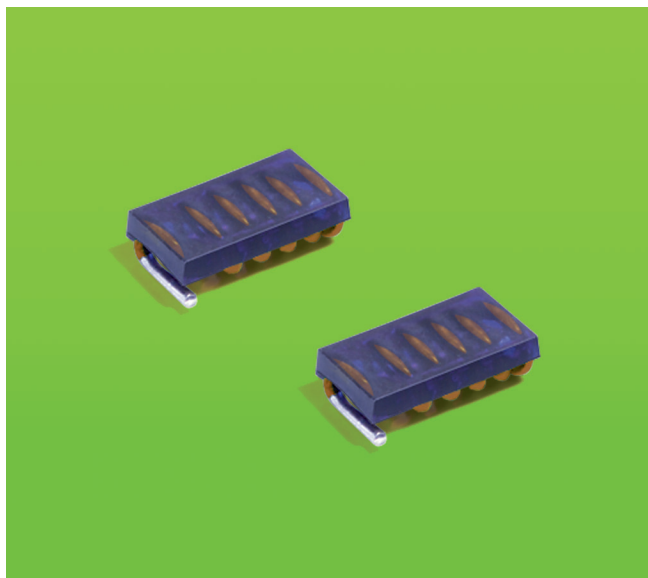


High-Reliability Air Core Inductors

MS426RAT
MS446RAT



- Only 2 mm tall
- High Q over a wide range of frequencies
- Low DCR and excellent current handling capability
- High temperature materials allow operation in ambient temperatures up to 155°C.
- Tin-lead (Sn-Pb) terminations ensure the best possible board adhesion

Part number ¹	Turns	Inductance ² (nH)	Percent tolerance	Q min ²	SRF min ³ (GHz)	DCR max ⁴ (mOhm)	Imax (A)	Wt (mg)
MS426RAT5N5_SZ	3	5.5	5,2	115	5.0	2.6	4.0	52
MS426RAT9N0_SZ	4	9.0	5,2	120	4.0	3.4	4.0	65
MS426RAT13N_SZ	5	13.0	5,2	100	3.0	3.9	4.0	78
MS446RAT16N_SZ	7	16.0	5,2	110	3.0	5.2	4.0	110
MS446RAT18N_SZ	8	18.0	5,2	110	2.9	6.0	4.0	118
MS446RAT23N_SZ	9	23.0	5,2	110	2.6	6.8	4.0	133
MS446RAT27N_SZ	10	27.0	5,2	110	2.3	7.9	4.0	147

1. When ordering, specify **tolerance** and **testing** codes:

MS446RAT27NGSZ

Tolerance: G = 2% J = 5%

Testing: Z = Unscreened

H = Group A screening per Coilcraft CP-SA-10001

T = Screening per MIL-STD-981

U = Screening per EEE-INST-002

F = Screening per ESCC 3201

All screening performed to the document's latest revision

Custom screening also available

2. Inductance measured at 250 MHz on an Agilent/HP 4286A or equivalent with a Coilcraft SMD-A test fixture and correlation.

3. Q measured at 250 MHz on an Agilent/HP 4291A or equivalent with a 16193A test fixture or equivalent.

4. SRF measured on an Agilent/HP 8753ES or equivalent with a Coilcraft CCF1268 test fixture.

5. DCR measured on a Keithley 580 Micro-Ohmmeter or equivalent.

6. Electrical specifications at 25°C.

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

Terminations Tin-lead (63/37) over copper

Ambient temperature -55°C to +125°C with I_{max} current

Maximum part temperature +155°C (ambient + temp rise).

Storage temperature Component: -55°C to +155°C.

Tape and reel packaging: -55°C to +80°C

Resistance to soldering heat Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

Temperature Coefficient of Inductance (TCL) +5 to +70 ppm/°C

Moisture Sensitivity Level (MSL) 1 (unlimited floor life at <30°C / 85% relative humidity)

Enhanced crush-resistant packaging 1000 per 7" reel

Plastic tape: 2 mm wide, 0.23 mm thick, 8 mm pocket spacing, 2.2 mm pocket depth

Coilcraft CPS
CRITICAL PRODUCTS & SERVICES

1102 Silver Lake Road
Cary, IL 60013
Phone 800-981-0363

© Coilcraft, Inc. 2017

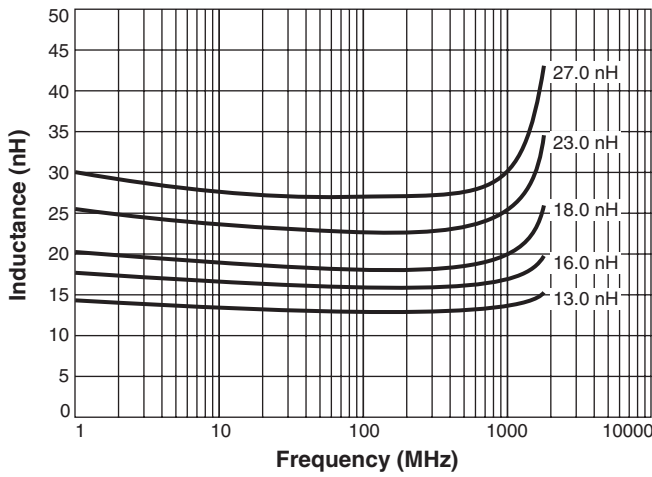
Fax 847-639-1508
Email cps@coilcraft.com
www.coilcraft-cps.com

Document MS404-1 Revised 05/17/17

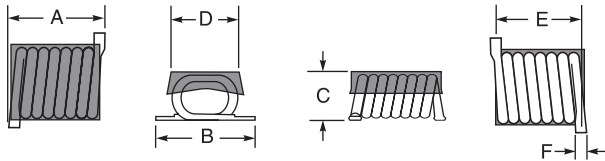
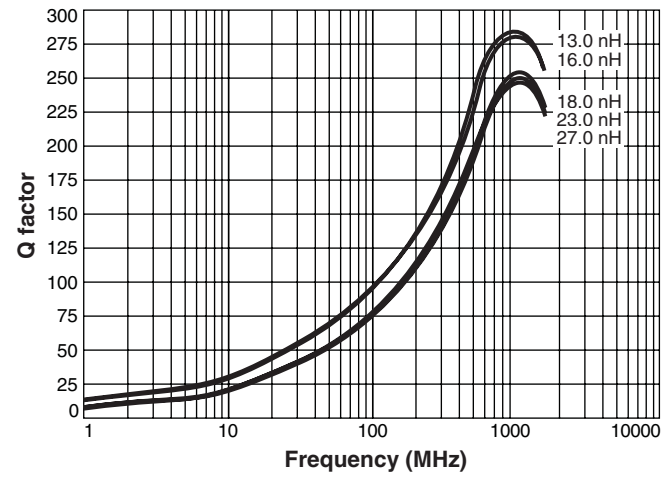
This product may not be used in medical or high risk applications without prior Coilcraft approval. Specifications subject to change without notice. Please check our web site for latest information.

MS426RAT / MS446RAT Low Profile Air Core Inductors

Typical L vs Frequency

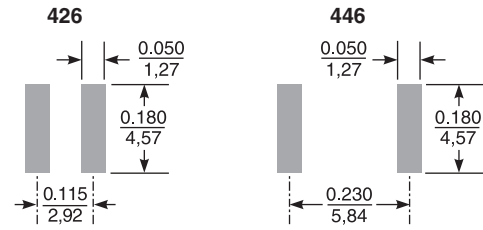


Typical Q vs Frequency



Size	A max	B max	C max	D	E	F max
426	0.155 3,94	0.165 4,19	0.079 2,01	0.135 3,43	0.115 ±0.015 2,92 ±0,38	0.029 0,74
446	0.270 6,86	0.165 4,19	0.079 2,01	0.135 3,43	0.230 ±0.015 5,84 ±0,38	0.029 0,74

Suggested Land Patterns



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

Strip Length

