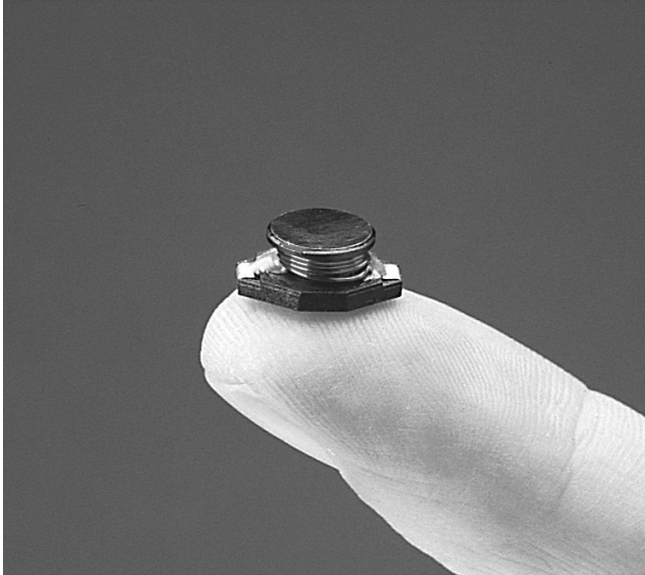




SMT Power Inductors—DO3316P Series



- High energy storage and very low resistance
- High inductance values are perfect for EL driver applications.

Designer's Kit C378 contains 3 of each 20% part

Core material Ferrite

Terminations RoHS compliant electroplated gold (<50 µin) over nickel over phos bronze. Other terminations available at additional cost.

Weight 0.92 – 1.23 g

Ambient temperature –40°C to +85°C with Irms current

Maximum part temperature +125°C (ambient + temp rise) [Derating](#).

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)

Packaging 1000 per 13" reel Plastic tape: 24 mm wide, 0.33 mm thick, 12 mm pocket spacing, 5.8 mm pocket depth

PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787_PCB_Washing.pdf](#).

| Part number ¹ | L ² (µH) | Percent tol ³ | DCR max (Ohms) | SRF typ ⁴ (MHz) | Isat ⁵ (A) | Irms ⁶ (A) |
|--------------------------|---------------------|--------------------------|----------------|----------------------------|-----------------------|-----------------------|
| DO3316P-102ML_ | 1.0 | 20 | 0.009 | 100 | 9.0 | 6.8 |
| DO3316P-152ML_ | 1.5 | 20 | 0.010 | 90 | 8.0 | 6.4 |
| DO3316P-222_L_ | 2.2 | 20,10 | 0.012 | 80 | 7.0 | 6.1 |
| DO3316P-332_L_ | 3.3 | 20,10 | 0.015 | 65 | 6.4 | 5.4 |
| DO3316P-472_L_ | 4.7 | 20,10 | 0.018 | 45 | 5.4 | 4.8 |
| DO3316P-682_L_ | 6.8 | 20,10 | 0.027 | 38 | 4.6 | 4.4 |
| DO3316P-103_L_ | 10 | 20,10 | 0.038 | 30 | 3.8 | 3.9 |
| DO3316P-153_L_ | 15 | 20,10 | 0.046 | 27 | 3.0 | 3.1 |
| DO3316P-223_L_ | 22 | 20,10 | 0.085 | 19 | 2.3 | 2.7 |
| DO3316P-333_L_ | 33 | 20,10 | 0.10 | 15 | 2.0 | 2.1 |
| DO3316P-473_L_ | 47 | 20,10 | 0.14 | 12 | 1.6 | 1.8 |
| DO3316P-683_L_ | 68 | 20,10 | 0.20 | 10 | 1.4 | 1.5 |
| DO3316P-104_L_ | 100 | 20,10 | 0.28 | 9 | 1.2 | 1.3 |
| DO3316P-154_L_ | 150 | 20,10 | 0.40 | 6 | 1.0 | 1.0 |
| DO3316P-224_L_ | 220 | 20,10 | 0.61 | 5 | 0.80 | 0.80 |
| DO3316P-334_L_ | 330 | 20,10 | 1.02 | 4.5 | 0.60 | 0.60 |
| DO3316P-474_L_ | 470 | 20,10 | 1.27 | 3.5 | 0.50 | 0.50 |
| DO3316P-684_L_ | 680 | 20,10 | 2.02 | 2.5 | 0.40 | 0.40 |
| DO3316P-105_L_ | 1000 | 20,10 | 3.00 | 2.0 | 0.30 | 0.30 |
| DO3316P-155_L_ | 1500 | 20,10 | 4.49 | 1.7 | 0.29 | 0.27 |
| DO3316P-335_L_ | 3300 | 20,10 | 8.97 | 1.1 | 0.19 | 0.17 |

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

DO3316P-105MLD

Tolerance: M = 20%, K = 10% (Table shows stock tolerances in bold.)

Termination: L = RoHS compliant gold over nickel over phos bronze. Special order: T = RoHS tin-silver-copper (95.5/4/0.5) or S = non-RoHS tin-lead (63/37).

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

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. Tested at 100 kHz, 0.1 Vrms, 0 Adc using an Agilent/HP 4263B LCR meter or equivalent.
 3. Tolerances in bold are stocked for immediate shipment.
 4. SRF >13 MHz measured using Agilent/HP 8753D network analyzer; <13 MHz using Agilent/HP 4192A.
 5. DC current at 25°C that causes an inductance drop of 10% (typ) from its value without current. [Click for temperature derating information](#).
 6. Current that causes the specified temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings. [Click for temperature derating information](#).
 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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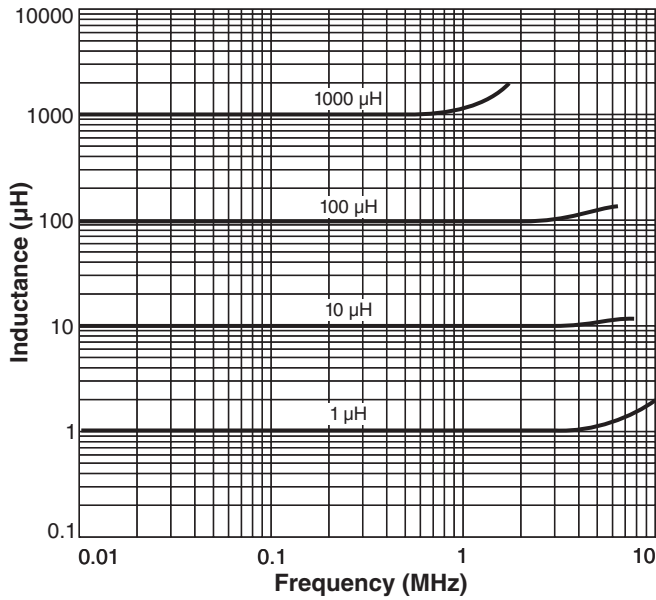
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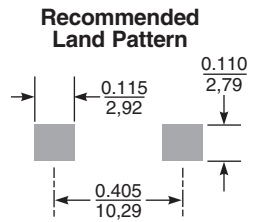
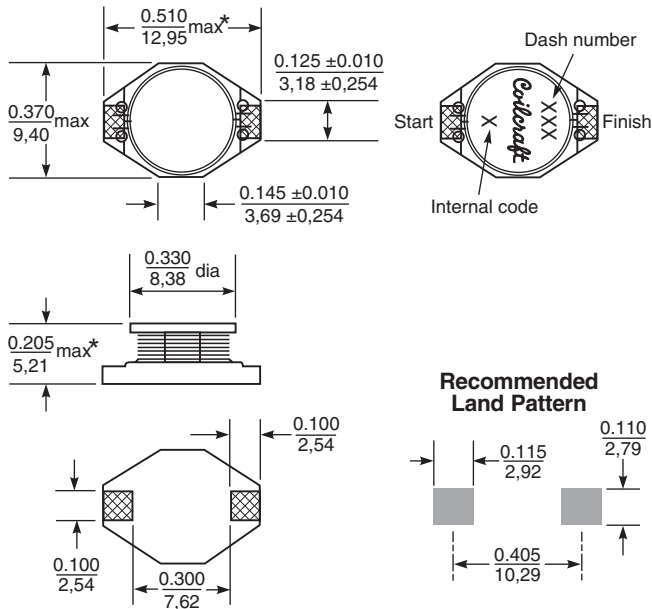
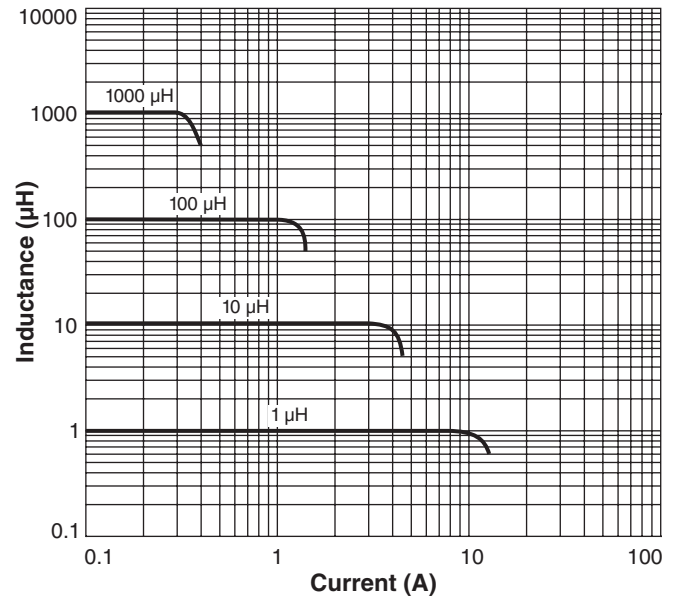


SMT Power Inductors – DO3316P Series

Typical L vs Frequency



Typical L vs Current



* Allow an additional 0.01/0,254 in length and 0.005/0,127 in height for optional tin-lead and tin-silver-copper application.

Dimensions are in $\frac{\text{inches}}{\text{mm}}$



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