



# Power Inductors – DR0810 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  $\mu\text{H}$ , most at 10% tolerance
- Current ratings up to 7.5 Amps with only 0.010 Ohms DCR
- Industry-standard pin spacings; protective PVC sleeve

**Core material** Ferrite

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

**Weight:** 2.0 – 2.7 g

**Ambient temperature**  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$  with  $I_{\text{rms}}$  current,  $+85^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$  with derated current

**Storage temperature** Component:  $-40^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$ .

Tray packaging:  $-40^{\circ}\text{C}$  to  $+80^{\circ}\text{C}$

**Moisture Sensitivity Level (MSL)** 1 (unlimited floor life at  $<30^{\circ}\text{C}$  / 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; 800 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 <sup>1</sup>	Inductance <sup>2</sup> ( $\mu\text{H}$ )	DCR max (Ohms)	SRF typ <sup>3</sup> (MHz)	Isat (A) <sup>4</sup>			Irms (A) <sup>5</sup>	
				10% drop	20% drop	30% drop	20°C rise	40°C rise
DR0810-332L	3.3 $\pm 20\%$	0.010	47	8.9	10.2	11.0	7.0	9.5
DR0810-472L	4.7 $\pm 20\%$	0.012	33	7.4	8.5	9.3	6.4	8.8
DR0810-562L	5.6 $\pm 20\%$	0.017	28	6.2	7.4	8.2	5.8	8.1
DR0810-682L	6.8 $\pm 20\%$	0.018	26	5.6	6.7	7.4	5.2	7.4
DR0810-822L	8.2 $\pm 20\%$	0.019	25	5.2	6.2	6.8	4.6	6.7
DR0810-103L	10 $\pm 10\%$	0.026	23	5.1	6.1	6.6	4.0	6.0
DR0810-123L	12 $\pm 10\%$	0.030	20	4.0	4.6	5.1	3.8	5.7
DR0810-153L	15 $\pm 10\%$	0.035	18	3.8	4.5	5.0	3.5	5.3
DR0810-183L	18 $\pm 10\%$	0.038	15	3.5	4.1	4.5	3.3	5.0
DR0810-223L	22 $\pm 10\%$	0.046	14	3.4	4.0	4.4	3.1	4.6
DR0810-273L	27 $\pm 10\%$	0.070	11	3.1	3.7	4.0	2.8	4.3
DR0810-333L	33 $\pm 10\%$	0.080	10	2.9	3.4	3.7	2.6	3.9
DR0810-393L	39 $\pm 10\%$	0.088	10	2.5	2.9	3.2	2.4	3.6
DR0810-473L	47 $\pm 10\%$	0.10	9.5	2.3	2.7	3.0	2.1	3.2
DR0810-563L	56 $\pm 10\%$	0.15	8.0	1.9	2.2	2.5	1.9	2.9
DR0810-683L	68 $\pm 10\%$	0.17	7.0	2.0	2.3	2.5	1.7	2.5
DR0810-823L	82 $\pm 10\%$	0.20	7.0	1.7	2.0	2.2	1.4	2.2
DR0810-104L	100 $\pm 10\%$	0.22	6.0	1.5	1.8	2.0	1.2	1.8
DR0810-124L	120 $\pm 10\%$	0.29	5.0	1.2	1.5	1.6	1.1	1.7
DR0810-154L	150 $\pm 10\%$	0.34	4.5	1.1	1.4	1.5	1.1	1.6
DR0810-184L	180 $\pm 10\%$	0.38	4.0	1.1	1.3	1.4	1.0	1.5
DR0810-224L	220 $\pm 10\%$	0.44	4.0	1.0	1.2	1.3	0.93	1.40
DR0810-274L	270 $\pm 10\%$	0.62	3.8	0.90	1.1	1.2	0.86	1.28
DR0810-334L	330 $\pm 10\%$	0.70	3.6	0.88	1.0	1.1	0.80	1.20
DR0810-394L	390 $\pm 10\%$	0.88	3.0	0.86	0.98	1.0	0.73	1.10
DR0810-474L	470 $\pm 10\%$	1.00	2.7	0.78	0.90	0.99	0.66	0.97
DR0810-564L	560 $\pm 10\%$	1.11	2.5	0.72	0.85	0.93	0.60	0.86
DR0810-684L	680 $\pm 10\%$	1.45	2.5	0.62	0.72	0.79	0.53	0.76
DR0810-824L	820 $\pm 10\%$	1.70	2.1	0.54	0.67	0.72	0.46	0.66
DR0810-105L	1000 $\pm 10\%$	2.20	2.1	0.50	0.63	0.69	0.40	0.55

1. To order parts packaged in optional fanfold tape (800 parts per box), add the letter "F" at the end of the part number, e.g. DR0810-824LF

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  $25^{\circ}\text{C}$  ambient.

6. Electrical specifications at  $25^{\circ}\text{C}$ .



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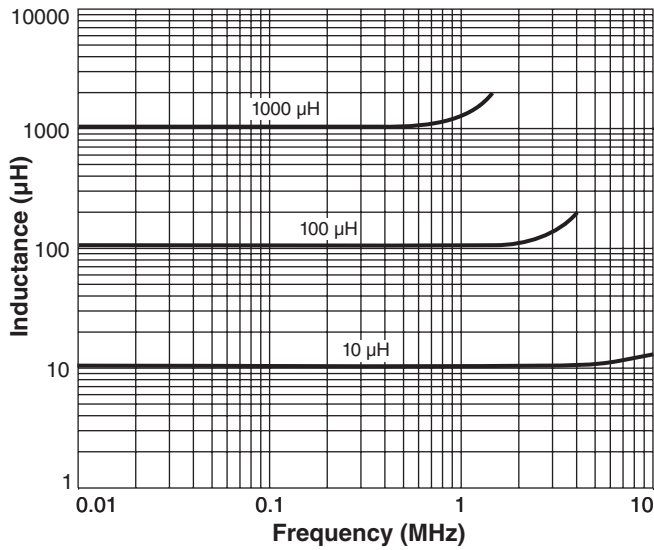
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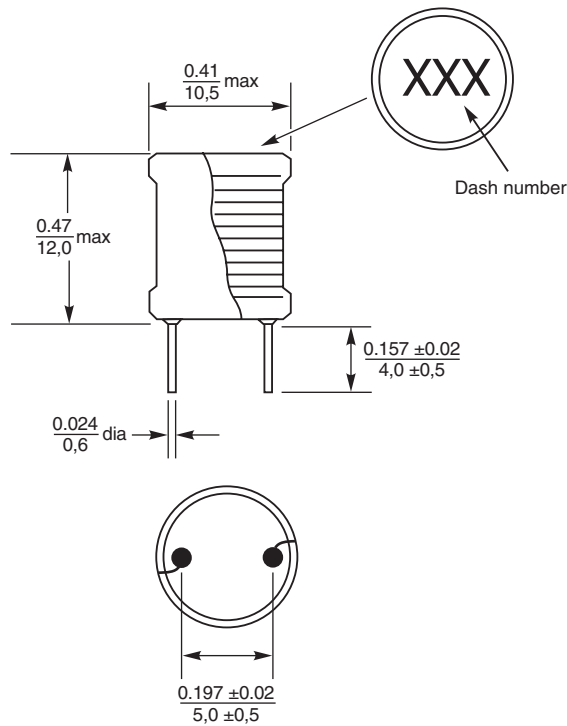
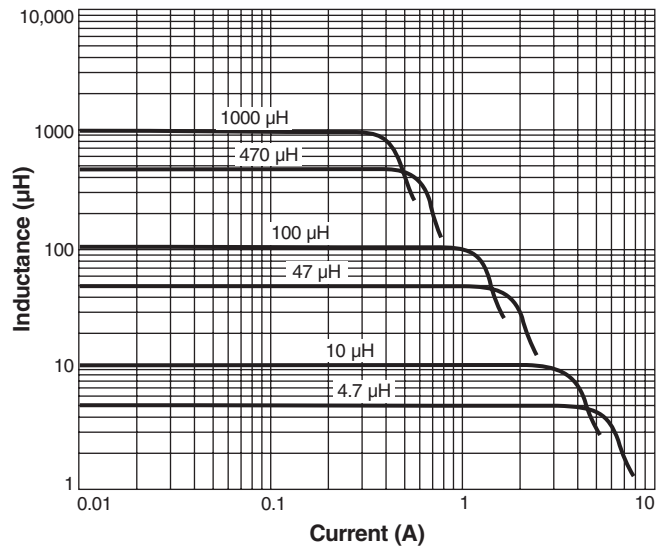


# Power Inductors - DR0810 Series

## Typical L vs Frequency



## Typical L vs Current



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



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