SMT Power Inductors - DO3316H Series



- Soldered self-leaded construction for excellent solderability.
- Very low DCR values and excellent current handling

Designer's Kit C326 contains 3 of each part
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 +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 750 per 13″ reel Plastic tape: 24 mm wide, 0.35 mm thick, 12 mm pocket spacing, 6.4 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] (µH)	% tol[3]	DCR max (Ohms)	SRF[4] typ (MHz)	Isat[5] (A)	Irms[6] (A)
DO3316H-121ML_	0.12	**20**	0.0015	200	28	17
DO3316H-331ML_	0.33	**20**	0.002	200	20	16
DO3316H-681ML_	0.68	**20**	0.005	200	13	12
DO3316H-102ML_	1.0	**20**	0.006	100	11	10
DO3316H-152ML_	1.5	**20**	0.008	90	9.0	9.0
DO3316H-222_L_	2.2	**20**,10	0.011	80	7.8	7.4
DO3316H-272_L_	2.7	**20**,10	0.012	65	7.0	6.6
DO3316H-332_L_	3.3	**20**,10	0.014	60	6.4	5.9
DO3316H-392_L_	3.9	**20**,10	0.015	50	5.9	5.3
DO3316H-472_L_	4.7	**20**,10	0.018	45	5.4	4.8

1. When ordering, specify **tolerance**, **termination** and **packaging** codes:
   DO3316H-472MLD
   Tolerance: **M** = 20%, **K** = 10% (Table shows stock tolerances in bold.)
   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.
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 measured using Agilent/HP 8753D network analyzer.
5. DC current at which the inductance drops 10% (typ) 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

Coilcraft
www.coilcraft.com

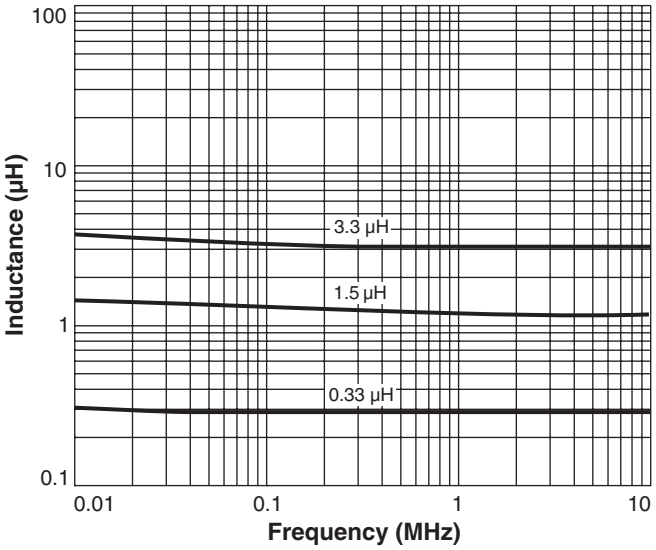
US +1-847-639-6400 sales@coilcraft.com
UK +44-1236-730595 sales@coilcraft-europe.com
Taiwan +886-2-2264 3646 sales@coilcraft.com.tw
China +86-21-6218 8074 sales@coilcraft.com.cn
Singapore + 65-6484 8412 sales@coilcraft.com.sg

Document 196-1 Revised 09/25/12

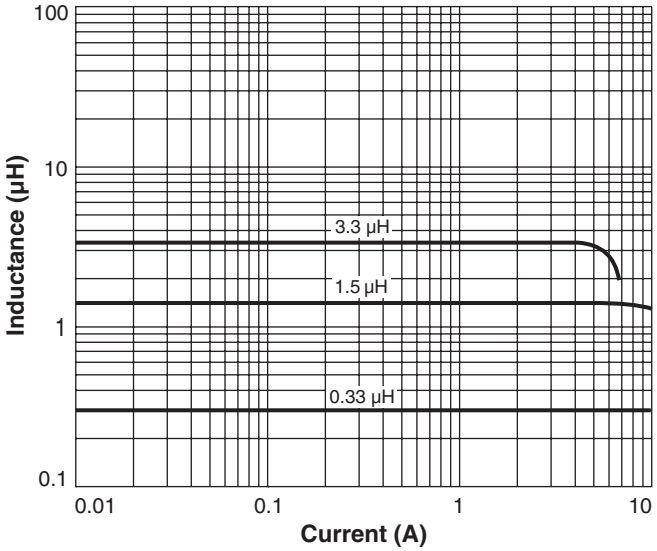
© Coilcraft Inc. 2013
This product may not be used in medical or high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check web site for latest information.

SMT Power Inductors - DO3316H Series

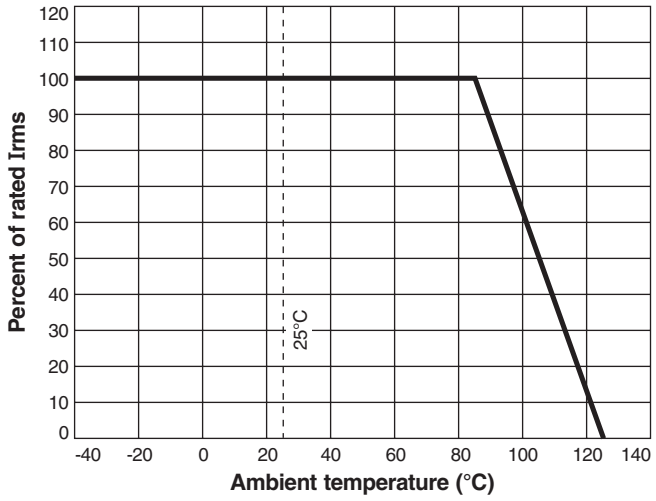
Typical L vs Frequency

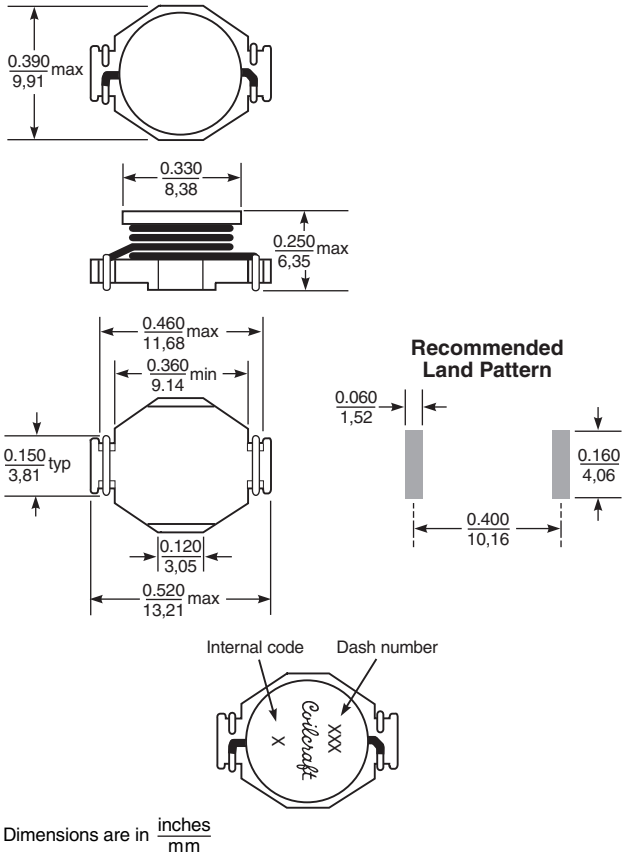


Typical L vs Current



Irms Derating





Dimensions are in inches / mm

Coilcraft
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 196-2 Revised 09/25/12

© 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.