



# Power Inductors – DR0608 Series



- Small footprint power inductors designed for maximum efficiency and low cost.
- Ideal for noise filtering in power amplifiers, power supplies and speaker crossover networks.
- Inductance values from 3.3 to 1000  $\mu$ H, most at 10% tolerance
- Current ratings up to 6.4 Amps with only 0.012 Ohms DCR
- Industry-standard pin spacings; protective PVC sleeve

**Core material** Ferrite

**Terminations** RoHS compliant tin-silver over copper

**Weight:** 1.0 – 1.3 g

**Ambient temperature** –40°C to +85°C with Irms current, +85°C to +125°C with derated current

**Storage temperature** Component: –40°C to +125°C.

Tray packaging: –40°C to +80°C

**Moisture Sensitivity Level (MSL)** 1 (unlimited floor life at <30°C / 85% relative humidity)

**Failures in Time (FIT) / Mean Time Between Failures (MTBF)**

38 per billion hours / 26,315,789 hours, calculated per Telcordia SR-332

**Packaging** 300 parts per tray; 1200 parts in optional fan-fold tape

**PCB washing** Tested with pure water or alcohol only. For other solvents, see Doc787\_PCB\_Washing.pdf

| Part number | Inductance <sup>1</sup><br>( $\mu$ H) | DCR max<br>(Ohms) | SRF typ <sup>2</sup><br>(MHz) | Isat (A) <sup>3</sup> |          |          | Irms (A) <sup>4</sup> |           |
|-------------|---------------------------------------|-------------------|-------------------------------|-----------------------|----------|----------|-----------------------|-----------|
|             |                                       |                   |                               | 10% drop              | 20% drop | 30% drop | 20°C rise             | 40°C rise |
| DR0608-332L | 3.3 $\pm$ 20%                         | 0.012             | 40                            | 5.3                   | 6.1      | 6.4      | 5.0                   | 7.5       |
| DR0608-472L | 4.7 $\pm$ 20%                         | 0.018             | 36                            | 4.6                   | 5.4      | 5.8      | 4.6                   | 6.9       |
| DR0608-562L | 5.6 $\pm$ 20%                         | 0.022             | 32                            | 4.6                   | 5.2      | 5.5      | 4.2                   | 6.3       |
| DR0608-682L | 6.8 $\pm$ 20%                         | 0.025             | 30                            | 3.9                   | 4.5      | 4.8      | 3.8                   | 5.7       |
| DR0608-822L | 8.2 $\pm$ 20%                         | 0.028             | 25                            | 3.6                   | 4.1      | 4.4      | 3.4                   | 5.1       |
| DR0608-103L | 10 $\pm$ 10%                          | 0.035             | 23                            | 3.2                   | 3.6      | 4.0      | 3.0                   | 4.5       |
| DR0608-123L | 12 $\pm$ 10%                          | 0.045             | 20                            | 2.8                   | 3.2      | 3.5      | 2.8                   | 4.2       |
| DR0608-153L | 15 $\pm$ 10%                          | 0.052             | 19                            | 2.7                   | 3.0      | 3.2      | 2.7                   | 4.0       |
| DR0608-183L | 18 $\pm$ 10%                          | 0.065             | 17                            | 2.4                   | 2.7      | 2.9      | 2.5                   | 3.7       |
| DR0608-223L | 22 $\pm$ 10%                          | 0.078             | 16                            | 2.1                   | 2.5      | 2.7      | 2.3                   | 3.4       |
| DR0608-273L | 27 $\pm$ 10%                          | 0.086             | 12                            | 1.9                   | 2.2      | 2.4      | 2.2                   | 3.2       |
| DR0608-333L | 33 $\pm$ 10%                          | 0.12              | 11                            | 1.7                   | 2.0      | 2.2      | 2.0                   | 2.9       |
| DR0608-393L | 39 $\pm$ 10%                          | 0.13              | 10                            | 1.6                   | 1.9      | 2.0      | 1.8                   | 2.6       |
| DR0608-473L | 47 $\pm$ 10%                          | 0.16              | 9.5                           | 1.4                   | 1.7      | 1.8      | 1.7                   | 2.4       |
| DR0608-563L | 56 $\pm$ 10%                          | 0.19              | 9.0                           | 1.3                   | 1.5      | 1.7      | 1.5                   | 2.1       |
| DR0608-683L | 68 $\pm$ 10%                          | 0.25              | 9.0                           | 1.3                   | 1.4      | 1.5      | 1.3                   | 1.8       |
| DR0608-823L | 82 $\pm$ 10%                          | 0.28              | 7.0                           | 1.2                   | 1.3      | 1.4      | 1.2                   | 1.6       |
| DR0608-104L | 100 $\pm$ 10%                         | 0.38              | 6.5                           | 1.0                   | 1.2      | 1.3      | 1.0                   | 1.3       |
| DR0608-124L | 120 $\pm$ 10%                         | 0.42              | 6.0                           | 0.96                  | 1.0      | 1.1      | 0.94                  | 1.23      |
| DR0608-154L | 150 $\pm$ 10%                         | 0.50              | 5.5                           | 0.83                  | 0.93     | 1.0      | 0.88                  | 1.15      |
| DR0608-184L | 180 $\pm$ 10%                         | 0.65              | 5.0                           | 0.76                  | 0.85     | 0.93     | 0.82                  | 1.08      |
| DR0608-224L | 220 $\pm$ 10%                         | 0.73              | 4.8                           | 0.73                  | 0.83     | 0.89     | 0.76                  | 1.00      |
| DR0608-274L | 270 $\pm$ 10%                         | 0.96              | 4.0                           | 0.69                  | 0.77     | 0.82     | 0.70                  | 0.93      |
| DR0608-334L | 330 $\pm$ 10%                         | 1.11              | 3.7                           | 0.60                  | 0.68     | 0.72     | 0.64                  | 0.85      |
| DR0608-394L | 390 $\pm$ 10%                         | 1.25              | 3.0                           | 0.59                  | 0.66     | 0.70     | 0.58                  | 0.78      |
| DR0608-474L | 470 $\pm$ 10%                         | 1.60              | 2.8                           | 0.50                  | 0.56     | 0.61     | 0.52                  | 0.70      |
| DR0608-564L | 560 $\pm$ 10%                         | 1.85              | 2.5                           | 0.47                  | 0.53     | 0.56     | 0.46                  | 0.63      |
| DR0608-684L | 680 $\pm$ 10%                         | 2.40              | 2.5                           | 0.43                  | 0.48     | 0.51     | 0.40                  | 0.55      |
| DR0608-824L | 820 $\pm$ 10%                         | 2.70              | 2.1                           | 0.40                  | 0.45     | 0.48     | 0.34                  | 0.48      |
| DR0608-105L | 1000 $\pm$ 10%                        | 3.00              | 2.1                           | 0.35                  | 0.40     | 0.43     | 0.30                  | 0.40      |

1. To order parts packaged in optional fanfold tape (1200 parts per box), add the letter "F" at the end of the part number, e.g. DR0608-824LF
2. Inductance tested at 100 kHz, 0.1 Vrms, 0 Adc on an Agilent/HP 4284A LCR-meter or equivalent.
3. SRF measured using an Agilent/HP 4191A or equivalent.

4. DC current at which the inductance drops the specified amount from its value without current
5. Current that causes the specified temperature rise from 25°C ambient.
6. Electrical specifications at 25°C.



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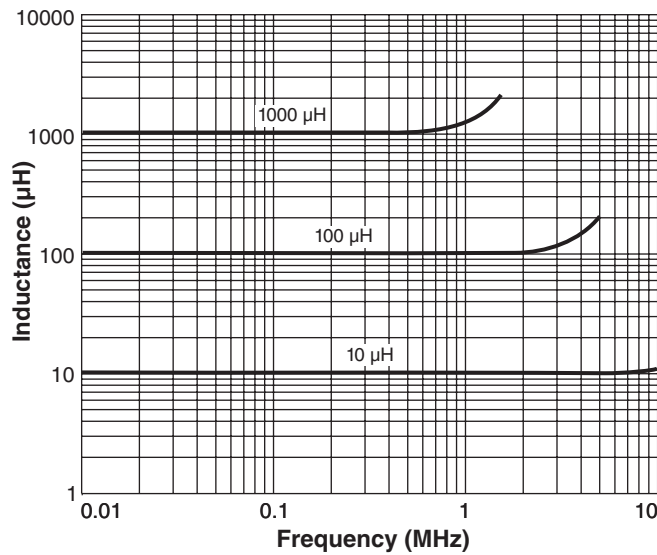
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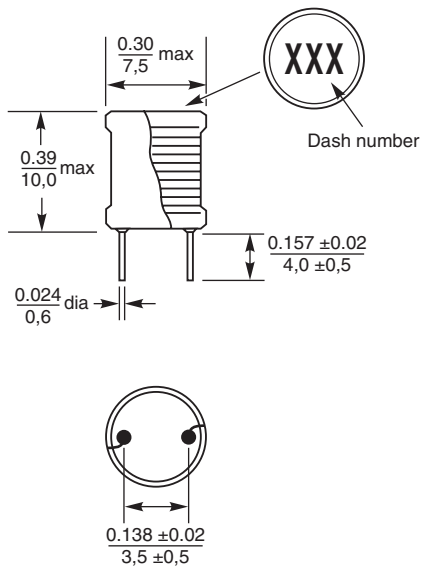
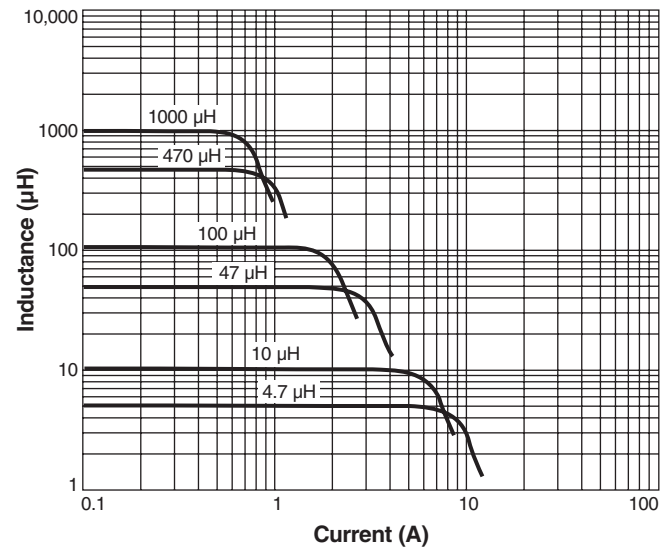


# Power Inductors - DR0608 Series

## Typical L vs Frequency



## Typical L vs Current



Dimensions are in  $\frac{\text{inches}}{\text{mm}}$



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