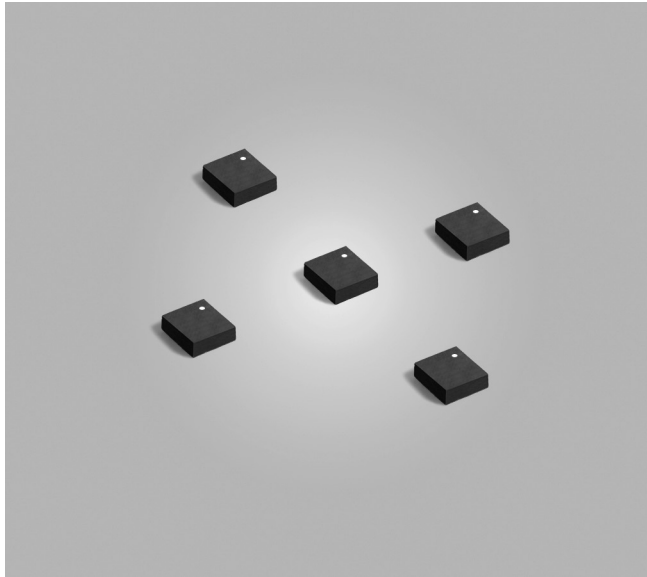


Shielded Power Inductors – XFL2005



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

Designer's Kit C479 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 8.4 – 9.3 mg

Operating voltage 0 – 40 V

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 | | SRF typ ⁴ (MHz) | Isat (A) ⁵ | | | Irms (A) ⁶ | |
|--------------------------|--------------------------------------|-------------------------|-------|-------------------------------|-----------------------|----------|----------|-----------------------|-----------|
| | | 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 |
| XFL2005-102ME_ | 1.00 | 0.377 | 0.430 | 160 | 0.33 | 0.58 | 0.76 | 0.61 | 0.84 |
| XFL2005-152ME_ | 1.50 | 0.483 | 0.555 | 130 | 0.30 | 0.52 | 0.70 | 0.54 | 0.70 |
| XFL2005-222ME_ | 2.20 | 0.674 | 0.775 | 110 | 0.25 | 0.42 | 0.56 | 0.48 | 0.66 |
| XFL2005-332ME_ | 3.30 | 0.922 | 1.06 | 85 | 0.24 | 0.38 | 0.50 | 0.37 | 0.50 |
| XFL2005-472ME_ | 4.70 | 1.46 | 1.69 | 70 | 0.20 | 0.31 | 0.40 | 0.31 | 0.41 |
| XFL2005-562ME_ | 5.60 | 1.72 | 1.98 | 65 | 0.155 | 0.255 | 0.33 | 0.29 | 0.39 |
| XFL2005-682ME_ | 6.80 | 1.92 | 2.21 | 60 | 0.150 | 0.250 | 0.32 | 0.28 | 0.38 |
| XFL2005-822ME_ | 8.20 | 2.46 | 2.80 | 50 | 0.120 | 0.195 | 0.25 | 0.24 | 0.33 |
| XFL2005-103ME_ | 10.0 | 2.78 | 3.10 | 48 | 0.130 | 0.190 | 0.24 | 0.22 | 0.29 |

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

XFL2005-103ME**C**

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. [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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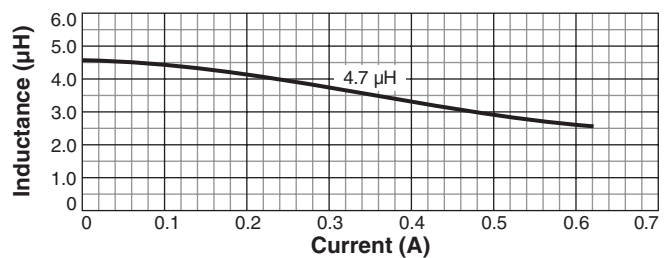
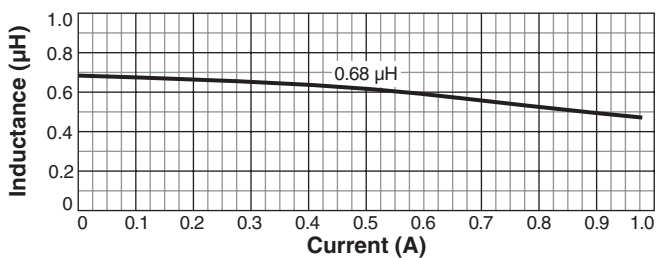
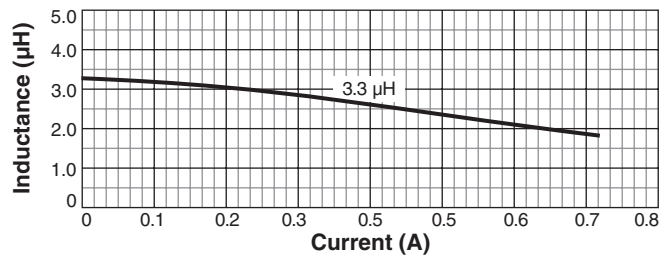
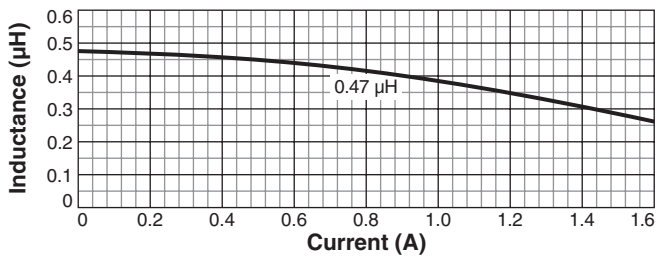
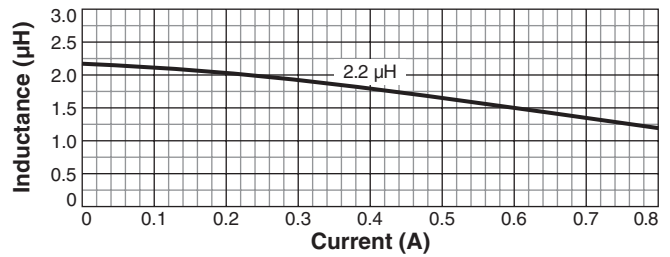
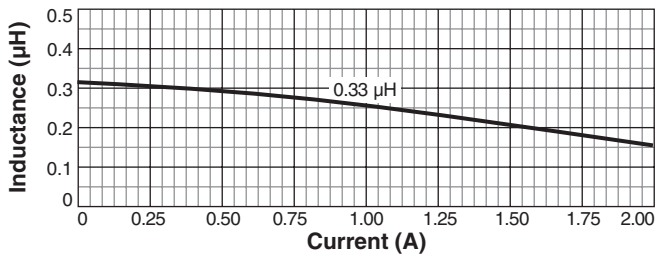
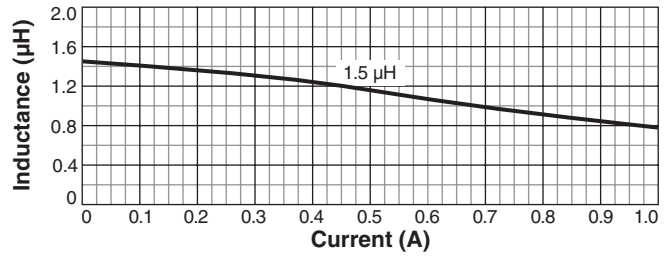
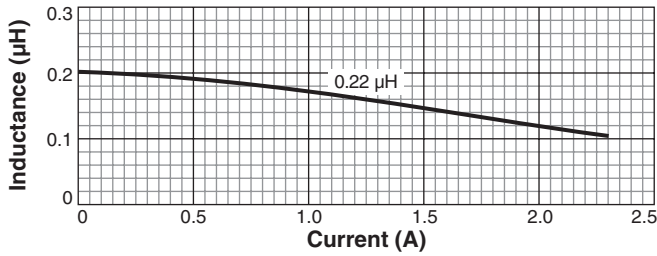
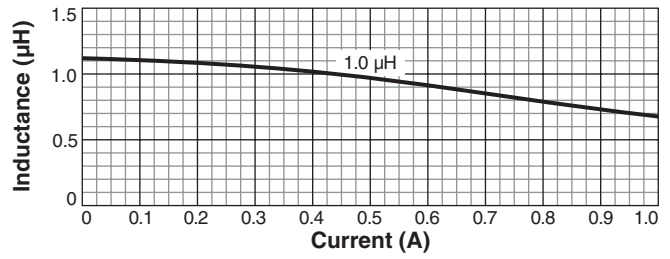
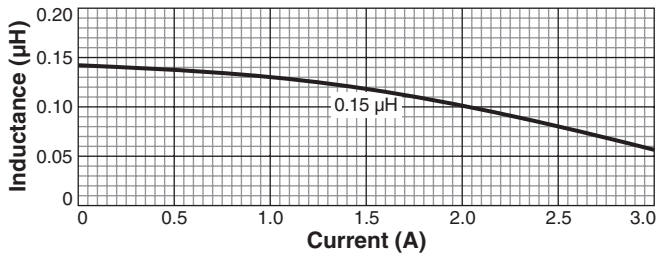
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Shielded Power Inductor – XFL2005

L vs Current



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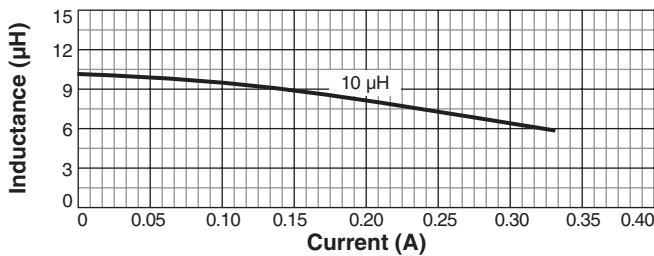
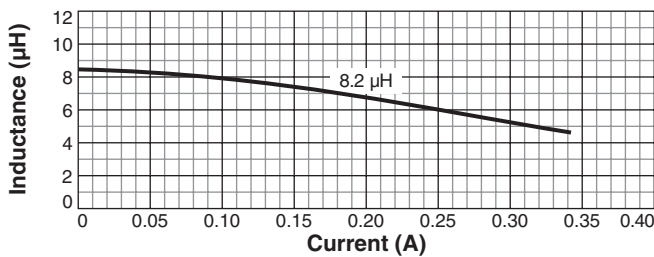
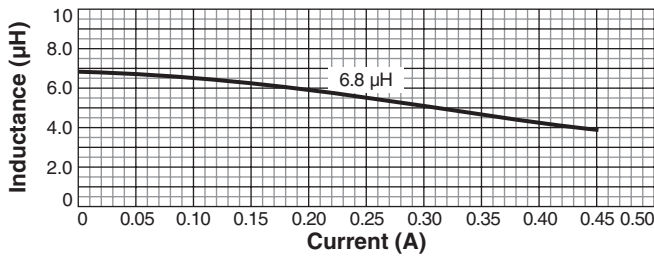
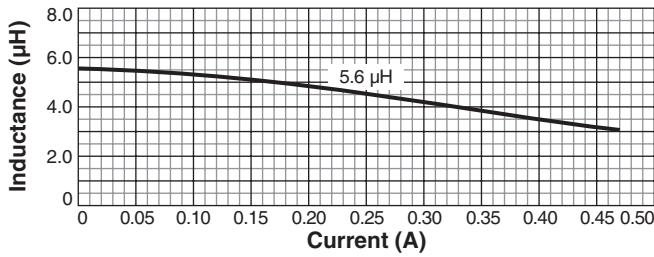
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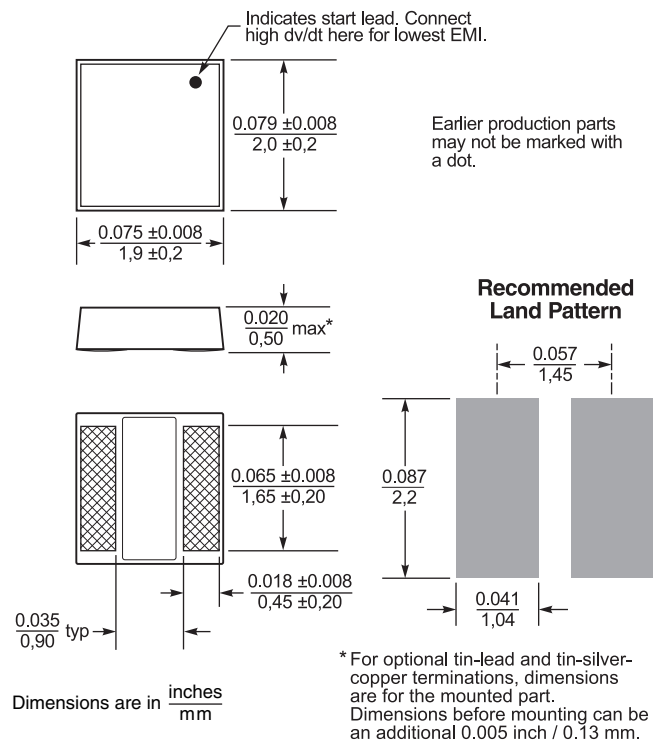
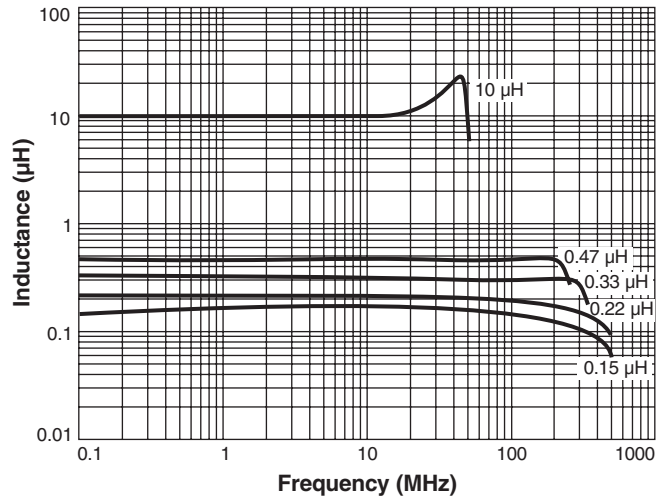


Shielded Power Inductor – XFL2005

L vs Current

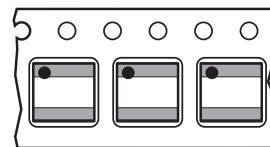


L vs Frequency



Dimensions are in inches / mm

Tape and reel orientation



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