

SMT Power Inductors – ME3215



- Low profile, small footprint power inductor
- 2.5 × 3.2 mm footprint; 1.55 mm tall

Designer's Kit C408 contains 3 each of all values

Core material Ferrite

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

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

Weight 46 – 48 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 2000/7" reel; 7000/13" reel Plastic tape: 12 mm wide, 0.25 mm thick, 4 mm pocket spacing, 2.25 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	Inductance ² (µH)	DCR max ³ (Ohms)	SRF typ ⁴ (MHz)	Isat (A) ⁵			Irms (A) ⁶	
				10% drop	20% drop	30% drop	20°C rise	40°C rise
ME3215-102ML_	1.0 ±20%	0.058	100	2.32	2.62	2.80	1.70	2.30
ME3215-222ML_	2.2 ±20%	0.107	64	1.62	1.84	2.00	1.30	1.70
ME3215-332ML_	3.3 ±20%	0.170	55	1.22	1.40	1.50	1.05	1.45
ME3215-472ML_	4.7 ±20%	0.245	43	1.06	1.20	1.30	0.83	1.14
ME3215-103KL_	10 ±10%	0.505	26	0.71	0.81	0.85	0.60	0.79
ME3215-153KL_	15 ±10%	0.773	26	0.58	0.65	0.70	0.48	0.65
ME3215-223KL_	22 ±10%	1.00	19	0.50	0.57	0.61	0.42	0.56
ME3215-333KL_	33 ±10%	1.48	17	0.42	0.47	0.51	0.35	0.48
ME3215-473KL_	47 ±10%	2.33	15	0.33	0.38	0.41	0.35	0.48
ME3215-683KL_	68 ±10%	3.40	12	0.28	0.31	0.34	0.24	0.32
ME3215-104KL_	100 ±10%	4.67	10	0.23	0.26	0.27	0.18	0.25

1. Please specify **termination** and **packaging** codes:

ME3215-104KLC

Termination: L = RoHS tin-silver-copper over tin over nickel over silver.

Special order:

S = non-RoHS tin-lead (63/37).

Packaging: C = 7" machine-ready reel. EIA-481 embossed plastic tape (2000 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. Factory order only, not stocked (7000 parts per full reel).

2. Inductance measured at 100 kHz, 0.1 Vrms, 0 Adc using Coilcraft SMD-A fixture in Agilent/HP 4284A impedance analyzer.
3. DCR measured on a micro-ohmmeter and Coilcraft CCF858 test fixture.
4. SRF measured using Agilent/HP 8753D network analyzer and Coilcraft SMD-D test fixture.
5. DC current at which the inductance drops the specified amount from its value without current.
6. Current that causes the specified temperature rise from 25°C ambient.
7. Electrical specifications at 25°C.

Refer to Doc 362 "Soldering Surface Mount Components" before soldering.



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 432-1 Revised 09/15/21

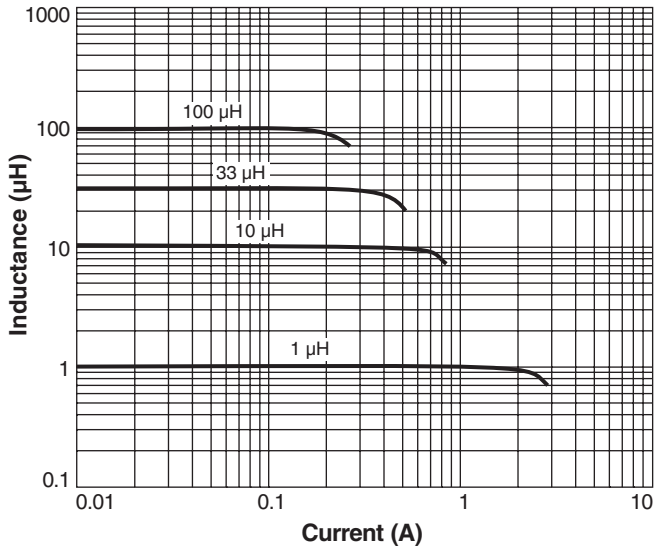
© Coilcraft Inc. 2021

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.

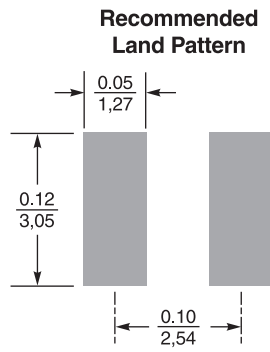
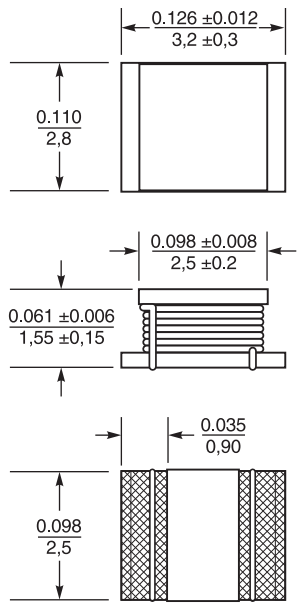
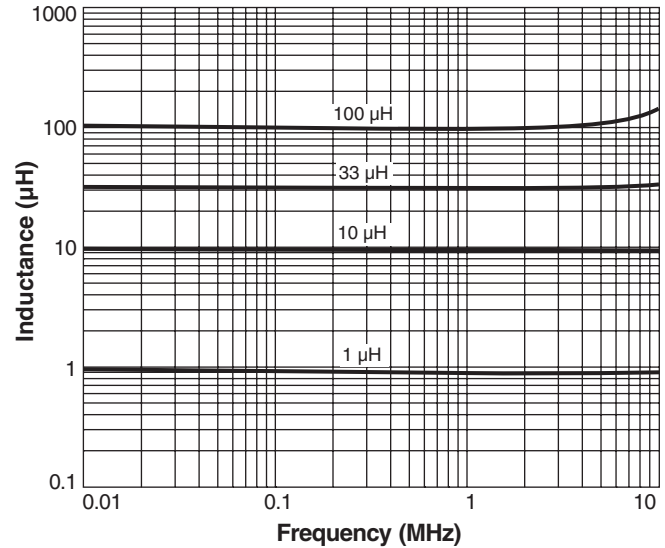


SMT Power Inductors – ME3215 Series

Typical L vs Current



Typical L vs Frequency



Dimensions are in inches
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 432-2 Revised 09/15/21

© Coilcraft Inc. 2021
 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.