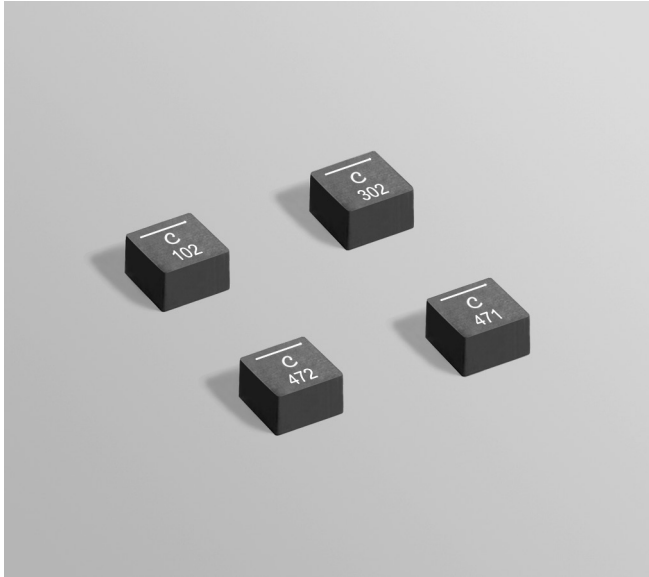


# Shielded Power Inductors – XFL4030



- High current – up to 5.2 A
- Very low DCR – as low as 3.6 mOhms

**Core material** Composite

**Environmental** RoHS compliant, halogen free

**Terminations** RoHS compliant tin-silver over copper. Other terminations available at additional cost.

**Weight** 0.25 – 0.27 g

**Ambient temperature** –40°C to +125°C with (40°C rise) Irms current.

**Maximum part temperature** +165°C (ambient + temp rise).

**Storage temperature** Component: –40°C to +165°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** 500/7" reel; 2000/13" reel Plastic tape: 12 mm wide, 0.23 mm thick, 8 mm pocket spacing, 3.25 mm pocket depth

**PCB washing** Tested with pure water or alcohol only. For other solvents, see [Doc787\\_PCB\\_Washing.pdf](#)

Part number <sup>1</sup>	Inductance <sup>2</sup> ±20% (µH)	DCR (mOhms) <sup>3</sup>		SRF typ <sup>4</sup> (MHz)	Isat (A) <sup>5</sup>			Irms (A) <sup>6</sup>	
		typ	max		10% drop	20% drop	30% drop	20°C rise	40°C rise
XFL4030-471ME_	0.47	3.6	4.4	110	4.5	4.9	5.2	14.0	18.0
XFL4030-102ME_	1.0	5.5	6.6	67	3.6	3.9	4.1	11.0	14.5
XFL4030-202ME_	2.0	9.5	11.5	46	2.5	2.8	3.0	7.80	11.8
XFL4030-302ME_	3.0	17.0	20.5	39	1.8	2.1	2.2	6.10	8.00
XFL4030-472ME_	4.7	25.0	30.0	34	1.7	2.0	2.1	5.70	7.50

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

**XFL4030-472MEC**

**Packaging:** **C** = 7" machine-ready reel. EIA-481 embossed plastic tape (500 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 (2000 parts per full reel).

2. Inductance tested at 100 kHz, 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

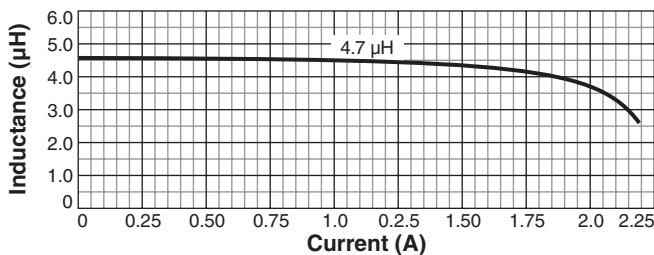
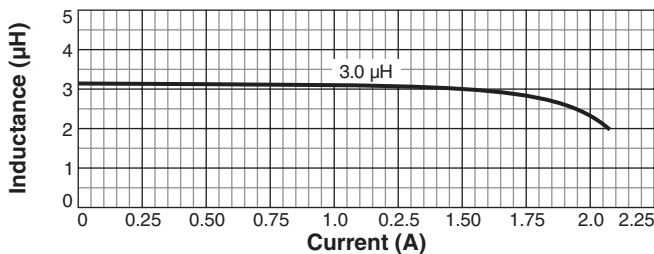
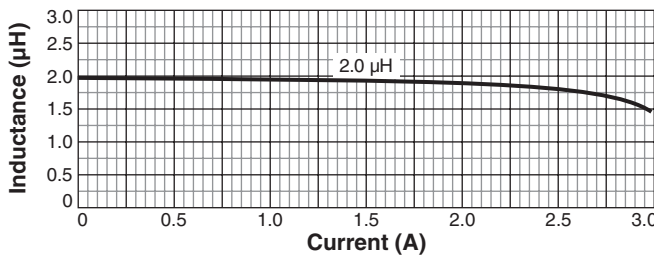
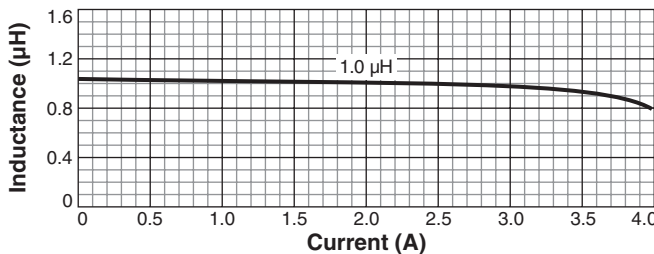
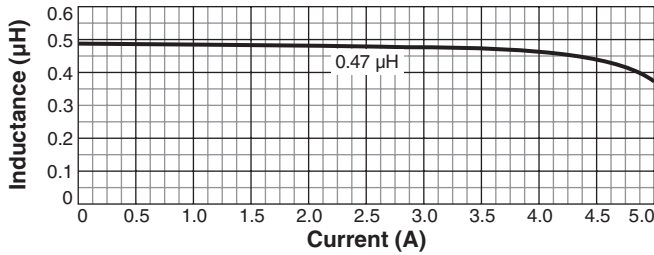
Irms testing was performed on 0.75 inch wide x 0.25 inch thick copper traces in still air.

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.

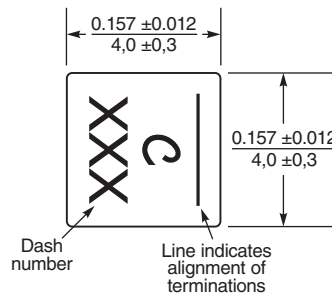
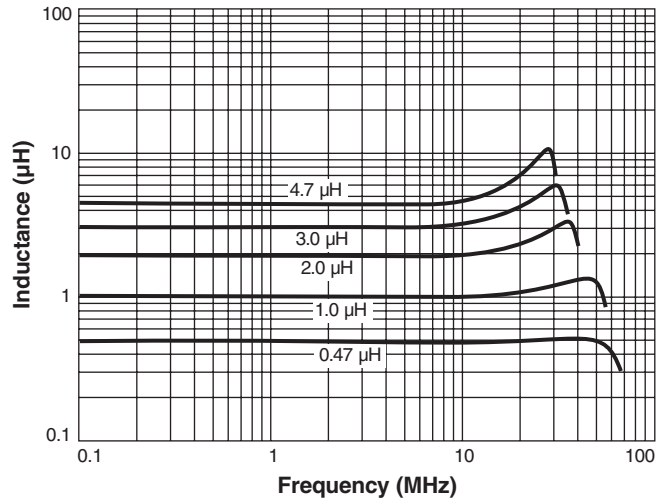


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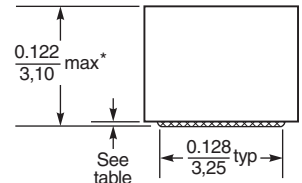
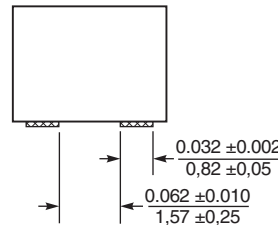
## Typical L vs Current



## Typical L vs Frequency

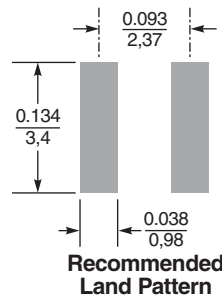


Note: Parts manufactured prior to 2011 may not have alignment mark.



Dash number	Terminal thickness (typ) (in / mm)
-471	0.0079 / 0.20
-102	0.0079 / 0.20
-202	0.0059 / 0.15
-302	0.0039 / 0.10
-472	0.0039 / 0.10

\* 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