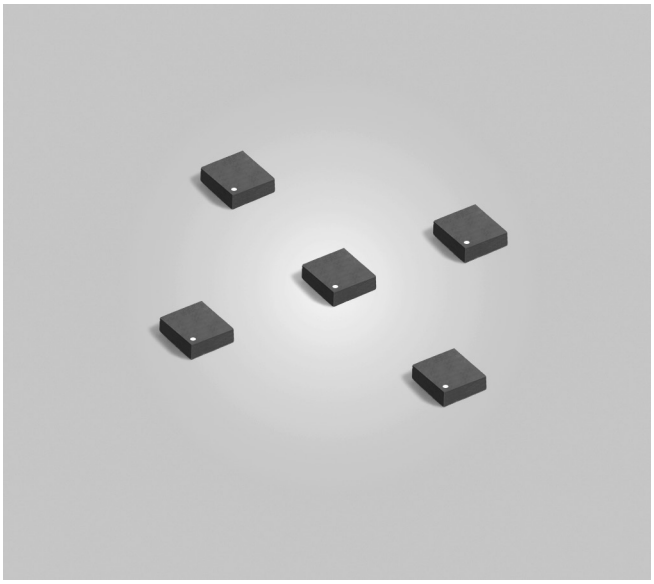
Shielded Power Inductors XFL2006



- 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
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: –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 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:

XFL2006-823MEC

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).
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 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. Click for temperature derating information.
7. Electrical specifications at 25°C.

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

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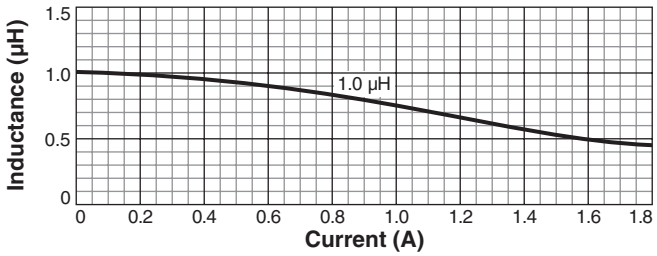
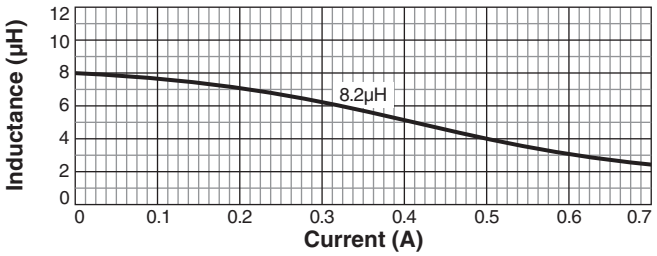
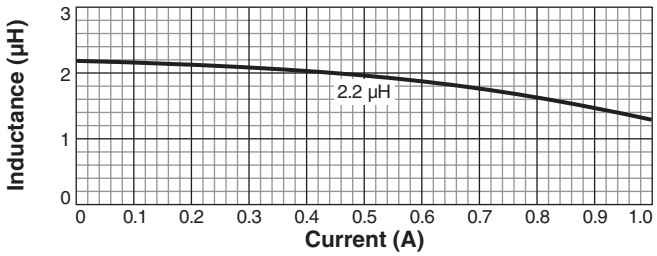
Document 763-1 Revised 02/12/18

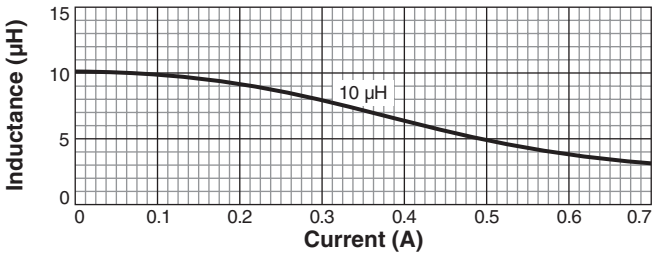
XFL2006 Shielded Power Inductor Series

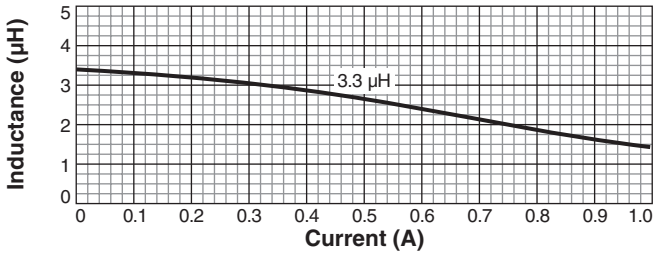
L vs Current

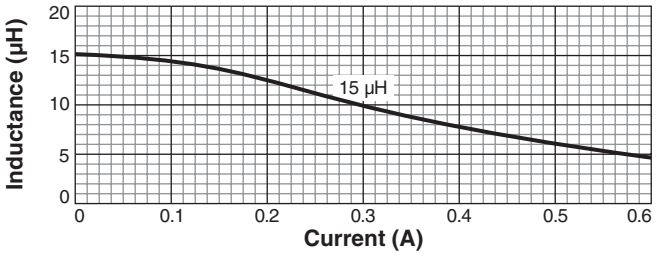


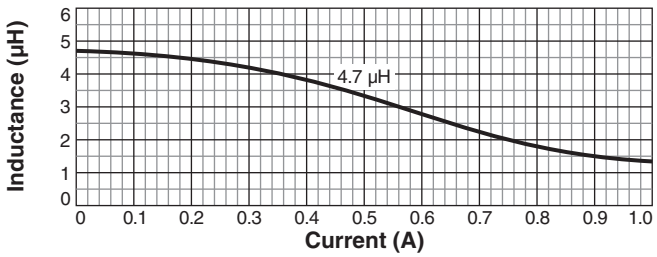


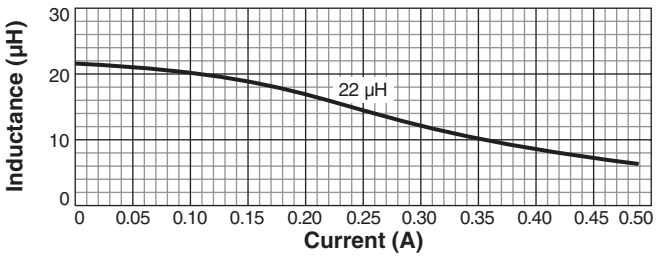


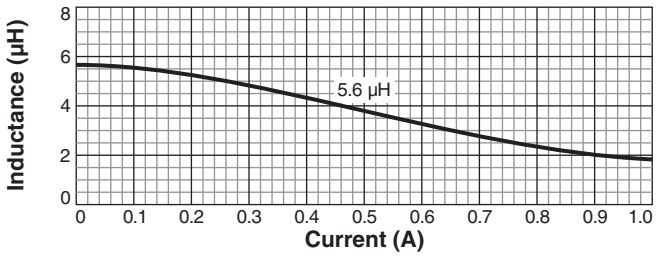


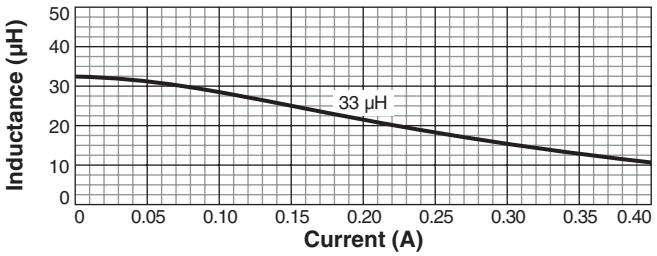


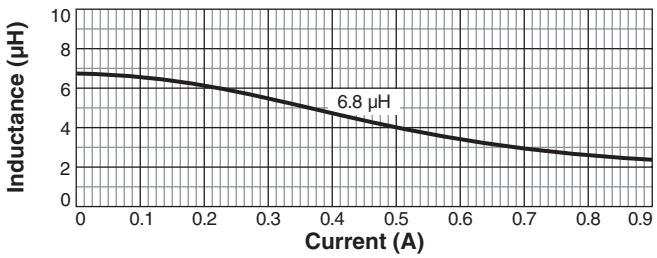


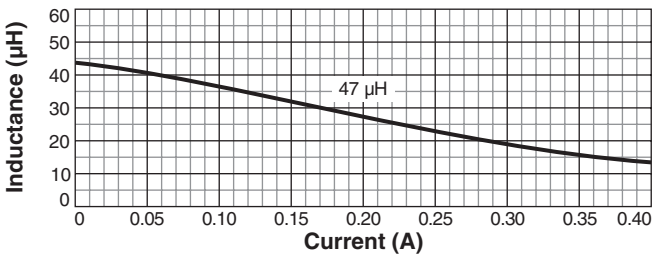












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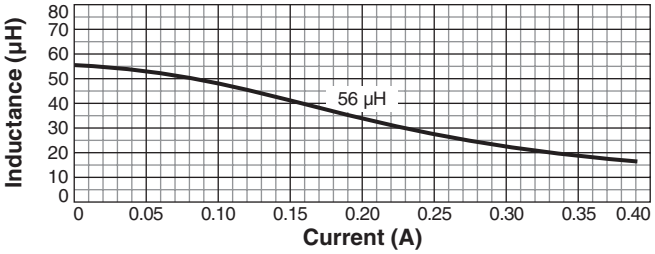
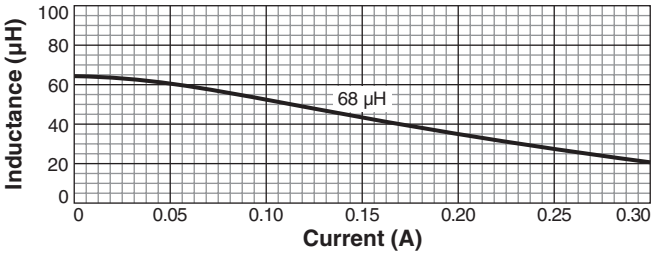
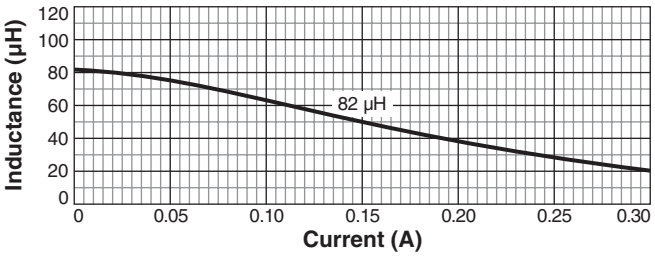
Document 763-2 Revised 02/12/18

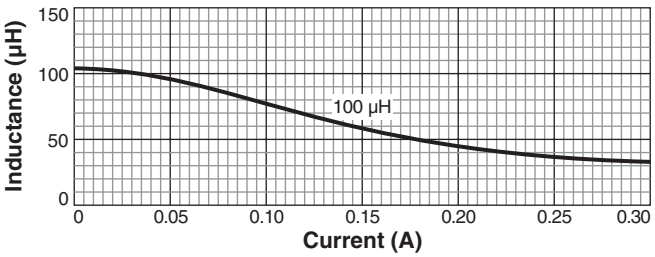
XFL2006 Shielded Power Inductor Series

L vs Current

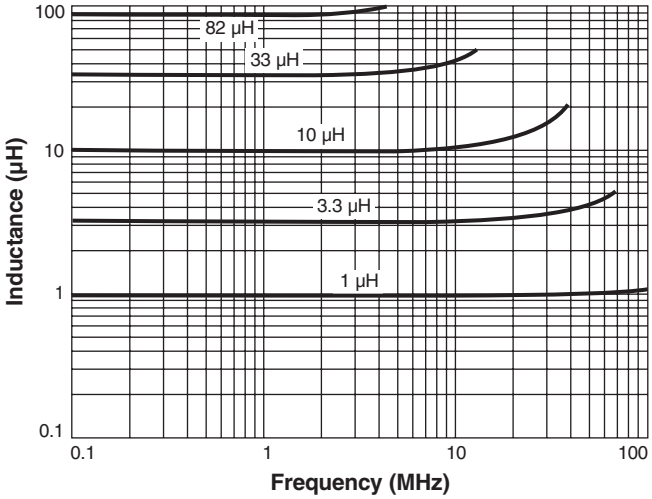


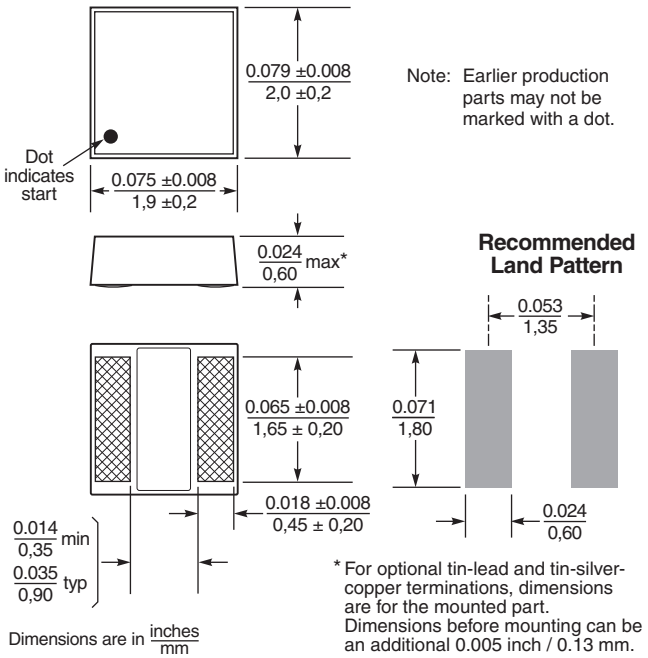






Typical L vs Frequency

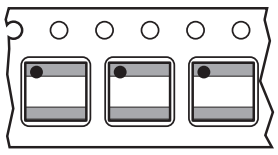




Note: Earlier production parts may not be marked with a dot.

* 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.

Tape and reel orientation



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