



Features

- High Q value, self-resonant frequency
- Tight tolerance
- Epoxy cover for mechanical stability and pick & place
- Surface mount
- RoHS compliant*

Applications

- High frequency TV and radio receivers
- Radio transmitters
- RF amplifiers
- Tuning applications

AC6830R Series – Air Coil Inductors

Electrical Specifications @ 25 °C

Bourns Part Number	Inductance		Q Min.	Test Frequency (MHz)	SRF (GHz) Min.	DCR (mΩ) Max.	I _{rms} (A) Max.	Turns
	L (nH)	ToI. (%)						
AC6830R-17N_	17.5	±2, ±5	100	150	2.2	4.5	4	6
AC6830R-22N_	22.0	±2, ±5	102		2.1	5.2		7
AC6830R-28N_	28.0	±2, ±5	105		1.8	6.0		8
AC6830R-35N_	35.5	±2, ±5	112		1.5	6.8		9
AC6830R-43N_	43.0	±2, ±5	106		1.2	7.9		10

Note:
Underscore indicates Inductance Tolerance Code:
G = ±2 %, J = ±5 %

Additional Information

Click these links for more information:

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[SAMPLES](#)
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General Specifications

Operating Temperature -25 °C to +125 °C
 Storage Temperature -25 °C to +85 °C
 Temperature Rise 15 °C
 Moisture Sensitivity Level 1
 ESD Classification (HBM)..... N/A

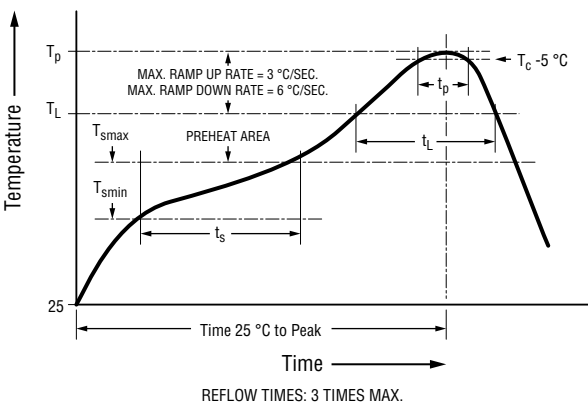
Electrical Schematic



Materials

Wire Enameled Copper
 Cover Epoxy
 Terminal Sn/Ag/Cu
 Packaging 500 pcs. per 7-inch reel

Soldering Profile



Profile Feature	Pb Free Assembly
Preheat - Temperature Min. (T _{smin}) - Temperature Max. (T _{smax}) - Time (t _s) from T _{smin} to T _{smax}	150 °C 200 °C 60-120 seconds
Ramp-up Rate (T _L to T _p)	3 °C/second max.
Liquidous temperature (T _L) Time (t _L) maintained above T _L	217 °C 60-150 seconds
Peak package body temperature (T _p)	260 °C
Time (t _p) at T _c - 5 °C (T _p should be equal to or less than T _c)	< 30 seconds
Ramp-Down Rate (T _p to T _L)	6 °C/second max.
Time 25 °C to Peak Temperature	8 minutes max.

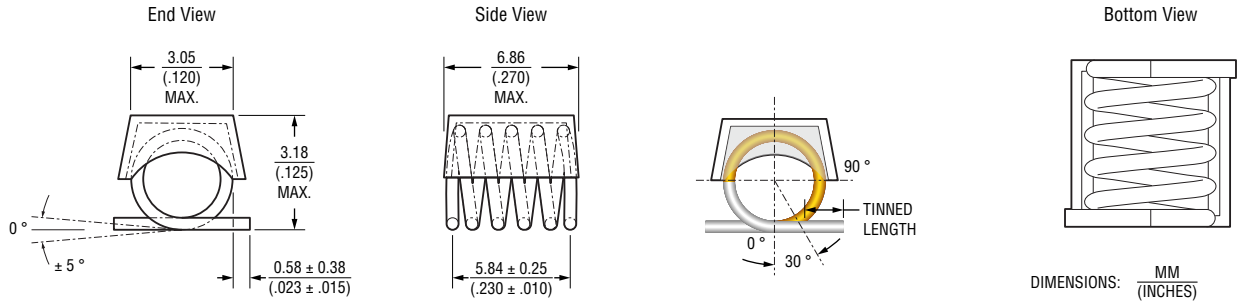


*RoHS Directive 2015/863, Mar 31, 2015 and Annex. Specifications are subject to change without notice. Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf.

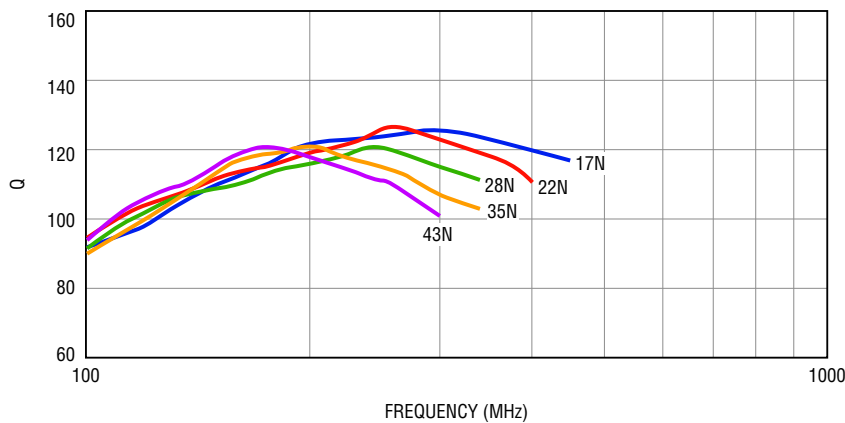
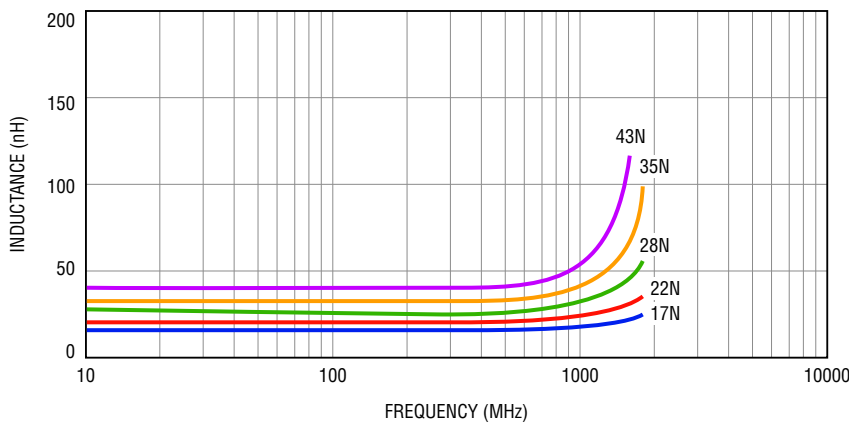
AC6830R Series – Air Coil Inductors

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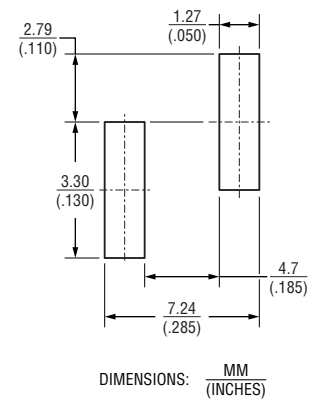
Product Dimensions



Inductance vs. IDC



Recommended Layout



How to Order

AC6830R - 17N

Model _____

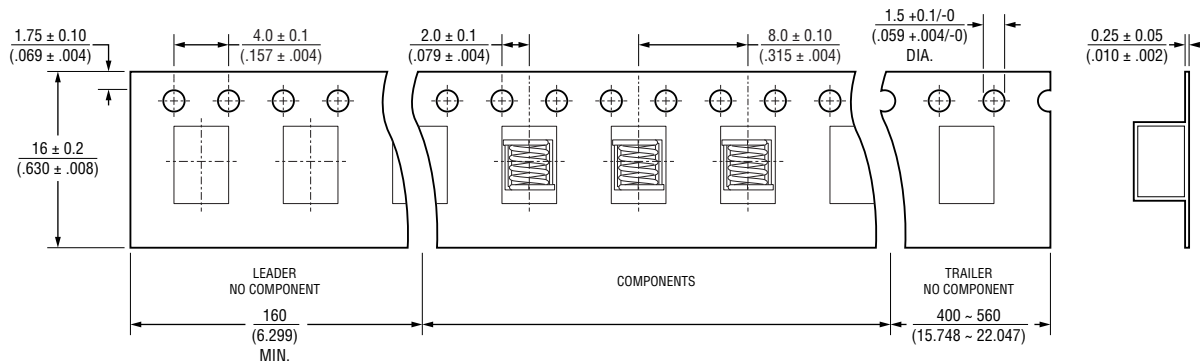
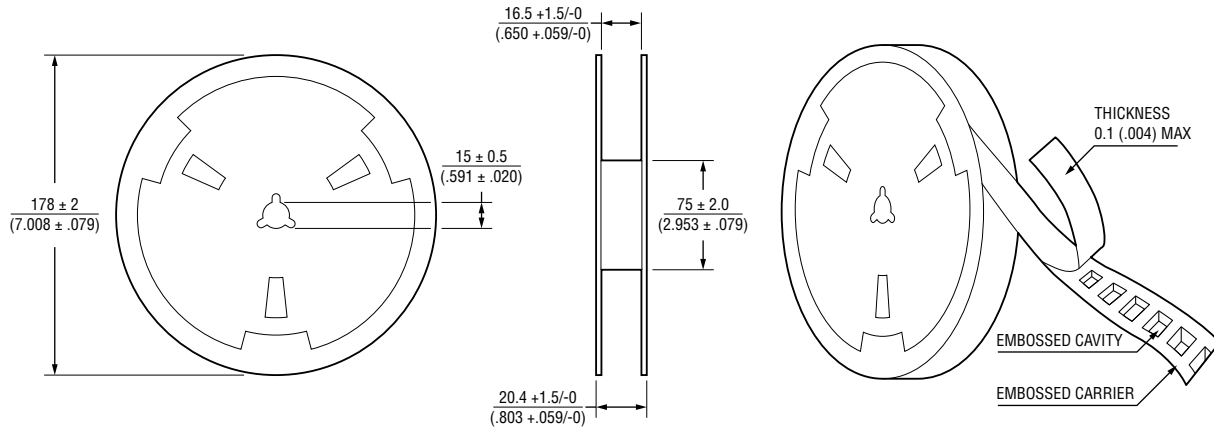
Value Code _____
(See Table)

Tolerance _____
G = ±2 %
J = ±5 %

AC6830R Series – Air Coil Inductors

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Packaging Specifications



USER DIRECTION OF FEED
QTY: 500 PCS PER REEL

DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$

BOURNS®

Americas: Tel: +1 951-781-5500 • Email: americus@bourns.com

Mexico: Tel: +52-614-478-0400 • Email: mexicus@bourns.com

Asia: Tel: +886-2-2562-4117 • Email: asiacus@bourns.com

EMEA: Tel: +36 88 885 877 • Email: eurocus@bourns.com

www.bourns.com

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