

Shielded Power Inductors – RFS1113



- Low cost, high current power inductors
- 6.8 μ H to 2.7 mH inductance range

Core material Ferrite

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

Weight 4.1 – 4.7 g

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

Maximum part 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 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 $\pm 20\%$ (μ H)	DCR (Ohms)		SRF typ ³ (MHz)	Isat (A) ⁴			Irms (A) ⁵	
		typ	max		10% drop	20% drop	30% drop	20°C rise	40°C rise
RFS1113-682ME	6.8	0.014	0.016	45.0	6.6	8.0	9.1	5.65	7.80
RFS1113-103ME	10	0.017	0.020	30.2	5.4	6.6	7.4	5.20	7.20
RFS1113-153ME	15	0.020	0.023	19.8	4.0	5.0	5.8	4.80	6.60
RFS1113-223ME	22	0.023	0.026	11.8	3.5	4.2	4.8	4.40	6.10
RFS1113-273ME	27	0.032	0.036	9.6	3.0	3.6	4.2	3.60	5.05
RFS1113-333ME	33	0.045	0.052	8.8	2.8	3.5	4.0	3.20	4.40
RFS1113-393ME	39	0.058	0.064	8.4	2.4	3.1	3.6	2.75	3.75
RFS1113-473ME	47	0.081	0.089	7.9	2.2	2.9	3.3	2.30	3.20
RFS1113-104ME	100	0.184	0.200	4.0	1.5	1.9	2.2	1.55	2.10
RFS1113-224ME	220	0.281	0.295	2.8	1.0	1.3	1.5	1.25	1.65
RFS1113-564ME	560	0.709	0.744	1.8	0.68	0.86	0.98	0.73	1.00
RFS1113-105ME	1000	1.80	1.89	1.3	0.51	0.63	0.73	0.46	0.60
RFS1113-275ME	2700	3.76	3.95	0.72	0.33	0.40	0.45	0.30	0.40

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

RFS1113-105ME

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

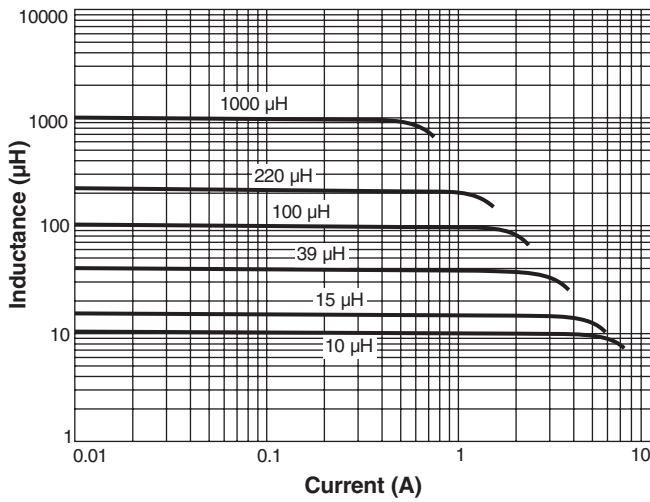
Special order: T = RoHS tin-silver-copper (95.5/4/0.5) or **S** = non-RoHS tin-lead (63/37).

- Inductance tested at 100 kHz, 0.1 Vrms, 0 Adc on an Agilent/HP 4284A LCR-meter or equivalent.
- SRF measured using Agilent/HP 4191A or equivalent.
- DC current that causes the specified inductance drop from its value without current..
- Current that causes the specified temperature rise from 25°C ambient.
- Electrical specifications at 25°C .

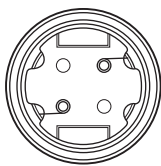
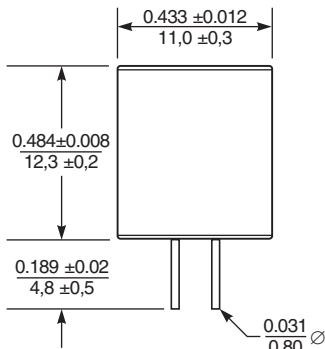
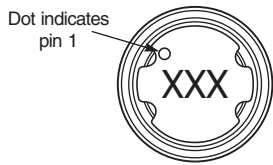
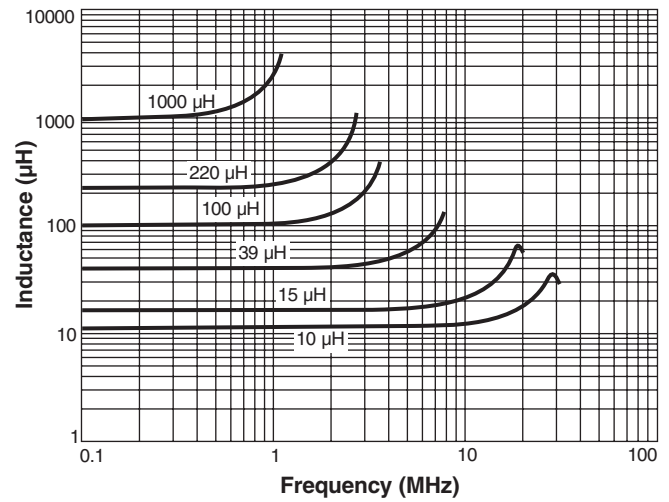


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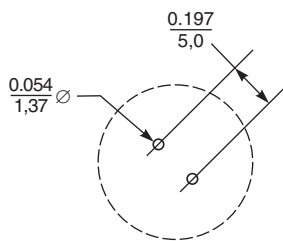
Typical L vs Current



Typical L vs Frequency



Recommended PC Board Layout



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



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