



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

AC4842R Series – Air Coil Inductors

Electrical Specifications @ 25 °C

Bourns Part Number	Inductance		Q Min.	Test Frequency (MHz)	DC Resistance (mΩ) Max.	SRF (GHz) Min.	Rated Current (A) Max.
	L (nH)	Tol. (%)					
AC4842R-22NK	22	10	100	150	4.2	3.2	3.0
AC4842R-27NK	27				4.0	2.7	3.5
AC4842R-33NK	33				4.8	2.5	3.0
AC4842R-39NK	39				4.4	2.1	3.0
AC4842R-47NK	47				5.6	2.1	3.0
AC4842R-56NK	56				6.2	1.5	3.0
AC4842R-68NK	68				8.2	1.5	2.5
AC4842R-82NK	82				9.4	1.3	2.5
AC4842R-R10K	100				12.3	1.2	1.7
AC4842R-R12K	120				17.3	1.1	1.5
AC4842R-R15K	150	33.0	0.75	1.2			

Notes:

2 % tolerance is available. Replace "K" in the part number with "G"
 5 % tolerance is available. Replace "K" in the part number with "J"

Additional Information

Click these links for more information:

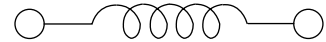


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General Specifications

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

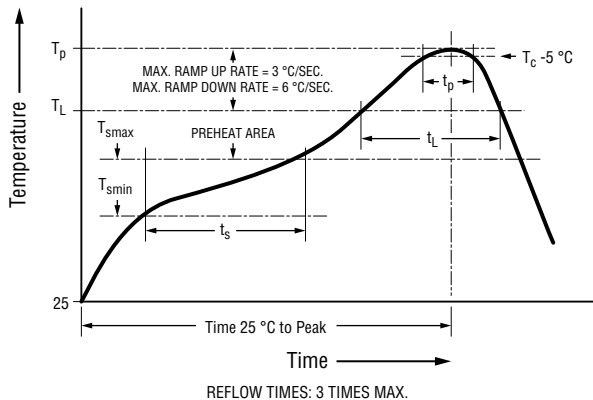
Electrical Schematic



Materials

Wire Enameled Copper
 Cover Epoxy
 Terminal Sn/Ag/Cu
 Packaging 1000 pcs. per 13-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.



WARNING
Cancer and Reproductive Harm
www.P65Warnings.ca.gov

*RoHS Directive 2015/863, Mar 31, 2015 and Annex.
 Specifications are subject to change without notice.

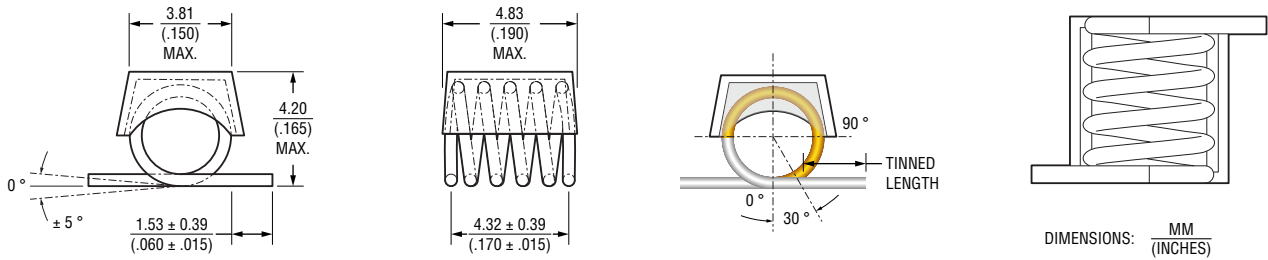
Users should verify actual device performance in their specific applications.

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AC4842R Series – Air Coil Inductors

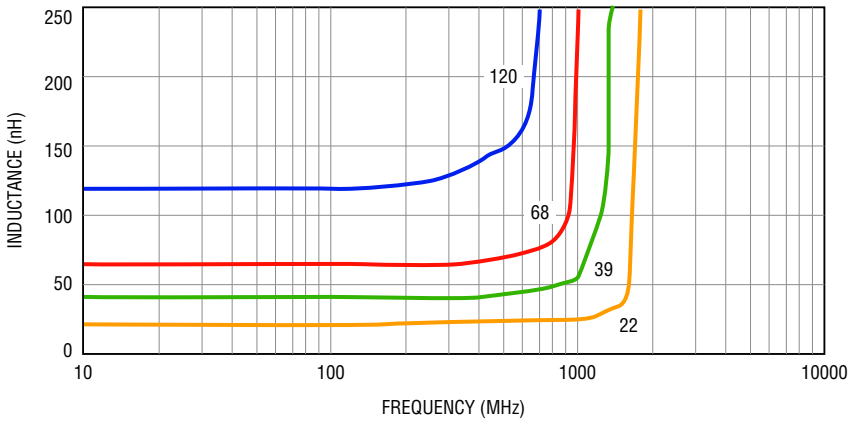
BOURNS®

Product Dimensions

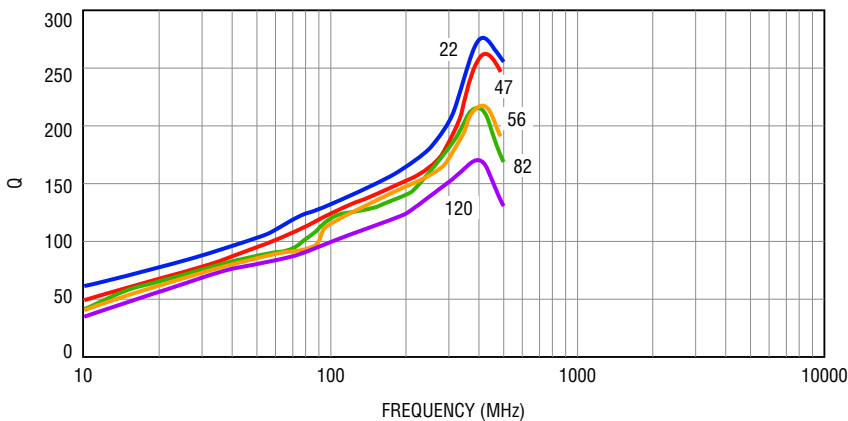


Electrical Curves

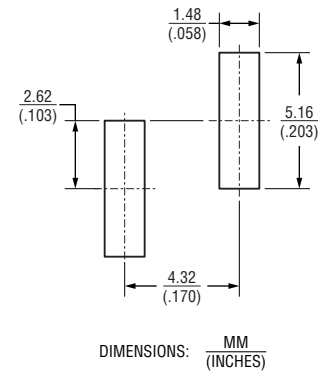
INDUCTANCE VS. FREQUENCY



TYPICAL Q VS. FREQUENCY



Recommended Layout



How to Order

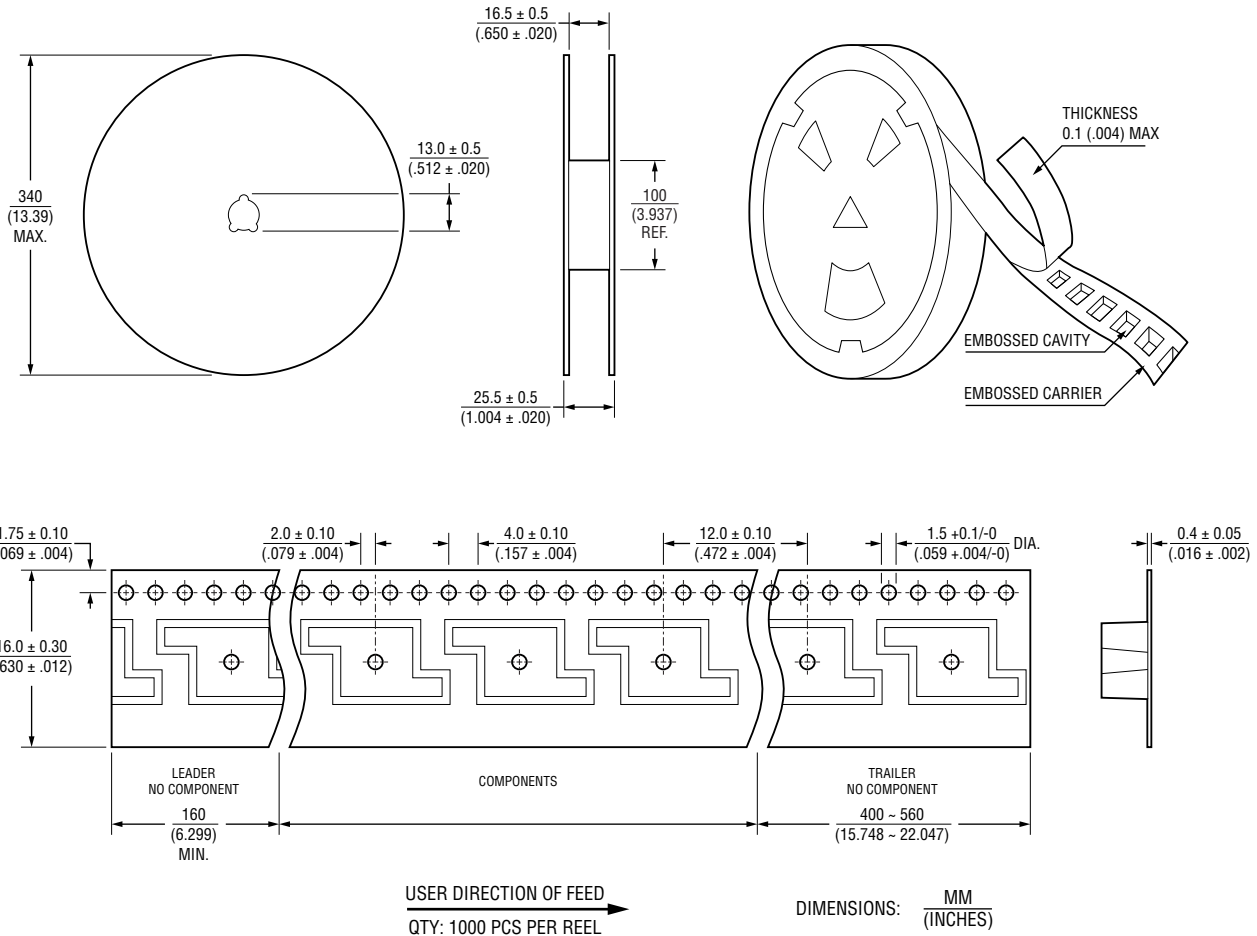
AC4842R - 22N K

Model _____
 Value Code _____
 (See Table)
 Tolerance _____
 K = 10 %
 G = 2 %
 J = 5 %

AC4842R Series – Air Coil Inductors

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Packaging Specifications



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