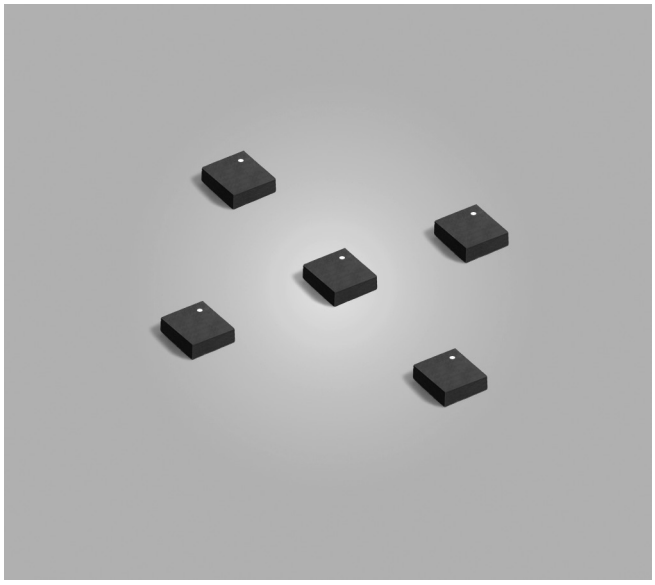
Shielded Power Inductors XFL2006



- Lowest profile, ultra-miniature, shielded power inductor
- Soft saturation makes them ideal for VRM/VRD applications.

Designer's Kit C478 contains 5 each of all values
Core material Composite
Core and winding loss See 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. Other terminations available.
Weight 10 – 13 mg
Operating voltage 40 V[7]
Ambient temperature –40°C to +85°C with (40°C rise) Irms current.
Maximum part temperature +125°C (ambient + temp rise). Derating.
Storage temperature Component: –55°C to +125°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)
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 Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.

Part number[1]	Inductance[2] ±20% (µH)	DCR (Ohms)[3] nom	DCR (Ohms)[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
XFL2006-102ME_	1.0	0.153	0.169	170	0.71	1.0	1.2	0.910	1.22
XFL2006-222ME_	2.2	0.278	0.306	110	0.49	0.69	0.78	0.710	0.950
XFL2006-332ME_	3.3	0.460	0.506	88	0.42	0.56	0.66	0.550	0.720
XFL2006-472ME_	4.7	0.665	0.732	68	0.31	0.44	0.52	0.500	0.660
XFL2006-562ME_	5.6	0.75	0.825	61	0.30	0.43	0.50	0.460	0.600
XFL2006-682ME_	6.8	0.92	1.02	57	0.26	0.35	0.41	0.400	0.520
XFL2006-822ME_	8.2	1.08	1.19	51	0.24	0.33	0.39	0.370	0.490
XFL2006-103ME_	10.0	1.27	1.40	45	0.24	0.31	0.37	0.345	0.440
XFL2006-153ME_	15.0	2.02	2.22	37	0.19	0.25	0.29	0.265	0.350
XFL2006-223ME_	22.0	2.78	3.06	30.5	0.150	0.205	0.240	0.235	0.305
XFL2006-333ME_	33.0	4.45	4.90	24.0	0.110	0.150	0.180	0.160	0.205
XFL2006-473ME_	47.0	5.60	6.16	19.5	0.090	0.130	0.155	0.155	0.205
XFL2006-563ME_	56.0	6.65	7.32	16.5	0.085	0.120	0.145	0.145	0.195
XFL2006-683ME_	68.0	8.50	9.35	16.0	0.080	0.115	0.135	0.115	0.155
XFL2006-823ME_	82.0	9.25	10.18	13.5	0.065	0.090	0.115	0.125	0.165
XFL2006-104ME_	100.0	11.10	12.25	13.0	0.065	0.090	0.115	0.100	0.135

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

XFL2006-104MEC

Termination: **E** = RoHS compliant tin-silver-copper (96.5/3/0.5) over tin over nickel over silver-platinum.
Special order:
S = non-RoHS tin-lead (63/37).

Packaging: **C** = 7″ machine-ready reel. EIA-481 embossed plastic tape (2000 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer ($25 charge).
B = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to C.
D = 13″ machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (7500 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. Click for temperature derating information.
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. Temperature rise is highly dependent on many factors including pcb land pattern, trace size, air flow, and proximity to other components. Therefore temperature rise should be verified in application conditions. Click for temperature derating information.
7. Voltage capability varies by part number and in many cases may be higher than the listed voltage.
8. Electrical specifications at 25°C.

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

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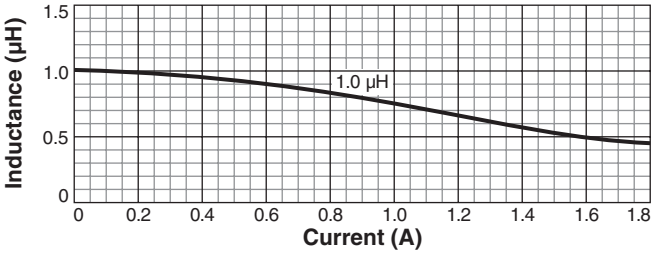
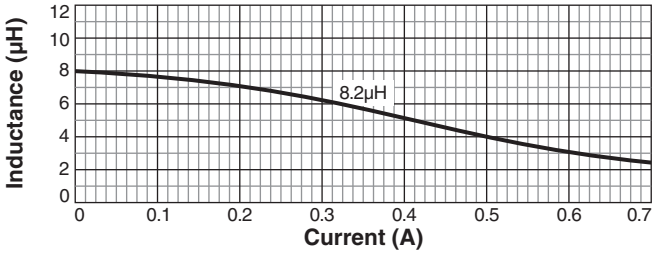
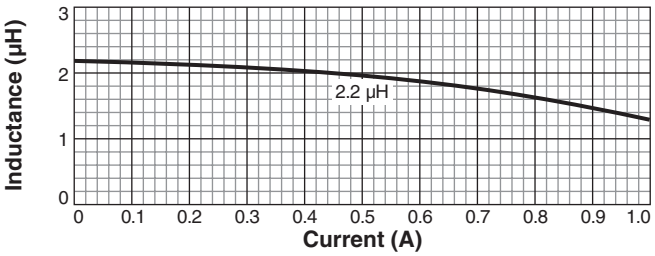
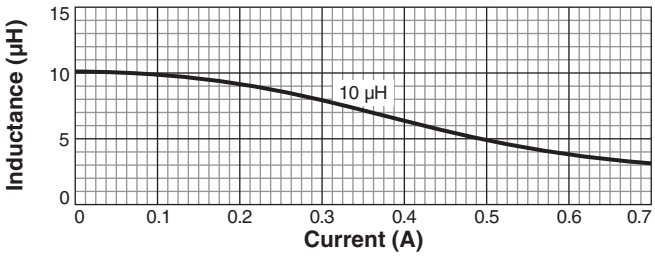
XFL2006 Shielded Power Inductor Series

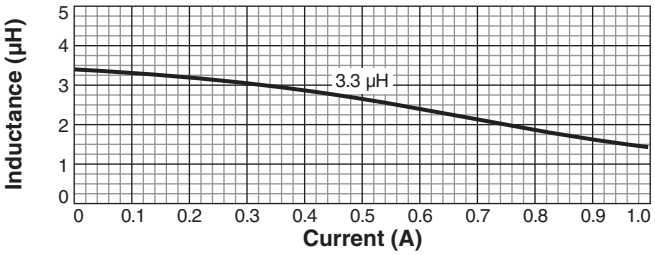
L vs Current

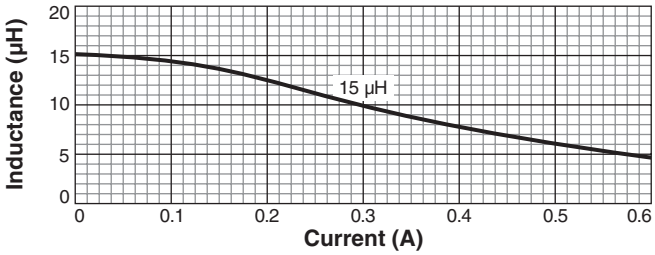


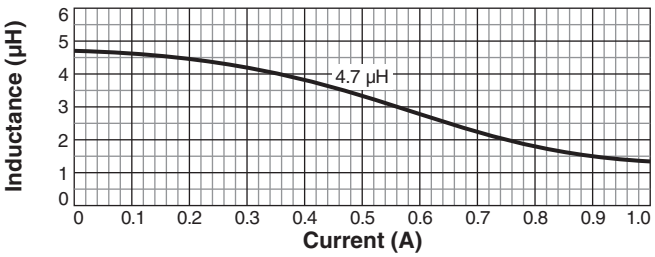


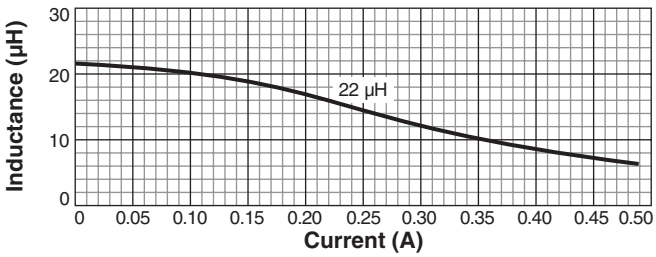


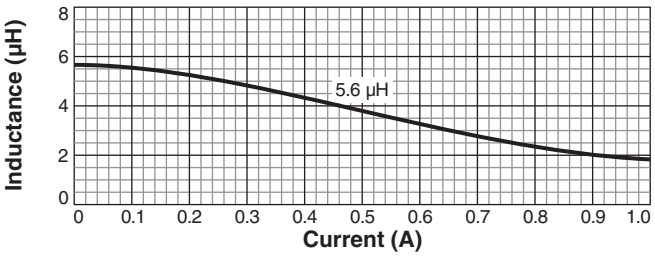


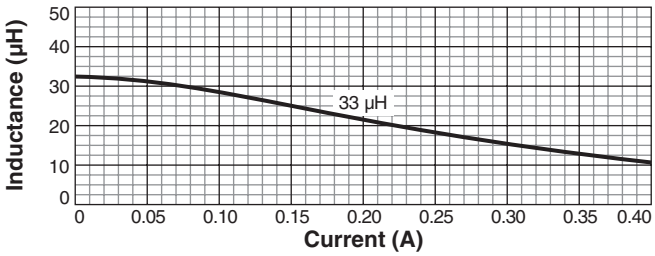


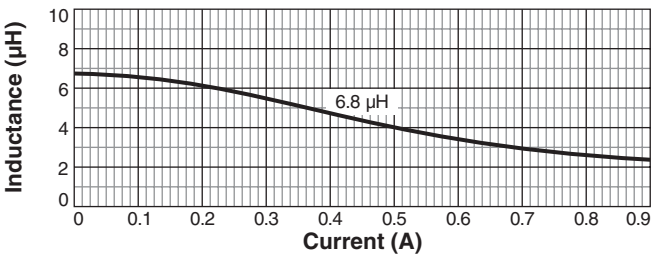


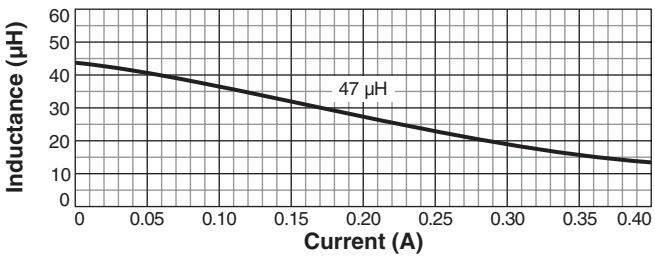












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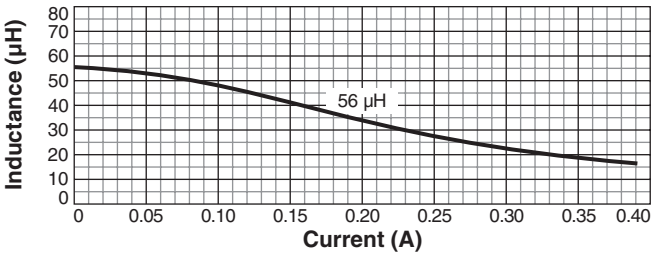
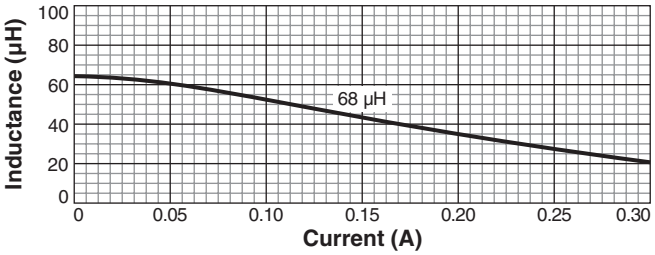
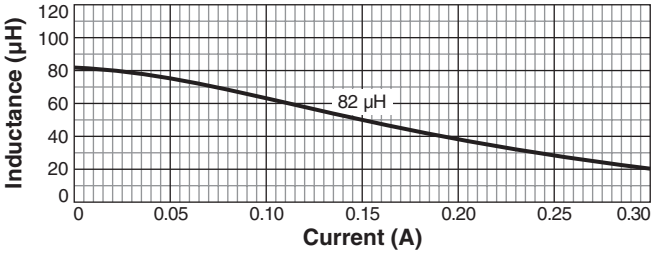
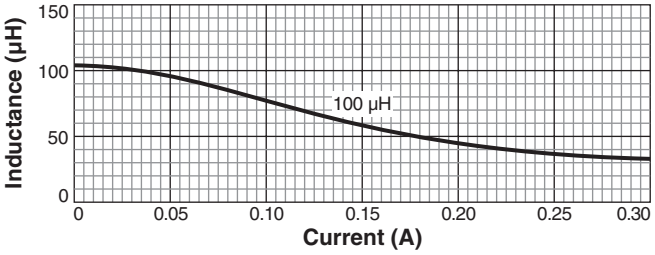
XFL2006 Shielded Power Inductor Series

L vs Current

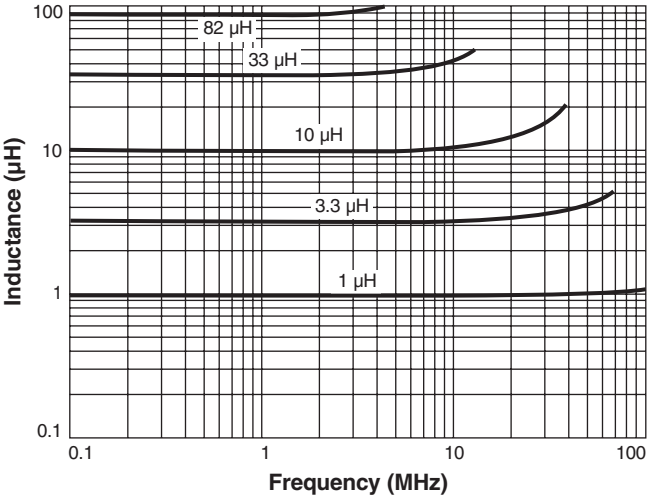


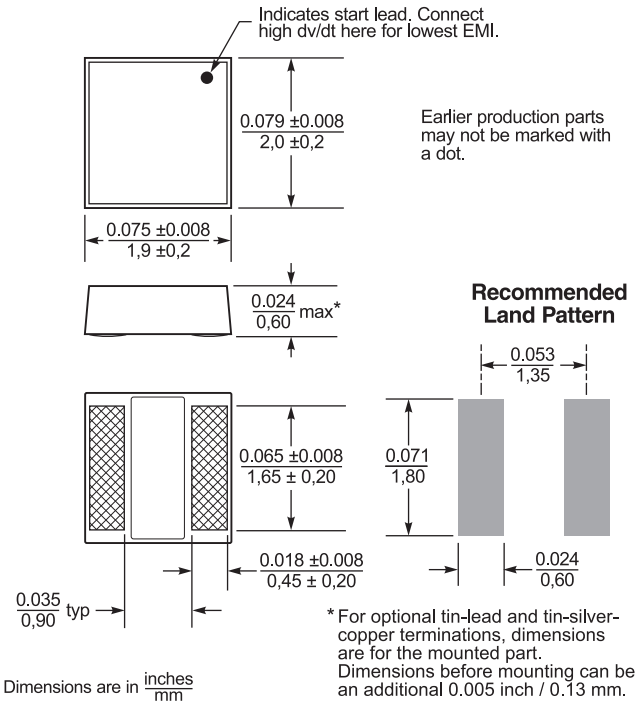






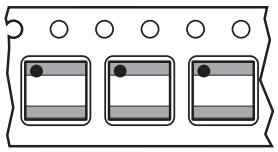
Typical L vs Frequency





Dimensions are in inches / mm

Tape and reel orientation



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