Shielded Power Inductors – RFS1412

- Low cost, high current power inductors
- 10 µH to 10 mH inductance range; most at 10% tolerance

Core material Ferrite

Terminations Tin-silver (96.5/3.5) over tin over copper over steel. Other terminations available at additional cost.

Weight 6.0 – 7.0 g

Ambient temperature –40°C to +85°C with Irms current

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

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

Moisture Sensitivity Level (MSL) 1 (unlimited floor life at <30°C / 85% relative humidity)

Packaging 169 parts per tray

PCB washing Tested with pure water or alcohol only. For other solvents, see Doc787_PCB_Washing.pdf.

Part number[1]	Inductance[2] (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
RFS1412-103ME	10 ±20%	0.016	0.018	36	6.2	7.4	8.1	5.80	7.90
RFS1412-153LE	15 ±15%	0.019	0.022	21	5.0	6.1	6.8	5.05	6.90
RFS1412-223KE	22 ±10%	0.029	0.032	13	4.4	5.2	5.7	4.05	5.60
RFS1412-333KE	33 ±10%	0.043	0.047	8.7	3.4	4.1	4.6	3.25	4.50
RFS1412-393KE	39 ±10%	0.060	0.066	7.7	3.1	3.9	4.3	2.85	3.90
RFS1412-473KE	47 ±10%	0.066	0.072	6.7	3.0	3.5	3.9	2.65	3.65
RFS1412-104KE	100 ±10%	0.083	0.091	5.1	2.0	2.4	2.6	2.35	3.25
RFS1412-224KE	220 ±10%	0.190	0.200	3.3	1.3	1.6	1.8	1.55	2.35
RFS1412-564KE	560 ±10%	0.484	0.508	1.8	0.82	1.0	1.1	0.92	1.28
RFS1412-105KE	1000 ±10%	1.01	1.06	1.3	0.63	0.76	0.84	0.64	0.86
RFS1412-106KE	10000 ±10%	9.58	9.87	0.36	0.20	0.25	0.27	0.20	0.28

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

   RFS1412-105KE

   Termination: E = 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 equilvalent.
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.

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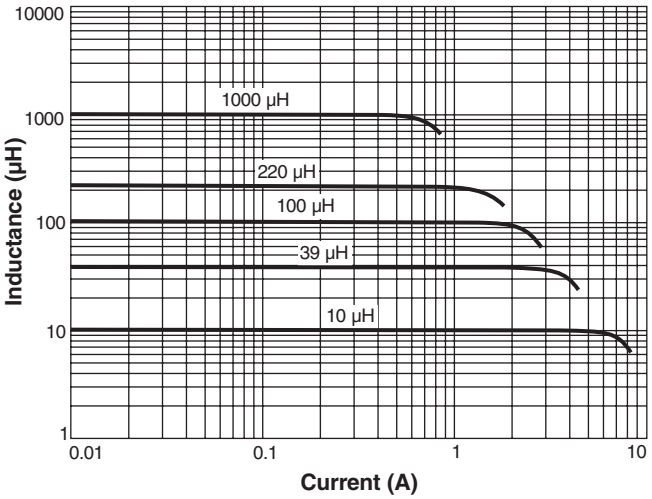
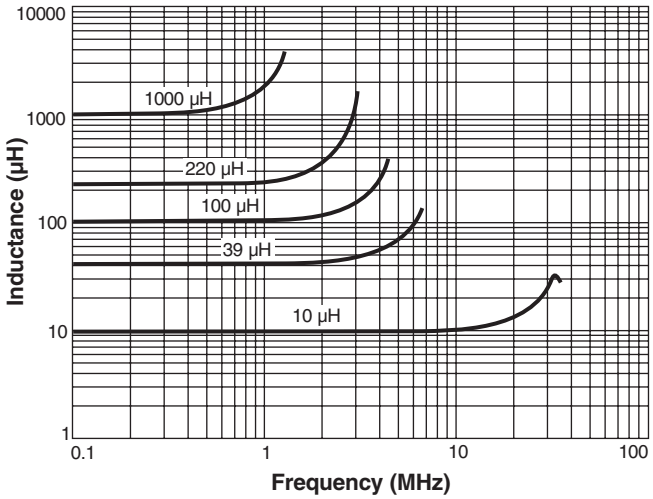
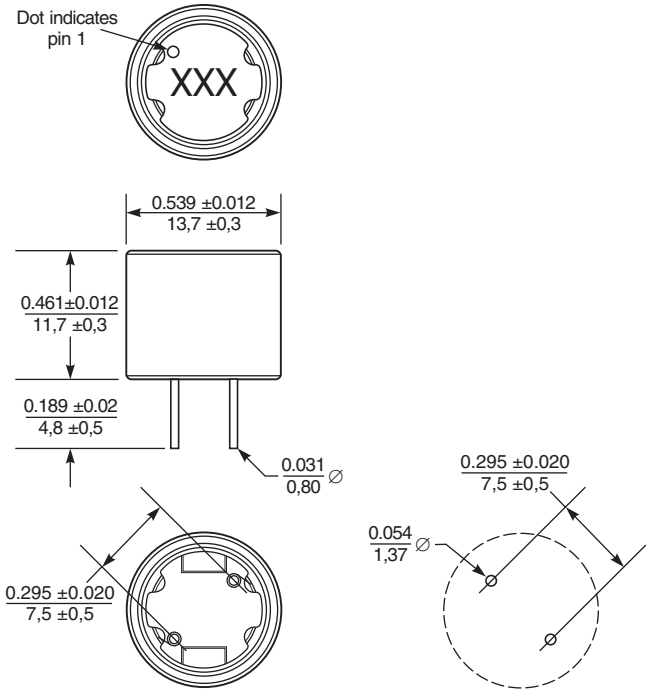
Shielded Power Inductors – RFS1412 Series

Typical L vs Current



Typical L vs Frequency





Recommended PC Board Layout

Dimensions are in inches / mm

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