



# SMT Power Inductors – DO3308P Series



- Handle saturating currents up to 4.2 Amps
- 13 versions with inductance ratings from 10  $\mu\text{H}$  to 1000  $\mu\text{H}$

**Designer's Kit C309** contains 3 each of all values

**Core material** Ferrite

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

**Weight** 594 – 640 mg

**Ambient temperature**  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$  with  $I_{\text{rms}}$  current,  $+85^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$  with derated current

**Storage temperature** Component:  $-40^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$ .  
Packaging:  $-55^{\circ}\text{C}$  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)

**Mean Time Between Failures (MTBF)** 26,315,789 hours

**Packaging** 1000/13" reel Plastic tape: 24 mm wide, 0.4 mm thick, 12 mm pocket spacing, 3.7 mm pocket depth

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

Part number <sup>1</sup>	L $\pm 20\%$ <sup>2</sup> ( $\mu\text{H}$ )	DCR max (Ohms)	SRF typ (MHz)	Isat <sup>3</sup> (A)	Irms <sup>4</sup> (A)
DO3308P-472ML_	4.7	0.036	50	4.2	3.2
DO3308P-682ML_	6.8	0.060	47	3.9	2.6
DO3308P-103ML_	10	0.085	37	2.7	2.3
DO3308P-153ML_	15	0.12	35	2.3	1.9
DO3308P-223ML_	22	0.18	26	1.8	1.5
DO3308P-333ML_	33	0.25	19	1.6	1.2
DO3308P-473ML_	47	0.32	14	1.3	1.0
DO3308P-683ML_	68	0.54	12	1.1	0.9
DO3308P-104ML_	100	0.69	11	0.87	0.73
DO3308P-154ML_	150	0.94	9.0	0.74	0.62
DO3308P-224ML_	220	1.60	6.0	0.56	0.51
DO3308P-334ML_	330	2.15	5.5	0.50	0.40
DO3308P-474ML_	470	3.30	4.5	0.40	0.33
DO3308P-684ML_	680	4.40	3.5	0.33	0.28
DO3308P-105ML_	1000	7.00	2.5	0.29	0.23

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

DO3308P-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 (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 D instead.

2. Inductance tested at 100 kHz, 0.1 Vrms, 0 Adc.
3. DC current at which inductance drops 10% (typ) from its value without current.
4. Current that causes a  $40^{\circ}\text{C}$  temperature rise from  $25^{\circ}\text{C}$  ambient.
5. Electrical specifications at  $25^{\circ}\text{C}$ .  
See Qualification Standards section for environmental and test data.  
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 170-1 Revised 09/18/07

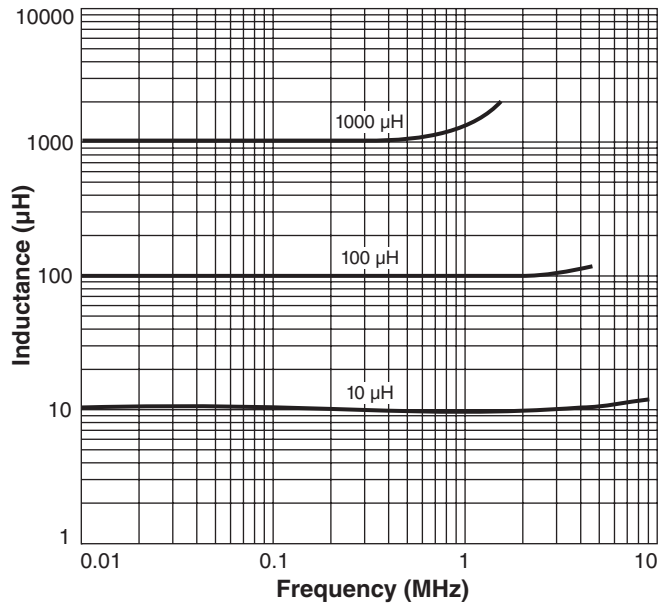
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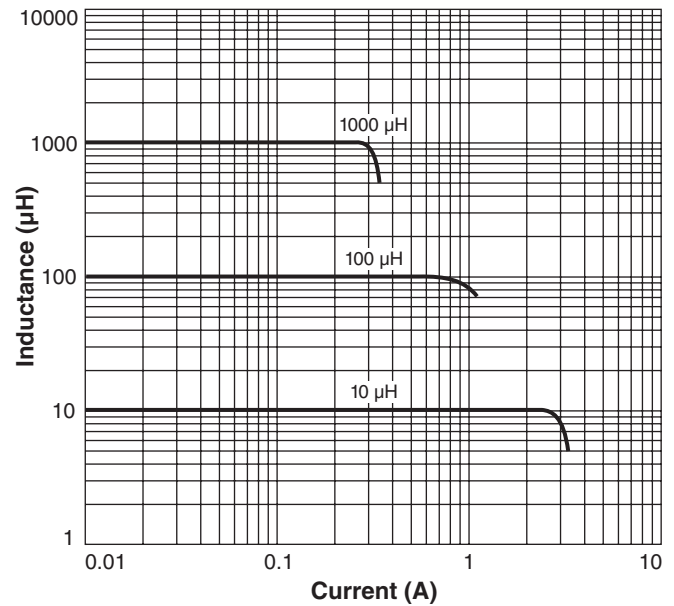


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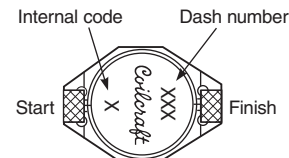
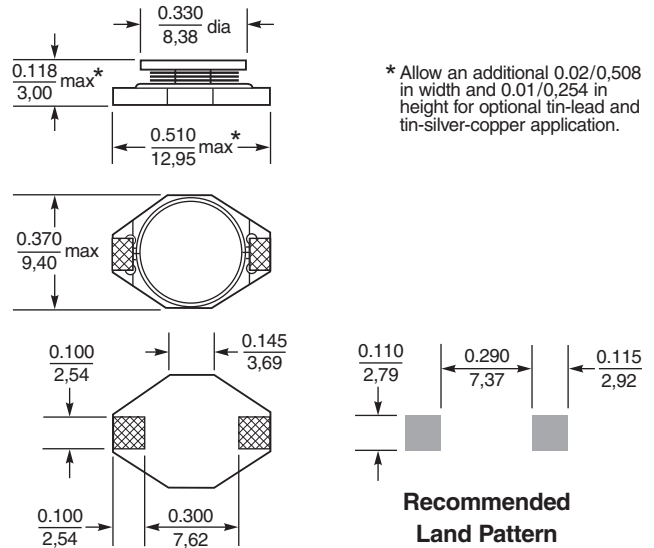
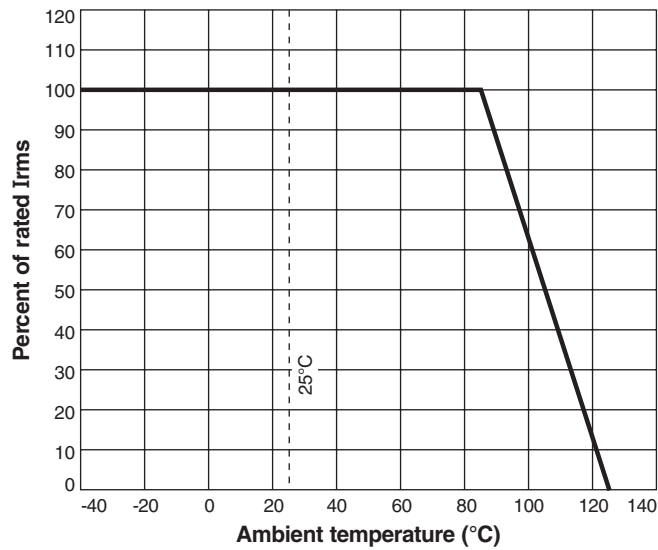
## Typical L vs Frequency



## 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/coilpowr.cfm](http://www.coilcraft.com/coilpowr.cfm) for details.

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



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Document 170-2 Revised 09/18/07

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