



SMT Power Inductors – DO3316T Series



- Designed for high temperature applications – over 125°C ambient
- AEC-Q200 qualified; ideal for many automotive applications
- Soldered self-leaded construction for excellent solderability
- Low DCR and high current handling

Designer's Kit C396 contains 3 of each value

Core material Ferrite

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

Terminations RoHS compliant tin-silver-copper over copper. Other terminations available at additional cost.

Weight 0.95 – 1.25 g

Ambient temperature –40°C to +155°C. See derating curve for I_{rms} vs Temperature.

Storage temperature Component: –40°C to +155°C.
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 750/13" reel Plastic tape: 24 mm wide, 0.35 mm thick, 12 mm pocket spacing, 6.4 mm pocket depth

PCB washing Only pure water or alcohol recommended

Part number ¹	L ±20% ² (µH)	DCR max (Ohms)	SRF ³ typ (MHz)	Isat ⁴ (A)	I _{rms} ⁵ (A)
DO3316T-331ML_	0.33	0.002	200	20	16
DO3316T-681ML_	0.68	0.005	200	13	12
DO3316T-102ML_	1.0	0.006	100	11	10
DO3316T-152ML_	1.5	0.008	90	9	9
DO3316T-222ML_	2.2	0.011	90	7.8	7.4
DO3316T-272ML_	2.7	0.012	65	7.0	6.6
DO3316T-332ML_	3.3	0.014	60	6.4	5.9
DO3316T-392ML_	3.9	0.015	50	5.9	5.3
DO3316T-472ML_	4.7	0.018	50	5.4	4.8
DO3316T-562ML_	5.6	0.021	45	4.7	4.65
DO3316T-682ML_	6.8	0.024	43	4.4	4.40
DO3316T-822ML_	8.2	0.032	34	4.0	4.15
DO3316T-103ML_	10	0.034	31	3.9	3.90
DO3316T-123ML_	12	0.036	27	3.4	3.50
DO3316T-153ML_	15	0.045	25	3.1	3.10
DO3316T-183ML_	18	0.050	22	2.8	2.90
DO3316T-223ML_	22	0.070	18	2.5	2.70
DO3316T-273ML_	27	0.085	18	2.3	2.30
DO3316T-333ML_	33	0.100	17	2.0	2.10
DO3316T-393ML_	39	0.120	15	1.8	1.95
DO3316T-473ML_	47	0.150	14	1.65	1.80
DO3316T-563ML_	56	0.165	12	1.45	1.65
DO3316T-683ML_	68	0.220	11	1.40	1.50
DO3316T-823ML_	82	0.250	10	1.30	1.40
DO3316T-104ML_	100	0.280	9.0	1.20	1.30
DO3316T-124ML_	120	0.400	8.0	1.00	1.00
DO3316T-154ML_	150	0.460	6.0	0.90	0.90
DO3316T-184ML_	180	0.520	6.0	0.85	0.85
DO3316T-224ML_	220	0.700	5.0	0.80	0.80
DO3316T-274ML_	270	0.800	5.0	0.75	0.70
DO3316T-334ML_	330	1.07	4.5	0.60	0.60
DO3316T-394ML_	390	1.14	4.0	0.62	0.55
DO3316T-474ML_	470	1.27	3.5	0.50	0.50

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

DO3316T-474ML D

Termination: L = RoHS compliant tin-silver over copper.
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 (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.

- Inductance tested at 100 kHz, 0.1 V_{rms}, 0 Adc.
 - SRF measured using Agilent/HP 8753D network analyzer.
 - 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.

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Specifications subject to change without notice.
Please check our website for latest information.

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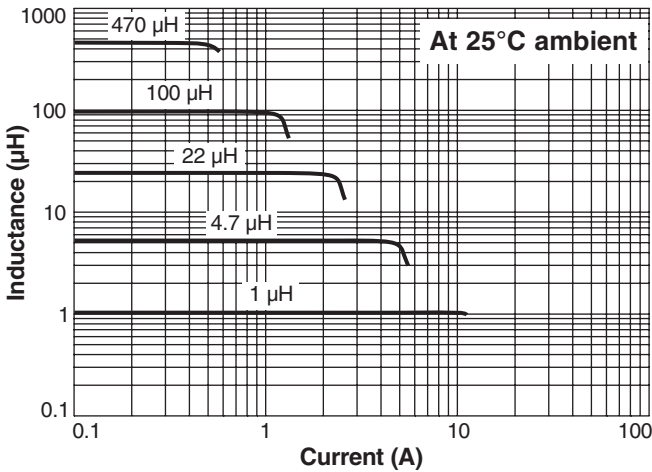
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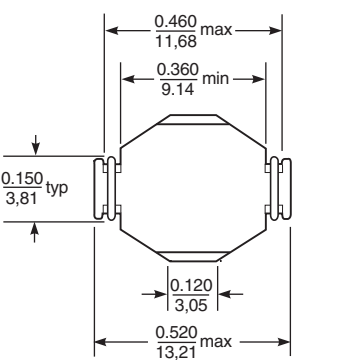
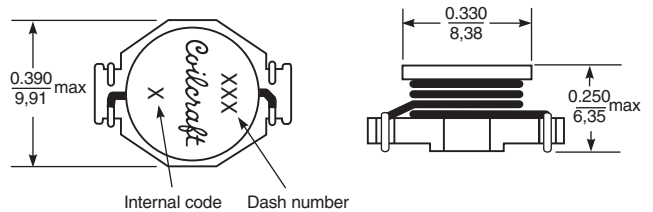
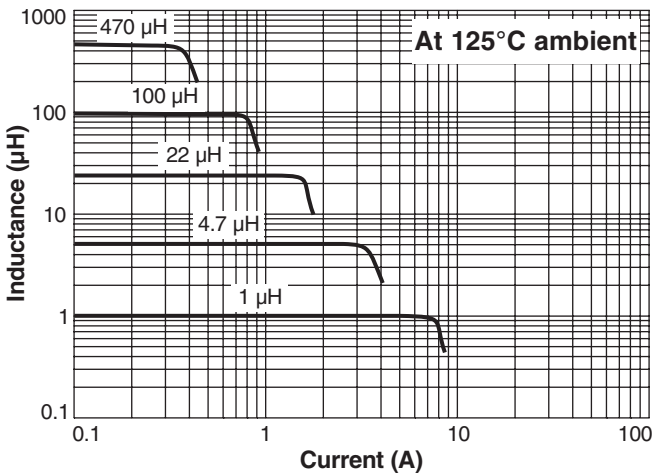
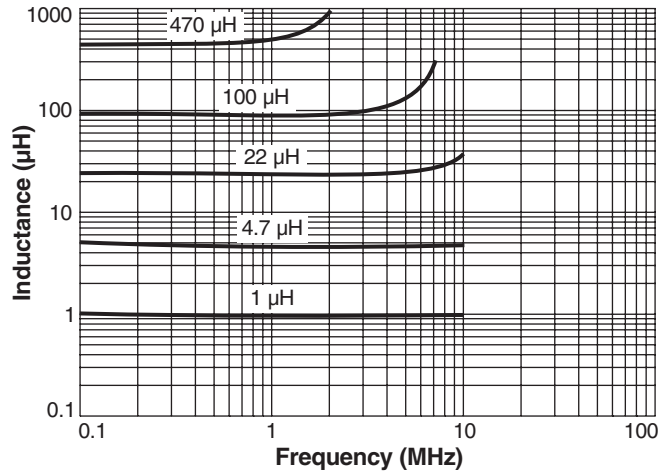


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Typical L vs Current

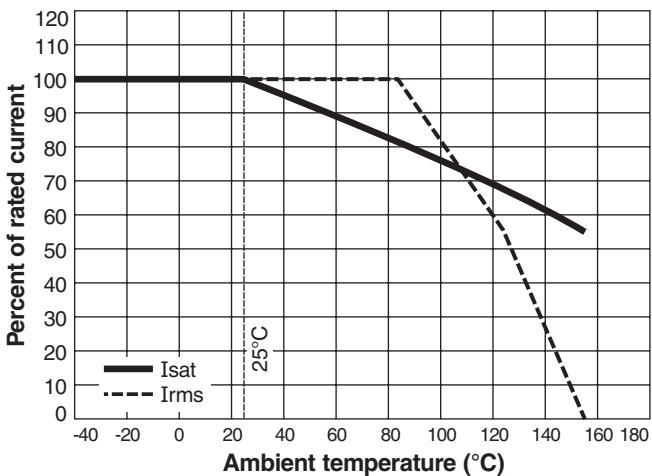


Typical L vs Frequency



Dimensions are in inches/mm

Current Derating



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