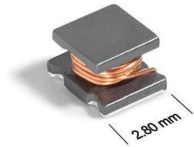


# ME3220-153KLC Datasheet

[www.digi-electronics.com](http://www.digi-electronics.com)



<https://www.DiGi-Electronics.com>

DiGi Electronics Part Number	ME3220-153KLC-DG
Manufacturer	<a href="#">Coilcraft</a>
Manufacturer Product Number	ME3220-153KLC
Description	FIXED IND 15UH 830MA 520MOHM SM
Detailed Description	15 $\mu$ H Unshielded Wirewound Inductor 830 mA 520 mOhm Max Nonstandard



Tel: +00 852-30501935

RFQ Email: [Info@DiGi-Electronics.com](mailto:Info@DiGi-Electronics.com)

DiGi is a global authorized distributor of electronic components.

## Purchase and inquiry

Manufacturer Product Number:

ME3220-153KLC

Series:

ME3220

Type:

Wirewound

Inductance:

15  $\mu$ H

Current Rating (Amps):

830 mA

Shielding:

Unshielded

Q @ Freq:

-

Ratings:

AEC-Q200

Inductance Frequency - Test:

100 kHz

Mounting Type:

Surface Mount

Supplier Device Package:

-

Height - Seated (Max):

0.094" (2.40mm)

Manufacturer:

Coilcraft

Product Status:

Active

Material - Core:

Ferrite

Tolerance:

$\pm$ 10%

Current - Saturation (Isat):

900mA

DC Resistance (DCR):

520mOhm Max

Frequency - Self Resonant:

32.5MHz

Operating Temperature:

-40°C ~ 85°C

Features:

-

Package / Case:

Nonstandard

Size / Dimension:

0.126" L x 0.110" W (3.20mm x 2.80mm)

## Environmental & Export classification

ECCN:

EAR99

HTSUS:

8504.50.8000





# 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](http://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 <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
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.



[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)

Document 380-1 Revised 11/03/20

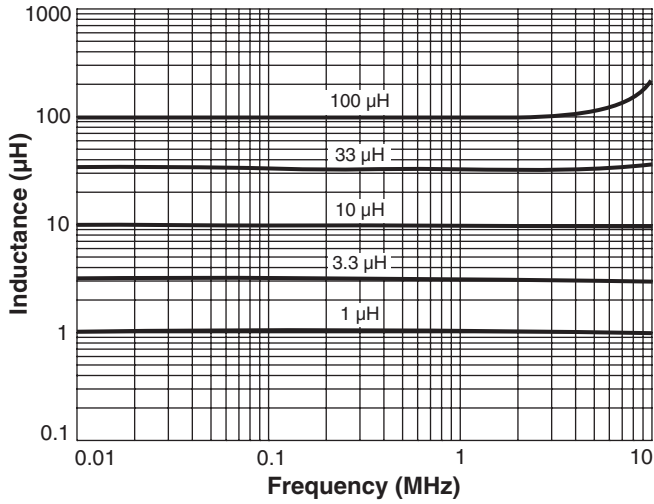
© Coilcraft Inc. 2020

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.

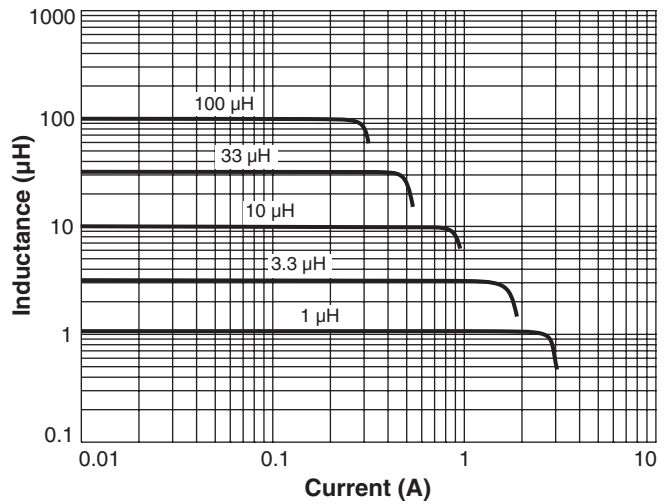


# SMT Power Inductor – ME3220 Series

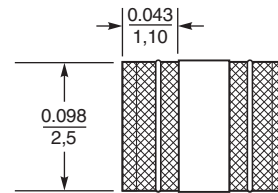
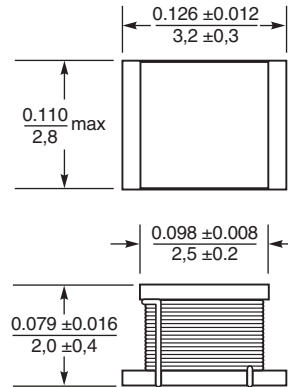
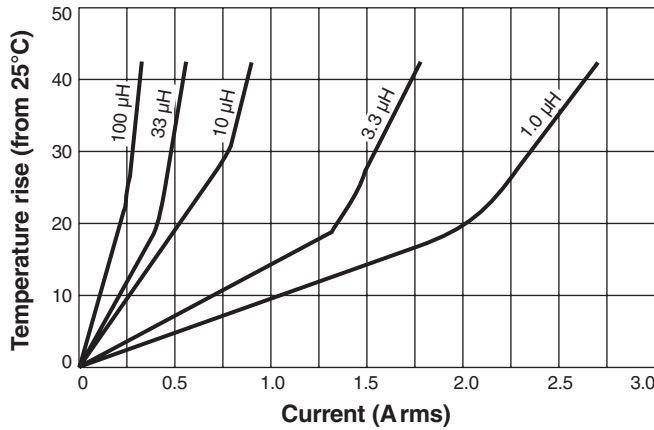
## Typical L vs Frequency



## Typical L vs Current

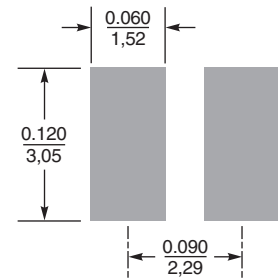


## Typical Temperature Rise vs Current



Dimensions are in inches/mm

### Recommended Land Pattern



**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 380-2 Revised 11/03/20

© Coilcraft Inc. 2020

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.



## OUR CERTIFICATE

DiGi provide top-quality products and perfect service for customer worldwide through standardization, technological innovation and continuous improvement. DiGi through third-party certification, we stricly control the quality of products and services. Welcome your RFQ to

Email: [Info@DiGi-Electronics.com](mailto:Info@DiGi-Electronics.com)



Tel: +00 852-30501935

RFQ Email: [Info@DiGi-Electronics.com](mailto:Info@DiGi-Electronics.com)

DiGi is a global authorized distributor of electronic components.