**Wirewound Ferrite Beads 0603LS (1608)**

Higher performance than other surface mount ferrite beads in the market
High impedance across wide bandwidth; up to GHz band
Extremely low DCR for high current applications
Ferrite construction and heavy gauge wire for high current handling
Eliminates high frequency noise in power supplies or RF signal isolation applications

**Typical L vs Frequency**

![Graph of Typical L vs Frequency]

**Typical Impedance vs Frequency**

![Graph of Typical Impedance vs Frequency]

Designer’s Kit C347 contains 10 of each value.
Core material Ceramic/Ferrite
Environmental RoHS compliant, halogen free
Terminations RoHS matte Sn over Ni over Ag-Pt-glass frit. Other terminations available at additional cost.
Weight 4.8 – 6.2 mg
Ambient temperature −40°C to +85°C with I<sub>rms</sub> current
Maximum part temperature +100°C (ambient + temp rise)
Storage temperature Component: −40°C to +100°C.
Tape and reel packaging: −40°C to +80°C
Resistance to soldering heat Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles
Temperature Coefficient of Inductance (TCL) +50 to +150 ppm/°C
Moisture Sensitivity Level (MSL) 1 (unlimited floor life at <30°C / 85% relative humidity)
Failures in Time (FIT) / Mean Time Between Failures (MTBF) 0.22 per billion hours / 4.55E+09 hours, calculated per Telcordia SR-332
Packaging 2000 per 7″ reel. Plastic tape: 8 mm wide, 0.23 mm thick, 4 mm pocket spacing, 1.17 mm pocket depth
PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.

**Recommended Land Pattern**

<table>
<thead>
<tr>
<th>A max</th>
<th>B max</th>
<th>C max</th>
<th>D ref</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.071</td>
<td>0.044</td>
<td>0.015</td>
<td>0.030</td>
<td>0.013</td>
<td>0.034</td>
<td>0.040</td>
<td>0.025</td>
<td>0.025</td>
<td></td>
</tr>
</tbody>
</table>

Note: B1 = 0.040 ±0.004 in / 1.016 ±0,102 mm  
B2 = 0.046 ±0.004 in / 1.169 ±0,102 mm

Height dimension (C) is before optional solder application. For maximum height dimension including solder, add 0.006 in / 0,152 mm.
# Wirewound Ferrite Beads – 0603LS Series

<table>
<thead>
<tr>
<th>Part number</th>
<th>Inductance (±5% (nH))</th>
<th>Impedance typ (Ohms)</th>
<th>SRF (MHz)</th>
<th>DCR (MHz)</th>
<th>Ims (A)</th>
<th>Color code</th>
<th>Overall width</th>
</tr>
</thead>
<tbody>
<tr>
<td>0603LS-47NXJR</td>
<td>47 @ 7.9MHz</td>
<td>28.21 212.9</td>
<td>1500</td>
<td>0.075</td>
<td>1.40</td>
<td>Black</td>
<td>B1</td>
</tr>
<tr>
<td>0603LS-51NXJR</td>
<td>51 @ 7.9MHz</td>
<td>30.80 200.0</td>
<td>1400</td>
<td>0.075</td>
<td>1.00</td>
<td>Violet</td>
<td>B1</td>
</tr>
<tr>
<td>0603LS-72NXJR</td>
<td>72 @ 7.9MHz</td>
<td>43.31 330.0</td>
<td>1400</td>
<td>0.12</td>
<td>1.40</td>
<td>Brown</td>
<td>B1</td>
</tr>
<tr>
<td>0603LS-101XJR</td>
<td>100 @ 7.9MHz</td>
<td>62.75 475.7</td>
<td>1150</td>
<td>0.13</td>
<td>1.40</td>
<td>Red</td>
<td>B1</td>
</tr>
<tr>
<td>0603LS-121XJR</td>
<td>120 @ 7.9MHz</td>
<td>73.71 635.8</td>
<td>1100</td>
<td>0.15</td>
<td>1.40</td>
<td>Orange</td>
<td>B1</td>
</tr>
<tr>
<td>0603LS-151XJR</td>
<td>150 @ 7.9MHz</td>
<td>90.40 719.7</td>
<td>1050</td>
<td>0.15</td>
<td>1.30</td>
<td>Yellow</td>
<td>B1</td>
</tr>
</tbody>
</table>

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

   - **R** = RoHS matte Sn over Ni over Ag-Pt-glass frit. RoHS compliance expiring. Last order June 2021.
   - **E** = Ag/Pd/Pt-glass frit. Not for new designs.
   - **L** = Not halogen-free. Ag/Pd/Pt-glass frit. Not for new designs.
   - **T** = RoHS Sn/Ag/Cu (95.5/4.0/0.5)
   - **S** = Not RoHS Sn/Pb (63/37).

2. Inductance measured at 0.1 Vrms, using Coilcraft SMD-A fixture in Agilent/HP 4286A impedance analyzer with Coilcraft-provided correlation pieces.

3. SRF measured using Agilent/HP 8753D network analyzer with Coilcraft SMD-D test fixture.

4. DCR measured on Cambridge Technology Micro-ohmmeter.

5. Current that causes a 15°C temperature rise from 25°C ambient. Because of their open construction, these parts will not saturate. This information is for reference only and does not represent absolute maximum ratings.