

# SMT Power Inductors - DO1605T



- Only 1.8 mm high
- Handles current up to 2.3 Amps rms

**Designer's Kit C353** 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 compliant silver-palladium-platinum-glass frit. Other terminations available at additional cost.

**Weight** 101 – 110 mg

**Ambient temperature** -40°C to +85°C with Irms current

**Maximum part temperature** +125°C (ambient + temp rise)

**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** 1000/7" reel; 3500/13" reel Plastic tape: 12 mm wide, 0.25 mm thick, 8 mm pocket spacing, 2.3 mm pocket depth

**PCB washing** Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787\\_PCB\\_Washing.pdf](#).

Part number <sup>1</sup>	L <sup>2</sup> ±20% (µH)	DCR max (Ohms)	SRF <sup>3</sup> ref (MHz)	Isat <sup>4</sup> (A)	Irms <sup>5</sup> (A)
DO1605T-102ML_	1.0	0.04	230	2.5	2.3
DO1605T-152ML_	1.5	0.06	180	2.2	2.1
DO1605T-222ML_	2.2	0.07	140	1.8	1.7
DO1605T-332ML_	3.3	0.12	110	1.4	1.3
DO1605T-472ML_	4.7	0.15	100	1.2	1.1
DO1605T-682ML_	6.8	0.20	80	1.1	1.0
DO1605T-822ML_	8.2	0.23	70	1.0	0.95
DO1605T-103ML_	10	0.27	60	1.0	0.90
DO1605T-153ML_	15	0.35	45	0.8	0.70
DO1605T-223ML_	22	0.54	35	0.6	0.50
DO1605T-333ML_	33	0.74	30	0.5	0.45
DO1605T-473ML_	47	1.1	22	0.45	0.40
DO1605T-683ML_	68	1.6	20	0.35	0.35
DO1605T-104ML_	100	2.3	15	0.30	0.30
DO1605T-154ML_	150	3.5	10	0.25	0.25
DO1605T-224ML_	220	5.7	9	0.20	0.18
DO1605T-334ML_	330	8.2	8	0.16	0.16
DO1605T-474ML_	470	10.8	7	0.14	0.12
DO1605T-684ML_	680	17.2	5	0.12	0.10
DO1605T-105ML_	1000	22.6	4	0.08	0.08

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

**DO1605T-105MLC**

**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 (1000 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer (\$25 charge).

B = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to C.

D = 13" machine-ready reel. EIA-481 embossed plastic tape (3500 parts per full reel).

2. Inductance tested at 100 kHz, 0.1 Vrms.
  3. SRF >13 MHz measured using Agilent/HP 8753D network analyzer; <13 MHz using Agilent/HP 4192A.
  4. DC current at which the 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 253-1 Revised 10/08/08

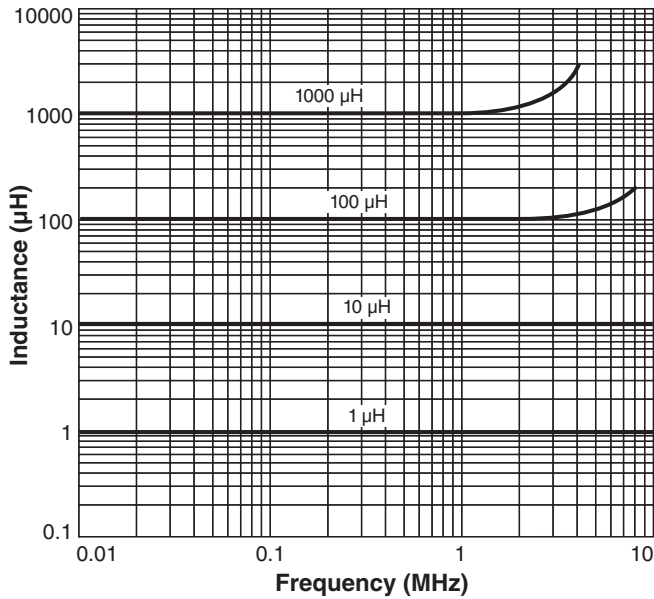
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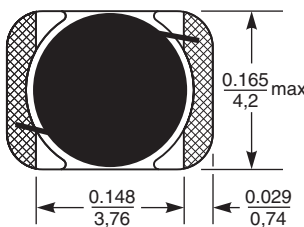
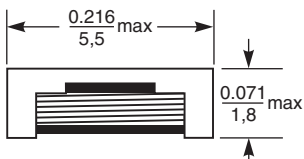
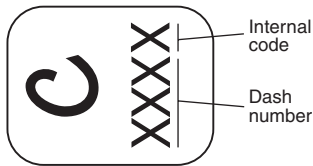
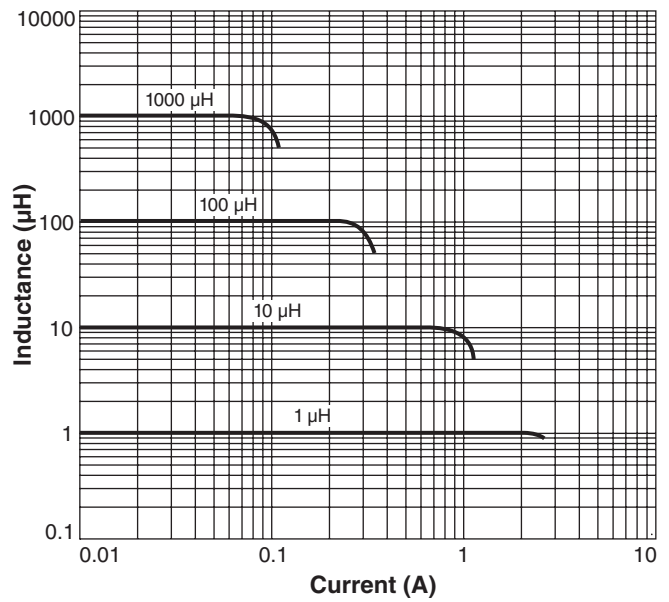


# SMT Power Inductors – DO1605T Series

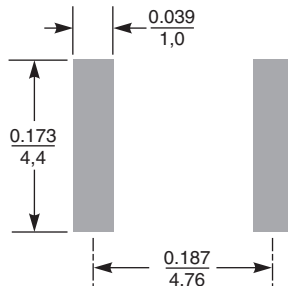
## Typical L vs Frequency



## Typical L vs Current



### Recommended Land Pattern



Dimensions are in inches/mm



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