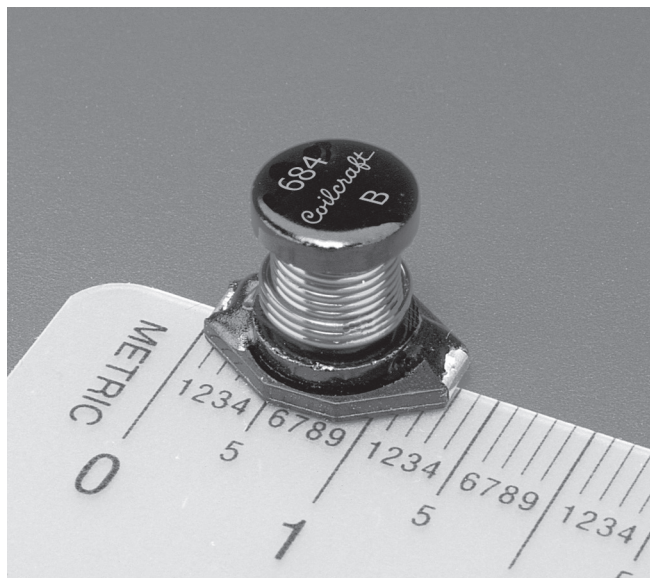




# SMT Power Inductors – DO3340P



- Excellent current handling – up to 3.5 Arms with an 8 A saturation current rating for a 10  $\mu$ H part.

**Designer's Kit C310** 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 gold over nickel over phos bronze. Other terminations available at additional cost.

**Weight** 1.8–2.8 g

**Ambient temperature** –40°C to +85°C with Irms current, +85°C to +105°C with derated current

**Storage temperature** Component: –40°C to +105°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** 225 per 13" reel Plastic tape: 24 mm wide, 0.4 mm thick, 24 mm pocket spacing, 11.4 mm pocket depth

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

| Part number <sup>1</sup> | L<br>$\pm 20\%$ <sup>2</sup><br>( $\mu$ H) | DCR<br>max<br>(Ohms) | SRF<br>typ<br>(MHz) | Isat <sup>3</sup><br>(A) | Irms <sup>4</sup><br>(A) |
|--------------------------|--------------------------------------------|----------------------|---------------------|--------------------------|--------------------------|
| DO3340P-103ML_           | 10                                         | 0.040                | 35                  | 8.0                      | 3.5                      |
| DO3340P-153ML_           | 15                                         | 0.050                | 18                  | 7.0                      | 3.0                      |
| DO3340P-223ML_           | 22                                         | 0.066                | 13                  | 5.5                      | 2.5                      |
| DO3340P-333ML_           | 33                                         | 0.080                | 11                  | 4.0                      | 2.0                      |
| DO3340P-473ML_           | 47                                         | 0.110                | 9.0                 | 3.8                      | 1.6                      |
| DO3340P-683ML_           | 68                                         | 0.17                 | 7.0                 | 3.0                      | 1.2                      |
| DO3340P-104ML_           | 100                                        | 0.22                 | 5.5                 | 2.5                      | 1.2                      |
| DO3340P-154ML_           | 150                                        | 0.34                 | 4.5                 | 2.0                      | 0.9                      |
| DO3340P-224ML_           | 220                                        | 0.44                 | 3.5                 | 1.6                      | 0.7                      |
| DO3340P-334ML_           | 330                                        | 0.70                 | 3.0                 | 1.2                      | 0.6                      |
| DO3340P-474ML_           | 470                                        | 0.95                 | 2.5                 | 1.0                      | 0.3                      |
| DO3340P-684ML_           | 680                                        | 1.15                 | 2.0                 | 1.0                      | 0.2                      |
| DO3340P-105ML_           | 1000                                       | 2.0                  | 1.5                 | 0.8                      | 0.1                      |

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

DO3340P-105MLD

**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 (225 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 using an Agilent/HP 4263B LCR meter or equivalent.
3. DC current at which inductance drops 10% (typ) from its value without current.
4. Current that causes a 20°C temperature rise from 25°C ambient
5. Electrical specifications at 25°C.

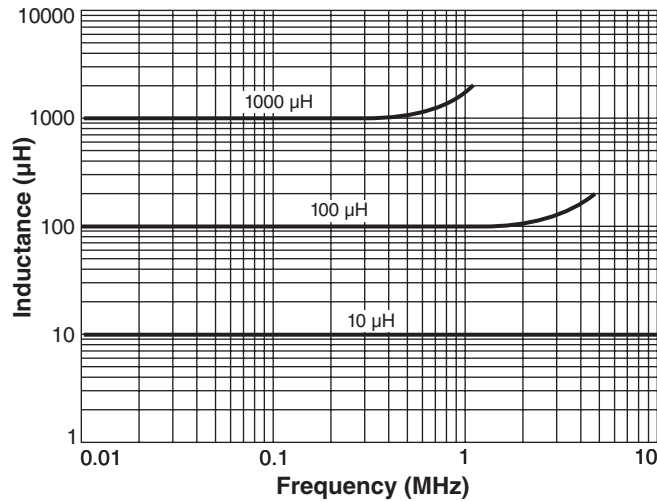
Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

**SPICE models**  
ON OUR WEB SITE

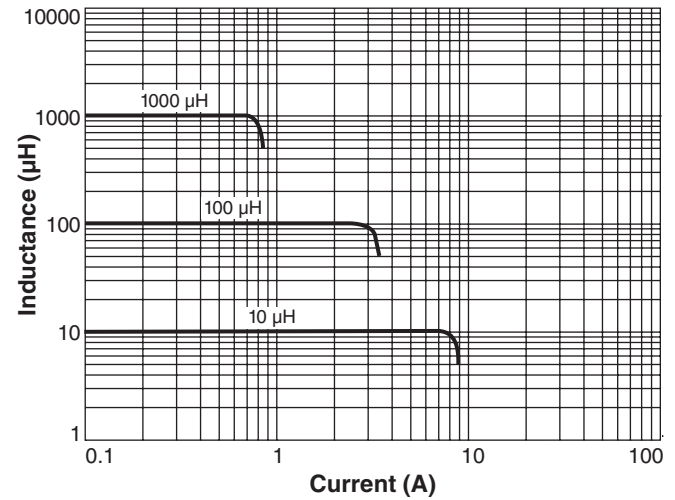


# SMT Power Inductors – DO3340P Series

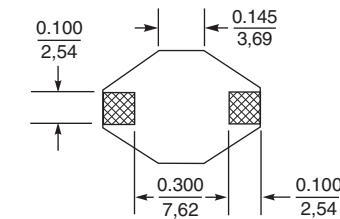
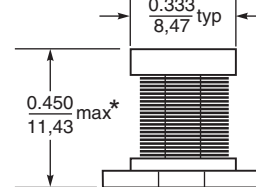
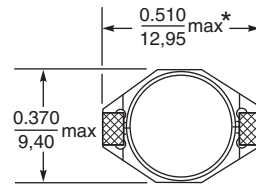
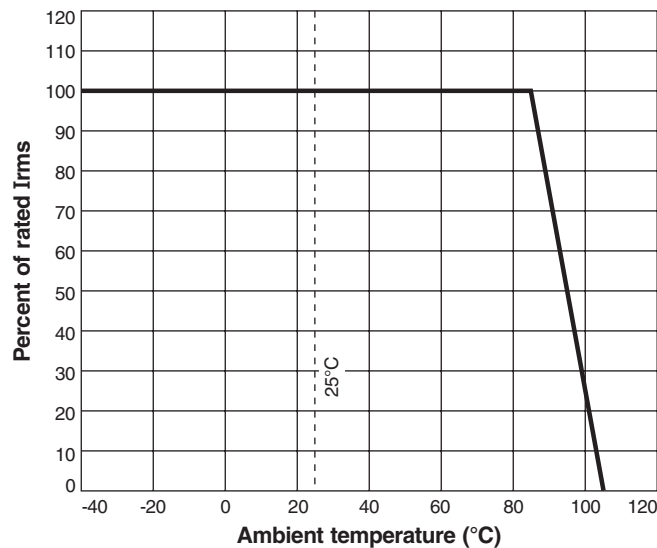
## Typical L vs Frequency



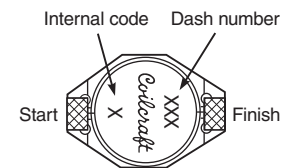
## Typical L vs Current



## Irms Derating



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



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 color dot marking details.

\* 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.

## Recommended Land Pattern

