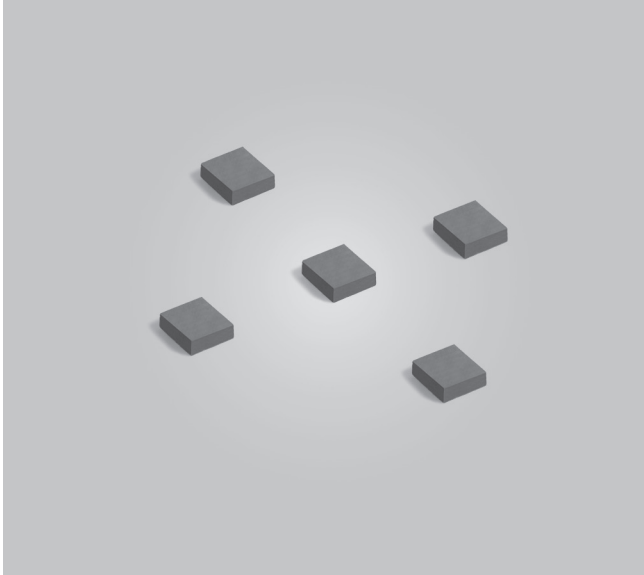


**NEW!**

# Shielded Power Inductors – XFL2005



- Lowest profile, ultra-miniature, magnetically shielded power inductor; only 0.5 mm high, 2 mm × 2 mm footprint
- Soft saturation

**Designer's Kit C434** contains 5 of each value and 5 of each XFL2006  
**Core material** Composite

**Core and winding loss** See [www.coilcraft.com/coreloss](http://www.coilcraft.com/coreloss)

**Environmental** RoHS compliant, halogen free

**Terminations** RoHS compliant tin-silver-copper (96.5/3/0.5) over tin over nickel over silver-platinum.

**Weight** 8.4 mg

**Ambient temperature** –40°C to +85°C with Irms current, +85°C to +125°C with derated current

**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, 0.76 mm pocket depth

**PCB washing** Only pure water or alcohol recommended

Part number <sup>1</sup>	Inductance <sup>2</sup> ±20% (µH)	DCR (Ohms) <sup>3</sup>		SRF typ <sup>4</sup> (MHz)	Isat (A) <sup>5</sup>			Irms (A) <sup>6</sup>	
		nom	max		10% drop	20% drop	30% drop	20°C rise	40°C rise
XFL2005-151ME_	0.15	0.085	0.098	590	1.05	1.55	1.90	1.25	1.60
XFL2005-221ME_	0.22	0.111	0.128	480	0.72	1.20	1.50	1.13	1.48
XFL2005-331ME_	0.33	0.144	0.166	380	0.65	1.05	1.30	1.00	1.30
XFL2005-471ME_	0.47	0.177	0.204	275	0.60	0.97	1.20	0.95	1.25
XFL2005-681ME_	0.68	0.215	0.247	220	0.50	0.75	0.95	0.80	1.05

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

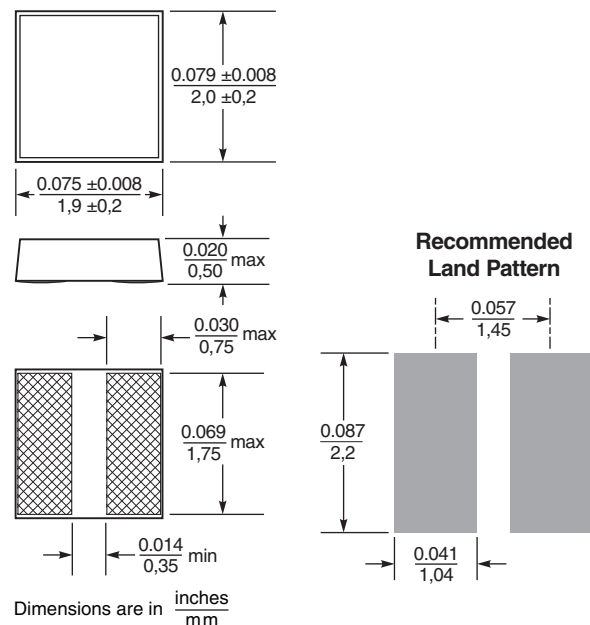
**XFL2005-471MEC**

**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).

- Inductance tested at 100 kHz, 0.1 Vrms, 0 A DC.
  - DCR measured on a micro-ohmmeter.
  - SRF measured using Agilent/HP 4395A or equivalent.
  - DC current at which the inductance drops the specified amount from its value without current.
  - Current that causes the specified temperature rise from 25°C ambient.
  - Electrical specifications at 25°C.
- Refer to Doc 362 "Soldering Surface Mount Components" before soldering.



[www.coilcraft.com](http://www.coilcraft.com)

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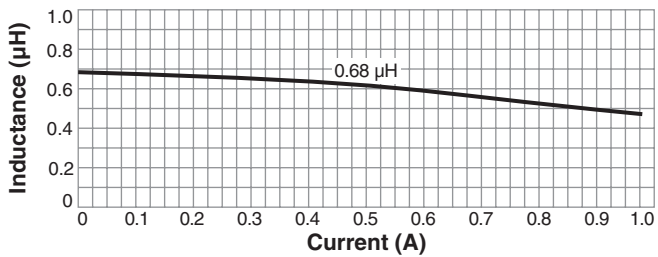
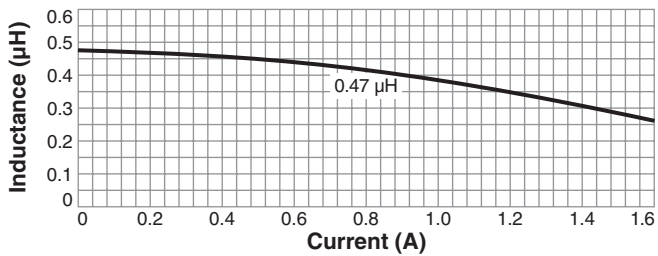
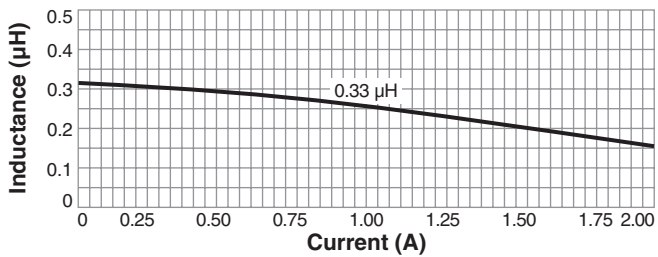
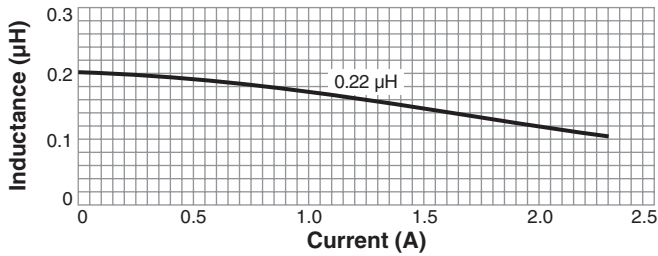
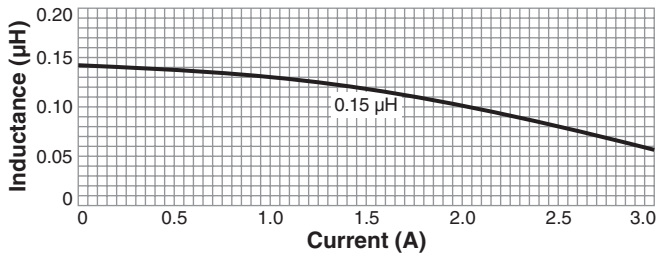
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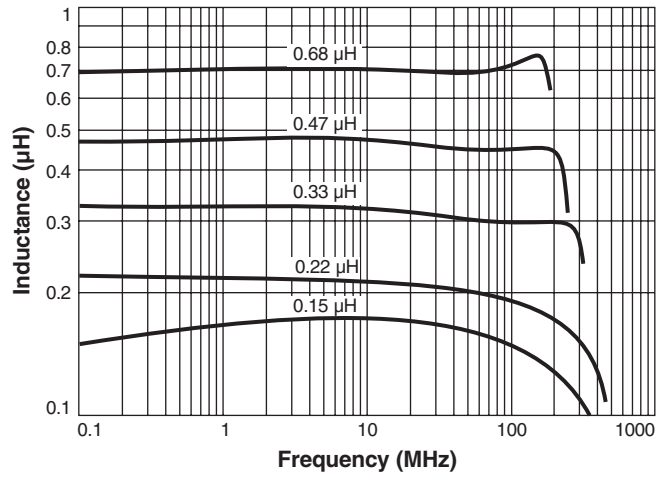
**NEW!**

# Shielded Power Inductor – XFL2005

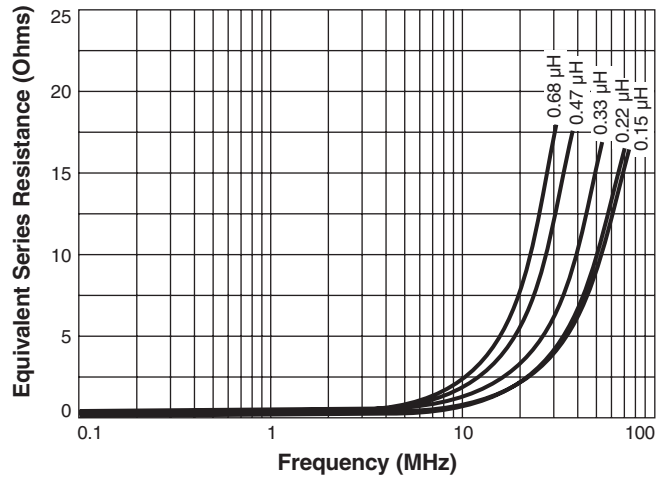
## L vs Current



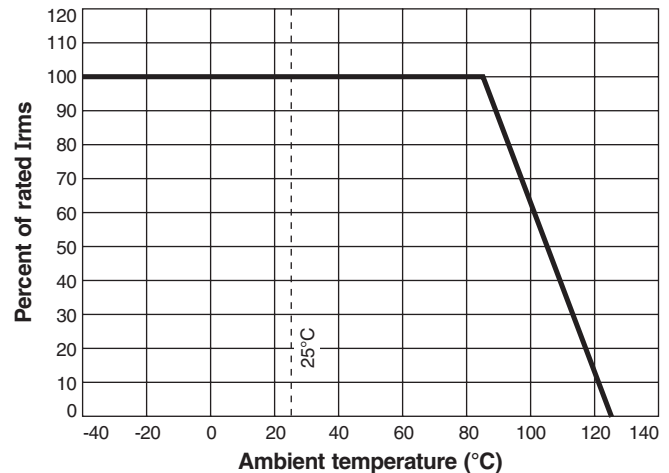
## L vs Frequency



## ESR vs Frequency



## Irms Derating



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