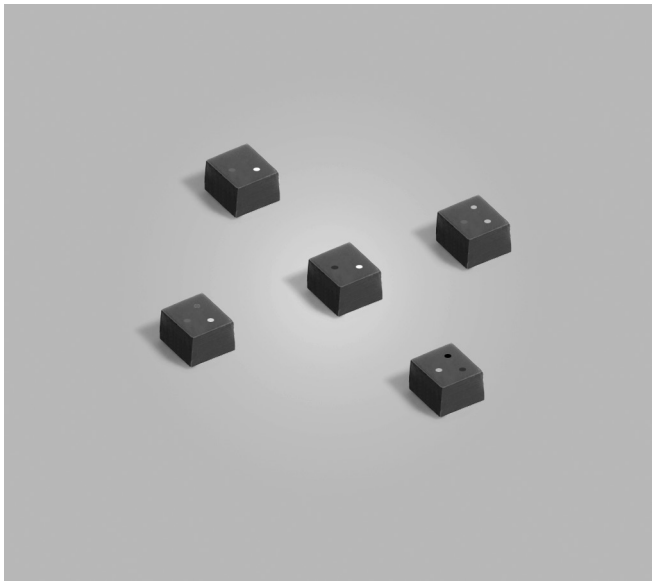
Shielded Power Inductors – FPL2014



- Extremely low DCR and very high SRF ratings
- Isat ratings as high as 2.8 A

Designer's Kit C413 contains 5 each of all values
Core material Ferrite
Environmental RoHS compliant, halogen free
Terminations Since March, 2009: RoHS compliant tin-silver-copper (96.5/3/0.5) over tin over nickel over silver-platinum. Prior to March, 2009: RoHS compliant tin-silver-copper over gold over nickel over silver-platinum.
Weight 20 – 25 mg
Ambient temperature –40°C to +85°C with (40°C rise) Irms current.
Maximum part temperature +125°C (ambient + temp rise).
Storage temperature Component: –40°C to +125°C.
Tape and reel packaging: –40°C to +80°C
Resistance to soldering heat Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles **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 SR-332
Packaging 2000/7″ reel; 7500/13″ reel Plastic tape: 8 mm wide, 0.28 mm thick, 4 mm pocket spacing, 1.65 mm pocket depth
PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash.

Part number	Inductance ±20% (µH)	DCR (Ohms) nom	DCR (Ohms) max	SRF typ (MHz)	Isat (A) 10% drop	Isat (A) 20% drop	Isat (A) 30% drop	Irms (A) 20°C rise	Irms (A) 40°C rise
FPL2014-271ML_	0.27	0.030	0.036	570	1.50	2.30	2.80	2.04	2.73
FPL2014-421ML_	0.42	0.037	0.044	438	1.40	2.00	2.40	1.93	2.57
FPL2014-601ML_	0.60	0.043	0.052	290	1.20	1.80	2.25	1.83	2.43
FPL2014-821ML_	0.82	0.051	0.061	163	0.950	1.40	1.75	1.49	2.03
FPL2014-102ML_	1.0	0.059	0.071	153	0.900	1.30	1.68	1.43	1.94
FPL2014-152ML_	1.5	0.075	0.086	109	0.720	1.20	1.60	1.34	1.86
FPL2014-222ML_	2.2	0.120	0.132	80	0.600	0.980	1.30	1.07	1.42
FPL2014-332ML_	3.3	0.152	0.167	62	0.540	0.800	1.10	0.923	1.23
FPL2014-472ML_	4.7	0.231	0.254	46	0.380	0.650	0.880	0.788	1.06
FPL2014-682ML_	6.8	0.287	0.316	44	0.350	0.590	0.800	0.676	0.915
FPL2014-822ML_	8.2	0.378	0.416	39	0.290	0.500	0.680	0.640	0.849
FPL2014-103ML_	10	0.440	0.459	33	0.250	0.450	0.600	0.564	0.729

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

FPL2014-103MLC

Termination: L = RoHS compliant tin-silver-copper over tin over nickel Special order, added cost: **S** = non-RoHS tin-lead (63/37).

Packaging: **C** = 7″ machine-ready reel. EIA-481 embossed plastic tape (2000 parts per full reel).
B = Less than full reel. In tape, but not machine ready. To have a leader and trailer added ($25 charge), use code letter C instead.
D = 13″ machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (7500 parts per full reel).

2. Inductance tested at 1 MHz, 0.1 Vrms, 0 Adc.
3. DCR measured on a micro-ohmmeter.
4. SRF measured using Agilent/HP 4395A network analyzer or equivalent.
5. DC current at 25°C that causes the specified inductance drop from its value without current.
6. Current that causes the specified temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.
7. Electrical specifications at 25°C.

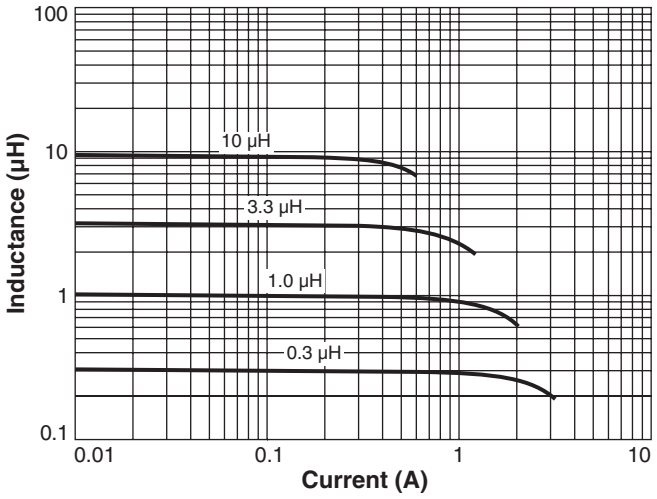
Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

PulseGM
www.pulsegm.com
China +86-0755-21055287
Sales@pulsegm.com

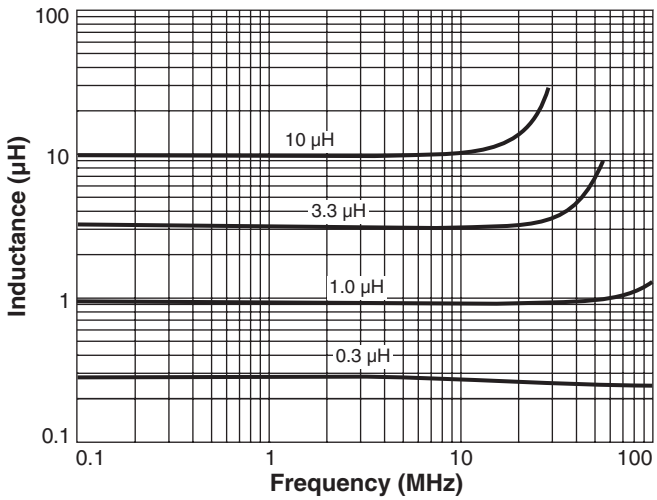
©PulseGM Inc. 2019
This product may not be used in medical or high risk applications without prior PulseGM approval.
Specification subject to change without notice.
Please check web site for latestinformation.

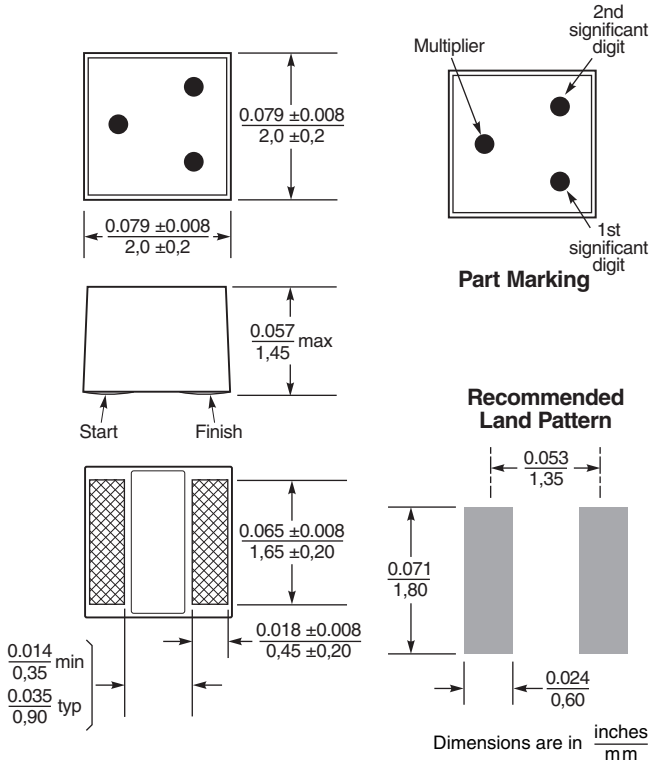
SMT Power Inductors – FPL2014 Series

Typical L vs Current



Typical L vs Frequency





Small surface blemishes are not unusual and do not adversely affect performance. Wire may be visible inside the voids.

Acceptable void sizes:
Top: 0.01 in / 0,254 mm × 0.01 in / 0,254 mm
Sides: 0.02 in / 0,5 mm × 0.047 in / 1,2 mm

For optional tin-lead and tin-silver-copper terminations, dimensions are for the mounted part. Dimensions before mounting can be an additional 0.005 inch / 0.13 mm.

Part Marking (Parts manufactured prior to Oct. 20, 2009 may not be marked.)

Part number	Value	1st digit	2nd digit	Multiplier
EPL2014-271	0.27 µH	Red	Violet	Brown
EPL2014-421	0.42 µH	Yellow	Red	Brown
EPL2014-601	0.60 µH	Blue	Black	Brown
EPL2014-821	0.82 µH	Gray	Red	Brown
EPL2014-102	1.0 µH	Brown	Black	Red
EPL2014-152	1.5 µH	Brown	Green	Red
EPL2014-222	2.2 µH	Red	Red	Red
EPL2014-332	3.3 µH	Orange	Orange	Red
EPL2014-472	4.7 µH	Yellow	Violet	Red
EPL2014-682	6.8 µH	Blue	Gray	Red
EPL2014-822	8.2 µH	Gray	Red	Red
EPL2014-103	10 µH	Brown	Black	Orange

Note: All marked parts have three dots. Black dot, used only on -601, -102 and -103 as second significant digit, may be very difficult to see.

PulseGM
www.pulsegm.com
China +86-0755-21055287
Sales@pulsegm.com

©PulseGM Inc. 2019
This product may not be used in medical or high risk applications without prior PulseGM approval.
Specification subject to change without notice.
Please check web site for latestinformation.