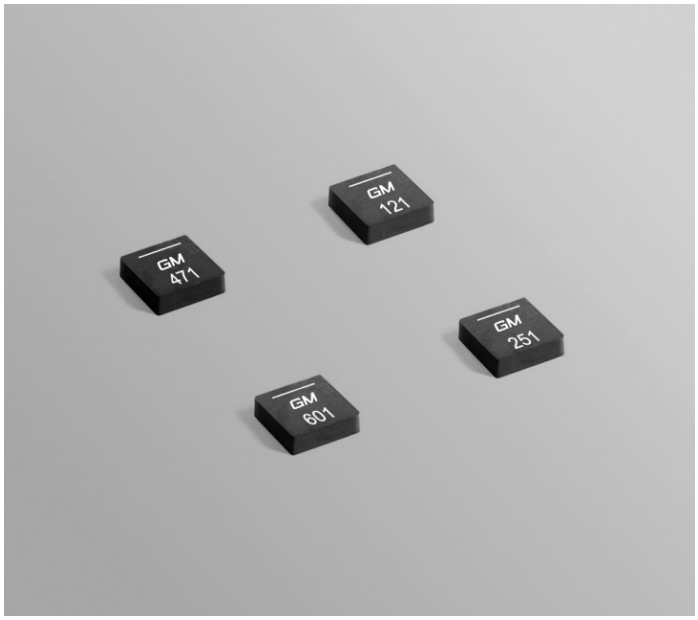
Shielded Power Inductors –PFL4012



- High current ratings and low DCR
- Very low profile, only 1.2 mm high

Designer's Kit C455 contains 5 of each XFL4012 and XFL4015 value.
Core material Composite
Weight 85 – 95 mg
Operating voltage 0 – 20 V
Environmental RoHS compliant, halogen free
Terminations RoHS compliant tin-silver (96.5/3.5) over copper. Other terminations available at additional cost.
Ambient temperature –40°C to +125°C with (40°C rise) Irms current.
Maximum part temperature +165°C (ambient + temp rise).
Storage temperature Component: –55°C to +165°C. Tape and reel packaging: –55°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
PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash.

Part number[1]	Inductance[2] ±20% (µH)	DCR (mOhms)[3] typ	DCR (mOhms)[3] max	SRF typ[4] (MHz)	Isat (A)[5] 10% drop	Isat (A)[5] 20% drop	Isat (A)[5] 30% drop	Irms (A)[6] 20°C rise	Irms (A)[6] 40°C rise
PFL4012-121ME_	0.12	5.20	5.88	220	6.9	9.8	11.3	9.60	13.20
PFL4012-251ME_	0.25	7.64	8.40	150	4.4	7.7	9.7	8.15	11.45
PFL4012-471ME_	0.47	14.07	15.48	115	3.2	5.5	6.7	6.25	8.70
PFL4012-601ME_	0.60	17.40	19.14	95.0	2.8	5.0	6.5	5.45	7.65

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

PFL4012-601MEC

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

Packaging: **C** = 7″ machine-ready reel. EIA-481 embossed plastic tape (1500 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 (5000 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 or equivalent. 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.

Irms Testing

Irms testing was performed on 0.75 inch wide × 0.25 inch thick copper traces in still air.

Temperature rise is highly dependent on many factors including pcb land pattern, trace size, and proximity to other components. Therefore temperature rise should be verified in application conditions.

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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 latest information.

RoHS/ REACH COMPLIANT

Halogen Free

AEC Q200 +125°C

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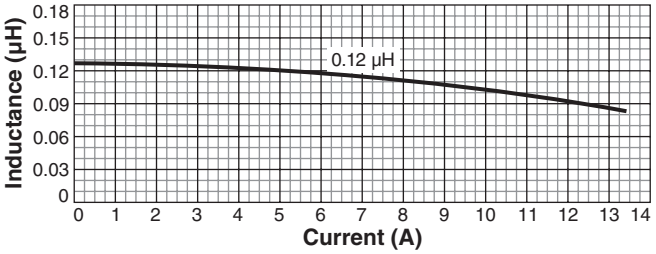
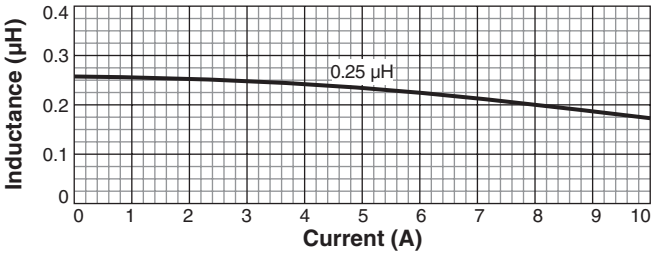
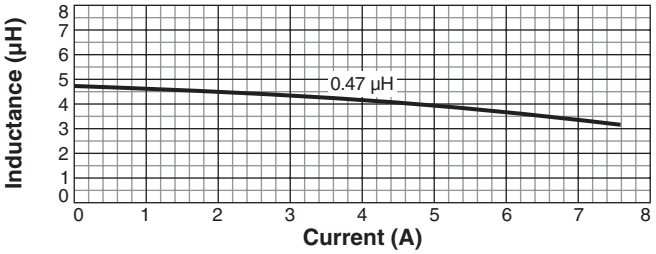
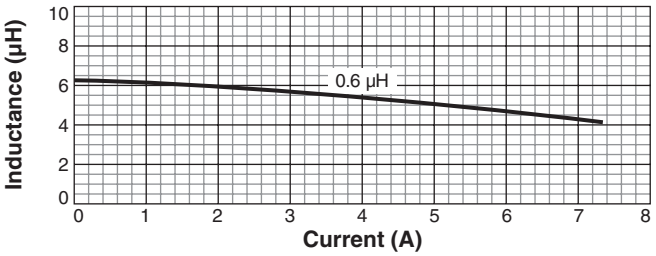
L vs Current

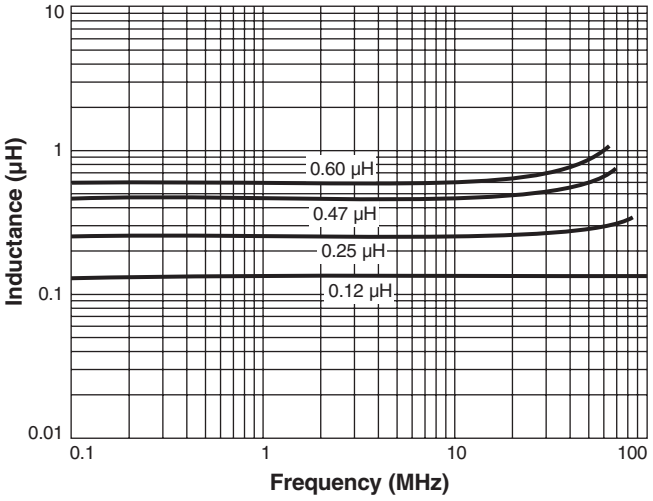


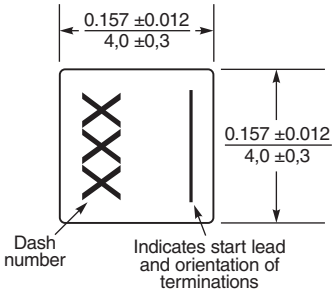


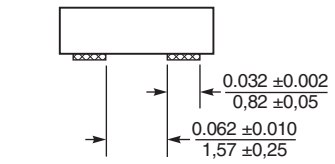


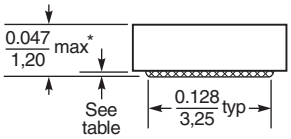


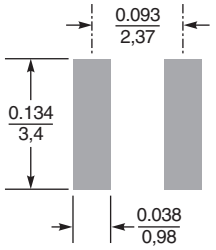
L vs Frequency











Recommended Land Pattern

Dash number	Terminal thickness (typ) (in / mm)
-121	0.0032 / 0.08
-251	0.0032 / 0.08
-471	0.0023 / 0.06
-601	0.0023 / 0.06

* 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.

Dimensions are in inches / mm

Packaging 1500/7″ reel; 5000/13″ reel Plastic tape: 12 mm wide, 0.23 mm thick, 8 mm pocket spacing, 1.40 mm pocket depth

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