



# PRELIMINARY

# SMT Power Inductors – SD43 Series



The SD43 Series features a compact and simple design, that is both rugged and cost effective. The small footprint (4,2 mm × 4,7 mm) makes it suitable for high-density mounting.

With saturating current ratings up to 3.8 Amps, these inductors offer the high current, low inductance values required for high power dc-dc applications. They are ideal for use in notebook computers, mobile phones, and other handheld products. They are available in 22 inductance values from 1 – 68  $\mu\text{H}$ . Values greater than 27  $\mu\text{H}$  are 10% tolerance.

Free evaluation samples are available by contacting Coilcraft or ordering them on-line at [www.coilcraft.com](http://www.coilcraft.com).

Part number <sup>1</sup>	L <sup>2</sup> ( $\mu\text{H}$ )	DCR max (mOhm)	SRF typ <sup>3</sup> (MHz)	Isat <sup>4</sup> (A)	Irms <sup>5</sup> (A)
SD43-102ML_	1.0 $\pm$ 20%	33.0	100	3.80	5.8
SD43-142ML_	1.4 $\pm$ 20%	38.0	90	3.30	5.8
SD43-182ML_	1.8 $\pm$ 20%	42.0	80	2.91	4.6
SD43-222ML_	2.2 $\pm$ 20%	47.0	65	2.60	3.8
SD43-272ML_	2.7 $\pm$ 20%	52.0	60	2.43	3.7
SD43-332ML_	3.3 $\pm$ 20%	58.0	50	2.15	3.3
SD43-392ML_	3.9 $\pm$ 20%	76.0	47	1.98	3.0
SD43-472ML_	4.7 $\pm$ 20%	94.0	45	1.70	2.9
SD43-562ML_	5.6 $\pm$ 20%	101.0	40	1.60	2.8
SD43-682ML_	6.8 $\pm$ 20%	110.0	35	1.41	2.5
SD43-822ML_	8.2 $\pm$ 20%	132.0	30	1.26	2.2
SD43-103ML_	10.0 $\pm$ 20%	182.0	28	1.15	2.2
SD43-123ML_	12.0 $\pm$ 20%	210.0	24	1.05	1.8
SD43-153ML_	15.0 $\pm$ 20%	235.0	22	0.92	1.7
SD43-183ML_	18.0 $\pm$ 20%	338.0	19	0.84	1.5
SD43-223ML_	22.0 $\pm$ 20%	378.0	17	0.76	1.4
SD43-273ML_	27.0 $\pm$ 20%	522.0	16	0.71	1.1
SD43-333KL_	33.0 $\pm$ 10%	540.0	14	0.64	0.90
SD43-393KL_	39.0 $\pm$ 10%	587.0	13	0.59	0.90
SD43-473KL_	47.0 $\pm$ 10%	844.0	12	0.54	0.86
SD43-563KL_	56.0 $\pm$ 10%	937.0	11	0.50	0.70
SD43-683KL_	68.0 $\pm$ 10%	1117.0	10	0.46	0.60

1. When ordering, please specify **packaging** code:

**SD43-683KL C**

**Packaging: C** = 7" machine-ready reel. EIA-481 embossed plastic tape (500 parts 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 (2000 parts per full reel).

- Inductance measured at 100 kHz, 0.1 Vrms, 0 Adc using an Agilent/HP 4284A impedance analyzer.
  - SRF measured using Agilent/HP 8753D network analyzer and Coilcraft SMD-D test fixture.
  - DC current at which the inductance drops 10% (typ) from its value without current.
  - Average current for a 40°C rise above 25°C ambient.
  - Operating temperature range -40°C to +85°C.
  - Electrical specifications at 25°C.
- See Qualification Standards section for environmental and test data.

## Coilcraft®

Specifications subject to change without notice.  
Please check our website for latest information.

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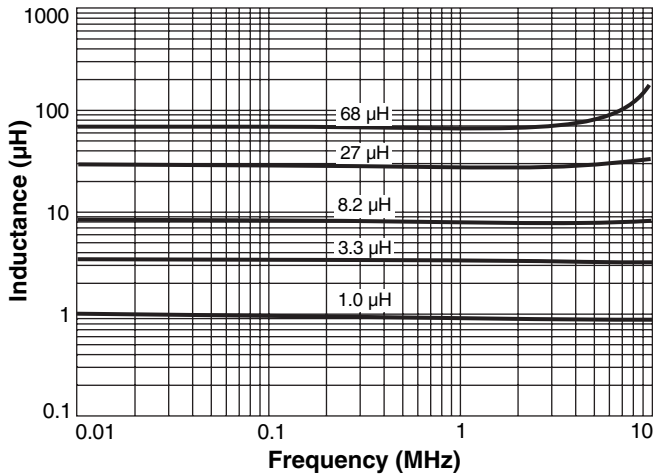
E-mail [info@coilcraft.com](mailto:info@coilcraft.com) Web <http://www.coilcraft.com>

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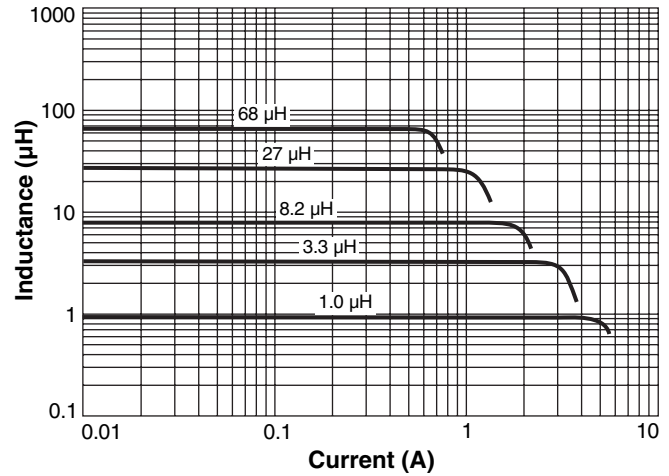


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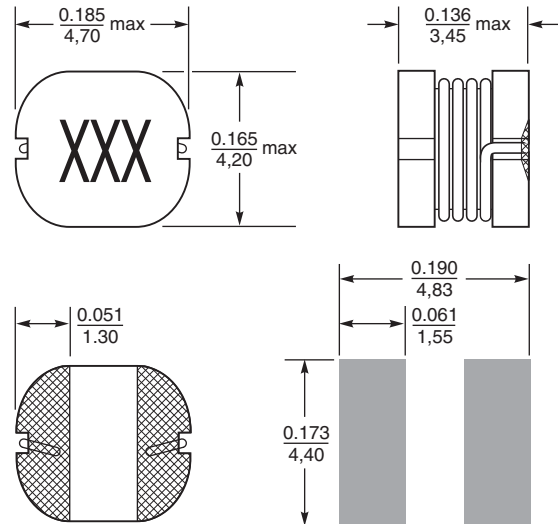
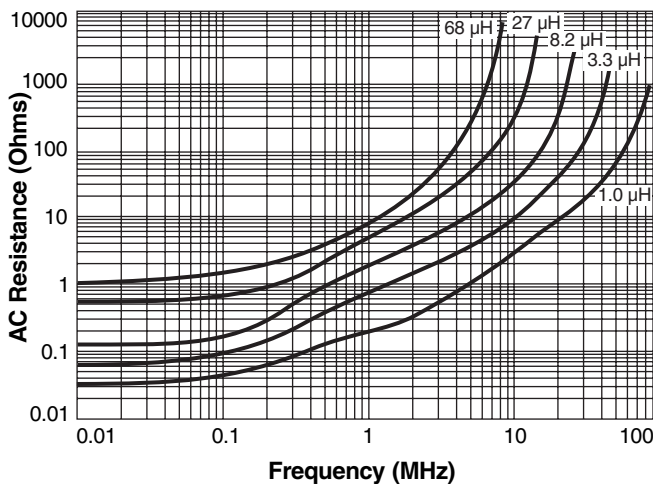
## Typical L vs Frequency



## Typical L vs Current

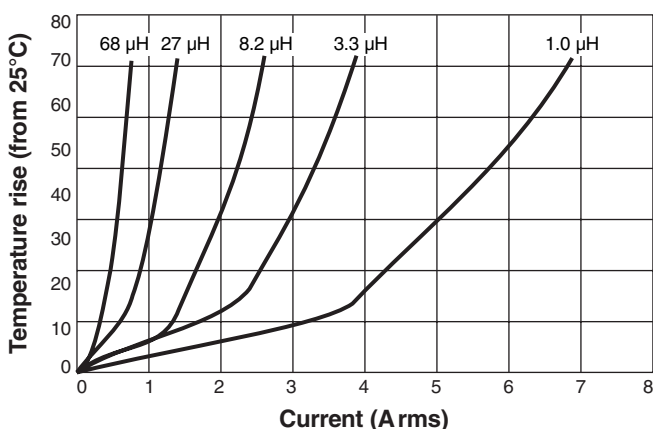


## AC Resistance vs Frequency



**Recommended Land Pattern**

## Typical Temperature Rise vs Current



**Tape and reel:** 500/7" reel; 2000/13" reel 12 mm tape width  
For packaging data see Tape and Reel Specifications section.



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