**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: -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)

**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.

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<table>
<thead>
<tr>
<th>Part number</th>
<th>Inductance&lt;sup&gt;2&lt;/sup&gt; (±20% [µH])</th>
<th>DCR (Ohms)&lt;sup&gt;3&lt;/sup&gt;</th>
<th>SRF typ&lt;sup&gt;4&lt;/sup&gt; (MHz)</th>
<th>I&lt;sub&gt;sat&lt;/sub&gt; (A)&lt;sup&gt;5&lt;/sup&gt; 10% drop</th>
<th>I&lt;sub&gt; rms&lt;/sub&gt; (A)&lt;sup&gt;6&lt;/sup&gt; 20% drop</th>
<th>I&lt;sub&gt; rms&lt;/sub&gt; (A)&lt;sup&gt;6&lt;/sup&gt; 30% drop</th>
<th>20°C rise</th>
<th>40°C rise</th>
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<tr>
<td>XFL2006-102ME_</td>
<td>1.0</td>
<td>0.153</td>
<td>0.169</td>
<td>170</td>
<td>0.71</td>
<td>0.90</td>
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</table>

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.
XFL2006 Shielded Power Inductor Series

L vs Current

Inductance (µH) vs Current (A)

- **1.0 µH**
- **2.2 µH**
- **3.3 µH**
- **4.7 µH**
- **5.6 µH**
- **6.8 µH**
- **8.2 µH**
- **10 µH**
- **15 µH**
- **22 µH**
- **33 µH**
- **47 µH**

This product may not be used in medical or high-risk applications without prior Coilcraft approval.
Specification subject to change without notice.
Please check web site for latest information.
XFL2006 Shielded Power Inductor Series

L vs Current

Typical L vs Frequency

![Graphs showing L vs Current and L vs Frequency](image)

Recommended Land Pattern

Tape and reel orientation

*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.

Dimensions are in inches / mm