SMT Power Inductors - LPO4812

- Very low profile - only 1.2 mm high!
- Handles up to 1.3 Amps saturating current

Designer’s Kit C357 contains 3 each of all values
Core material Ferrite
Core and winding loss See www.coilcraft.com/coreloss
Terminations RoHS compliant silver-palladium-platinum-glass frit. Other terminations available at additional cost.
Weight 53 – 61 mg
Ambient temperature -40°C to +85°C with 1 rms current
Maximum part temperature +125°C (ambient + temp rise)
Storage temperature Component: -40°C to +125°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
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 1000/7″ reel; 3500/13″ reel Plastic tape: 12 mm wide, 0.23 mm thick, 1.3 mm pocket depth
Recommended pick and place nozzle OD: 4.6 mm; ID: ≤ 2.3 mm
PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.

<table>
<thead>
<tr>
<th>Part number1</th>
<th>L2 (µH)</th>
<th>DCR (µmS)</th>
<th>SRF typ (MHz)</th>
<th>Isat (A)</th>
<th>Irms (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LPO4812-102ML</td>
<td>1.0 ±20%</td>
<td>0.055</td>
<td>270</td>
<td>1.30</td>
<td>0.85</td>
</tr>
<tr>
<td>LPO4812-152ML</td>
<td>1.5 ±20%</td>
<td>0.080</td>
<td>220</td>
<td>1.00</td>
<td>0.85</td>
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<tr>
<td>LPO4812-222ML</td>
<td>2.2 ±20%</td>
<td>0.090</td>
<td>170</td>
<td>0.80</td>
<td>0.85</td>
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<tr>
<td>LPO4812-332ML</td>
<td>3.3 ±20%</td>
<td>0.120</td>
<td>140</td>
<td>0.70</td>
<td>0.80</td>
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<tr>
<td>LPO4812-472ML</td>
<td>4.7 ±20%</td>
<td>0.155</td>
<td>110</td>
<td>0.60</td>
<td>0.80</td>
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<tr>
<td>LPO4812-682ML</td>
<td>6.8 ±20%</td>
<td>0.225</td>
<td>90</td>
<td>0.45</td>
<td>0.78</td>
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<tr>
<td>LPO4812-822ML</td>
<td>8.2 ±20%</td>
<td>0.270</td>
<td>70</td>
<td>0.45</td>
<td>0.77</td>
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<tr>
<td>LPO4812-103KL</td>
<td>10 ±10%</td>
<td>0.300</td>
<td>60</td>
<td>0.40</td>
<td>0.76</td>
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<tr>
<td>LPO4812-153KL</td>
<td>15 ±10%</td>
<td>0.460</td>
<td>50</td>
<td>0.32</td>
<td>0.72</td>
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<tr>
<td>LPO4812-223KL</td>
<td>22 ±10%</td>
<td>0.640</td>
<td>40</td>
<td>0.28</td>
<td>0.59</td>
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<tr>
<td>LPO4812-333KL</td>
<td>33 ±10%</td>
<td>0.850</td>
<td>30</td>
<td>0.22</td>
<td>0.54</td>
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<tr>
<td>LPO4812-473KL</td>
<td>47 ±10%</td>
<td>1.30</td>
<td>28</td>
<td>0.20</td>
<td>0.50</td>
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<tr>
<td>LPO4812-683KL</td>
<td>68 ±10%</td>
<td>1.80</td>
<td>22</td>
<td>0.16</td>
<td>0.39</td>
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<tr>
<td>LPO4812-104KL</td>
<td>100 ±10%</td>
<td>2.60</td>
<td>18</td>
<td>0.13</td>
<td>0.32</td>
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<tr>
<td>LPO4812-154KL</td>
<td>150 ±10%</td>
<td>4.20</td>
<td>14</td>
<td>0.10</td>
<td>0.26</td>
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<tr>
<td>LPO4812-224KL</td>
<td>220 ±10%</td>
<td>5.50</td>
<td>11</td>
<td>0.09</td>
<td>0.24</td>
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</tbody>
</table>

1. When ordering, please specify termination and packaging codes:
LPO4812-473MLC

Termination: L = RoHS compliant silver-palladium-platinum-glass frit
Special order: T = RoHS tin-silver-copper (95.5/4/0.5) or S = non-RoHS tin-lead (63/37)

Packaging: C= 7″ machine-ready reel. EIA-481 embossed plastic tape (1000 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 (3500 parts per full reel).

2. Inductance tested at 100 kHz, 0.1 Vrms 0 Adc.
3. DC current at which the inductance drops 10% (typ) from its value without current.
4. Current that causes a 40°C temperature rise from 25°C ambient.
5. Electrical specifications at 25°C.

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

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Specification subject to change without notice. Please check web site for latest information.
SMT Power Inductors - LPO4812 Series

Typical L vs Frequency

Typical L vs Current

Recommended Land Pattern

Dimensions are in inches/mm