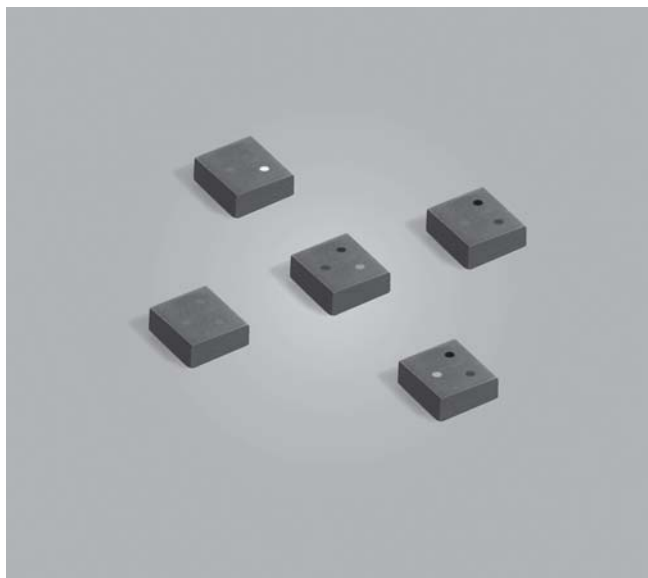


**NEW!**

SMT Power Inductors – EPL3010 Series



- Low profile shielded power inductors, 3 × 3 × 1 mm
- Extremely low DCR and high SRF ratings
- Isat ratings as high as 2.2 A
- More values will be available soon

Designer's Kit C431 contains 5 each of all values

Core material Ferrite

Terminations RoHS compliant tin-silver-copper over tin over nickel over silver. Other terminations available at additional cost.

Weight 32 – 38 mg

Ambient temperature –40°C to +85°C with I_{rms} current, +85°C to +125°C with derated current

Storage temperature Component: –40°C to +125°C.

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 2000/7" reel; 7500/13" reel; Plastic tape: 8 mm wide, 0.20 mm thick, 4 mm pocket spacing, 1.14 mm pocket depth

PCB washing Only pure water or alcohol recommended

Part number ¹	Inductance ² ±20% (µH)	DCR nom ³ (Ohms)	DCR max ³ (Ohms)	SRF typ ⁴ (MHz)	Isat (A) ⁵			I _{rms} (A) ⁶	
					10% drop	20% drop	30% drop	20°C rise	40°C rise
EPL3010-301ML_	0.30	0.040	0.045	249	1.0	1.6	2.2	1.7	2.2
EPL3010-102ML_	1.0	0.071	0.078	151	0.80	1.3	1.8	1.2	1.7
EPL3010-152ML_	1.5	0.086	0.095	116	0.68	1.1	1.6	1.2	1.6
EPL3010-222ML_	2.2	0.137	0.150	98	0.54	0.92	1.3	0.98	1.3
EPL3010-472ML_	4.7	0.278	0.306	60	0.36	0.61	0.80	0.74	0.99
EPL3010-103ML_	10	0.573	0.631	38	0.20	0.34	0.48	0.52	0.70

1. When ordering, please specify **packaging** code:

EPL3010-103MLC

Packaging: **C** = 7" machine-ready reel. EIA-481 embossed plastic tape (2000 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. Factory order only, not stocked (7500 parts per full reel).

2. Inductance tested at 100 kHz, 0.1 V_{rms}, 0 Adc.

3. DCR measured on a micro-ohmmeter.

4. SRF measured using Agilent/HP 4395A network analyzer or equivalent.

5. DC current at which the inductance drops from its value without current.

6. Current that causes the specified temperature rise from 25°C ambient.

7. Electrical specifications at 25°C.

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

Coilcraft®

Specifications subject to change without notice.
Please check our website for latest information.

Document 615-1 Revised 10/02/09

1102 Silver Lake Road Cary, Illinois 60013 Phone 847/639-6400 Fax 847/639-1469

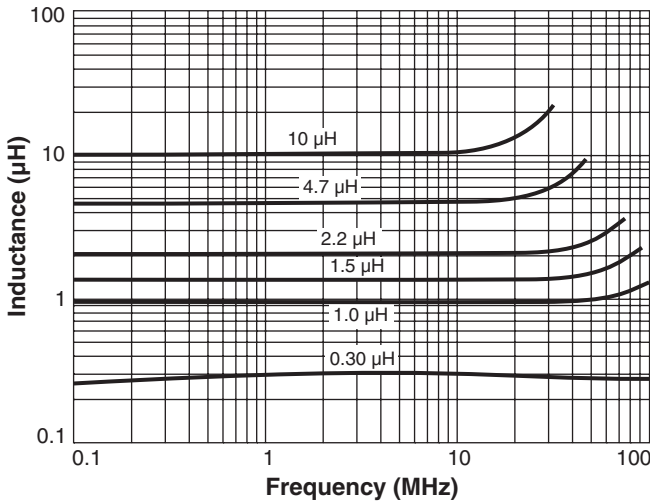
E-mail info@coilcraft.com Web <http://www.coilcraft.com>



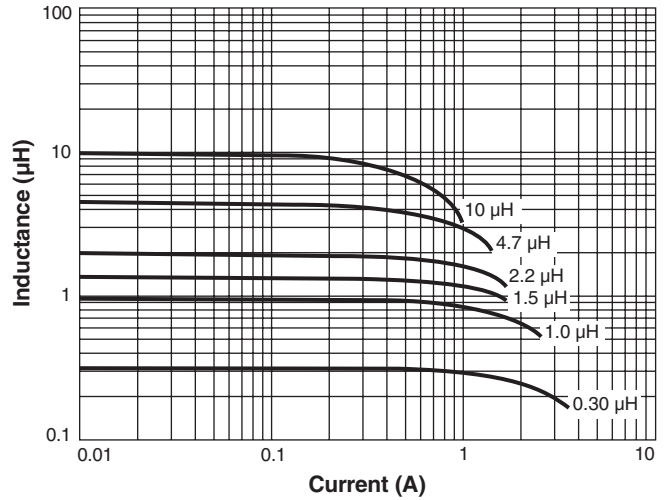
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SMT Power Inductors – EPL3010 Series

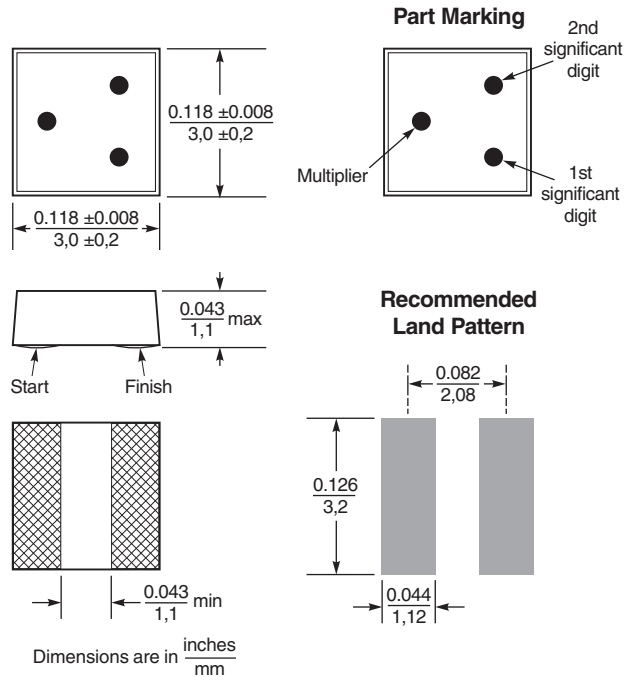
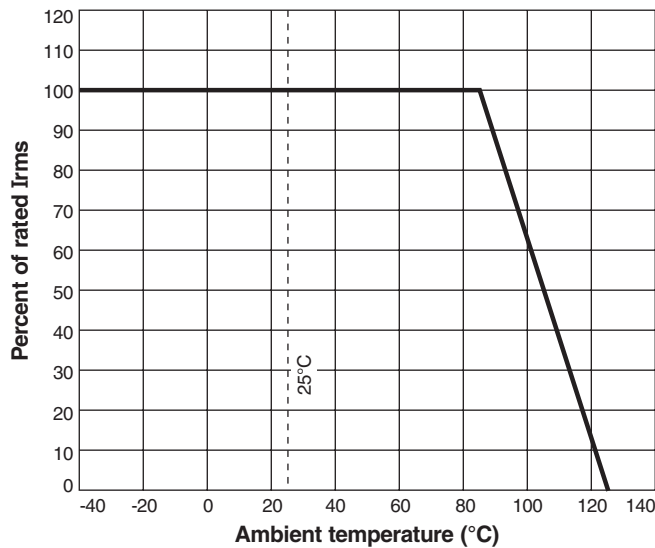
L vs Frequency



L vs Current



Current Derating



Part Marking (Parts manufactured prior to Oct. 20, 2009 may not be marked.)

Part number	Value	1st digit	2nd digit	Multiplier
EPL3010-301	0.27 µH	Orange	Black	Brown
EPL3010-102	1.0 µH	Brown	Black	Red
EPL3010-152	1.5 µH	Brown	Green	Red
EPL3010-222	2.2 µH	Red	Red	Red
EPL3010-472	4.7 µH	Yellow	Violet	Red
EPL3010-103	10 µH	Brown	Black	Orange

Note: All marked parts have three dots. Black dot, used only on -301, -102 and -103 as second significant digit, may be very difficult to see.

Small surface blemishes are not unusual and do not adversely affect performance. Wire may be visible inside the voids.

Acceptable void sizes:
 Top: 0.01 in / 0,254 mm × 0.01 in / 0,254 mm
 Sides: 0.02 in / 0,5 mm × 0.047 in / 1,2 mm



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