

Shielded Power Inductors – RFS1317



- Low cost, high current power inductors
- 27 μ H to 10 mH inductance range

Core material Ferrite

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

Weight 9.1 – 9.4 g

Ambient temperature -40°C to $+85^{\circ}\text{C}$ with Irms current

Maximum parts temperature $+125^{\circ}\text{C}$ (ambient + temp rise)

Storage temperature Component: -40°C to $+125^{\circ}\text{C}$.
Tray packaging: -40°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 144 parts per tray

PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787_PCB_Washing.pdf](#).

Part number ¹	Inductance ² $\pm 10\%$	DCR max (Ohms)	SRF typ ³ (MHz)	Isat (A) ⁴			Irms (A) ⁵	
				10% drop	20% drop	30% drop	20°C rise	40°C rise
RFS1317-273KL	27 μ H	0.033	20.95	5.2	6.4	7.2	4.10	5.70
RFS1317-333KL	33 μ H	0.050	18.18	4.5	5.7	6.4	3.55	4.85
RFS1317-473KL	47 μ H	0.055	12.93	3.9	4.7	5.4	3.20	4.50
RFS1317-683KL	68 μ H	0.068	6.49	3.1	3.8	4.3	3.00	4.05
RFS1317-823KL	82 μ H	0.071	5.03	2.8	3.6	4.0	2.75	3.90
RFS1317-104KL	100 μ H	0.079	3.45	2.6	3.2	3.6	2.65	3.65
RFS1317-124KL	120 μ H	0.110	3.18	2.4	2.9	3.2	2.20	3.15
RFS1317-154KL	150 μ H	0.144	2.92	2.2	2.6	2.9	2.05	2.90
RFS1317-184KL	180 μ H	0.172	2.27	1.9	2.4	2.7	1.85	2.65
RFS1317-224KL	220 μ H	0.239	2.03	1.7	2.1	2.4	1.50	2.05
RFS1317-274KL	270 μ H	0.263	1.66	1.7	1.9	2.2	1.50	2.05
RFS1317-334KL	330 μ H	0.286	1.55	1.5	1.7	2.0	1.40	1.90
RFS1317-394KL	390 μ H	0.317	1.39	1.3	1.6	1.8	1.35	1.85
RFS1317-474KL	470 μ H	0.409	1.20	1.3	1.4	1.6	1.10	1.60
RFS1317-564KL	560 μ H	0.524	1.12	1.1	1.3	1.5	0.95	1.35
RFS1317-684KL	680 μ H	0.617	0.955	1.0	1.2	1.4	0.86	1.20
RFS1317-824KL	820 μ H	0.834	0.827	0.89	1.0	1.2	0.75	1.04
RFS1317-105KL	1.0 mH	1.02	0.725	0.83	1.0	1.1	0.68	0.97
RFS1317-125KL	1.2 mH	1.19	0.647	0.72	0.94	1.0	0.60	0.81
RFS1317-155KL	1.5 mH	1.36	0.599	0.66	0.82	0.91	0.59	0.78
RFS1317-185KL	1.8 mH	1.49	0.566	0.60	0.78	0.87	0.54	0.74
RFS1317-225KL	2.2 mH	2.01	0.496	0.56	0.69	0.77	0.45	0.62
RFS1317-275KL	2.7 mH	2.22	0.439	0.51	0.62	0.70	0.43	0.61
RFS1317-335KL	3.3 mH	2.38	0.435	0.46	0.61	0.68	0.41	0.57
RFS1317-395KL	3.9 mH	3.38	0.373	0.41	0.51	0.57	0.34	0.49
RFS1317-475KL	4.7 mH	3.68	0.352	0.38	0.48	0.54	0.33	0.46
RFS1317-565KL	5.6 mH	4.03	0.320	0.34	0.44	0.49	0.32	0.46
RFS1317-685KL	6.8 mH	5.43	0.288	0.32	0.40	0.45	0.26	0.38
RFS1317-825KL	8.2 mH	5.88	0.274	0.31	0.39	0.44	0.25	0.35
RFS1317-106KL	10 mH	6.55	0.254	0.28	0.33	0.37	0.24	0.35

1. When ordering, please specify **termination** code:

RFS1317-106L

Termination: L = Tin-silver over tin over copper over steel.

Special order: T = RoHS tin-silver-copper (95.5/4/0.5) or 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 that causes the specified inductance drop from its value without current..
5. Current that causes the specified temperature rise from 25°C ambient.
6. Electrical specifications at 25°C .



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

Document 884-1 Revised 08/06/13

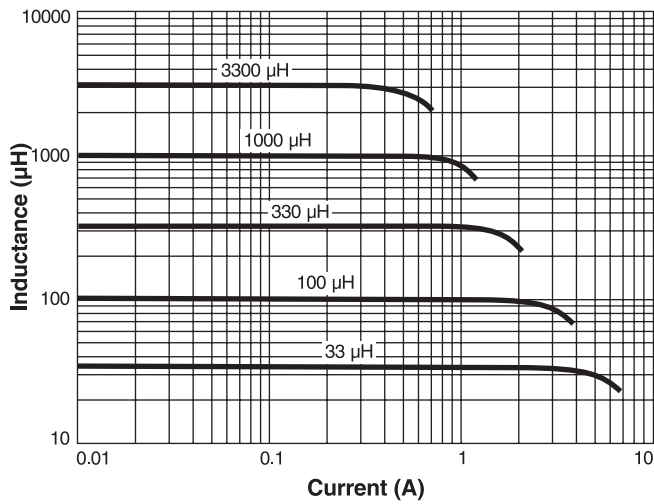
© Coilcraft Inc. 2016

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.

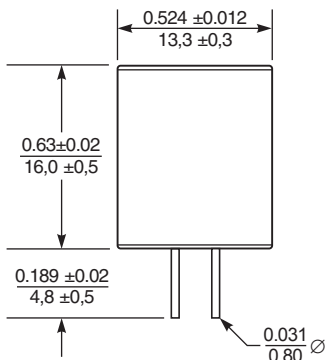
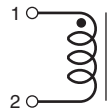
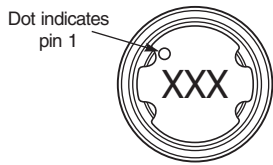
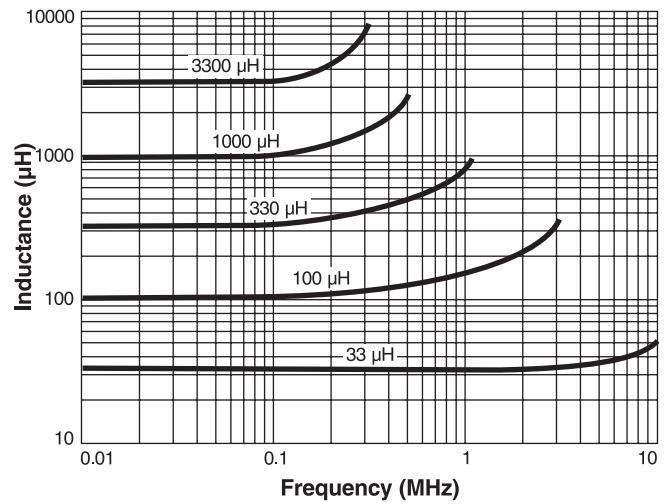


Shielded Power Inductors – RFS1317 Series

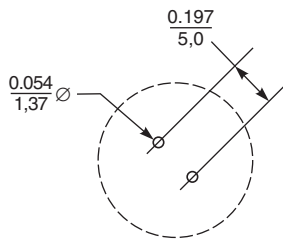
Typical L vs Current



Typical L vs Frequency



Recommended PC Board Layout



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



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

Document 884-2 Revised 08/06/13
 © 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.