



# SMT Power Inductors - DO1606T Series



- Only 2.0 mm high
- Handles current up to 2.3 Amps rms



**Designer's Kit C338** contains 3 each of all values  
**Core material** Ferrite

**Terminations** RoHS compliant silver-palladium-platinum-glass frit. Other terminations available at additional cost.

**Weight** 116 – 136 mg

**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: –55°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** 750/7" reel; 2500/13" reel Plastic tape: 12 mm wide, 0.3 mm thick, 8 mm pocket spacing, 2.5 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 ref (MHz)	Isat <sup>3</sup> (A)	I <sub>rms</sub> <sup>4</sup> (A)
DO1606T-102ML_	1.0	0.04	230	2.5	2.3
DO1606T-152ML_	1.5	0.06	180	2.2	2.1
DO1606T-222ML_	2.2	0.07	140	1.8	1.7
DO1606T-332ML_	3.3	0.12	110	1.4	1.3
DO1606T-472ML_	4.7	0.15	100	1.2	1.1
DO1606T-682ML_	6.8	0.20	80	1.1	1.0
DO1606T-822ML_	8.2	0.23	70	1.0	0.95
DO1606T-103ML_	10	0.30	60	1.0	0.90
DO1606T-153ML_	15	0.40	45	0.8	0.70
DO1606T-223ML_	22	0.54	35	0.6	0.50
DO1606T-333ML_	33	0.74	30	0.5	0.45
DO1606T-473ML_	47	1.1	22	0.45	0.40
DO1606T-683ML_	68	1.6	20	0.35	0.35
DO1606T-104ML_	100	2.3	15	0.30	0.30
DO1606T-154ML_	150	3.5	10	0.25	0.25
DO1606T-224ML_	220	5.7	9	0.20	0.18
DO1606T-334ML_	330	8.2	8	0.16	0.16
DO1606T-474ML_	470	10.8	7	0.14	0.12
DO1606T-684ML_	680	17.2	5	0.12	0.10
DO1606T-105ML_	1000	22.6	4	0.08	0.08

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

**DO1606T-105ML C**

**Termination:** L = RoHS compliant silver-palladium-platinum-glass frit  
 Special order: T = RoHS tin-silver-copper (95.5/4/0.5)  
 or S = non-RoHS tin-lead (63/37).

**Packaging:** C = 7" 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 C instead.

D = 13" machine-ready reel. EIA-481 embossed plastic tape (2500 parts per full reel).

- Inductance tested at 100 kHz, 0.1 V<sub>rms</sub>, 0 V<sub>dc</sub>.
  - 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.
- See Qualification Standards section for environmental and test data.  
 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. Document 213-1 Revised 09/17/07

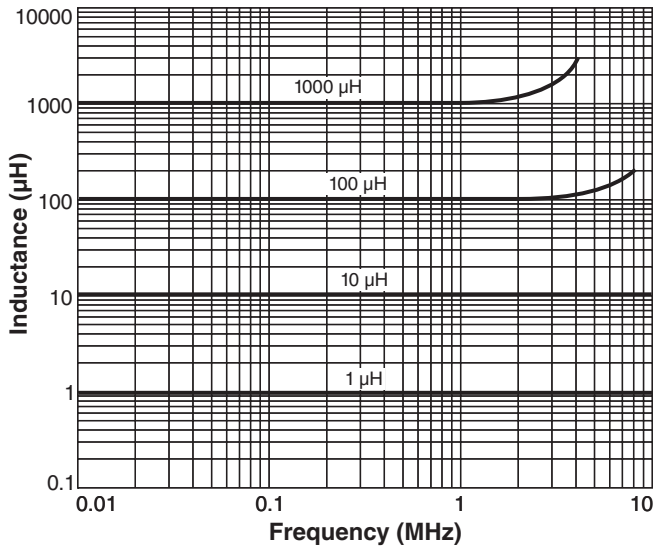
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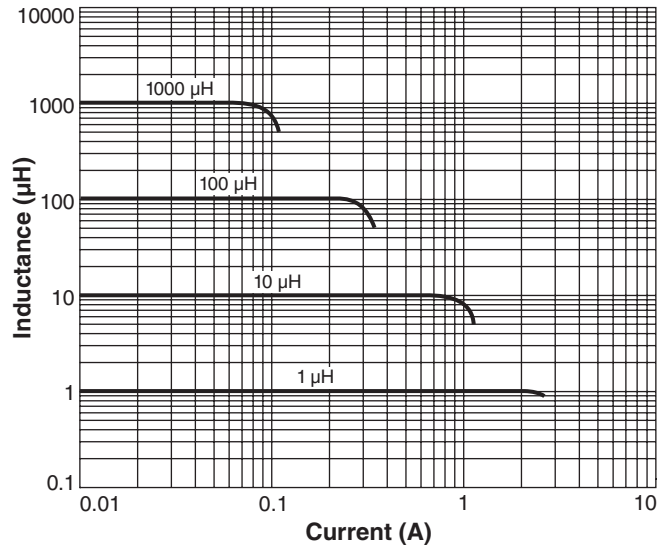


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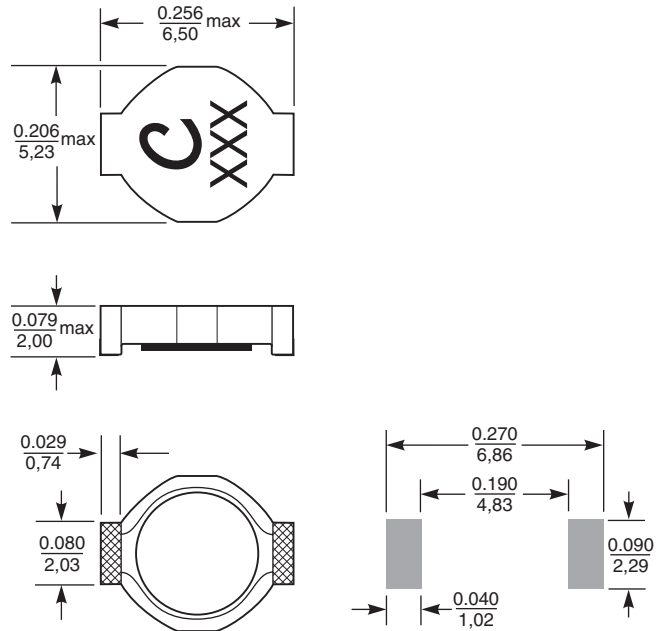
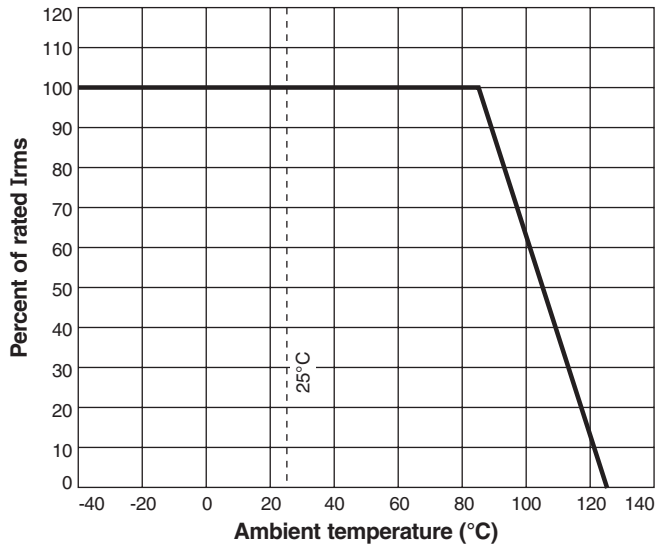
## Typical L vs Frequency



## Typical L vs Current



## Irms Derating



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

**Recommended Land Pattern**



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