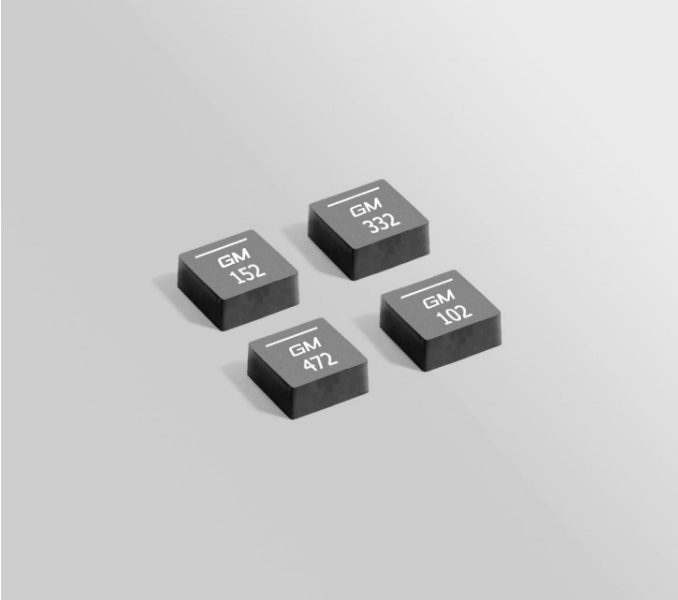
Shielded Power Inductors – PFL4020



- Exceptionally low DCR – 10.8 mOhm
- Excellent current handling capability

Designer's Kit C436 contains 5 each of all values
Environmental RoHS compliant, halogen free
Terminations RoHS compliant tin-silver over copper. Other terminations available at additional cost.
Core material Composite
Core and winding loss See www.coilcraft.com/coreloss
Weight 162 – 169 mg
Operating voltage 0 – 20 V
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
PFL4020-102ME_	1.0	10.80	11.90	64	4.5	5.1	5.4	8.0	11.0
PFL4020-152ME_	1.5	14.40	15.80	59	4.1	4.4	4.6	6.7	9.1
PFL4020-222ME_	2.2	21.35	23.50	38	3.1	3.5	3.7	6.0	8.0
PFL4020-332ME_	3.3	34.80	38.30	33	2.7	2.8	2.9	3.9	5.2
PFL4020-472ME_	4.7	52.20	57.40	26	2.0	2.5	2.7	3.6	5.0

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

PFL4020-472MEC

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 (1000 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 (3500 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.
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.

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.

HIGH TEMPERATURE

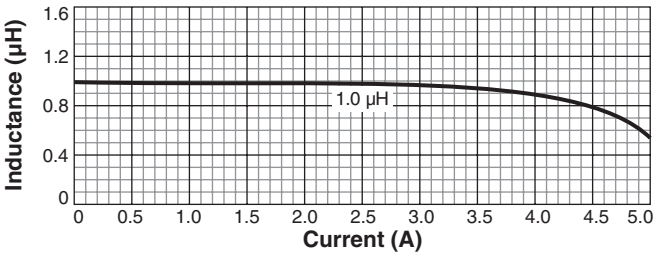
RoHS/ REACH COMPLIANT

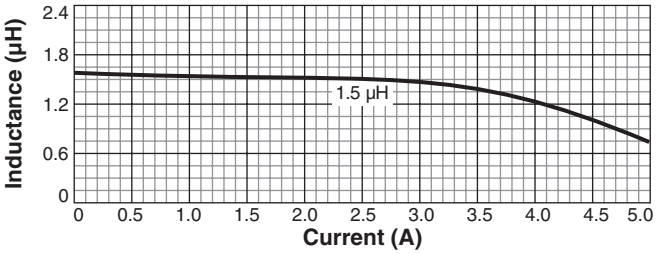
Halogen Free

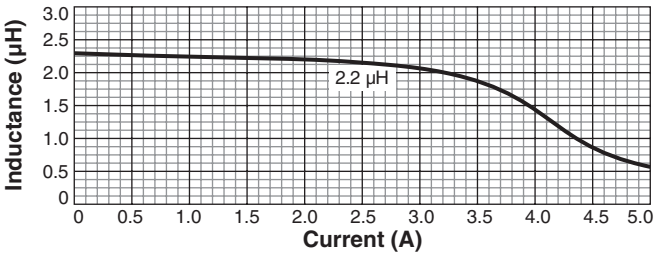
AEC Q200 +125°C

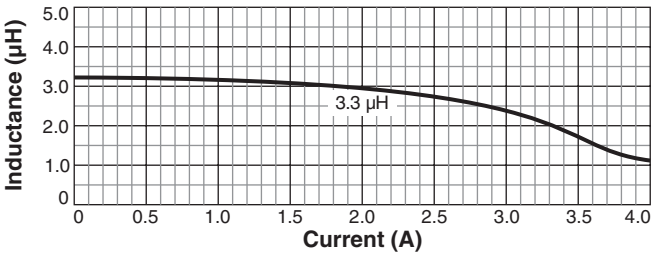
Shielded Power Inductors – PFL4020 Series

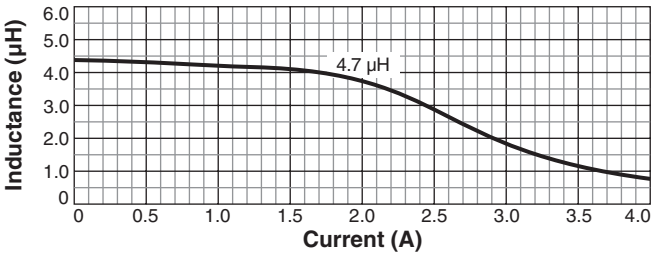
L vs Current



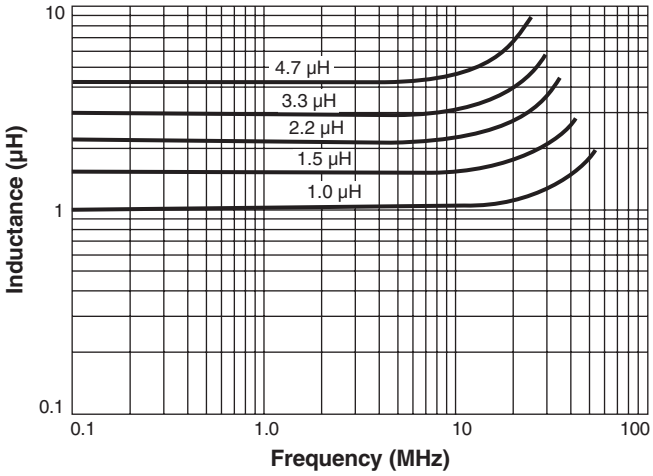


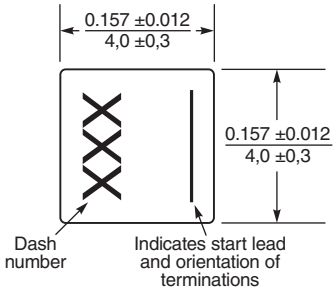


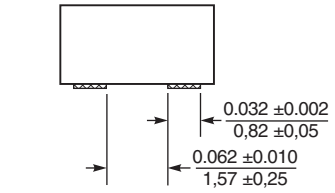


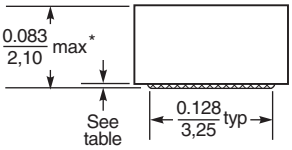


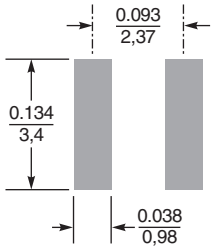
L vs Frequency











Recommended Land Pattern

Dash number	Terminal thickness (typ) (in / mm)
-102	0.0039 / 0.10
-152	0.0039 / 0.10
-222	0.0032 / 0.08
-332	0.0023 / 0.06
-472	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 1000/7″ reel; 3500/13″ reel Plastic tape: 12 mm wide, 0.23 mm thick, 8 mm pocket spacing, 2.3 mm pocket depth

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