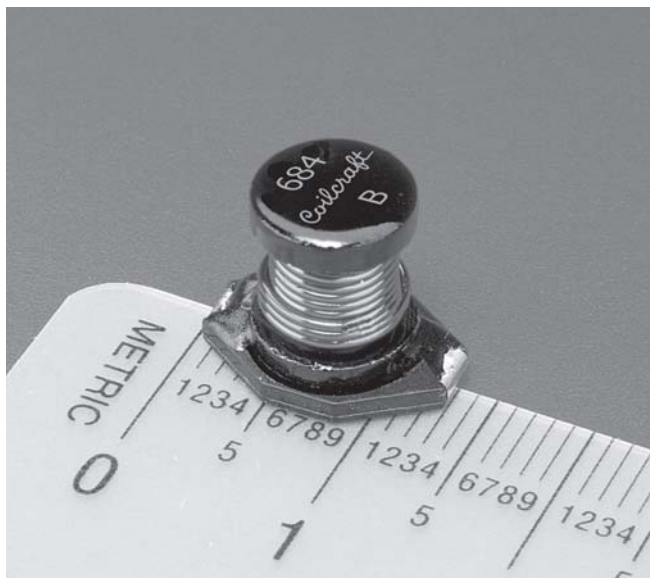




# SMT Power Inductors – DO3340P Series



- Excellent current handling – up to 3.5 Arms with an 8 A saturation current rating for a 10  $\mu$ H part.

**Designer's Kit C310** contains 3 of each part

**Core material** Ferrite

**Core and winding loss** See [www.coilcraft.com/coreloss](http://www.coilcraft.com/coreloss)

**Terminations** RoHS compliant gold over nickel over phos bronze. Other terminations available at additional cost.

**Weight** 1.8 – 2.8 g

**Ambient temperature**  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$  with  $I_{\text{rms}}$  current,  $+85^{\circ}\text{C}$  to  $+105^{\circ}\text{C}$  with derated current

**Storage temperature** Component:  $-40^{\circ}\text{C}$  to  $+105^{\circ}\text{C}$ .  
Packaging:  $-40^{\circ}\text{C}$  to  $+80^{\circ}\text{C}$

**Resistance to soldering heat** Max three 40 second reflows at  $+260^{\circ}\text{C}$ , parts cooled to room temperature between cycles

**Moisture Sensitivity Level (MSL)** 1 (unlimited floor life at  $<30^{\circ}\text{C}$  / 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** 225 per 13" reel Plastic tape: 24 mm wide, 0.4 mm thick, 24 mm pocket spacing, 11.4 mm pocket depth

**PCB washing** Only pure water or alcohol recommended

Part number <sup>1</sup>	L $\pm 20\%^2$ ( $\mu\text{H}$ )	DCR max (Ohms)	SRF typ (MHz)	Isat <sup>3</sup> (A)	Irms <sup>4</sup> (A)
DO3340P-103ML_	10	0.040	35	8.0	3.5
DO3340P-153ML_	15	0.050	18	7.0	3.0
DO3340P-223ML_	22	0.066	13	5.5	2.5
DO3340P-333ML_	33	0.080	11	4.0	2.0
DO3340P-473ML_	47	0.110	9.0	3.8	1.6
DO3340P-683ML_	68	0.17	7.0	3.0	1.2
DO3340P-104ML_	100	0.22	5.5	2.5	1.2
DO3340P-154ML_	150	0.34	4.5	2.0	0.9
DO3340P-224ML_	220	0.44	3.5	1.6	0.7
DO3340P-334ML_	330	0.70	3.0	1.2	0.6
DO3340P-474ML_	470	0.95	2.5	1.0	0.3
DO3340P-684ML_	680	1.15	2.0	1.0	0.2
DO3340P-105ML_	1000	2.0	1.5	0.8	0.1

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

DO3316P-105ML D

**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 (225 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 D instead.

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 inductance drops 10% (typ) from its value without current.
  4. Current that causes a  $20^{\circ}\text{C}$  temperature rise from  $25^{\circ}\text{C}$  ambient
  5. Electrical specifications at  $25^{\circ}\text{C}$ .
- Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

**SPICE models**  
ON OUR WEB SITE OR CD

**Coilcraft**<sup>®</sup>

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

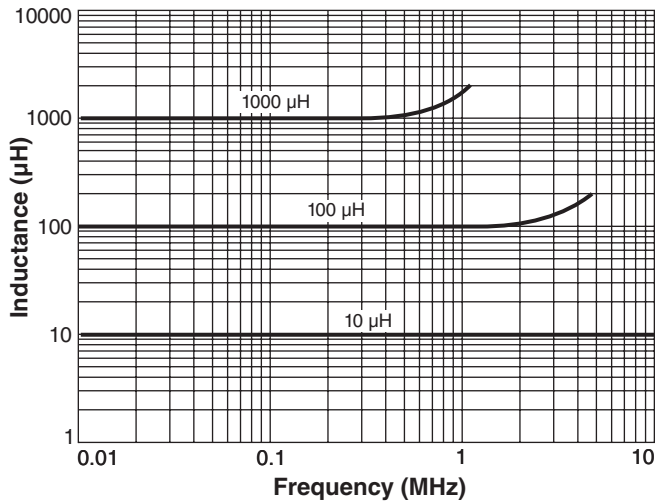
Document 171-1 Revised 01/12/11

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E-mail [info@coilcraft.com](mailto:info@coilcraft.com) Web <http://www.coilcraft.com>

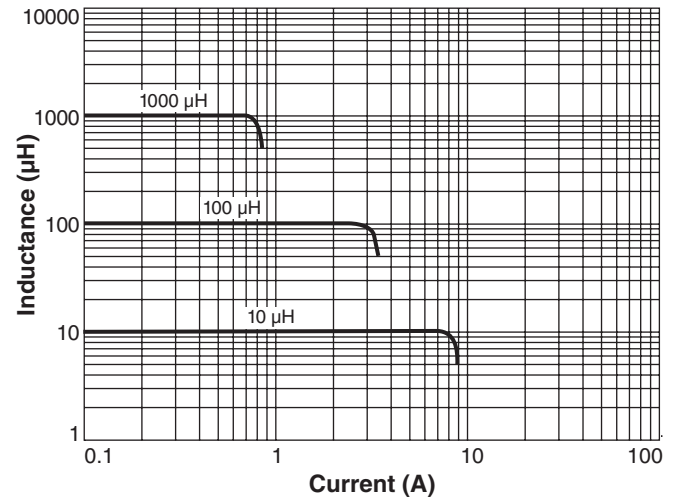


# SMT Power Inductors – DO3340P Series

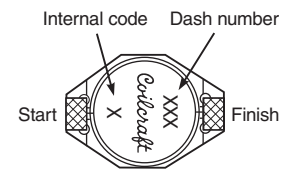
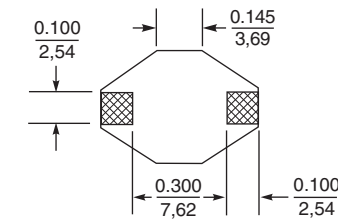
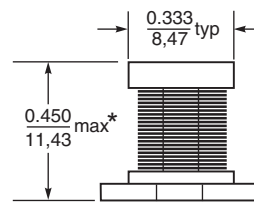
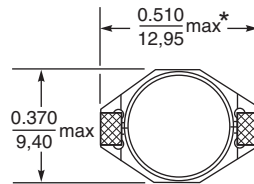
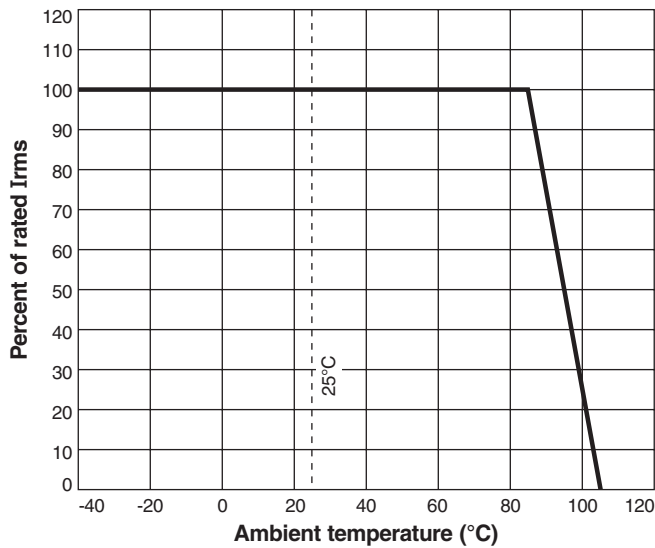
## Typical L vs Frequency



## Typical L vs Current



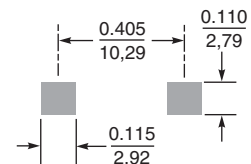
## Irms Derating



Part marking since Feb. 2005. Parts manufactured prior to that date may have color dots. Visit [www.coilcraft.com/colrpowr.cfm](http://www.coilcraft.com/colrpowr.cfm) for color dot marking details.

\* 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.

### Recommended Land Pattern



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



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Document 171-2 Revised 01/12/11

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