SMT Power Inductors - LPO2506

- On-board style – 1.65 mm high
- InBoard® style – only 1.19 high

Designer’s Kit C332 contains 3 of all InBoard® styles
Designer’s Kit C333 contains 3 of all On-board styles
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  240 – 260 mg

Ambient temperature  –40°C to +85°C with I 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  1000/13" reel Plastic tape: 12 mm wide, 0.23 mm thick, 8 mm pocket spacing, 1.37 mm pocket depth

PCB washing  Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf

InBoard style

<table>
<thead>
<tr>
<th>part number 1</th>
<th>On-board style part number 1</th>
<th>L ±20% 2 (µH)</th>
<th>DCR max (Ohms)</th>
<th>SRF typ (MHz)</th>
<th>Isat 3 (A)</th>
<th>I rms 4 (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LPO2506I-472L</td>
<td>LPO2506O-472L</td>
<td>4.7</td>
<td>0.145</td>
<td>90</td>
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<td>1.9</td>
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<td>LPO2506O-682L</td>
<td>6.8</td>
<td>0.165</td>
<td>75</td>
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<td>1.7</td>
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<td>LPO2506O-822L</td>
<td>8.2</td>
<td>0.200</td>
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<td>0.240</td>
<td>60</td>
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</tbody>
</table>

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

LPO2506O-105LD

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

Packaging:  D = 13” machine-ready reel. EIA-481 embossed plastic tape (1000 parts per full reel).
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 D

2. Inductance tested at 100 kHz, 0.1 Vrms, 0 Adc using an Agilent/HP 4263B LCR meter or equivalent.

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.
SMT Power Inductors - LPO2506 Series

Typical L vs Frequency

Typical L vs Current

On-board Style

Recommended Land Pattern

InBoard Style

Recommended Land Pattern

Note: Parts manufactured prior to March, 2011 were marked only with the dash number.