RoHS/ REACH COMPLIANT

SMT Power Inductor – ME3220

- Miniature power inductor: 2.5 × 3.2 base × 2.0 mm tall
- Specified by NSC for their LM2830 Buck Converter

Designer's Kit C386 contains samples of all values
Core material Ferrite
Core and winding loss See www.coilcraft.com/coreloss
Terminations RoHS tin-silver-copper over tin over nickel over silver. Other terminations available at additional cost.
Weight 56 – 65 mg
Ambient temperature –40°C to +85°C with (40°C rise) Irms current.
Maximum part temperature +125°C (ambient + temp rise). Derating.
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] 10% drop	20% drop	30% drop	Irms (A)[6] 20°C rise	40°C rise
ME3220-102ML_	1.0±20%	0.058	170.7	2.7	3.0	3.2	2.0	2.6
ME3220-152ML_	1.5±20%	0.068	138.0	2.2	2.5	2.7	1.6	2.2
ME3220-222ML_	2.2±20%	0.104	92.6	1.8	2.1	2.2	1.5	2.0
ME3220-332ML_	3.3±20%	0.138	75.6	1.5	1.6	1.7	1.4	1.6
ME3220-472ML_	4.7±20%	0.190	58.2	1.2	1.4	1.5	1.0	1.3
ME3220-562ML_	5.6±20%	0.200	52.5	1.1	1.3	1.4	1.0	1.3
ME3220-682ML_	6.8±20%	0.270	46.2	1.0	1.1	1.2	0.88	1.1
ME3220-822ML_	8.2±20%	0.290	45.2	0.98	1.0	1.1	0.80	1.0
ME3220-103KL_	10±10%	0.434	39.9	0.78	1.0	1.1	0.63	0.87
ME3220-123KL_	12±10%	0.470	37.5	0.76	0.88	0.98	0.61	0.84
ME3220-153KL_	15±10%	0.520	32.5	0.70	0.80	0.90	0.58	0.83
ME3220-183KL_	18±10%	0.696	31.7	0.66	0.75	0.80	0.49	0.70
ME3220-223KL_	22±10%	0.787	29.4	0.59	0.67	0.71	0.47	0.64
ME3220-273KL_	27±10%	1.19	26.1	0.56	0.63	0.67	0.40	0.54
ME3220-333KL_	33±10%	1.27	23.0	0.50	0.57	0.60	0.39	0.53
ME3220-393KL_	39±10%	1.38	22.6	0.45	0.51	0.54	0.34	0.47
ME3220-473KL_	47±10%	1.80	20.7	0.40	0.46	0.49	0.30	0.45
ME3220-563KL_	56±10%	2.10	20.3	0.37	0.42	0.45	0.27	0.43
ME3220-683KL_	68±10%	2.30	16.3	0.34	0.38	0.41	0.26	0.38
ME3220-823KL_	82±10%	3.00	13.7	0.30	0.34	0.36	0.25	0.34
ME3220-104KL_	100±10%	3.50	13.3	0.28	0.32	0.34	0.24	0.32

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

ME3220-104KLC

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 parts 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 (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 25°C that causes the specified inductance drop from its value without current.
Click for temperature derating information.
6. Current that causes the specified temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.
Click for temperature derating information.
7. Electrical specifications at 25°C.

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

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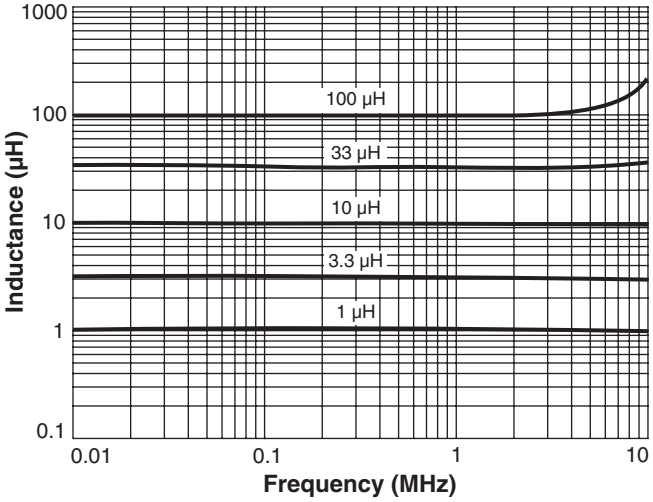
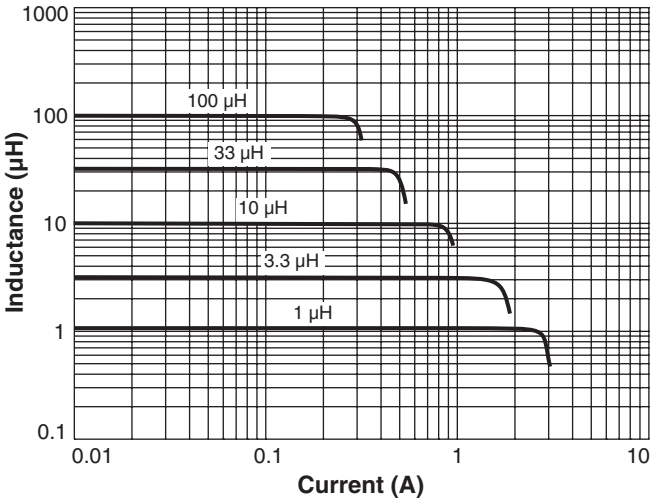
SMT Power Inductor – ME3220 Series

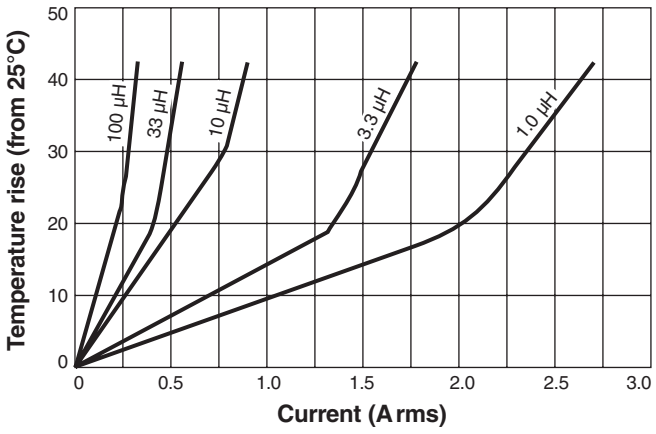
Typical L vs Frequency

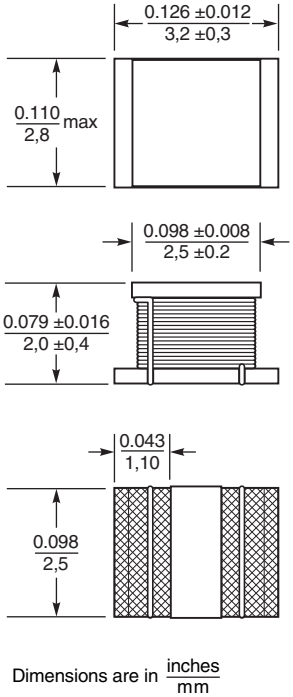


Typical L vs Current

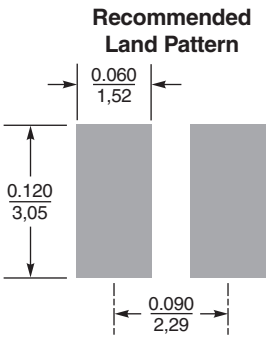


Typical Temperature Rise vs Current





Dimensions are in inches / mm



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