LAND PATTERN



SCHEMATIC



RL-1608-S

| Renco Part No. RL-1608-S | Inductance (μ H) | DCR Max. (Ohms) | Isat (A) | Irms (A) | Q Min. | Q Test Frequency (Hz) | SRF Typ. (MHz) |
|-----------------------------|--------------------------|--------------------|-------------|-------------|--------|--------------------------|-------------------|
| RL-1608-S-1.0 | 1.0 | 0.040 | 1.400 | 3.00 | 30 | 200 K | 250.0 |
| RL-1608-S-1.5 | 1.5 | 0.045 | 0.930 | 2.80 | 30 | 200 K | 125.0 |
| RL-1608-S-2.2 | 2.2 | 0.050 | 0.920 | 1.80 | 40 | 200 K | 120.0 |
| RL-1608-S-3.3 | 3.3 | 0.055 | 0.750 | 1.60 | 40 | 200 K | 120.0 |
| RL-1608-S-4.7 | 4.7 | 0.060 | 0.580 | 1.40 | 40 | 200 K | 105.0 |
| RL-1608-S-6.8 | 6.8 | 0.065 | 0.580 | 1.20 | 40 | 200 K | 90.0 |
| RL-1608-S-10 | 10.0 | 0.075 | 0.370 | 1.00 | 40 | 200 K | 38.0 |
| RL-1608-S-15 | 15.0 | 0.090 | 0.310 | 0.80 | 40 | 100 K | 33.0 |
| RL-1608-S-22 | 22.0 | 0.110 | 0.300 | 0.70 | 40 | 100 K | 25.0 |
| RL-1608-S-33 | 33.0 | 0.190 | 0.300 | 0.60 | 40 | 100 K | 20.0 |
| RL-1608-S-47 | 47.0 | 0.300 | 0.240 | 0.50 | 40 | 100 K | 20.0 |
| RL-1608-S-68 | 68.0 | 0.370 | 0.170 | 0.40 | 40 | 100 K | 15.0 |
| RL-1608-S-100 | 100.0 | 0.480 | 0.130 | 0.30 | 40 | 100 K | 10.0 |
| RL-1608-S-150 | 150.0 | 0.590 | 0.100 | 0.26 | 40 | 100 K | 9.0 |
| RL-1608-S-220 | 220.0 | 0.770 | 0.100 | 0.22 | 40 | 100 K | 6.0 |
| RL-1608-S-330 | 330.0 | 1.400 | 0.070 | 0.20 | 40 | 100 K | 5.0 |
| RL-1608-S-470 | 470.0 | 1.800 | 0.060 | 0.19 | 40 | 100 K | 4.0 |
| RL-1608-S-680 | 680.0 | 2.200 | 0.055 | 0.18 | 40 | 100 K | 3.0 |
| RL-1608-S-1000 | 1000.0 | 3.400 | 0.045 | 0.15 | 40 | 100 K | 2.0 |
| RL-1608-S-1500 | 1500.0 | 4.200 | 0.035 | 0.12 | 50 | 100 K | 2.0 |
| RL-1608-S-2200 | 2200.0 | 8.500 | 0.028 | 0.10 | 50 | 100 K | 2.0 |
| RL-1608-S-3300 | 3300.0 | 11.000 | 0.024 | 0.08 | 50 | 100 K | 1.0 |
| RL-1608-S-4700 | 4700.0 | 13.900 | 0.021 | 0.06 | 50 | 100 K | 1.0 |
| RL-1608-S-6800 | 6800.0 | 25.000 | 0.019 | 0.04 | 50 | 100 K | 1.0 |
| RL-1608-S-10000 | 10000.0 | 32.800 | 0.017 | 0.02 | 50 | 100 K | 0.8 |

NOTES:

1. INDUCTANCE \pm 20% TESTED AT 100 kHz, 0.1 Vrms
2. ELECTRICAL SPECIFICATIONS MEASURED AT 25°C
3. Isat - DC CURRENT THAT WILL CAUSE INDUCTANCE TO DROP BY 30%
4. Irms - CURRENT THAT CAUSES THE TEMPERATURE TO RISE APPROX. 40°C ABOVE AMBIENT OF 25°C



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