

SMT Power Inductors – DO5022P



- Excellent current handling – up to 28.8 Asat.
- Low dc resistance keeps power losses to a minimum

Designer's Kit C311 contains 3 of each 20% tolerance part

Core material Ferrite

Core and winding loss See www.coilcraft.com/coreloss

Terminations RoHS compliant electroplated gold (<50 µin) over nickel over phos bronze. Other terminations available at additional cost.

Weight 2.8– 3.9 g

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)

Packaging 250 per 13" reel Plastic tape: 32 mm wide, 0.38 mm thick, 24 mm pocket spacing, 7.8 mm pocket depth

PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787_PCB_Washing.pdf](#).

Part number ¹	L ² (µH)	Percent tol ³	DCR max (Ohms)	SRF typ ⁴ (MHz)	Isat (A) ⁵		Irms ⁶ (A)
					10% drop	20% drop	
DO5022P-102ML_	1.0	20	0.009	80	27.6	28.8	8.6
DO5022P-222ML_	2.2	20	0.014	80	18.5	19.8	7.1
DO5022P-332ML_	3.3	20	0.018	60	14.5	15.5	6.2
DO5022P-562ML_	5.6	20	0.020	40	12.5	13.8	5.3
DO5022P-822ML_	8.2	20	0.029	30	10.3	11.5	4.8
DO5022P-103ML_	10	20	0.031	30	9.4	10.5	4.3
DO5022P-153ML_	15	20	0.036	22	7.5	8.2	4.0
DO5022P-223ML_	22	20	0.047	20	6.5	7.2	3.5
DO5022P-333ML_	33	20	0.066	15	5.2	6.1	3.0
DO5022P-473ML_	47	20	0.086	9	4.2	4.7	2.6
DO5022P-683_L_	68	20,10	0.13	8	3.7	4.1	2.3
DO5022P-104_L_	100	20,10	0.19	7	3.0	3.4	1.8
DO5022P-154_L_	150	20,10	0.25	6	2.5	2.8	1.5
DO5022P-224_L_	220	20,10	0.38	5	2.0	2.3	1.2
DO5022P-334_L_	330	20,10	0.56	4	1.7	1.9	1.0
DO5022P-474_L_	470	20,10	0.85	3	1.5	1.7	0.82
DO5022P-684_L_	680	20,10	1.1	2.5	1.2	1.3	0.72
DO5022P-105_L_	1000	20,10	1.8	2.0	0.95	1.1	0.56

1. Specify **tolerance, termination and packaging** codes:

DO5022P-105MLD

Tolerance: **M** = 20%, **K** = 10% (Table shows stock tolerances in bold.)

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 (250 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 D.

2. Inductance tested at 100 kHz, 0.1 Vrms, 0 Adc using an Agilent/HP 4263B LCR meter or equivalent.
3. Tolerances in bold are stocked for immediate shipment.
4. SRF >13 MHz measured using Agilent/HP 8753D network analyzer; <13 MHz using Agilent/HP 4192A.
5. DC current at which inductance drops the specified amount from its value without current.
6. Current that causes a 40°C temperature rise from 25°C ambient.
7. 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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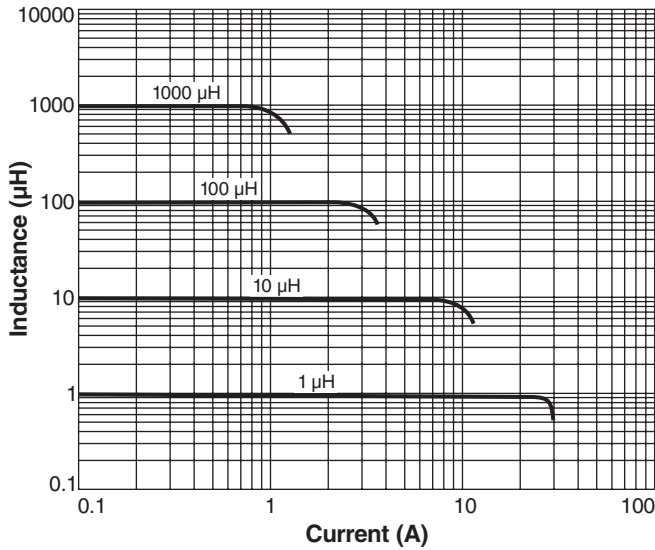
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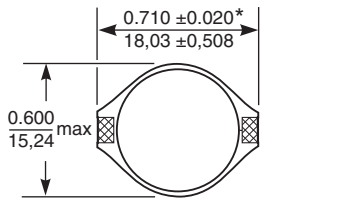
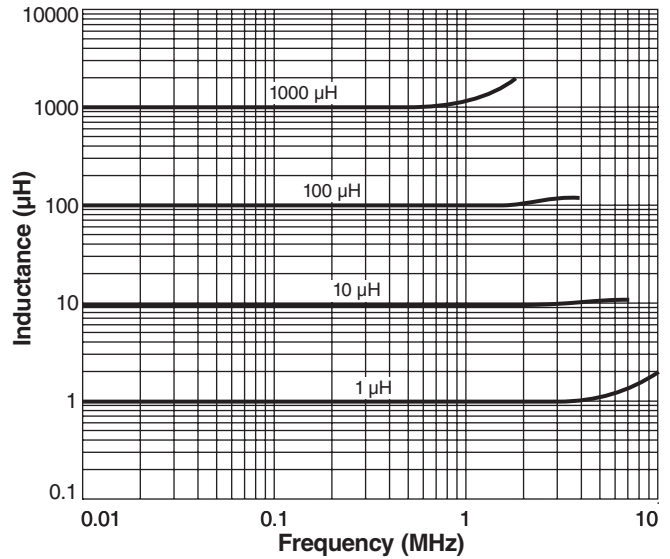


SMT Power Inductors – DO5022P Series

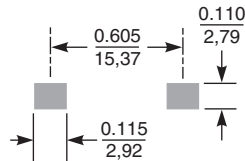
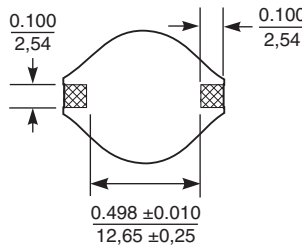
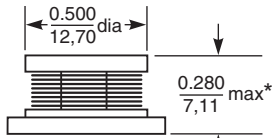
Typical L vs Current



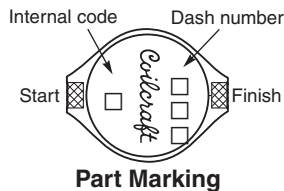
Typical L vs Frequency



* 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



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



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