

# Shielded Power Inductors – RFS1317



- Low cost, high current power inductors
- 27  $\mu$ 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**  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$  with Irms current

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

**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)

**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 <sup>1</sup>	Inductance <sup>2</sup> $\pm 10\%$	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
RFS1317-273KL	27 $\mu$ H	0.033	20.95	5.2	6.4	7.2	4.10	5.70
RFS1317-333KL	33 $\mu$ H	0.050	18.18	4.5	5.7	6.4	3.55	4.85
RFS1317-473KL	47 $\mu$ H	0.055	12.93	3.9	4.7	5.4	3.20	4.50
RFS1317-683KL	68 $\mu$ H	0.068	6.49	3.1	3.8	4.3	3.00	4.05
RFS1317-823KL	82 $\mu$ H	0.071	5.03	2.8	3.6	4.0	2.75	3.90
RFS1317-104KL	100 $\mu$ H	0.079	3.45	2.6	3.2	3.6	2.65	3.65
RFS1317-124KL	120 $\mu$ H	0.110	3.18	2.4	2.9	3.2	2.20	3.15
RFS1317-154KL	150 $\mu$ H	0.144	2.92	2.2	2.6	2.9	2.05	2.90
RFS1317-184KL	180 $\mu$ H	0.172	2.27	1.9	2.4	2.7	1.85	2.65
RFS1317-224KL	220 $\mu$ H	0.239	2.03	1.7	2.1	2.4	1.50	2.05
RFS1317-274KL	270 $\mu$ H	0.263	1.66	1.7	1.9	2.2	1.50	2.05
RFS1317-334KL	330 $\mu$ H	0.286	1.55	1.5	1.7	2.0	1.40	1.90
RFS1317-394KL	390 $\mu$ H	0.317	1.39	1.3	1.6	1.8	1.35	1.85
RFS1317-474KL	470 $\mu$ H	0.409	1.20	1.3	1.4	1.6	1.10	1.60
RFS1317-564KL	560 $\mu$ H	0.524	1.12	1.1	1.3	1.5	0.95	1.35
RFS1317-684KL	680 $\mu$ H	0.617	0.955	1.0	1.2	1.4	0.86	1.20
RFS1317-824KL	820 $\mu$ 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  $25^{\circ}\text{C}$  ambient.
6. Electrical specifications at  $25^{\circ}\text{C}$ .



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 06/02/22

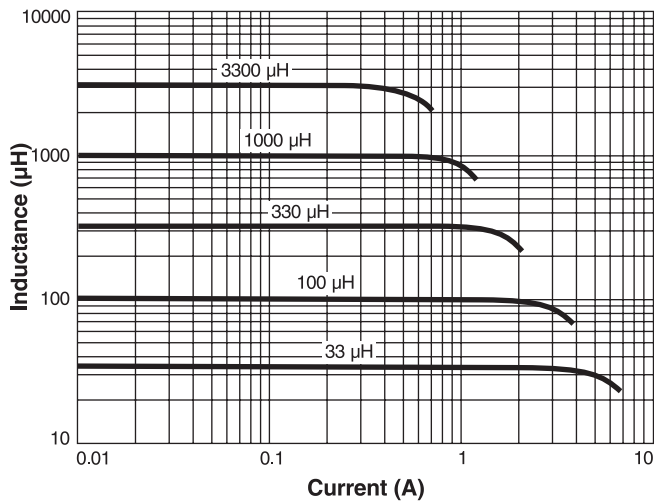
© Coilcraft Inc. 2022

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.

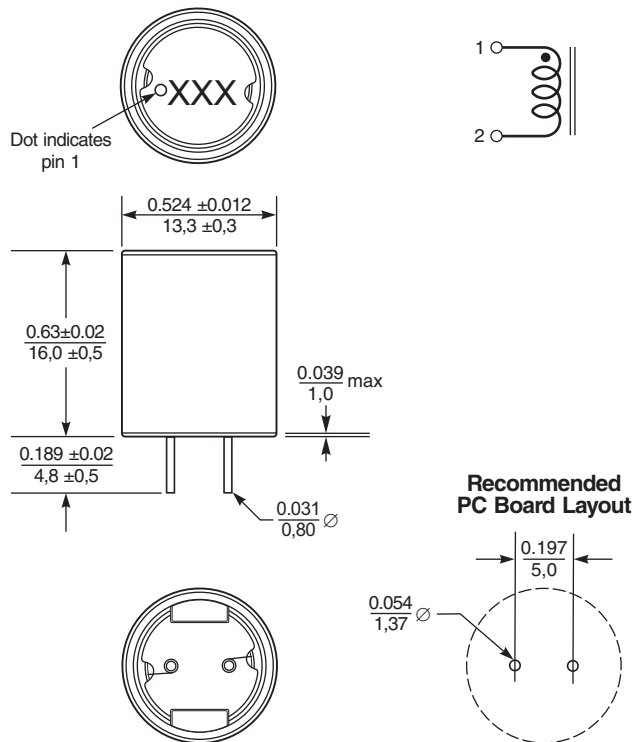
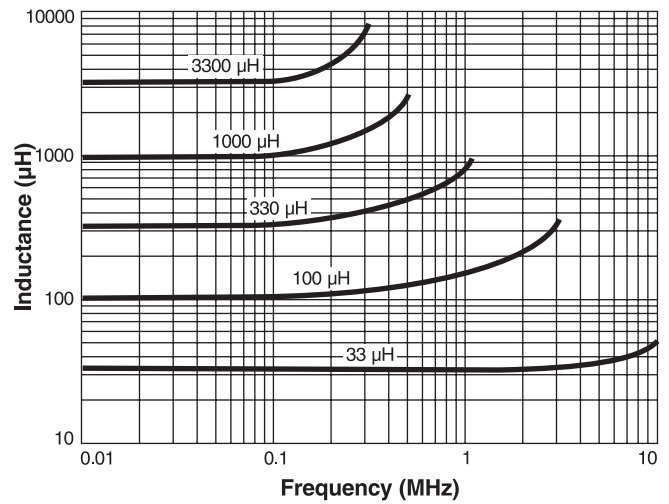


# Shielded Power Inductors – RFS1317 Series

## Typical L vs Current



## Typical L vs Frequency



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 06/02/22  
 © Coilcraft Inc. 2022  
 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.