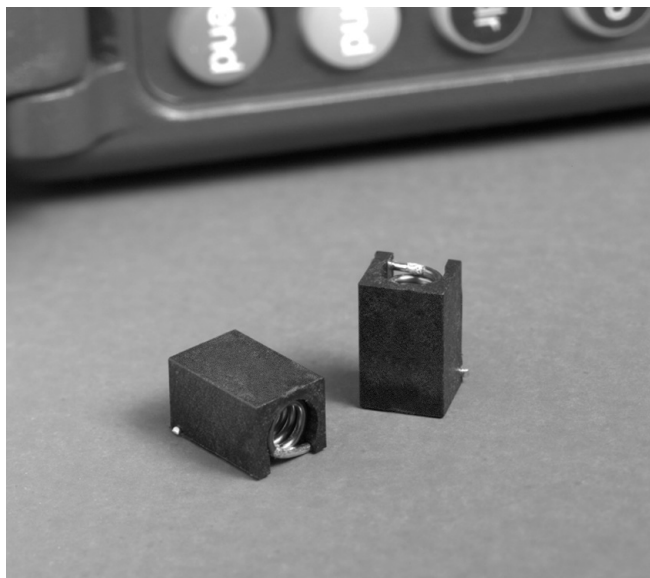


Air Core Inductors

For Linear Technology
LT8697 switching regulator



- Developed for Linear Technology LT8697 monolithic step-down switching regulator designed to power 5V USB applications.
- Tight DCR tolerance: $\pm 5\%$
- Air core inductors feature high Q and high current ratings

Weight 0.42– 0.59 g

Terminations RoHS compliant tin-silver (96.5/3.5) over copper.

Ambient temperature -40°C to $+125^{\circ}\text{C}$ with Irms current, $+125^{\circ}\text{C}$ to $+140^{\circ}\text{C}$ with derated current

Storage temperature Component: -40°C to $+140^{\circ}\text{C}$.
Tape and reel packaging: -40°C to $+80^{\circ}\text{C}$

Resistance to soldering heat Max three 40 second reflows at $+260^{\circ}\text{C}$, parts cooled to room temperature between cycles

Temperature Coefficient of Inductance (TCL) $+5$ to $+70$ ppm/ $^{\circ}\text{C}$

Moisture Sensitivity Level (MSL) 1 (unlimited floor life at $<30^{\circ}\text{C}$ / 85% relative humidity)

Failures in Time (FIT) / Mean Time Between Failures (MTBF)

One per billion hours / one billion hours, calculated per Telcordia SR-332

Packaging 800/13" reel Plastic tape: 24 mm wide, 0.3 mm thick, 12 mm pocket spacing, 6.1 mm pocket depth

PCB washing Tested with pure water or alcohol only. For other solvents, see Doc787_PCB_Washing.pdf

Part number ¹	Turns	Inductance ² $\pm 2\%$ (nH)	Q ³		SRF min ⁴ (GHz)	DCR $\pm 5\%$ ⁵ (mOhm)	Irms ⁶ (A)
			typ	min			
NA5931-AL_	15	246	114	95	0.685	15.7	3.0
NA5932-AL_	16	307	114	95	0.660	21.8	3.0
NA5933-AL_	17	380	114	95	0.590	32.4	2.5
NA5934-AL_	18	422	114	95	0.540	34.3	2.5
NA5935-AL_	19	491	114	95	0.535	44.1	2.0
NA5936-AL_	20	538	104	87	0.490	47.2	2.0

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

NA5936-ALD

Packaging: **D** = 13" machine-ready reel. EIA-481 embossed plastic tape (800 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 D instead.

2. Inductance tested at 50 MHz on an Agilent/HP 4191A Impedance Analyzer or equivalent with a Coilcraft SMD-A fixture and correlation.

3. Q tested at 50 MHz on an Agilent/HP 4291A Impedance Analyzer or equivalent with a Coilcraft SMD-A fixture and correlation.

4. SRF tested on the Agilent/HP 8753D and a Coilcraft CCF1248 test fixture.

5. DCR tested on the Keithley 580 Micro Ohmmeter.

6. Current that causes a 15°C 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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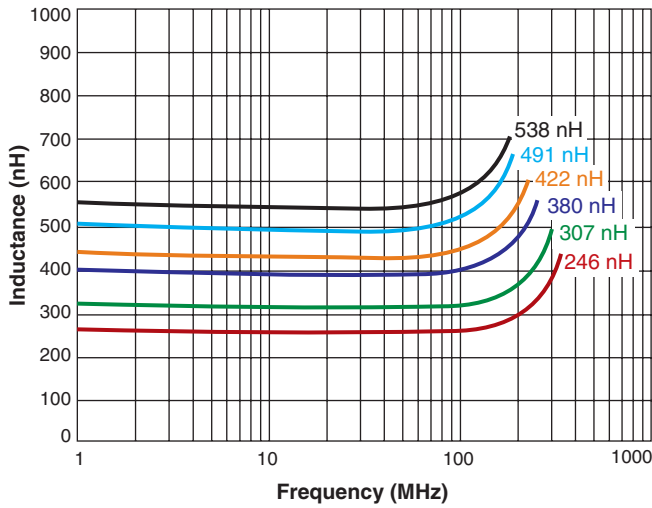
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This product may not be used in medical or high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check web site for latest information.

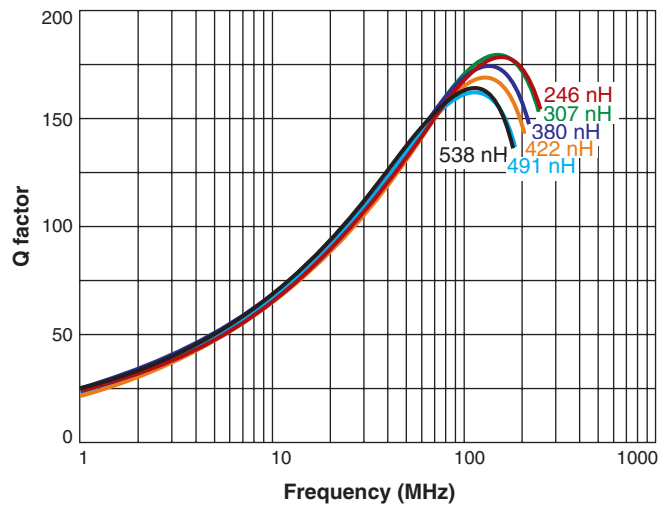


Air Core Inductors for Linear Technology LT8697

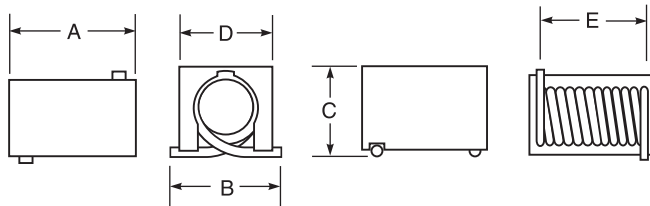
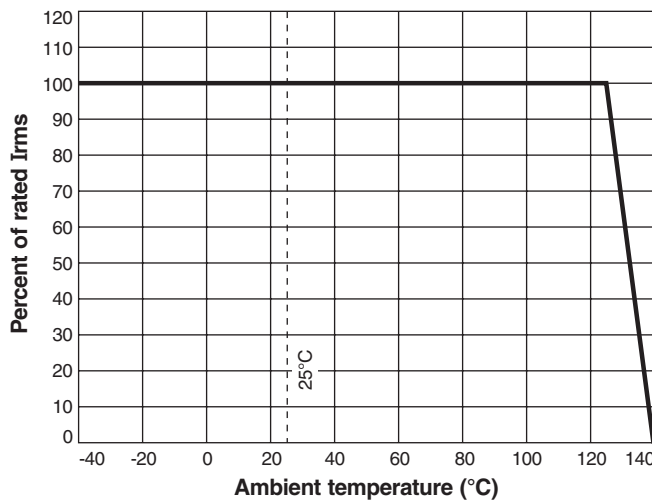
L vs Frequency



Q vs Frequency

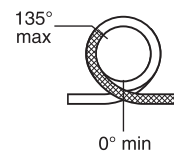


Typical Irms Derating



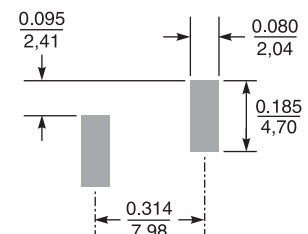
A max	B max	C max	D	E
0.415	0.260	0.235	0.240 ±0.015	0.314 ±0.020
10,55	6,60	5,97	6,10 ±0,38	7,98 ±0,51

Strip Length



Dimensions are in $\frac{\text{inches}}{\text{mm}}$

Recommended Land Pattern



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