Raised Power Inductors XAR7030

• High current, very low DCR, soft saturation
• Unique off-the-board design provides 1.5 mm clearance for parts to be mounted underneath
• Magnetically shielded for high-density designs

Core material Composite
Environmental RoHS compliant, halogen free
Terminations RoHS compliant matte tin over nickel over phos bronze
Weight 1.06 g
Ambient temperature +125°C with Irms current
Maximum part temperature +165°C
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 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 250/7” reel; 1000/13” reel Plastic tape: 16 mm wide, 0.3 mm thick, 12 mm pocket spacing, 4.7 mm pocket depth

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

<table>
<thead>
<tr>
<th>Part number</th>
<th>Inductance 2±20% (µH) typ</th>
<th>DCR (mOhms) typ A</th>
<th>SRF typ 4 (MHz)</th>
<th>Isat 5 (A)</th>
<th>I rms (A) 6</th>
<th>20°C rise</th>
<th>40°C rise</th>
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<tbody>
<tr>
<td>XAR7030-161ME</td>
<td>0.16</td>
<td>1.26</td>
<td>1.40</td>
<td>158</td>
<td>60.0</td>
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</table>

1. When ordering, please specify packaging code:
   XAR7030-103ME C = 7” machine-ready reel. EIA-481 embossed plastic tape 250 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer ($25 charge).

   Packaging: C = 7” machine-ready reel. EIA-481 embossed plastic tape 250 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 1000 parts per full reel).

2. Inductance tested at 100 kHz, 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 which the inductance drops the 30% (typ) from its value without current.
6. Current that causes the specified temperature rise from 25°C ambient.
7. Electrical specifications at 25°C. Refer to Doc 362 “Soldering Surface Mount Components” before soldering.
Shielded Power Inductors – XAR7030 Series

L vs Current

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0.16 µH

0.30 µH

0.50 µH

1.0 µH

1.3 µH

2.2 µH

2.7 µH

3.3 µH

4.7 µH

5.6 µH

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Inductance (µH) vs Current (A) for various inductance values.
Shielded Power Inductors – XAR7030 Series

L vs Current

Typical L vs Frequency

Dimensions are in inches/mm

Recommended Land Pattern