

Power Inductors - RFB Series

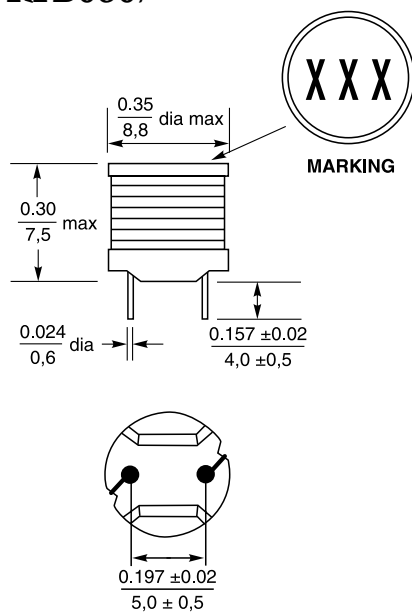


These low cost power inductors offer a wide range of inductance values, from 2.2 μH to 18 mH.

They have an open magnetic construction which gives them high current carrying capabilities. The RFB0807 Series offers the lowest profile (7,5 mm) and a standard 5 mm pin spacing. The larger RFB0810 and 1010 Series have the lowest DC resistance and highest current ratings. They also have a PVC wrap to protect the winding.

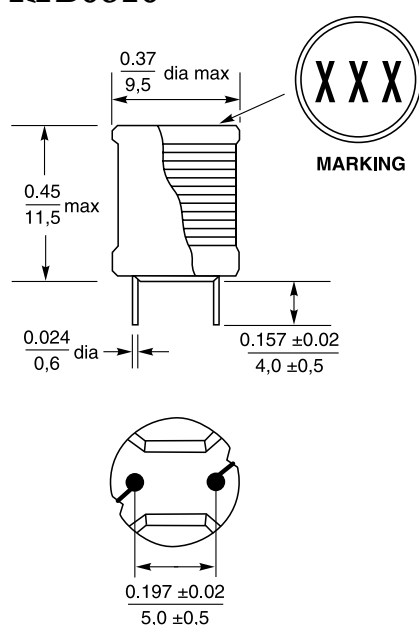
Free evaluation samples are available by contacting Coilcraft or visiting www.coilcraft.com.

RFB0807



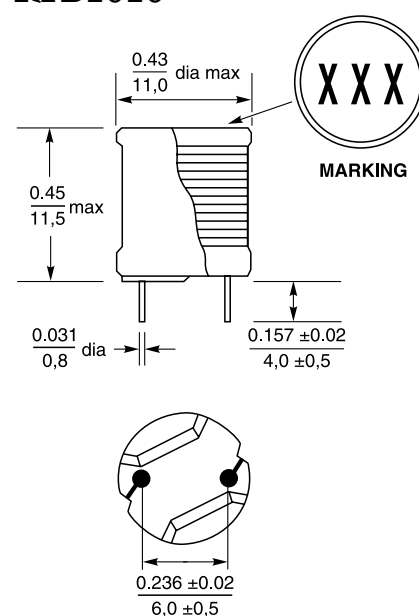
Packaging: 150 parts per tray

RFB0810



Packaging: 150 parts per tray

RFB1010



Packaging: 150 parts per tray

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Specifications subject to change without notice. Document 277-1 Revised 01/15/04

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Power Inductors - RFB0807 Series

Part number	Inductance ¹	DCR max (Ohms)	SRF ^{typ2} (MHz)	Isat ³ (A)	Irms (A) ⁴	
					20°C rise	40°C rise
RFB0807-2R2	2.2µH ±20%	0.012	80	6.00	5.00	7.50
RFB0807-2R7	2.7µH ±20%	0.014	40	5.50	4.60	6.54
RFB0807-3R3	3.3µH ±20%	0.017	40	5.00	4.20	5.97
RFB0807-3R9	3.9µH ±20%	0.020	40	4.50	3.70	5.26
RFB0807-4R7	4.7µH ±20%	0.024	40	4.20	3.50	4.98
RFB0807-5R6	5.6µH ±20%	0.028	40	4.00	3.40	4.83
RFB0807-6R8	6.8µH ±20%	0.033	30	3.60	3.20	4.55
RFB0807-8R2	8.2µH ±20%	0.035	30	3.30	3.00	4.27
RFB0807-100	10µH ±10%	0.040	30	3.10	3.00	4.20
RFB0807-120	12µH ±10%	0.050	30	2.80	2.50	3.56
RFB0807-150	15µH ±10%	0.065	25	2.50	2.25	3.20
RFB0807-180	18µH ±10%	0.078	20	2.30	2.07	2.94
RFB0807-220	22µH ±10%	0.100	20	2.10	1.90	2.70
RFB0807-270	27µH ±10%	0.110	17	1.90	1.70	2.42
RFB0807-330	33µH ±10%	0.120	15	1.70	1.50	2.13
RFB0807-390	39µH ±10%	0.160	13	1.60	1.45	2.06
RFB0807-470	47µH ±10%	0.190	12	1.45	1.30	1.85
RFB0807-560	56µH ±10%	0.210	11	1.30	1.20	1.71
RFB0807-680	68µH ±10%	0.280	10	1.20	1.10	1.56
RFB0807-820	82µH ±10%	0.330	9	1.10	1.00	1.42
RFB0807-101	100µH ±10%	0.400	8	1.00	0.90	1.30
RFB0807-121	120µH ±10%	0.450	7	0.90	0.80	1.14
RFB0807-151	150µH ±10%	0.510	6	0.80	0.72	1.02
RFB0807-181	180µH ±10%	0.700	5	0.70	0.63	0.90
RFB0807-221	220µH ±10%	0.800	5	0.65	0.60	0.85
RFB0807-271	270µH ±10%	0.900	4.5	0.60	0.55	0.78
RFB0807-331	330µH ±10%	1.16	4.5	0.55	0.50	0.71
RFB0807-391	390µH ±10%	1.31	3.5	0.45	0.40	0.57
RFB0807-471	470µH ±10%	1.75	2.9	0.40	0.36	0.51
RFB0807-561	560µH ±10%	1.95	2.7	0.38	0.35	0.50
RFB0807-681	680µH ±10%	2.20	2.6	0.35	0.31	0.44
RFB0807-821	820µH ±10%	3.00	2.6	0.32	0.29	0.41
RFB0807-102	1.0mH ±10%	3.40	2.6	0.30	0.25	0.40
RFB0807-122	1.2mH ±10%	4.50	2.3	0.28	0.24	0.34
RFB0807-152	1.5mH ±10%	5.20	2.1	0.25	0.21	0.30
RFB0807-182	1.8mH ±10%	5.80	1.8	0.22	0.20	0.28
RFB0807-222	2.2mH ±10%	8.00	1.5	0.20	0.18	0.26
RFB0807-272	2.7mH ±10%	8.90	1.2	0.18	0.17	0.24
RFB0807-332	3.3mH ±10%	11.8	1.1	0.15	0.14	0.19
RFB0807-392	3.9mH ±10%	13.1	1.0	0.12	0.11	0.16
RFB0807-472	4.7mH ±10%	17.6	1.0	0.10	0.10	0.15
RFB0807-562	5.6mH ±10%	19.6	0.9	0.10	0.10	0.15
RFB0807-682	6.8mH ±10%	27	0.8	0.10	0.10	0.14
RFB0807-822	8.2mH ±10%	30	0.7	0.10	0.10	0.14
RFB0807-103	10mH ±10%	34	0.7	0.10	0.10	0.13
RFB0807-123	12mH ±10%	46	0.6	0.08	0.10	0.13
RFB0807-153	15mH ±10%	53	0.5	0.06	0.08	0.11
RFB0807-183	18mH ±10%	56	0.5	0.05	0.08	0.10

1. Inductance tested at 100 kHz, 0.1 Vrms, 0 Adc on an Agilent/HP 4284A LCR-meter or equivalent.

2. SRF measured using Agilent/HP 4191A or equivalent.

3. DC current at which the inductance drops 10% (typ) from its value without current.

4. Average current for temperature rise above 25°C ambient.

5. Operating temperature range -40°C to +85°C.

6. Electrical specifications at 25°C.



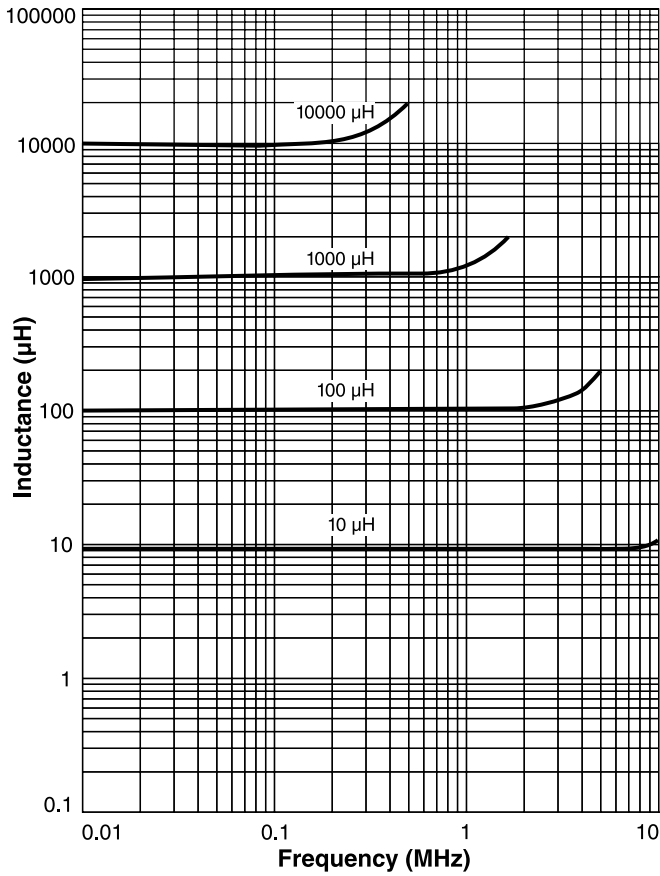
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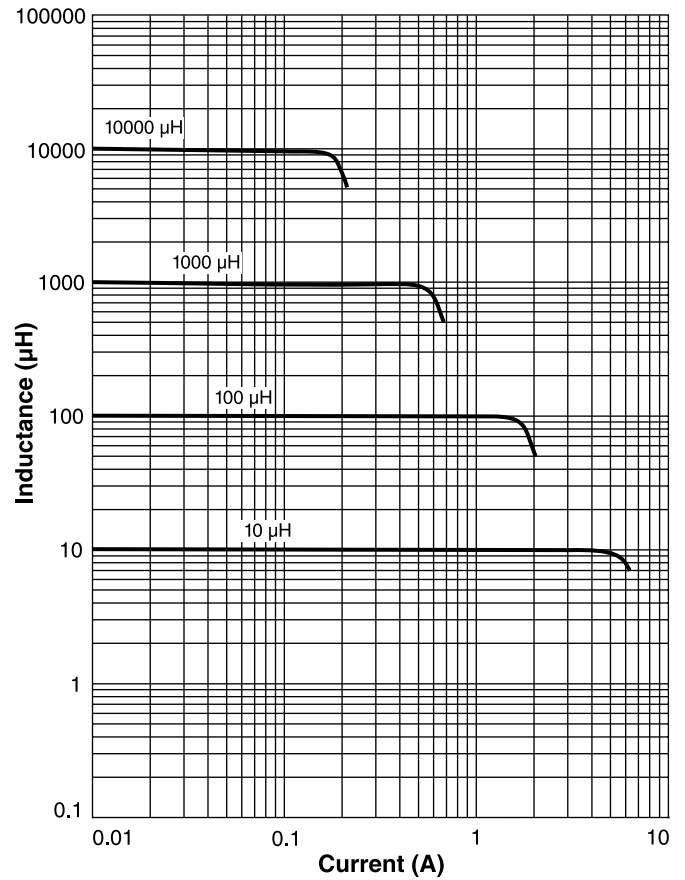
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Power Inductors - RFB0807 Series

Typical L vs Frequency



Typical L vs Current



Specifications subject to change without notice. Document 277-3 Revised 2/28/02

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Power Inductors - RFB0810 Series

Part number	Inductance ¹ ±10%	DCR max (Ohms)	SRF typ ² (MHz)	Isat ³ (A)	Irms (A) ⁴	
					20°C rise	40°C rise
RFB0810-100	10 µH	0.030	22	4.20	4.00	5.30
RFB0810-120	12 µH	0.035	20	3.90	3.75	5.10
RFB0810-150	15 µH	0.040	17	3.60	3.52	4.80
RFB0810-180	18 µH	0.040	15	3.30	3.30	4.50
RFB0810-220	22 µH	0.050	12	2.90	3.20	4.20
RFB0810-270	27 µH	0.055	12	2.60	2.87	3.90
RFB0810-330	33 µH	0.075	11	2.40	2.65	3.60
RFB0810-390	39 µH	0.085	10.3	2.20	2.44	3.30
RFB0810-470	47 µH	0.100	9.5	2.00	2.22	3.00
RFB0810-560	56 µH	0.120	8.6	1.80	2.00	2.70
RFB0810-680	68 µH	0.150	7.5	1.60	1.77	2.40
RFB0810-820	82 µH	0.190	6.6	1.50	1.54	2.10
RFB0810-101	100 µH	0.200	5.5	1.40	1.30	1.80
RFB0810-121	120 µH	0.240	5.3	1.20	1.22	1.70
RFB0810-151	150 µH	0.340	4.5	1.10	1.14	1.60
RFB0810-181	180 µH	0.360	4.4	1.00	1.06	1.50
RFB0810-221	220 µH	0.480	4.4	0.92	0.98	1.40
RFB0810-271	270 µH	0.550	4.0	0.84	0.90	1.30
RFB0810-331	330 µH	0.650	3.5	0.75	0.82	1.10
RFB0810-391	390 µH	0.850	3.0	0.70	0.85	1.00
RFB0810-471	470 µH	1.00	2.5	0.63	0.67	0.90
RFB0810-561	560 µH	1.10	2.3	0.58	0.59	0.80
RFB0810-681	680 µH	1.40	2.0	0.52	0.51	0.70
RFB0810-821	820 µH	1.90	2.0	0.48	0.43	0.60
RFB0810-102	1.0 mH	2.20	2.0	0.43	0.35	0.50
RFB0810-122	1.2 mH	2.80	1.6	0.40	0.33	0.47
RFB0810-152	1.5 mH	3.20	1.3	0.35	0.31	0.45
RFB0810-182	1.8 mH	3.60	1.3	0.32	0.29	0.42
RFB0810-222	2.2 mH	4.80	1.3	0.29	0.27	0.39
RFB0810-272	2.7 mH	5.60	1.2	0.26	0.25	0.36
RFB0810-332	3.3 mH	7.60	1.0	0.24	0.23	0.33
RFB0810-392	3.9 mH	8.90	0.9	0.22	0.21	0.31
RFB0810-472	4.7 mH	9.60	0.9	0.20	0.20	0.28
RFB0810-562	5.6 mH	12.0	0.8	0.18	0.18	0.25
RFB0810-682	6.8 mH	14.0	0.7	0.16	0.16	0.23
RFB0810-822	8.2 mH	17.5	0.6	0.15	0.14	0.20
RFB0810-103	10 mH	21	0.6	0.13	0.12	0.17
RFB0810-123	12 mH	28	0.5	0.12	0.11	0.15
RFB0810-153	15 mH	32	0.5	0.11	0.10	0.14
RFB0810-183	18 mH	36	0.4	0.10	0.09	0.12

1. Inductance tested at 100 kHz, 0.1 Vrms, 0.1 Adc on anAgilent/HP 4284A LCR-meter or equivalent.

2. SRF measured using Agilent/HP 4191A or equivalent.

3. DC current at which the inductance drops 10% (typ) from its value without current.

4. Average current for temperature rise above 25°C ambient.

5. Operating temperature range -40°C to +85°C.

6. Electrical specifications at 25°C.



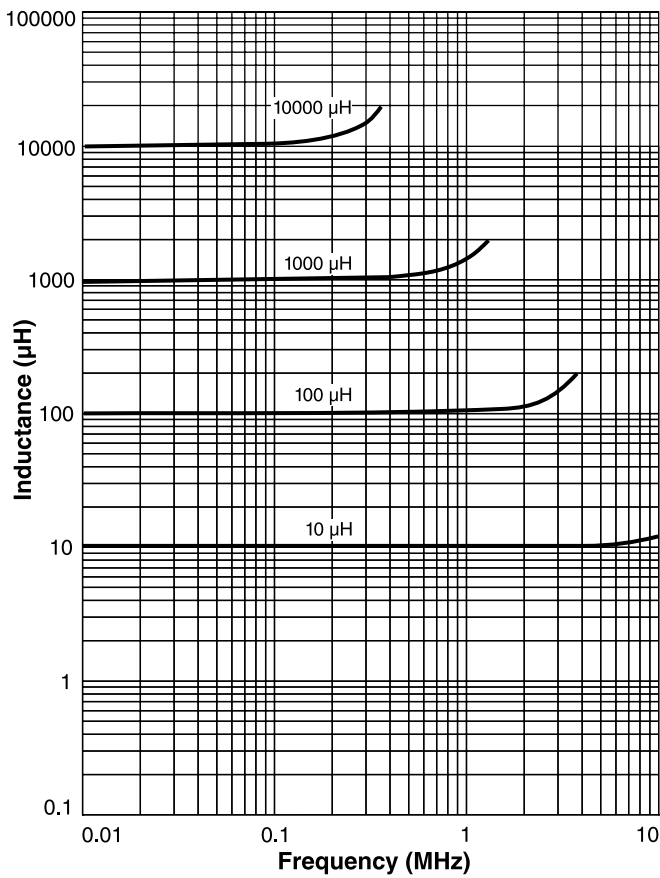
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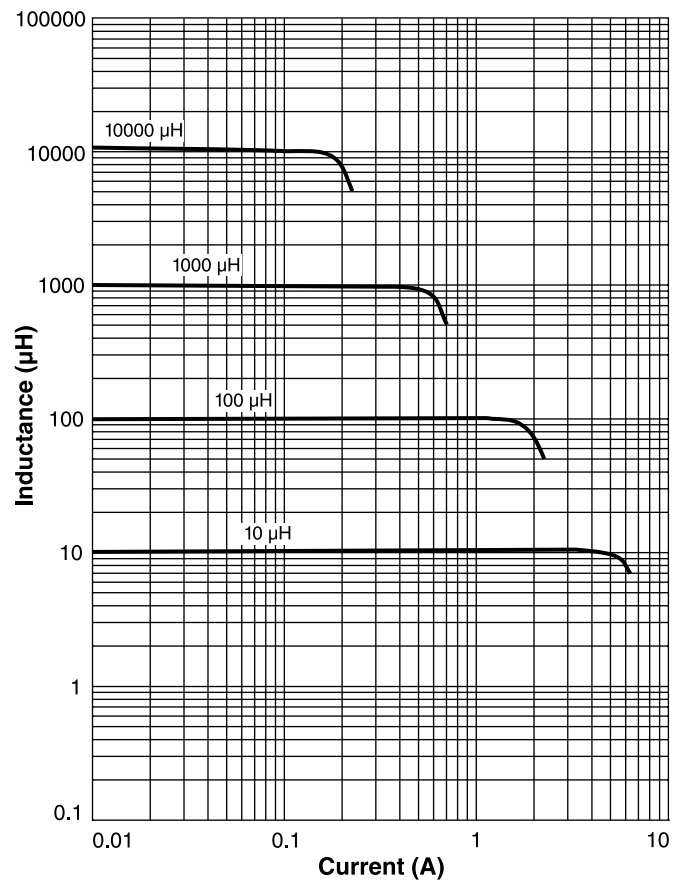
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Power Inductors - RFB0810 Series

Typical L vs Frequency



Typical L vs Current



Specifications subject to change without notice. Document 277-5 Revised 2/28/02

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Power Inductors - RFB1010 Series

Part number	Inductance ¹ ±10%	DCR max (Ohms)	SRF typ ² (MHz)	Isat ³ (A)	Irms (A) ⁴	
					20°C rise	40°C rise
RFB1010-100	10 µH	0.023	23	6.10	4.20	6.00
RFB1010-120	12 µH	0.025	20	5.60	4.00	5.70
RFB1010-150	15 µH	0.028	19	5.00	3.75	5.40
RFB1010-180	18 µH	0.030	16	4.60	3.50	5.00
RFB1010-220	22 µH	0.042	15	4.10	3.30	4.70
RFB1010-270	27 µH	0.046	12	3.70	3.00	4.40
RFB1010-330	33 µH	0.055	11	3.40	2.80	4.10
RFB1010-390	39 µH	0.075	10.3	3.10	2.60	3.80
RFB1010-470	47 µH	0.082	9.5	2.80	2.40	3.50
RFB1010-560	56 µH	0.090	8.6	2.60	2.20	3.20
RFB1010-680	68 µH	0.120	7.5	2.30	2.00	2.80
RFB1010-820	82 µH	0.140	7.0	2.10	1.90	2.50
RFB1010-101	100 µH	0.150	7.0	1.90	1.70	2.20
RFB1010-121	120 µH	0.210	6.0	1.75	1.60	2.10
RFB1010-151	150 µH	0.245	5.0	1.60	1.50	1.90
RFB1010-181	180 µH	0.30	5.0	1.45	1.40	1.80
RFB1010-221	220 µH	0.36	4.3	1.30	1.30	1.70
RFB1010-271	270 µH	0.49	4.0	1.20	1.20	1.60
RFB1010-331	330 µH	0.57	3.5	1.10	1.00	1.40
RFB1010-391	390 µH	0.62	3.0	1.00	0.90	1.30
RFB1010-471	470 µH	0.81	3.0	0.90	0.80	1.20
RFB1010-561	560 µH	0.92	2.3	0.80	0.70	1.05
RFB1010-681	680 µH	1.20	2.0	0.75	0.60	0.93
RFB1010-821	820 µH	1.35	2.0	0.68	0.55	0.80
RFB1010-102	1.0 mH	1.45	2.0	0.60	0.50	0.67
RFB1010-122	1.2 mH	2.10	1.6	0.55	0.47	0.63
RFB1010-152	1.5 mH	2.40	1.4	0.50	0.44	0.59
RFB1010-182	1.8 mH	3.50	1.3	0.45	0.41	0.55
RFB1010-222	2.2 mH	4.10	1.3	0.41	0.38	0.50
RFB1010-272	2.7 mH	5.20	1.2	0.37	0.35	0.47
RFB1010-332	3.3 mH	6.00	1.0	0.34	0.32	0.43
RFB1010-392	3.9 mH	7.00	0.9	0.31	0.29	0.39
RFB1010-472	4.7 mH	8.50	0.8	0.28	0.25	0.35
RFB1010-562	5.6 mH	10.0	0.8	0.26	0.23	0.30
RFB1010-682	6.8 mH	13.0	0.7	0.23	0.19	0.26
RFB1010-822	8.2 mH	15.8	0.6	0.21	0.16	0.22
RFB1010-103	10 mH	19	0.6	0.19	0.13	0.18
RFB1010-123	12 mH	22	0.5	0.17	0.12	0.17
RFB1010-153	15 mH	29	0.5	0.16	0.11	0.15
RFB1010-183	18 mH	33	0.4	0.14	0.10	0.13

1. Inductance tested at 100 kHz, 0.1 Vrms, 0 Adc on an Agilent/HP 4284A LCR-meter or equivalent.

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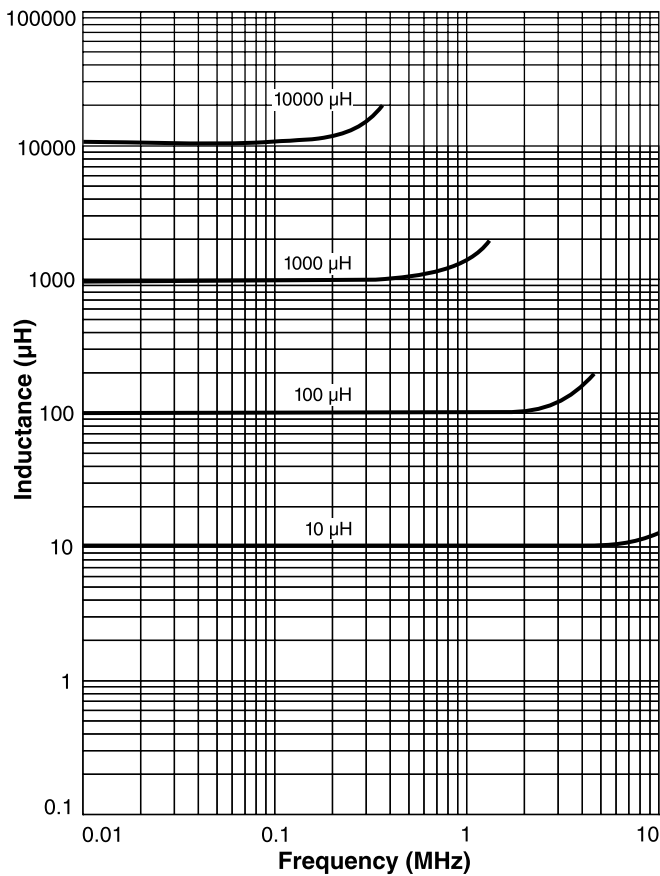
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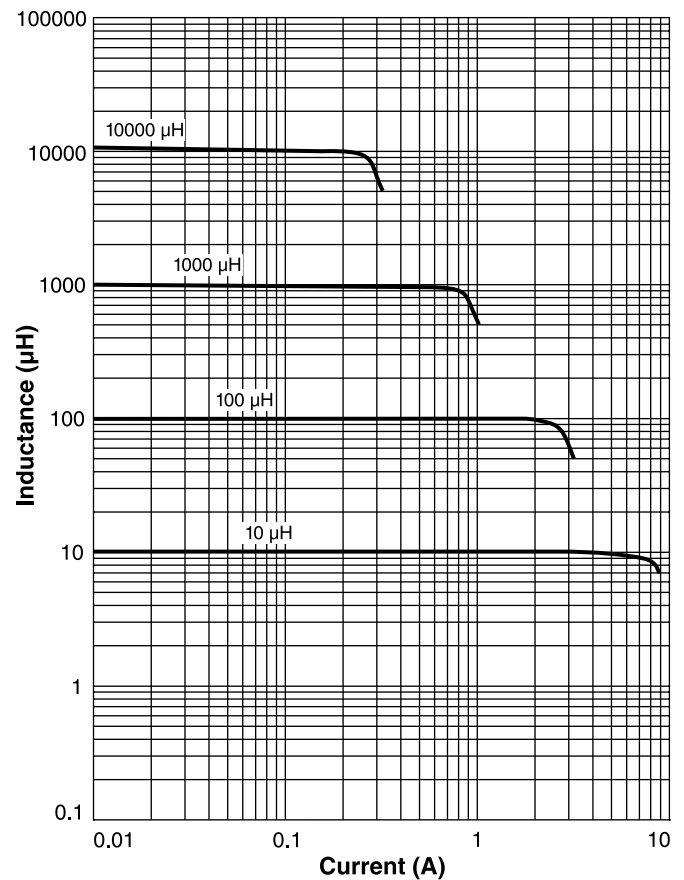
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Power Inductors - RFB1010 Series

Typical L vs Frequency



Typical L vs Current



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