## Shielded Power Inductors – XFL4030

- High current – up to 5.2 A
- Very low DCR – as low as 3.6 mOhms
- AEC-Q200 Grade 1 qualified (−40°C to +125°C ambient)

### Core material
Composite

### Environmental
RoHS compliant, halogen free

### Terminations
Tin-silver over copper. Other terminations available at additional cost.

### Weight
0.25 – 0.27 g

### Operating voltage
0 – 20 V

### Ambient temperature
−40°C to +125°C with (40°C rise) Irms current.

### Maximum part temperature
+165°C (ambient + temp rise).

### Storage temperature
Component: −55°C to +165°C.

### Tape and reel packaging
−55°C to +80°C

### Resistance to soldering heat
Max three 40 second refows 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

### PCB washing
Tested with pure water or alcohol only. For other solvents, see Doc787_PCB_Washing.pdf

### Part number

<table>
<thead>
<tr>
<th>Part number</th>
<th>Inductance</th>
<th>DCR (mOhms)</th>
<th>SRF</th>
<th>Isat (A)</th>
<th>Irms (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>±20% (µH)</td>
<td>typ</td>
<td>max</td>
<td>10% drop</td>
<td>20% drop</td>
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<tr>
<td>XFL4030-471ME</td>
<td>0.47</td>
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<td>1.7</td>
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</tbody>
</table>

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

   - **C** = 7” machine-ready reel. EIA-481 embossed plastic tape (500 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 (2000 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.
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.
7. Electrical specifications at 25°C.

Refer to Doc 362 “Soldering Surface Mount Components” before soldering.

### Irms Testing

Irms testing was performed on 0.75 inch wide × 0.25 inch thick copper traces in still air.

Temperature rise is highly dependent on many factors including pcb land pattern, trace size, and proximity to other components. Therefore temperature rise should be verified in application conditions.
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Typical L vs Current

Typical L vs Frequency

Dash number Indicates start lead and orientation of terminations

Note: Parts manufactured prior to 2011 may not have orientation indicator.

Recommended Land Pattern

Dimensions are in inches

Packaging 500/7” reel; 2000/13” reel

Plastic tape: 12 mm wide, 0.23 mm thick, 8 mm pocket spacing, 3.25 mm pocket depth

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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.