



# SMT Power Inductors - DO3316H Series



- Soldered self-leaded construction for excellent solderability.
- Very low DCR values and excellent current handling

**Designer's Kit C326** contains 3 of each part

**Core material** Ferrite

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

**Terminations** RoHS compliant tin-silver-copper over copper. Other terminations available at additional cost.

**Weight** 0.95 – 1.25 g

**Ambient temperature** –40°C to +85°C with I<sub>rms</sub> 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** 750 per 13" reel Plastic tape: 24 mm wide, 0.35 mm thick, 12 mm pocket spacing, 6.4 mm pocket depth

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

Part number <sup>1</sup>	L ±20% <sup>2</sup> (µH)	DCR max (Ohms)	SRF <sup>3</sup> typ (MHz)	Isat <sup>4</sup> (A)	Irms <sup>5</sup> (A)
DO3316H-121ML_	0.12	0.0015	200	28	17
DO3316H-331ML_	0.33	0.002	200	20	16
DO3316H-681ML_	0.68	0.005	200	13	12
DO3316H-102ML_	1.0	0.006	100	11	10
DO3316H-152ML_	1.5	0.008	90	9.0	9.0
DO3316H-222ML_	2.2	0.011	80	7.8	7.4
DO3316H-272ML_	2.7	0.012	65	7.0	6.6
DO3316H-332ML_	3.3	0.014	60	6.4	5.9
DO3316H-392ML_	3.9	0.015	50	5.9	5.3
DO3316H-472ML_	4.7	0.018	45	5.4	4.8

- When ordering, please specify **termination** and **packaging** codes:

DO3316H-472M L D

**Termination:** L = RoHS compliant tin-silver over copper.

**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, 750 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.

- Inductance tested at 100 kHz, 0.1 V<sub>rms</sub>, 0 A<sub>dc</sub> using an Agilent/HP 4263B LCR meter or equivalent.
- SRF measured using Agilent/HP 8753D network analyzer.
- DC current at which the inductance drops 10% (typ) from its value without current.
- Current that causes a 40°C temperature rise from 25°C ambient.
- 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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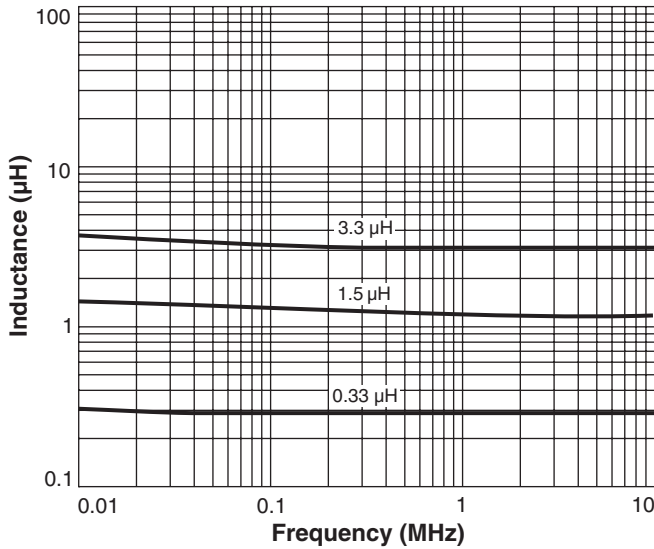
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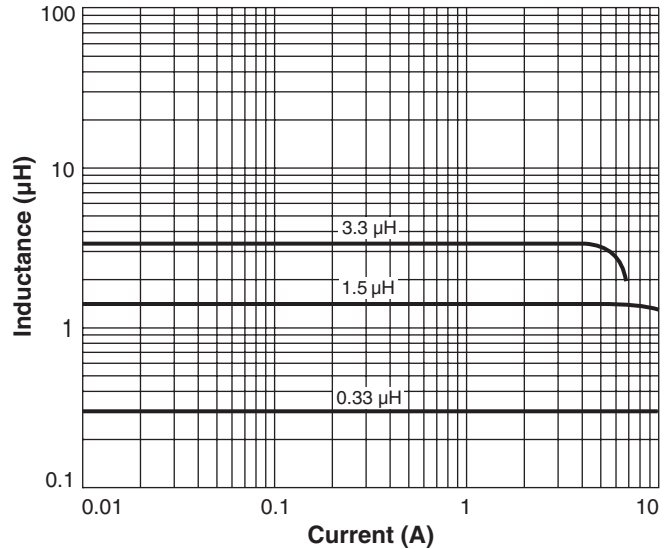


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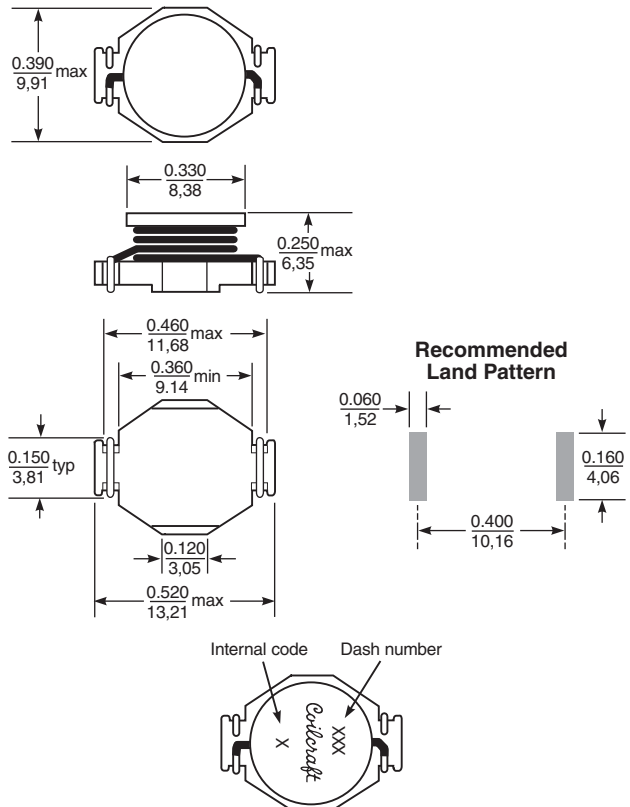
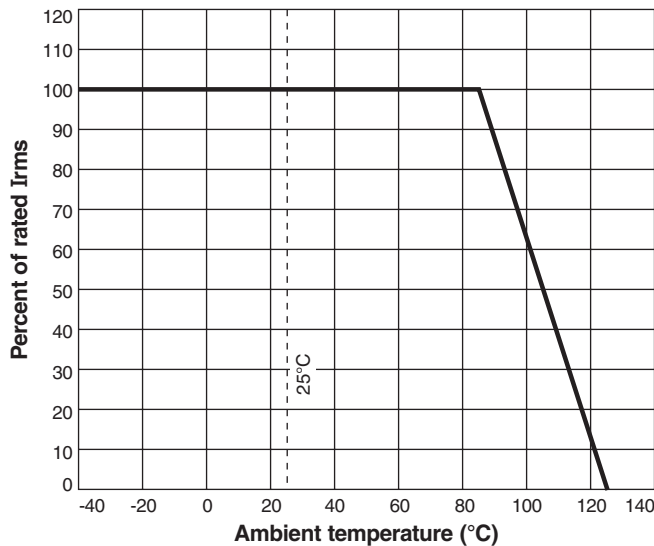
## Typical L vs Frequency



## 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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