

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

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, +85°C to +125°C with derated current

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 with pure water or alcohol only. For other solvents, see Doc787_PCB_Washing.pdf.

Part number ¹	L ² ±20% (µH)	DCR max (Ohms)	SRF ³ ref (MHz)	Isat ⁴ (A)	Irms ⁵ (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

- 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).

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 (3500 parts per full reel).

- Inductance tested at 100 kHz, 0.1 Vrms.
 - SRF >13 MHz measured using Agilent/HP 8753D network analyzer; <13 MHz using Agilent/HP 4192A.
 - 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



www.coilcraft.com

US +1-847-639-6400 sales@coilcraft.com
UK +44-1236-730595 sales@coilcraft-europe.com
Taiwan +886-2-2264 3646 sales@coilcraft.com.tw
China +86-21-6218 8074 sales@coilcraft.com.cn
Singapore +65-6484 8412 sales@coilcraft.com.sg

Document 253-1 Revised 10/08/08

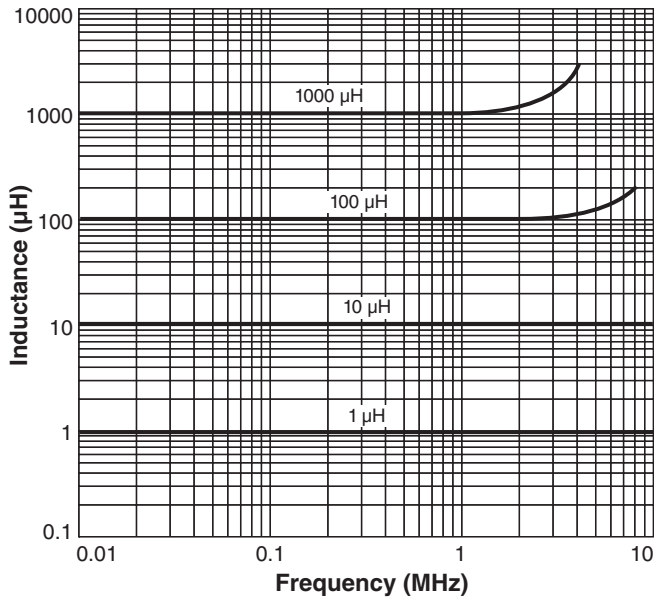
© Coilcraft Inc. 2013

This product may not be used in medical or high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check web site for latest information.

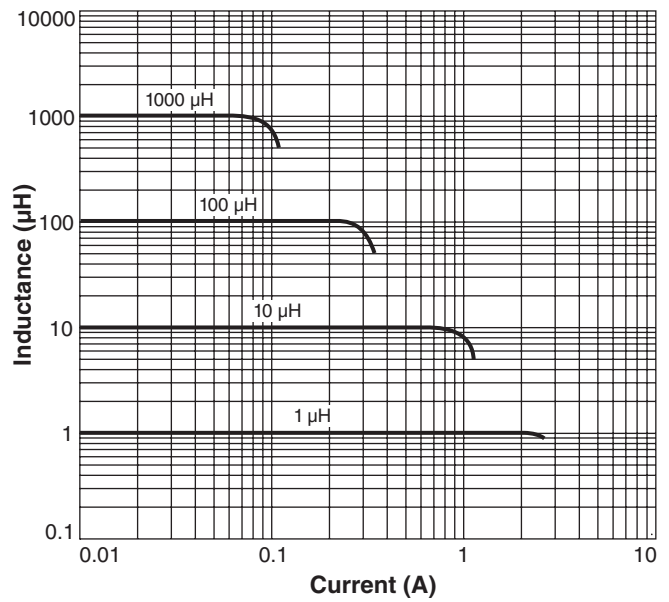


SMT Power Inductors – DO1605T Series

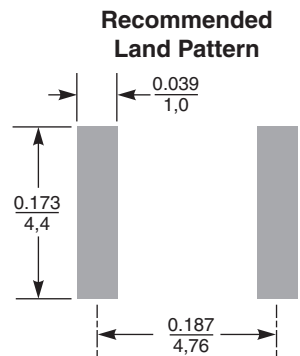
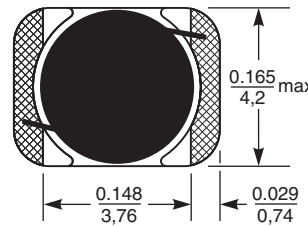
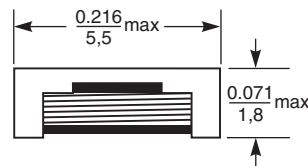
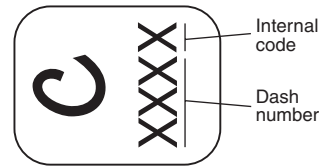
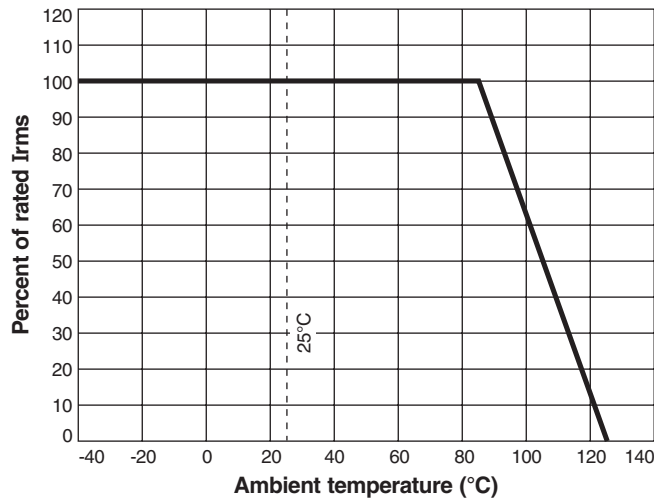
Typical L vs Frequency



Typical L vs Current



Irms Derating



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



US +1-847-639-6400 sales@coilcraft.com
UK +44-1236-730595 sales@coilcraft-europe.com
Taiwan +886-2-2264 3646 sales@coilcraft.com.tw
China +86-21-6218 8074 sales@coilcraft.com.cn
Singapore + 65-6484 8412 sales@coilcraft.com.sg

Document 253-2 Revised 10/08/08
 © Coilcraft Inc. 2013
 This product may not be used in medical or high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check web site for latest information.