



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

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)

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 ¹ | L ±20% ² (µH) | DCR max (Ohms) | SRF typ (MHz) | Isat ³ (A) | I _{rms} ⁴ (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_{rms}, 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[®]

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

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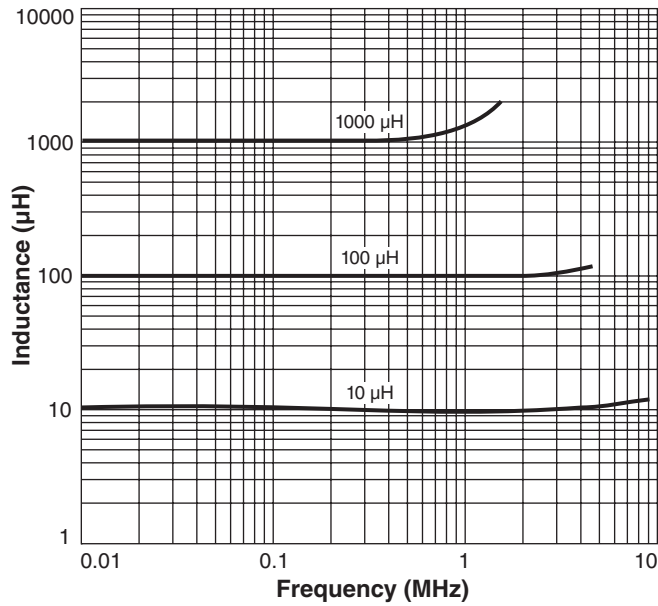
1102 Silver Lake Road Cary, Illinois 60013 Phone 847/639-6400 Fax 847/639-1469

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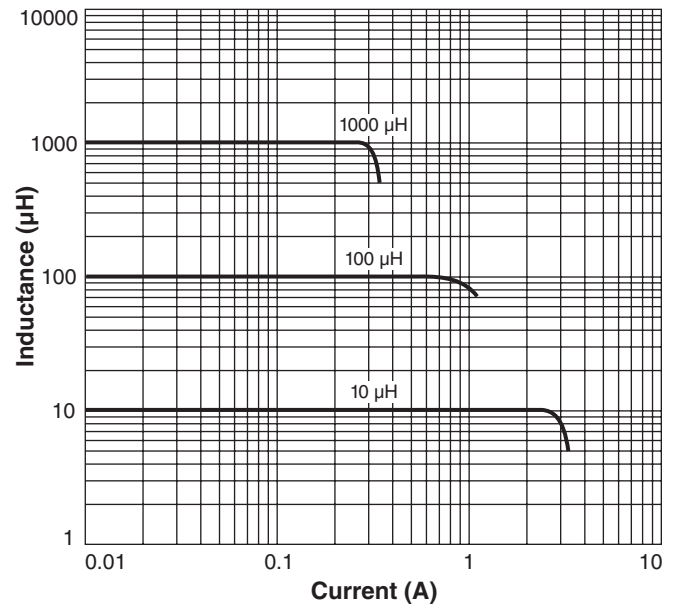


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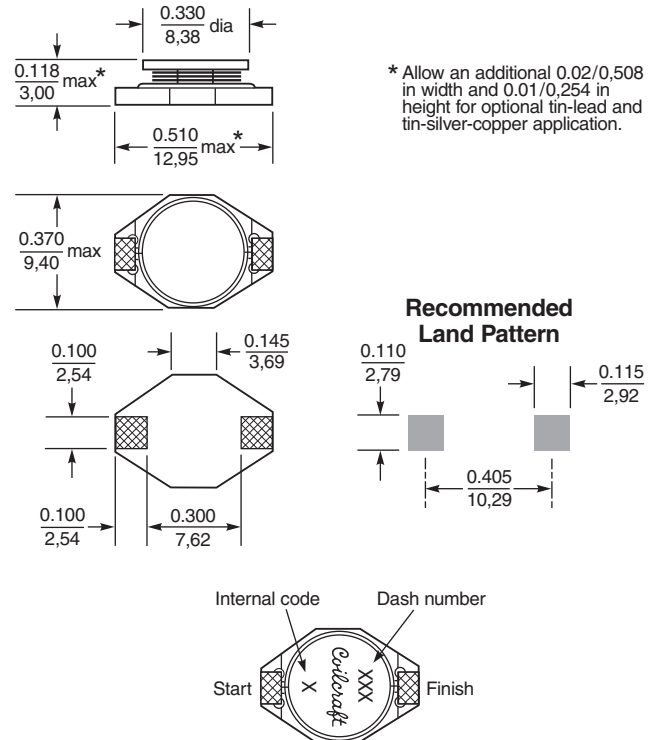
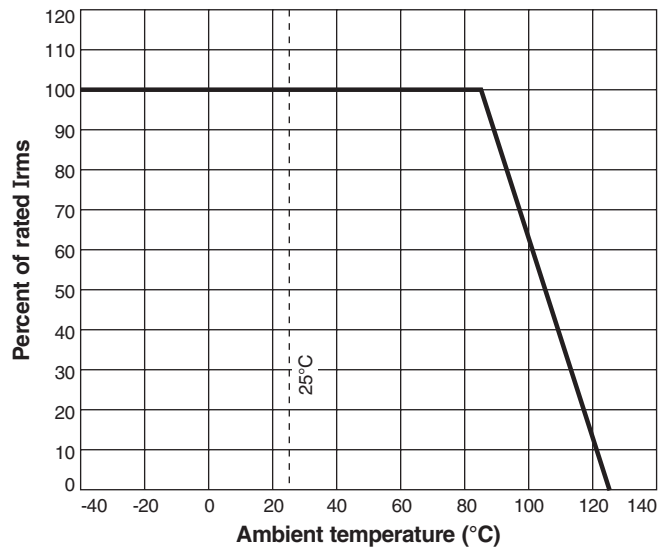
Typical L vs Frequency



Typical L vs Current



Irms Derating



* Allow an additional 0.02/0.508 in width and 0.01/0.254 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 for details.

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



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