



# SMT Power Inductors – DO3316 Series



The DO3316 Series of surface mount inductors is designed for the smallest possible size, lowest cost and highest performance. Their high energy storage and very low resistance make them the ideal inductors for DC-DC conversion in notebook computers, PDAs, step-up or step-down converters, flash memory programmers, etc.

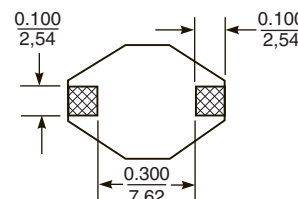
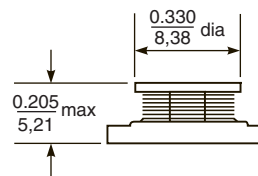
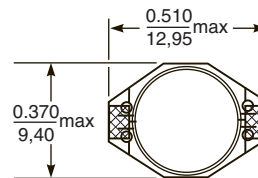
For reliable surface mounting, we've designed the DO Series with a flat top and robust temperature deflection to prevent damage during solder reflow.

In addition to the standard versions shown here, custom inductors are available to meet your exact requirements. Coilcraft **Designer's Kit C178** contains three samples each of the parts shown. To order, contact Coilcraft or visit <http://order.coilcraft.com>.

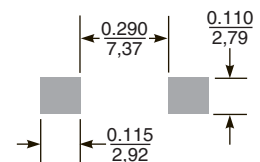
**SPICE models** ON OUR WEB SITE OR CD

Part number <sup>1</sup>	L $\pm 20\%$ <sup>2</sup> ( $\mu\text{H}$ )	DCR max (Ohms)	SRF typ <sup>3</sup> (MHz)	Isat <sup>4</sup> (A)	Irms <sup>5</sup> (A)
DO3316P-102	1.0	0.009	100	9.0	6.8
DO3316P-152	1.5	0.010	90	8.0	6.4
DO3316P-222	2.2	0.012	80	7.0	6.1
DO3316P-332	3.3	0.015	65	6.4	5.4
DO3316P-472	4.7	0.018	45	5.4	4.8
DO3316P-682	6.8	0.027	38	4.6	4.4
DO3316P-103	10	0.038	30	3.8	3.9
DO3316P-153	15	0.046	27	3.0	3.1
DO3316P-223	22	0.085	19	2.6	2.7
DO3316P-333	33	0.10	15	2.0	2.1
DO3316P-473	47	0.14	12	1.6	1.8
DO3316P-683	68	0.20	10	1.4	1.5
DO3316P-104	100	0.28	9	1.2	1.3
DO3316P-154	150	0.40	6	1.0	1.0
DO3316P-224	220	0.61	5	0.8	0.8
DO3316P-334	330	1.02	4.5	0.6	0.6
DO3316P-474	470	1.27	3.5	0.5	0.5
DO3316P-684	680	2.02	2.5	0.4	0.4
DO3316P-105	1000	3.00	2.0	0.3	0.3

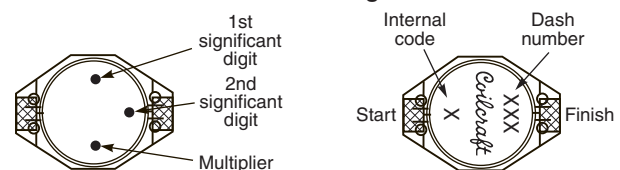
- Part number on reel label may have a B suffix to indicate that the reel is not machine ready.
  - Tested at 100 kHz, 0.1 Vrms, 0 Adc.
  - SRF >13 MHz measured using Agilent/HP 8753D network analyzer; <13 MHz using Agilent/HP 4192A.
  - DC current at which inductance drops 10% (typ) from its value without current.
  - Average current for 40°C temperature rise from 25°C.
  - Operating temperature range -40°C to +85°C.
  - Electrical specifications at 25°C.
- See Qualification Standards section for environmental and test data.  
See Color Coding section for color dot part marking data.



### Recommended Land Pattern



### Part Marking



**Weight:** 0.92 – 1.23 g  
**Terminations:** Nickel/gold over phos bronze  
**Tape and reel:** 1000/13" reel 24 mm tape width  
 For packaging data see Tape and Reel Specifications section.

# Coilcraft®

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

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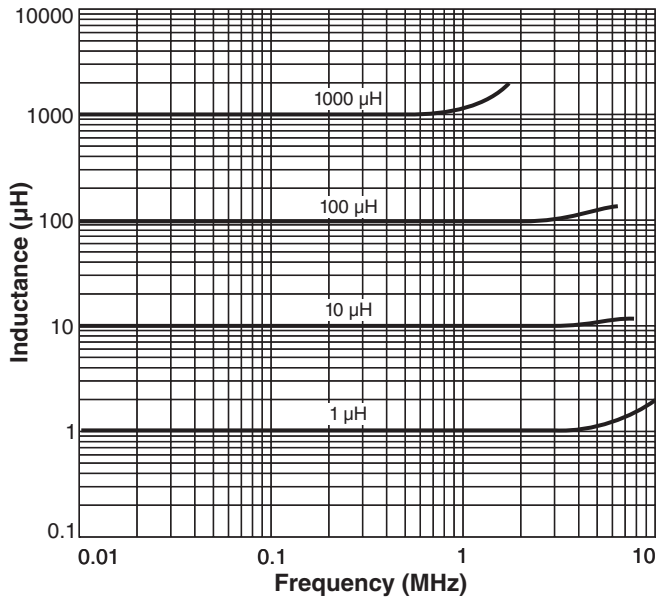
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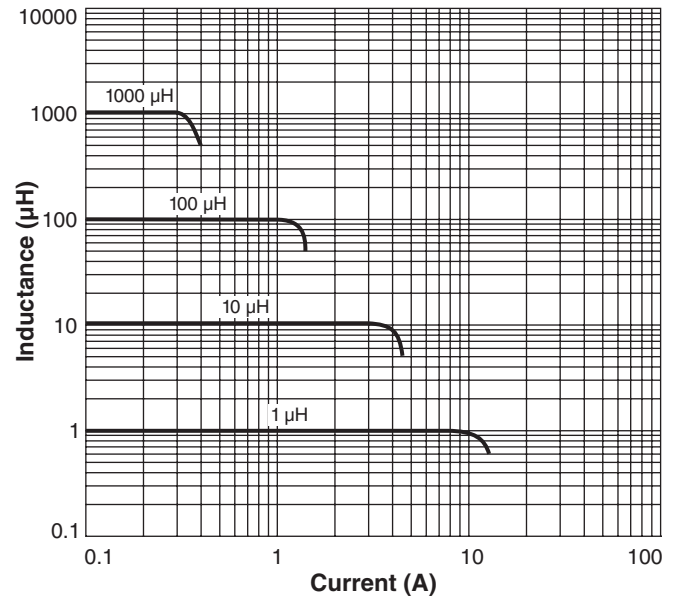


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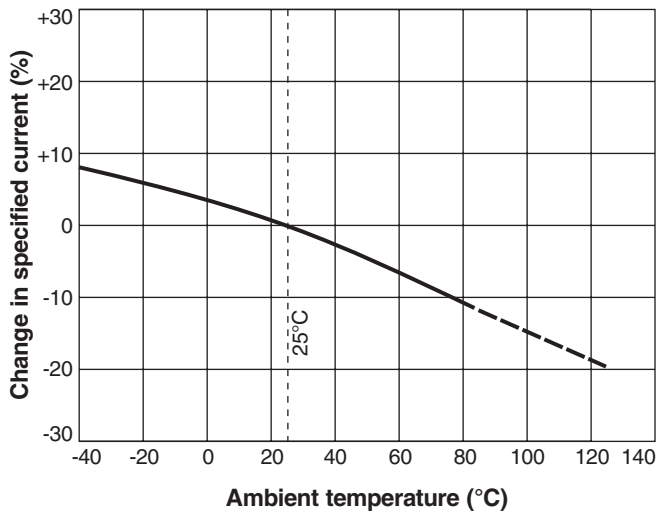
## Typical L vs Frequency



## Typical L vs Current



## Current Derating



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