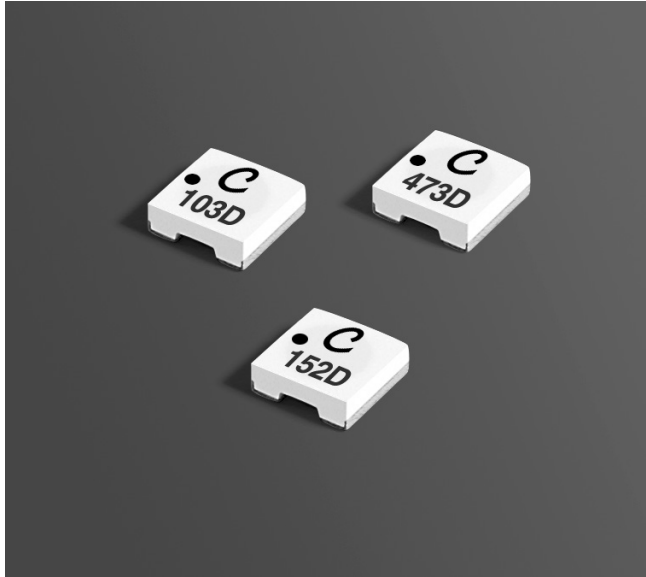




# SMT Power Inductors - LPO3010



- Miniature power inductors – 3 × 3 mm, only 1.0 mm tall
- Low DCR; excellent current handling

**Designer's Kit C388** contains 3 of each part

**Core material** Ferrite

**Terminations** RoHS compliant silver-palladium-platinum-glass frit. Other terminations available at additional cost.

**Weight** 20 – 22 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, 1.14 mm pocket depth

**Recommended pick and place nozzle** OD: 3 mm; ID: ≤1.5 mm

**PCB washing** Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787\\_PCB\\_Washing.pdf](#).

Part number <sup>1</sup>	Inductance <sup>2</sup> (μH)	DCR max <sup>3</sup> (Ohms)	SRF typ <sup>4</sup> (MHz)	Isat <sup>5</sup> (A)	Irms <sup>6</sup> (A)
LPO3010-102NL_	1.0 ±30%	0.140	200	1.7	1.4
LPO3010-122NL_	1.2 ±30%	0.160	190	1.6	1.4
LPO3010-152NL_	1.5 ±30%	0.200	150	1.3	1.0
LPO3010-222NL_	2.2 ±30%	0.265	140	1.2	0.90
LPO3010-332NL_	3.3 ±30%	0.335	100	0.96	0.60
LPO3010-472NL_	4.7 ±30%	0.570	80	0.76	0.50
LPO3010-682NL_	6.8 ±30%	0.650	68	0.68	0.47
LPO3010-822NL_	8.2 ±30%	1.00	60	0.64	0.45
LPO3010-103ML_	10 ±20%	1.15	50	0.50	0.45
LPO3010-153ML_	15 ±20%	1.57	35	0.42	0.40
LPO3010-223ML_	22 ±20%	2.20	30	0.37	0.35
LPO3010-333ML_	33 ±20%	2.80	14	0.31	0.29
LPO3010-473ML_	47 ±20%	4.60	12	0.30	0.28

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

**LPO3010-473MLC**

**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 using an Agilent/HP 4192A.

3. DCR measured on a micro-ohmmeter.

4. SRF measured using an Agilent/HP 8753ES or equivalent.

5. DC current at which the inductance drops 10% (typ) from its value without current.

6. Current that causes a 40°C temperature rise from 25°C ambient.

7. Electrical specifications at 25°C.

Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

**SPICE models** ON OUR WEB SITE



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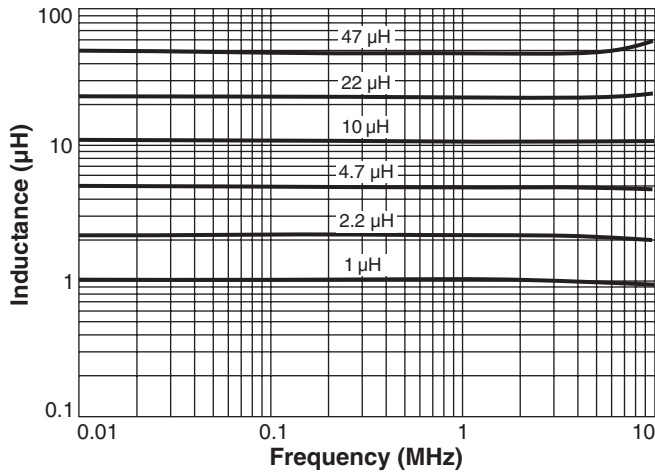
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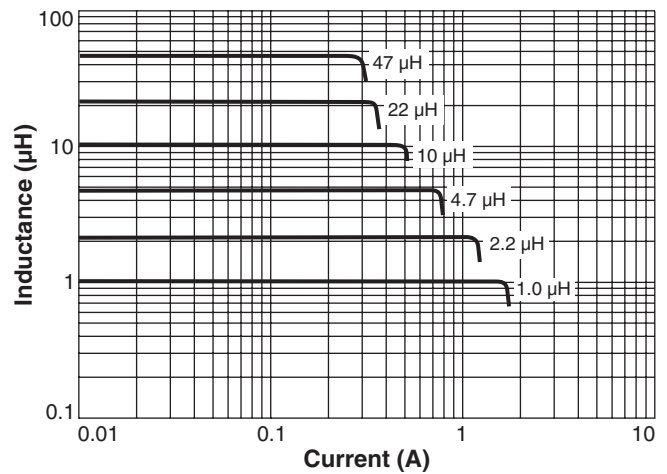


# SMT Power Inductors - LPO3010 Series

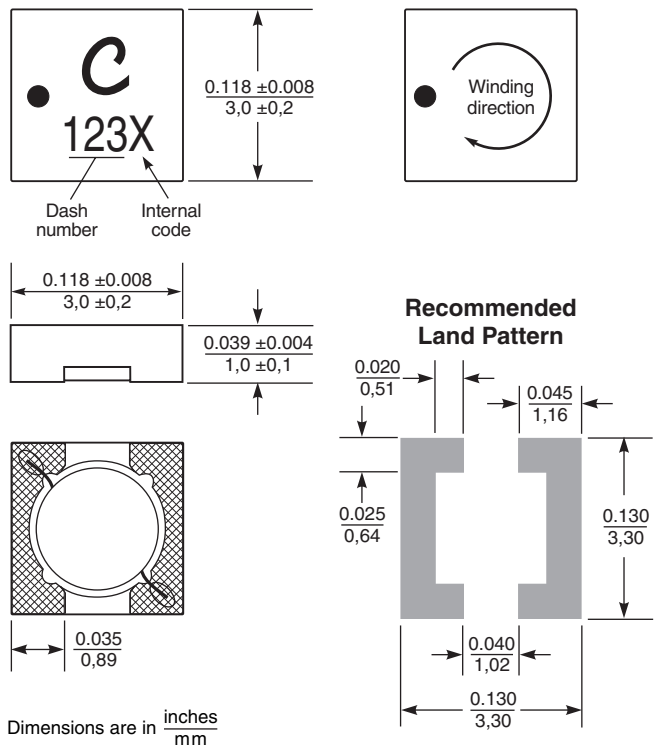
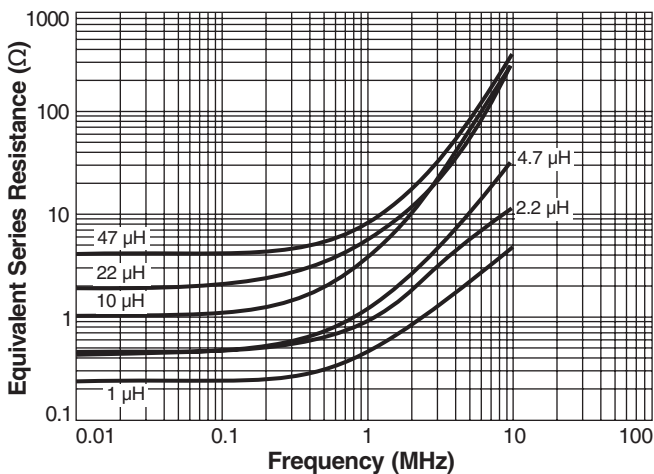
## Typical L vs Frequency



## Typical L vs Current



## Typical ESR vs Frequency



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