### SMT Power Inductors - LPO4812

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

**Designer's Kit C357 contains 3 of all values**

**Core material**  | Ferrite
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**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 Irms 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, 8 mm pocket spacing, 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.

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* Part number | L² (µH) | DCR max (Ohms) | SRF typ (MHz) | Isat³ (A) | Irms⁴ (A) |
---|---|---|---|---|---|
LPO4812-102ML | 1.0 ±20% | 0.055 | 270 | 1.30 | 0.85 |
LPO4812-152ML | 1.5 ±20% | 0.080 | 220 | 1.00 | 0.85 |
LPO4812-222ML | 2.2 ±20% | 0.090 | 170 | 0.80 | 0.85 |
LPO4812-332ML | 3.3 ±20% | 0.120 | 140 | 0.70 | 0.80 |
LPO4812-472ML | 4.7 ±20% | 0.155 | 110 | 0.60 | 0.80 |
LPO4812-682ML | 6.8 ±20% | 0.225 | 90 | 0.45 | 0.78 |
LPO4812-822ML | 8.2 ±20% | 0.270 | 70 | 0.45 | 0.77 |
LPO4812-103KL | 10 ±10% | 0.300 | 60 | 0.40 | 0.76 |
LPO4812-153KL | 15 ±10% | 0.460 | 50 | 0.32 | 0.72 |
LPO4812-223KL | 22 ±10% | 0.640 | 40 | 0.28 | 0.59 |
LPO4812-333KL | 33 ±10% | 0.850 | 30 | 0.22 | 0.54 |
LPO4812-473KL | 47 ±10% | 1.30 | 28 | 0.20 | 0.50 |
LPO4812-683KL | 68 ±10% | 1.80 | 22 | 0.16 | 0.39 |
LPO4812-104KL | 100 ±10% | 2.60 | 18 | 0.13 | 0.32 |
LPO4812-154KL | 150 ±10% | 4.20 | 14 | 0.10 | 0.26 |
LPO4812-224KL | 220 ±10% | 5.50 | 11 | 0.09 | 0.24 |

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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 (95.5/0.5/4) or S = non-RoHS tin-lead (63/37/4)

   **Packaging:**  
   C = 7” machine-ready reel. EIA-481 embossed plastic tape (1000 parts per full reel). Quantities less than full reel available in tape (not machine ready) or with leader and trailer ($25 charge).
   D = 13” machine-ready reel. EIA-481 embossed plastic tape (3500 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 C.

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.
SMT Power Inductors - LPO4812 Series

Typical L vs Frequency

Typical L vs Current

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Dimensions are in inches

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Please check web site for latest information.