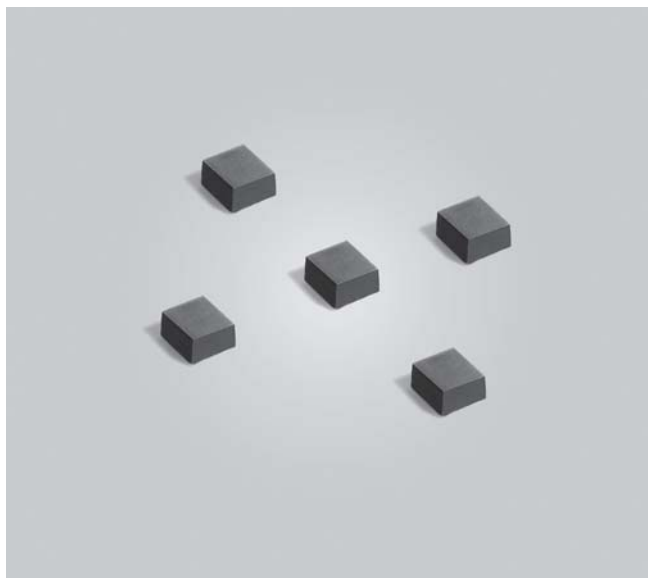


**NEW!**

# Power Inductors – XPL2010 Series



- Ultra-miniature, magnetically shielded power inductors
- Very low DCR and excellent current handling.
- Soft saturation makes them ideal for VRM/VRD applications.

**Designer's Kit C428** contains 5 each of all values

**Core material** Composite

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

**Weight** 20 mg

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

**Ambient temperature** –40°C to +90°C with Irms current, +90°C to +130°C with derated current

**Storage temperature** Component: –40°C to +130°C.

T&R 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, 0.23 mm thick, 4 mm pocket spacing, 1.19 mm pocket depth

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

Part number <sup>1</sup>	Inductance <sup>2</sup> ±20% (µH)	DCR nom <sup>3</sup> (Ohms)	DCR max <sup>3</sup> (Ohms)	SRF typ <sup>4</sup> (MHz)	Isat (A) <sup>5</sup>			Irms (A) <sup>6</sup>	
					10% drop	20% drop	30% drop	20°C rise	40°C rise
XPL2010-201ML_	0.20	0.024	0.027	408	2.80	3.45	3.75	2.2	2.8
XPL2010-331ML_	0.33	0.031	0.035	309	1.90	2.75	3.05	1.9	2.6
XPL2010-501ML_	0.50	0.040	0.045	218	1.80	2.35	2.64	1.7	2.3
XPL2010-681ML_	0.68	0.057	0.063	152	1.55	1.95	2.19	1.5	2.1
XPL2010-821ML_	0.82	0.068	0.075	132	1.25	1.65	1.90	1.3	1.7
XPL2010-102ML_	1.0	0.081	0.089	117	1.20	1.60	1.80	1.1	1.6
XPL2010-152ML_	1.5	0.105	0.116	80	0.950	1.30	1.50	1.0	1.4
XPL2010-222ML_	2.2	0.156	0.173	75	0.940	1.20	1.35	0.96	1.3
XPL2010-332ML_	3.3	0.207	0.228	55	0.700	0.925	1.05	0.79	1.1
XPL2010-472ML_	4.7	0.336	0.370	40	0.580	0.750	0.845	0.74	1.0
XPL2010-682ML_	6.8	0.421	0.463	33	0.450	0.620	0.725	0.64	0.87
XPL2010-822ML_	8.2	0.457	0.503	30	0.440	0.600	0.670	0.55	0.75
XPL2010-103ML_	10	0.555	0.611	28	0.390	0.525	0.610	0.49	0.66
XPL2010-104ML_	100	8.48	9.27	11	0.180	0.214	0.232	0.13	0.17
XPL2010-224ML_	220	19.2	21.1	7.1	0.122	0.143	0.161	0.086	0.116

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

**XPL2010-103MLC**

**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 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 which the inductance drops the specified amount from its value without current.

6. Current that causes the specified temperature rise from 25°C ambient.

7. Electrical specifications at 25°C.

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

## Coilcraft®

Specifications subject to change without notice.  
Please check our website for latest information.

Document 646-1 Revised 07/02/10

1102 Silver Lake Road Cary, Illinois 60013 Phone 847/639-6400 Fax 847/639-1469

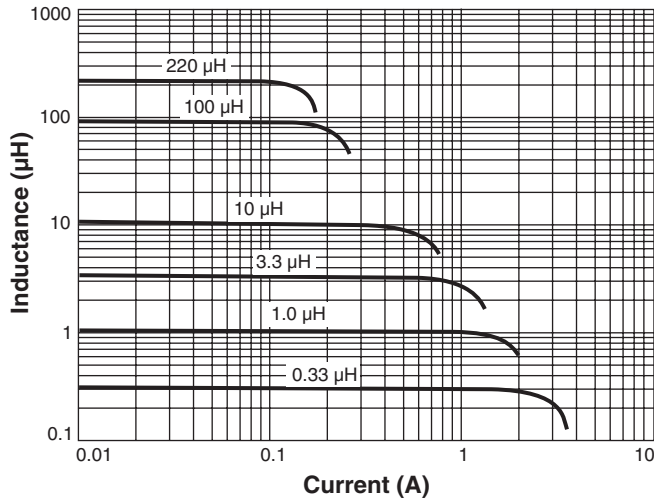
E-mail [info@coilcraft.com](mailto:info@coilcraft.com) Web <http://www.coilcraft.com>



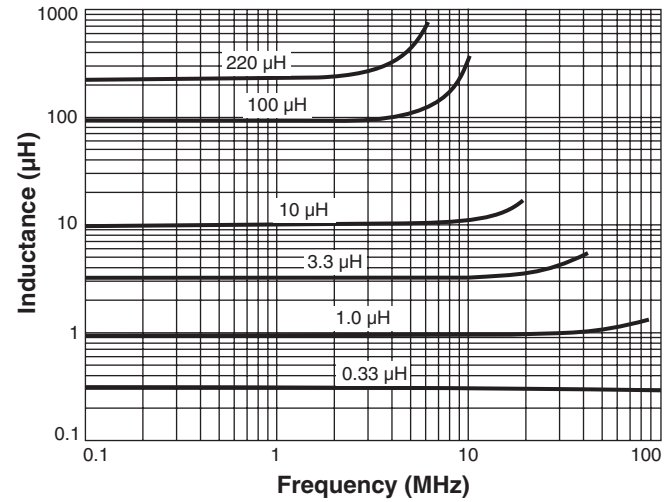
**NEW!**

# SMT Power Inductors – XPL2010 Series

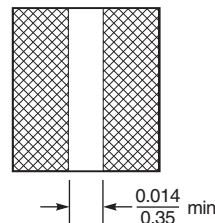
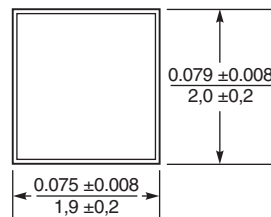
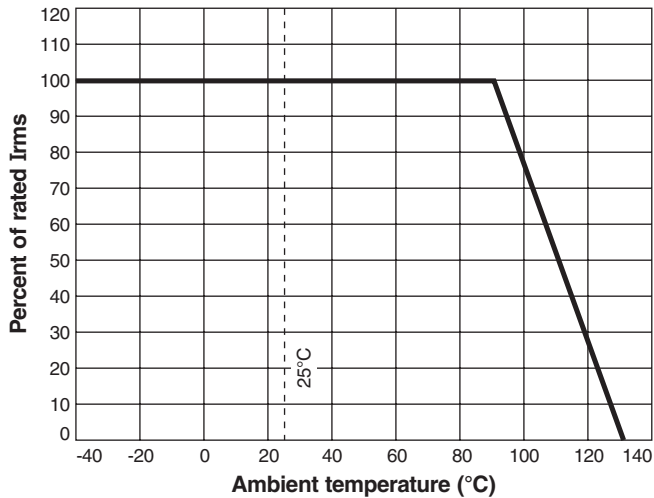
## Typical L vs Current



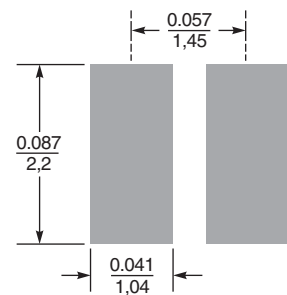
## Typical L vs Frequency



## Typical Irms Derating



### Recommended Land Pattern



Dimensions are in  $\frac{\text{inches}}{\text{mm}}$



Specifications subject to change without notice.  
Please check our website for latest information.

Document 646-2 Revised 07/02/10

1102 Silver Lake Road Cary, Illinois 60013 Phone 847/639-6400 Fax 847/639-1469

E-mail [info@coilcraft.com](mailto:info@coilcraft.com) Web <http://www.coilcraft.com>