

# SMT Power Inductors – DO3308P



- 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 Irms current, +85°C to +125°C with derated current

**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)

**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** Tested with pure water or alcohol only. For other solvents, see Doc787\_PCB\_Washing.pdf

Part number <sup>1</sup>	L ±20% <sup>2</sup> (µH)	Percent tol <sup>3</sup>	DCR max (Ohms)	SRF typ (MHz)	Isat <sup>4</sup> (A)	Irms <sup>5</sup> (A)
DO3308P-472_L_	4.7	<b>20</b> ,10	0.036	50	4.2	3.2
DO3308P-682_L_	6.8	<b>20</b> ,10	0.060	47	3.9	2.6
DO3308P-103_L_	10	<b>20</b> ,10	0.085	37	2.7	2.3
DO3308P-153_L_	15	<b>20</b> ,10	0.12	35	2.3	1.9
DO3308P-223_L_	22	<b>20</b> ,10	0.18	26	1.8	1.5
DO3308P-333_L_	33	<b>20</b> ,10	0.25	19	1.6	1.2
DO3308P-473_L_	47	<b>20</b> ,10	0.32	14	1.3	1.0
DO3308P-683_L_	68	<b>20</b> ,10	0.54	12	1.1	0.9
DO3308P-104_L_	100	<b>20</b> ,10	0.69	11	0.87	0.73
DO3308P-154_L_	150	<b>20</b> ,10	0.94	9.0	0.74	0.62
DO3308P-224_L_	220	<b>20</b> ,10	1.60	6.0	0.56	0.51
DO3308P-334_L_	330	<b>20</b> ,10	2.15	5.5	0.50	0.40
DO3308P-474_L_	470	<b>20</b> ,10	3.30	4.5	0.40	0.33
DO3308P-684_L_	680	<b>20</b> ,10	4.40	3.5	0.33	0.28
DO3308P-105_L_	1000	<b>20</b> ,10	7.00	2.5	0.29	0.23

1. Please specify **tolerance, termination and packaging** codes:

DO3308P-105MLD

**Tolerance:** M = 20% K = 10%

**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. Tolerances in bold are stocked for immediate shipment
4. DC current at which inductance drops 10% (typ) from its value without current.
5. Current that causes a 40°C temperature rise from 25°C ambient.
6. 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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Document 170-1 Revised 05/03/13

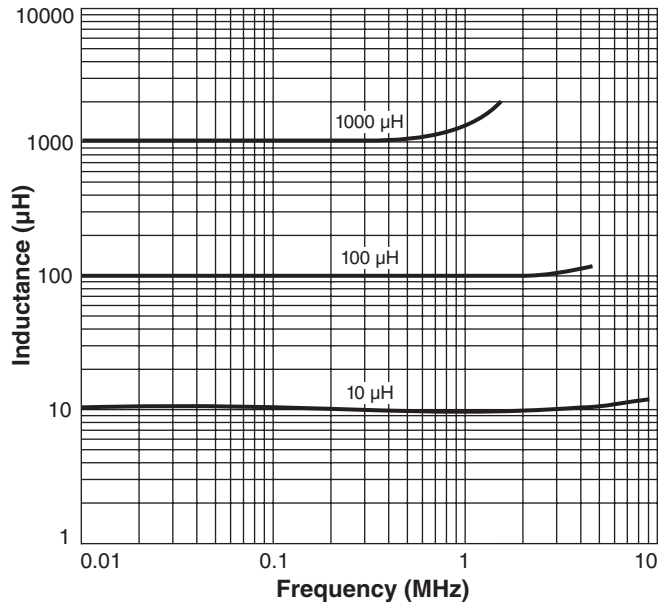
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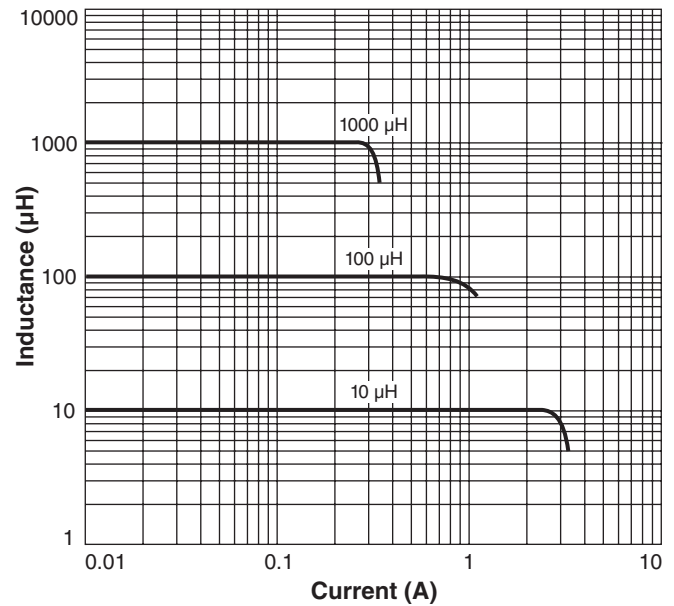


# SMT Power Inductors – DO3308P Series

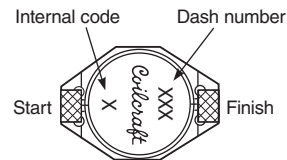
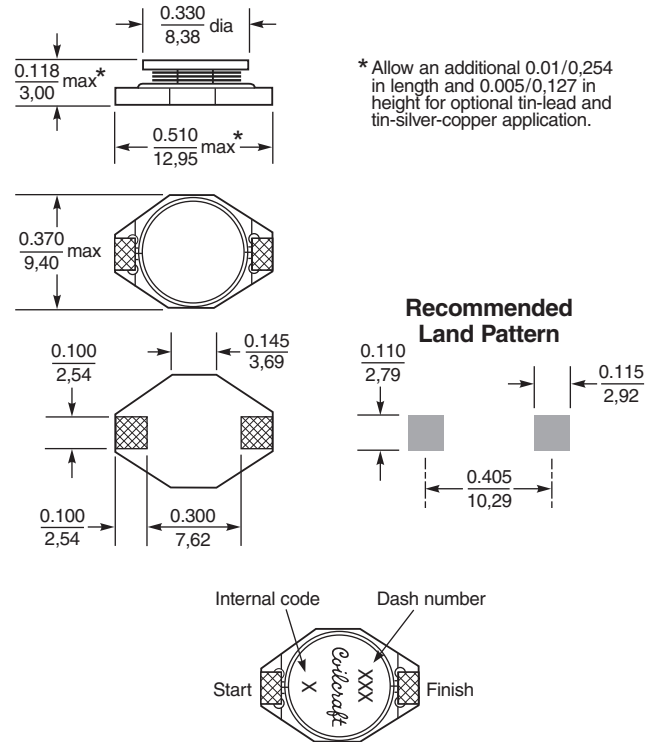
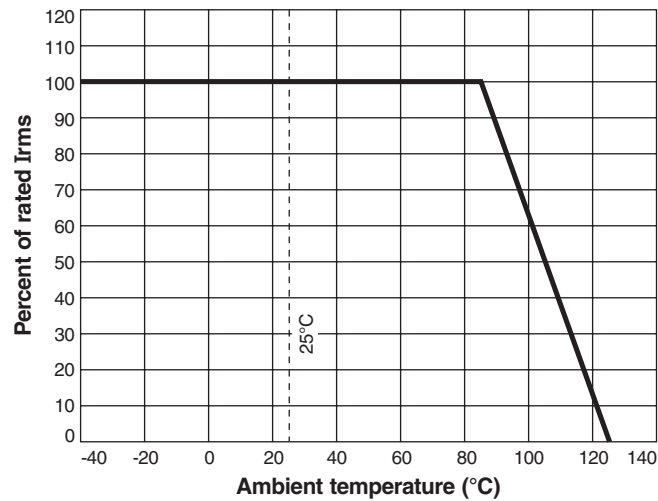
## Typical L vs Frequency



## Typical L vs Current



## Irms Derating



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



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