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 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, +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 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 Only pure water or alcohol recommended

Part number[1]	Inductance[2] (µH)	DCR max[3] (Ohms)	SRF typ[4] (MHz)	Isat (A)[5] 10% drop	Isat (A)[5] 20% drop	Isat (A)[5] 30% drop	Irms (A)[6] 20°C rise	Irms (A)[6] 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).

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.

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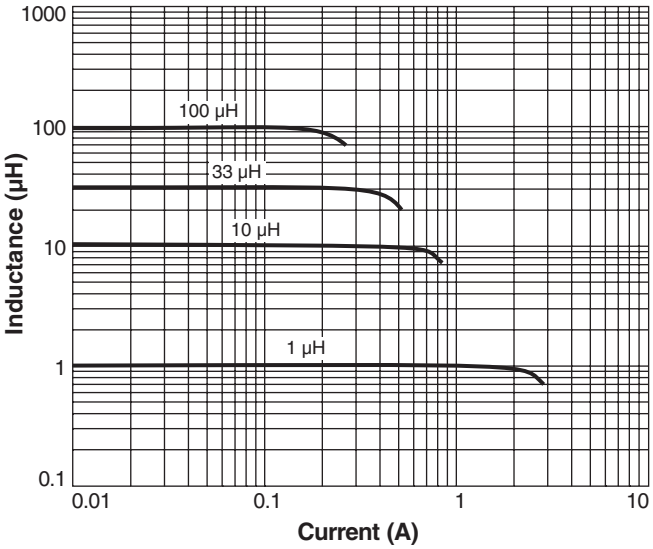
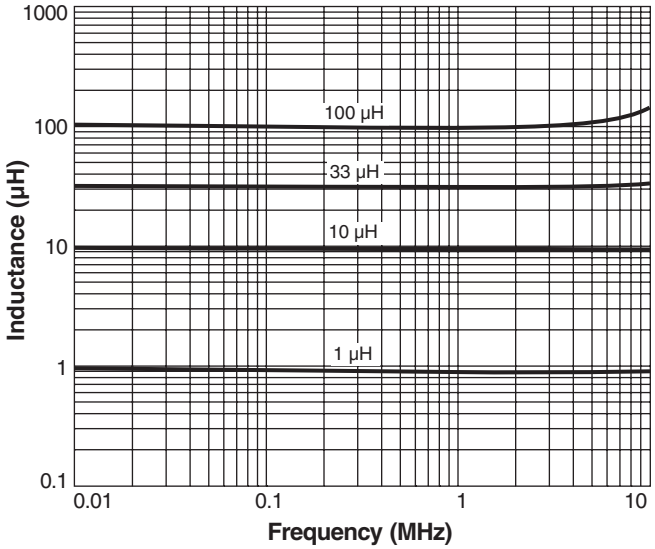
SMT Power Inductors – ME3215 Series

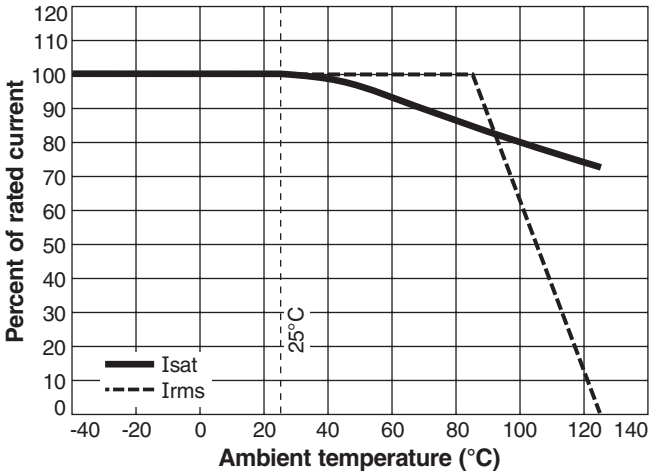
Typical L vs Current

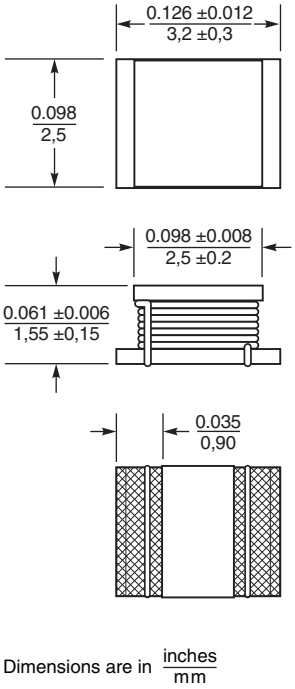


Typical L vs Frequency



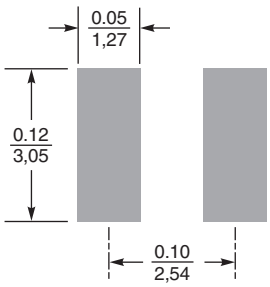
Current Derating





Dimensions are in inches / mm

Recommended Land Pattern



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