CWF1610 Series - 0603 Chip Inductors

Features
- Miniature size
- High Q value
- High self-resonant frequency
- Low DCR
- RoHS compliant* and halogen free**

Electrical Specifications @ 25 °C

<table>
<thead>
<tr>
<th>Bourns Part No.</th>
<th>Inductance L (μH)</th>
<th>Q Typ.</th>
<th>Test Freq. / Voltage</th>
<th>SRF (MHz) Typ.</th>
<th>DCR (Ω) ≤30 %</th>
<th>Irms (mA) Typ.</th>
<th>Isat (mA) Typ.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CWF1610-1R0K</td>
<td>1.0</td>
<td>10</td>
<td>16 7.9 MHz / 0.5 V</td>
<td>390</td>
<td>0.32</td>
<td>700</td>
<td>860</td>
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<tr>
<td>CWF1610-2R2K</td>
<td>2.2</td>
<td>10</td>
<td>16 7.9 MHz / 0.5 V</td>
<td>103</td>
<td>0.56</td>
<td>580</td>
<td>600</td>
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<tr>
<td>CWF1610-3R3K</td>
<td>3.3</td>
<td>10</td>
<td>16 7.9 MHz / 0.5 V</td>
<td>66</td>
<td>0.7</td>
<td>500</td>
<td>500</td>
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<td>CWF1610-4R7K</td>
<td>4.7</td>
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<td>16 7.9 MHz / 0.5 V</td>
<td>51</td>
<td>0.97</td>
<td>420</td>
<td>400</td>
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<td>CWF1610-6R8K</td>
<td>6.8</td>
<td>10</td>
<td>16 7.9 MHz / 0.5 V</td>
<td>43</td>
<td>1.5</td>
<td>340</td>
<td>340</td>
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<tr>
<td>CWF1610-100K</td>
<td>10</td>
<td>10</td>
<td>14 2.5 MHz / 0.5 V</td>
<td>36</td>
<td>1.85</td>
<td>280</td>
<td>280</td>
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<tr>
<td>CWF1610-150K</td>
<td>15</td>
<td>10</td>
<td>14 2.5 MHz / 0.5 V</td>
<td>29</td>
<td>2.6</td>
<td>240</td>
<td>240</td>
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<td>CWF1610-180K</td>
<td>18</td>
<td>10</td>
<td>14 2.5 MHz / 0.5 V</td>
<td>28</td>
<td>2.9</td>
<td>220</td>
<td>220</td>
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<tr>
<td>CWF1610-220K</td>
<td>22</td>
<td>10</td>
<td>14 2.5 MHz / 0.5 V</td>
<td>24</td>
<td>3.61</td>
<td>200</td>
<td>200</td>
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</tbody>
</table>

Additional Information
Click these links for more information:

- PRODUCT
- TECHNICAL LIBRARY
- INVENTORY
- SAMPLES
- CONTACT

General Specifications
Operating Temperature
-40 °C to +125 °C (Temperature rise included)
Storage Temperature (Component)
-40 °C to +125 °C
Temperature Rise ...
40 °C at rated Irms
Rated Current
Inductance drops 20 % at Isat
Moisture Sensitivity Level
ESD Classification (HBM)
Materials
Core................. Ferrite
Wire ................. Enamed copper
Terminal Finish ........ Sn
Packaging........ 4000 pcs. per 7-inch reel

How to Order
Model
CWF1610 - 1R0K
Value Code (see table)

WARNING Cancer and Reproductive Harm
www.P65Warnings.ca.gov

** Bourns considers a product to be “halogen free” if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.
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Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf.
### Soldering Profile

- **PRE-HEATING**
  - $T_p$ (245 °C / 20~40 seconds max.)
- **SOLDERING**
  - 217 °C
  - 60 - 180 seconds
- **NATURAL COOLING**
  - 60 ± 180 seconds
  - 480 seconds max.

### Recommended Layout

- DIMENSIONS: **MM**
  - 1.92 (0.076)
  - 2.0 ± 0.05 (0.079 ± 0.002)
  - 1.50 ± 0.10 (0.059 ± 0.004)
  - 2 ± 0.5 (0.079 ± 0.020)
  - 1.3 ± 0.05 (0.051 ± 0.002)

### Packaging Specifications

- **Dimensions:** **MM**
  - 9.0 ± 0.5 (354 ± 0.020)
  - 60 ± 2 (2.362 ± 0.079)
  - 13.5 ± 0.5 (531 ± 0.020)
  - 2 ± 0.5 (0.079 ± 0.020)

- **Recommended Layout**
  - 1.92 (0.076)
  - 2.0 ± 0.05 (0.079 ± 0.002)
  - 1.50 ± 0.10 (0.059 ± 0.004)

### Soldering Profile

- **Temperture (°C)**
  - 150
  - 200
  - 217
  - 25

- **Time (Seconds)**
  - 60 ± 2 (2.362 ± 0.079)
  - 120 °
  - 480 seconds max.

### Recommended Layout

- **Recommended Layout**
  - 1.92 (0.076)
  - 2.0 ± 0.05 (0.079 ± 0.002)
  - 1.50 ± 0.10 (0.059 ± 0.004)

### Packaging Specifications

- **Dimensions:** **INCHES**
  - 0.92 (0.036)
  - 1.02 (0.040)
  - 1.1 ± 0.05 (0.043 ± 0.002)
  - 5 °

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