



# SMT Power Inductors – DO3308P Series



- Handle saturating currents up to 4.2 Amps
- Defense Supply Center CID: A-A-59738

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

**Core material** Ferrite

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

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

**Weight** 594 – 640 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** 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> ( $\mu$ 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 V<sub>rms</sub>, 0 Adc.
3. DC current at which inductance drops 10% (typ) from its value without current.
4. Current that causes a 40°C temperature rise from 25°C ambient.
5. Electrical specifications at 25°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.

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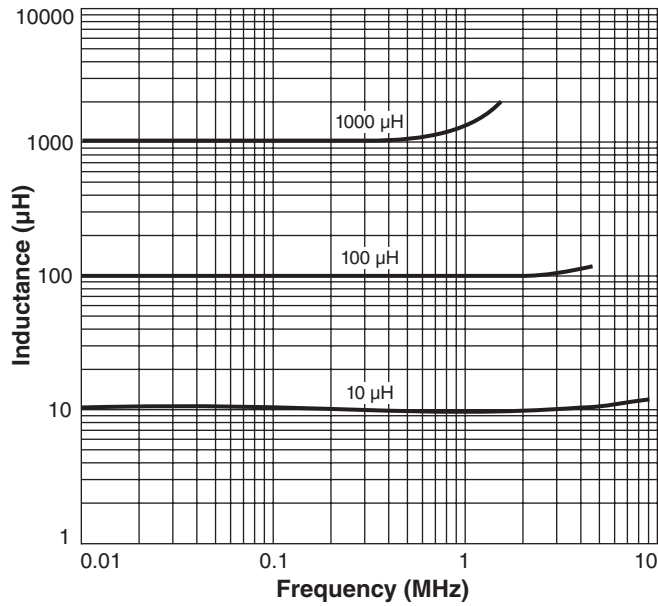
1102 Silver Lake Road Cary, Illinois 60013 Phone 847/639-6400 Fax 847/639-1469

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

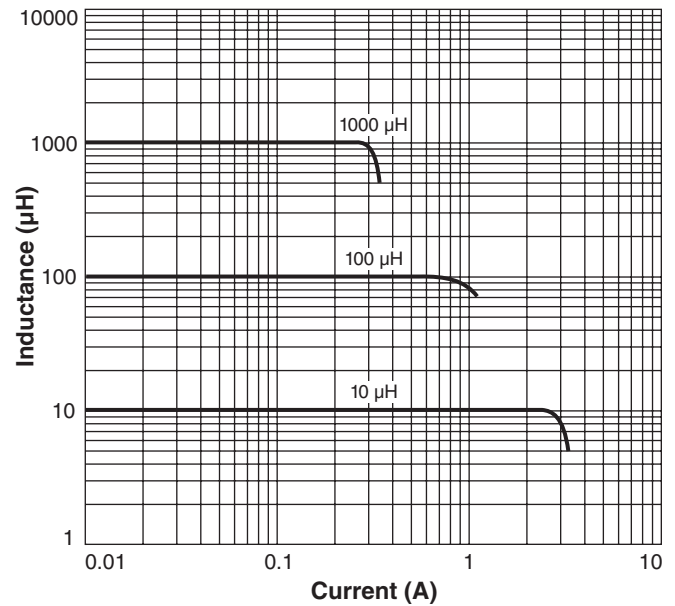


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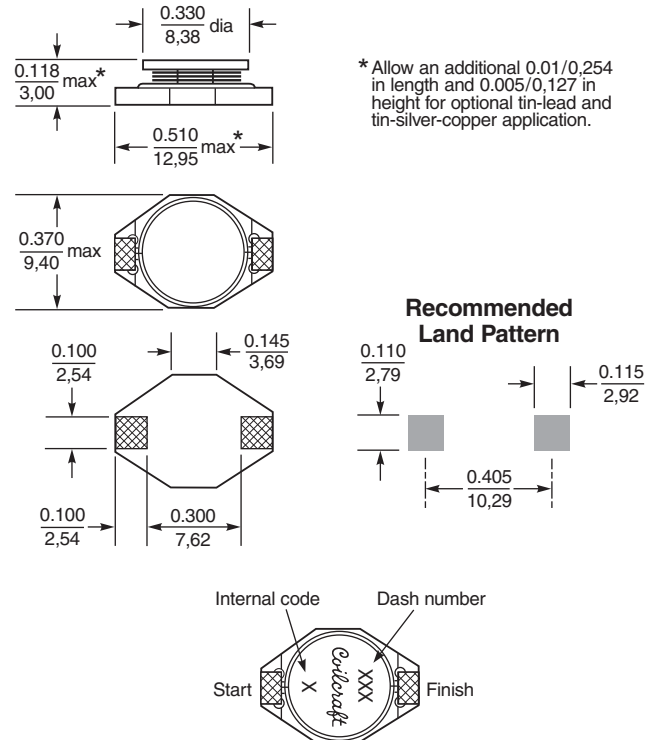
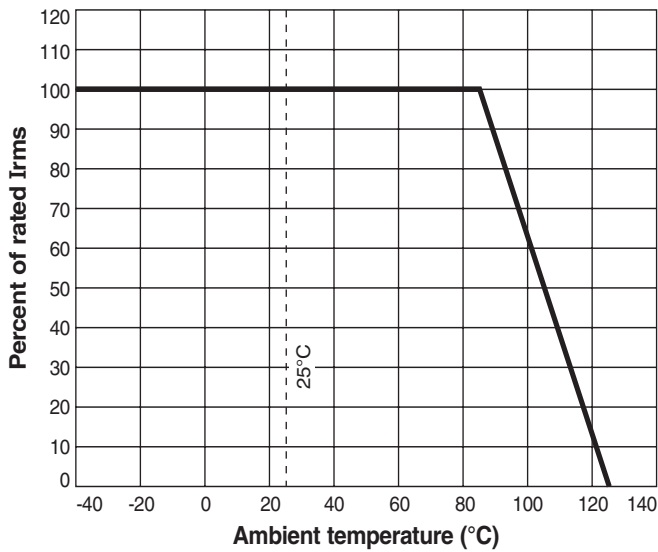
## Typical L vs Frequency



## Typical L vs Current



## Irms Derating



\* 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.

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.

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



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

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