



# 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 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 <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	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 over tin over nickel over silver.

Special order:

**T** = RoHS tin-silver-copper (95.5/4/0.5) or **S** = non-RoHS tin-lead (63/37).

**Packaging:** **C** = 7" machine-ready reel. EIA-481 embossed plastic tape (2000 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.

**D** = 13" machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (7000 parts per full reel).

- Inductance measured at 100 kHz, 0.1 Vrms, 0 Adc using Coilcraft SMD-A fixture in Agilent/HP 4284A impedance analyzer.
- DCR measured on a micro-ohmmeter and Coilcraft CCF858 test fixture.
- SRF measured using Agilent/HP 8753D network analyzer and Coilcraft SMD-D test fixture.
- DC current at which the inductance drops the specified amount from its value without current.
- Current that causes the specified 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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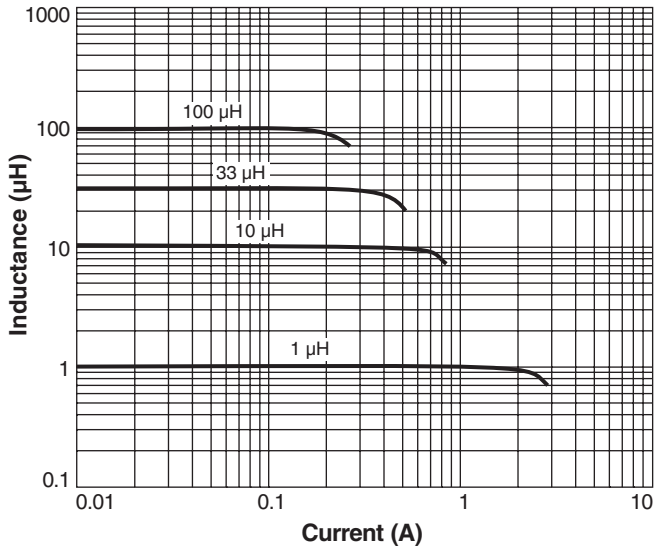
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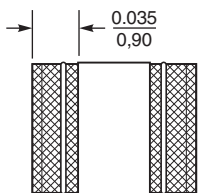
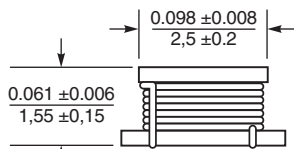
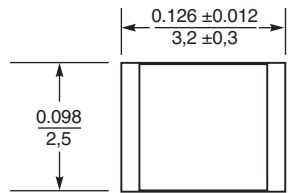
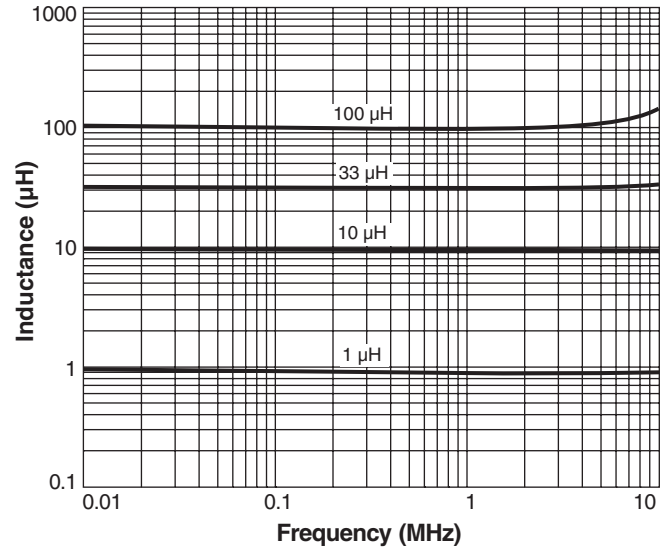


# SMT Power Inductors – ME3215 Series

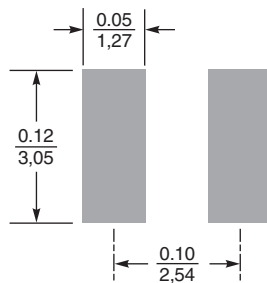
## Typical L vs Current



## Typical L vs Frequency



### Recommended Land Pattern



Dimensions are in inches  
mm



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