



# 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](http://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)

**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 <sup>1</sup>	Inductance <sup>2</sup> (µH)	DCR max <sup>3</sup> (Ohms)	SRF typ <sup>4</sup> (MHz)	Isat (A) <sup>5</sup>			Irms (A) <sup>6</sup>	
				10% drop	20% drop	30% drop	20°C rise	40°C rise
ME3215-102ML_	1.0 ±20%	0.058	200	1.85	2.10	2.25	1.70	2.30
ME3215-222ML_	2.2 ±20%	0.107	135	1.25	1.45	1.50	1.30	1.70
ME3215-332ML_	3.3 ±20%	0.170	105	1.00	1.15	1.25	1.05	1.45
ME3215-472ML_	4.7 ±20%	0.245	90	0.85	1.00	1.05	0.83	1.14
ME3215-103KL_	10 ±10%	0.505	60	0.62	0.70	0.76	0.60	0.79
ME3215-153KL_	15 ±10%	0.773	50	0.51	0.57	0.62	0.48	0.65
ME3215-223KL_	22 ±10%	1.00	38	0.42	0.48	0.51	0.42	0.56
ME3215-333KL_	33 ±10%	1.48	30	0.33	0.38	0.41	0.35	0.48
ME3215-473KL_	47 ±10%	2.33	24	0.28	0.32	0.34	0.35	0.48
ME3215-683KL_	68 ±10%	3.40	20	0.23	0.26	0.28	0.24	0.32
ME3215-104KL_	100 ±10%	4.67	16	0.19	0.22	0.23	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](http://www.coilcraft.com)

**US** +1-847-639-6400 [sales@coilcraft.com](mailto:sales@coilcraft.com)

**UK** +44-1236-730595 [sales@coilcraft-europe.com](mailto:sales@coilcraft-europe.com)

**Taiwan** +886-2-2264 3646 [sales@coilcraft.com.tw](mailto:sales@coilcraft.com.tw)

**China** +86-21-6218 8074 [sales@coilcraft.com.cn](mailto:sales@coilcraft.com.cn)

**Singapore** + 65-6484 8412 [sales@coilcraft.com.sg](mailto:sales@coilcraft.com.sg)

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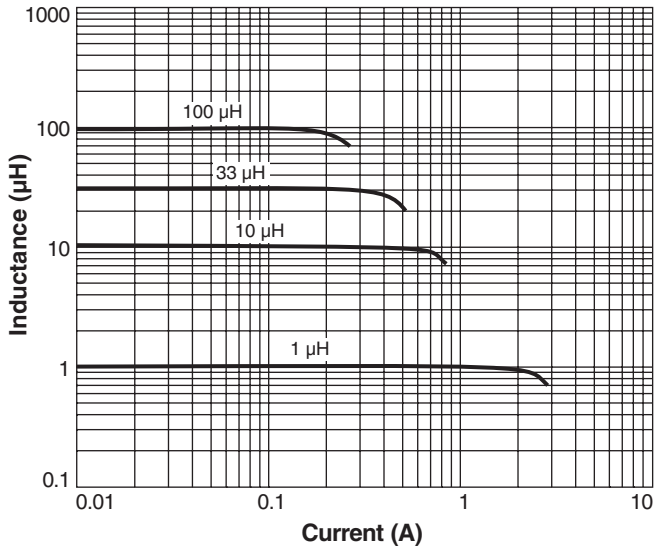
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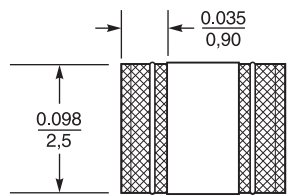
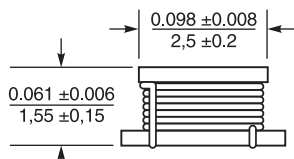
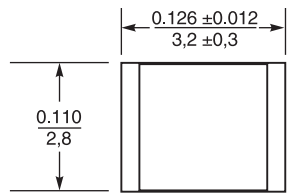
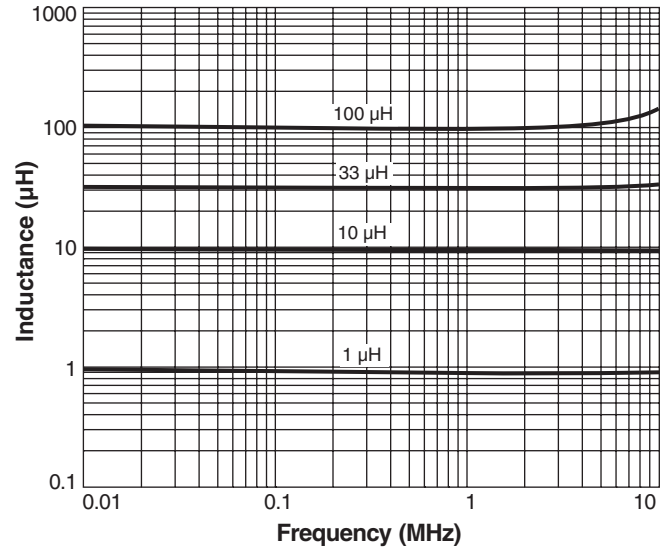


# SMT Power Inductors – ME3215 Series

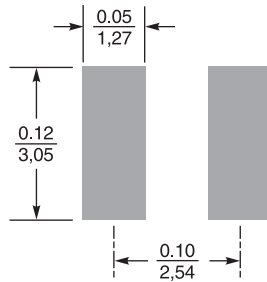
## Typical L vs Current



## Typical L vs Frequency



### Recommended Land Pattern



Dimensions are in inches  
mm



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**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

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