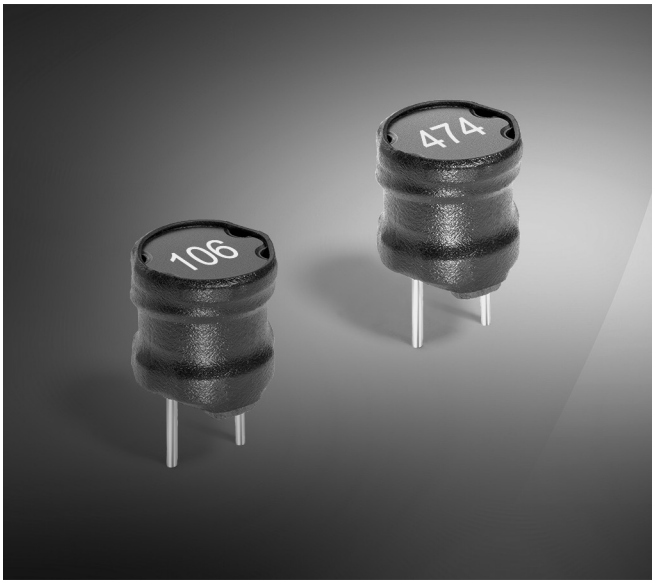
Power Inductors – RFC1010 Series



- Low cost, high current power inductors
- 30 inductance values; 68 µH to 18 mH
- Flame retardant polyolefin wrap to protect the winding.

Core material Ferrite

Terminations RoHS compliant tin-silver over tin over copper over steel. Other terminations available at additional cost

Environmental RoHS compliant, halogen free

Weight 3.2 – 3.7 g

Ambient temperature –40°C to +85°C with (40°C rise) Irms current.

Maximum part temperature +125°C (ambient + temp rise). Derating.

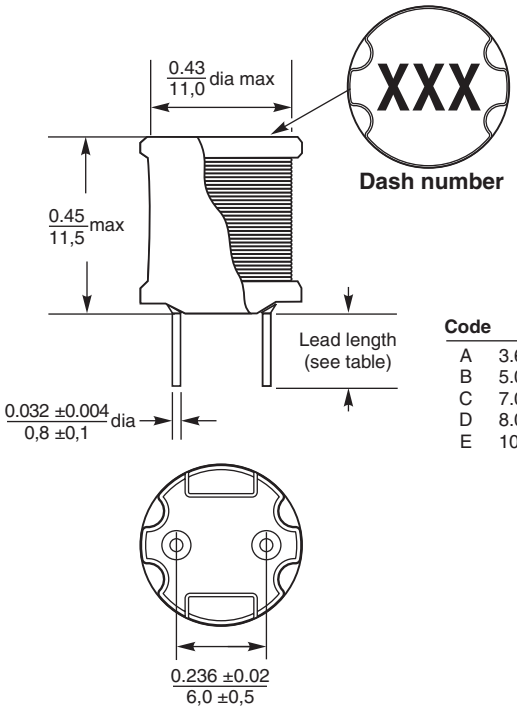
Storage temperature Component: –40°C to +125°C.
Tray or tape packaging: –40°C to +80°C

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 SRA-332

Packaging 150 parts per tray

PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.



Code	Lead length
A	3.6 mm ±0.3 mm
B	5.0 mm ±0.5 mm
C	7.0 mm ±0.5 mm
D	8.0 mm ±0.5 mm
E	10 mm ±1.0 mm

Dimensions are in inches / mm

www.coilcraft.com

US +1-847-639-6400 sales@coilcraft.com
UK +44-1236-730595 sales@coilcraft-europe.com
Taiwan +886-2-2264 3646 sales@coilcraft.com.tw
China +86-21-6218 8074 sales@coilcraft.com.cn
Singapore + 65-6484 8412 sales@coilcraft.com.sg

© Coilcraft Inc. 2016
This product may not be used in medical or high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check web site for latest information.

Power Inductors – RFC1010 Series

Part number[1]	Inductance[2] ±10% (µH)	DCR (Ohms) typ	DCR (Ohms) max	SRF typ[3] (MHz)	Isat (A)[4] 10% drop	Isat (A)[4] 20% drop	Isat (A)[4] 30% drop	Irms (A)[5] 20°C rise	Irms (A)[5] 40°C rise
RFC1010B-683KE	68	0.100	0.115	5.6	3.20	3.67	3.94	1.80	2.40
RFC1010B-823KE	82	0.110	0.125	5.4	2.95	3.40	3.67	1.70	2.30
RFC1010B-104KE	100	0.130	0.150	4.7	2.65	3.03	3.27	1.60	2.15
RFC1010B-124KE	120	0.170	0.195	4.3	2.40	2.78	2.98	1.40	1.90
RFC1010B-154KE	150	0.200	0.230	4.0	2.20	2.50	2.70	1.30	1.75
RFC1010B-184KE	180	0.255	0.295	3.4	2.00	2.28	2.44	1.10	1.55
RFC1010B-224KE	220	0.290	0.335	3.1	1.85	2.08	2.25	1.05	1.45
RFC1010B-274KE	270	0.380	0.440	2.8	1.65	1.88	2.04	0.90	1.27
RFC1010B-334KE	330	0.435	0.500	2.6	1.50	1.72	1.84	0.85	1.18
RFC1010B-394KE	390	0.485	0.560	2.4	1.40	1.60	1.72	0.82	1.12
RFC1010B-474KE	470	0.630	0.725	2.1	1.25	1.42	1.53	0.72	1.00
RFC1010B-564KE	560	0.700	0.805	1.9	1.15	1.32	1.42	0.68	0.92
RFC1010B-684KE	680	0.965	1.11	1.7	1.05	1.18	1.26	0.58	0.78
RFC1010B-824KE	820	1.07	1.20	1.6	0.95	1.10	1.18	0.54	0.74
RFC1010B-105KE	1000	1.24	1.40	1.5	0.90	1.00	1.07	0.50	0.70
RFC1010B-125KE	1200	1.61	1.85	1.3	0.75	0.90	0.96	0.43	0.61
RFC1010B-155KE	1500	1.78	2.05	1.2	0.70	0.81	0.86	0.41	0.58
RFC1010B-185KE	1800	2.40	2.75	1.1	0.64	0.71	0.77	0.36	0.50
RFC1010B-225KE	2200	2.80	3.20	0.99	0.58	0.65	0.70	0.33	0.47
RFC1010B-275KE	2700	3.65	4.20	0.82	0.53	0.59	0.63	0.29	0.41
RFC1010B-335KE	3300	4.15	4.75	0.75	0.48	0.53	0.57	0.28	0.38
RFC1010B-395KE	3900	4.65	5.30	0.71	0.45	0.49	0.53	0.26	0.36
RFC1010B-475KE	4700	6.05	6.95	0.61	0.41	0.45	0.48	0.22	0.32
RFC1010B-565KE	5600	6.75	7.75	0.57	0.37	0.41	0.44	0.21	0.30
RFC1010B-685KE	6800	8.90	10.0	0.49	0.34	0.38	0.40	0.180	0.260
RFC1010B-825KE	8200	10.0	11.0	0.46	0.32	0.35	0.37	0.170	0.245
RFC1010B-106KE	10,000	14.0	15.5	0.43	0.29	0.31	0.33	0.150	0.210
RFC1010B-126KE	12,000	16.0	17.5	0.41	0.25	0.28	0.30	0.135	0.180
RFC1010B-156KE	15,000	18.0	19.5	0.38	0.23	0.26	0.28	0.130	0.170
RFC1010B-186KE	18,000	23.0	25.0	0.33	0.21	0.23	0.24	0.115	0.150

1. When ordering, please specify **lead length** and **termination** codes:

RFC1010B-183KE

Lead length: **A** = 3.6 mm ±0.3 mm (special order)
B = 5.0 mm ±0.5 mm
C = 7.0 mm ±0.5 mm (special order)
D = 8.0 mm ±0.5 mm (special order)
E = 10.0 mm ±1.0 mm (special order)

Termination: **E** = RoHS compliant tin-silver over tin over copper over steel.
Special order: **S** = non-RoHS tin-lead (63/37).

2. Inductance tested at 100 kHz, 0.1 Vrms, 0 Adc on an Agilent/HP 4284A LCR-meter or equivalent.
3. SRF measured using Agilent/HP 4191A or equivalent.
4. DC current at 25°C that causes the specified inductance drop from its value without current.
Click for temperature derating information.
5. Current that causes the specified temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.
Click for temperature derating information.
6. Electrical specifications at 25°C.

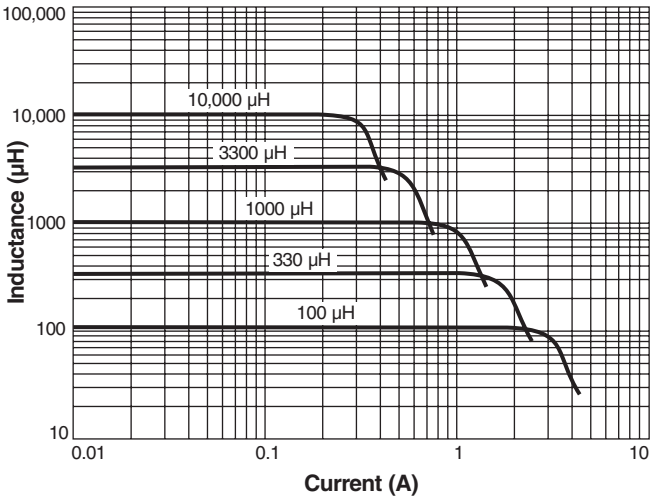
Coilcraft®
www.coilcraft.com

US +1-847-639-6400 sales@coilcraft.com
UK +44-1236-730595 sales@coilcraft-europe.com
Taiwan +886-2-2264 3646 sales@coilcraft.com.tw
China +86-21-6218 8074 sales@coilcraft.com.cn
Singapore + 65-6484 8412 sales@coilcraft.com.sg

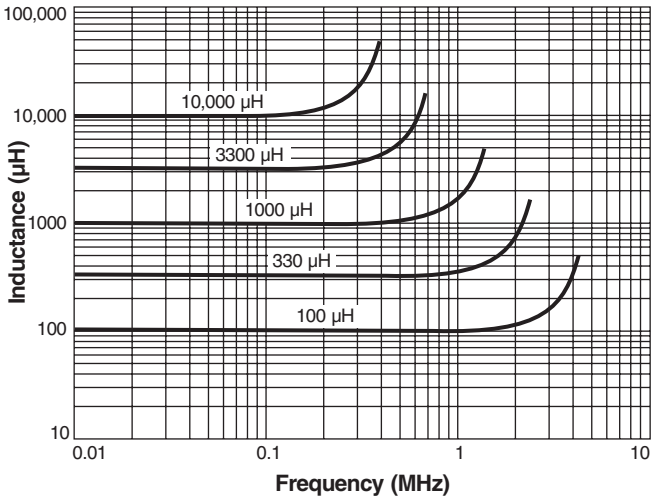
© Coilcraft Inc. 2016
This product may not be used in medical or high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check web site for latest information.

Power Inductors – RFC1010 Series

Typical L vs Current



Typical L vs Frequency



www.coilcraft.com

US +1-847-639-6400 sales@coilcraft.com
UK +44-1236-730595 sales@coilcraft-europe.com
Taiwan +886-2-2264 3646 sales@coilcraft.com.tw
China +86-21-6218 8074 sales@coilcraft.com.cn
Singapore + 65-6484 8412 sales@coilcraft.com.sg

© Coilcraft Inc. 2016
This product may not be used in medical or high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check web site for latest information.