

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

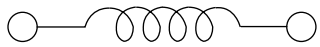
Click these links for more information:

PRODUCT SELECTOR | TECHNICAL LIBRARY | INVENTORY | SAMPLES | CONTACT

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

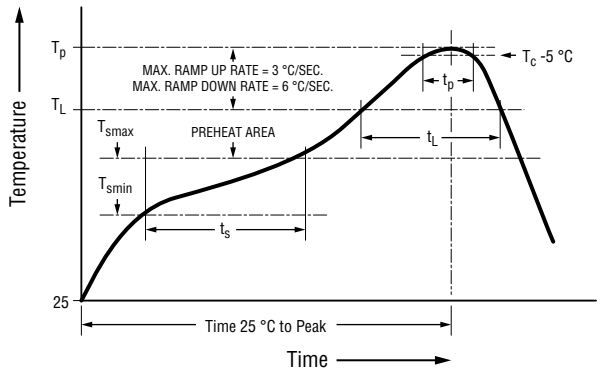
Electrical Schematic



Materials

Wire ..... Enameled Copper
Cover ..... Epoxy
Terminal ..... SnAgCu
Packaging ..... 1000 pcs. per 13-inch reel

Soldering Profile



REFLOW TIMES: 3 TIMES MAX.

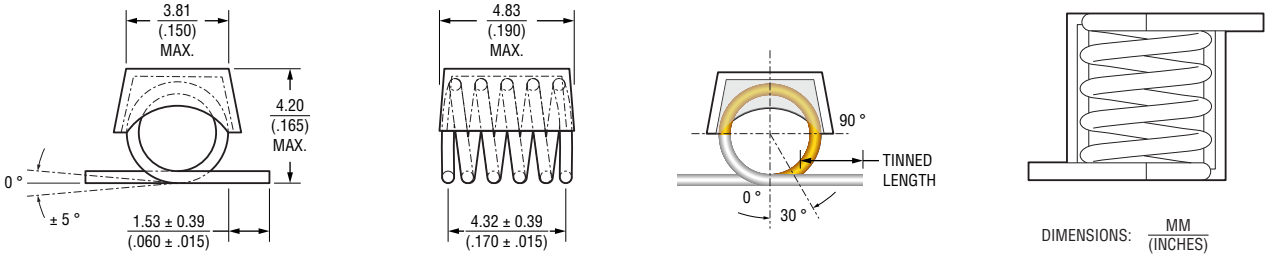
Profile Feature	Pb Free Assembly
Preheat - Temperature Min. (T_{smin}) - Temperature Max. (T_{smax}) - Time(t_s) from T_{smin} to T_{smax}	 150 °C 200 °C 60-120 seconds
Ramp-up Rate (T_L to T_p)	3 °C/second max.
Liquidous temperature (T_L) Time (t_L) maintained above T_L	217 °C 60-150 seconds
Peak package 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.

CALIFORNIA WARNING: Can expose you to lead, a carcinogen and reproductive toxicant.
See 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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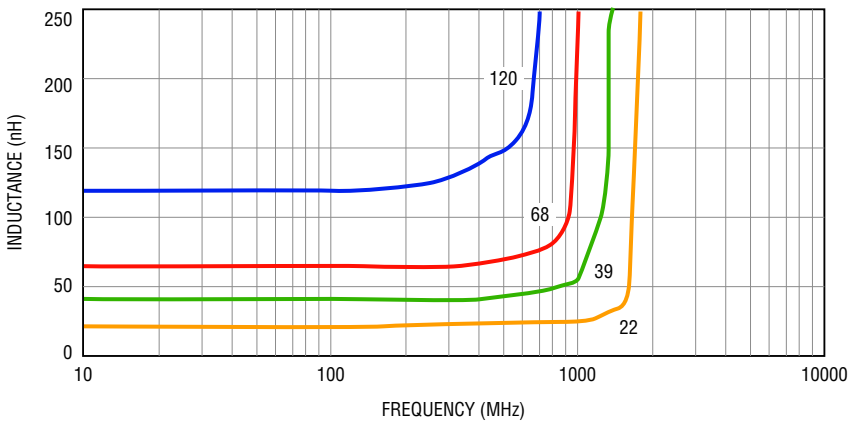
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Product Dimensions

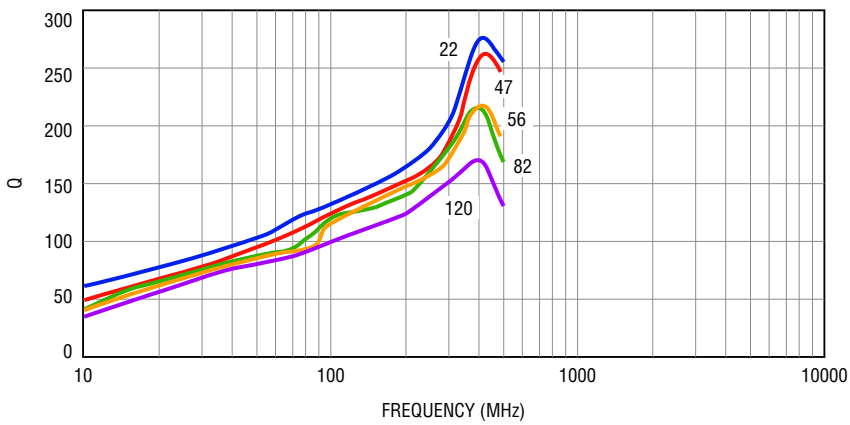


Electrical Curves

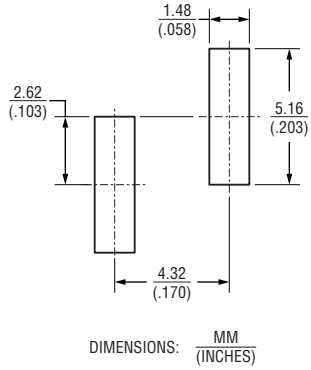
INDUCTANCE VS. FREQUENCY



TYPICAL Q VS. FREQUENCY



Recommended Layout



How to Order

AC4842R - 22N K

Model

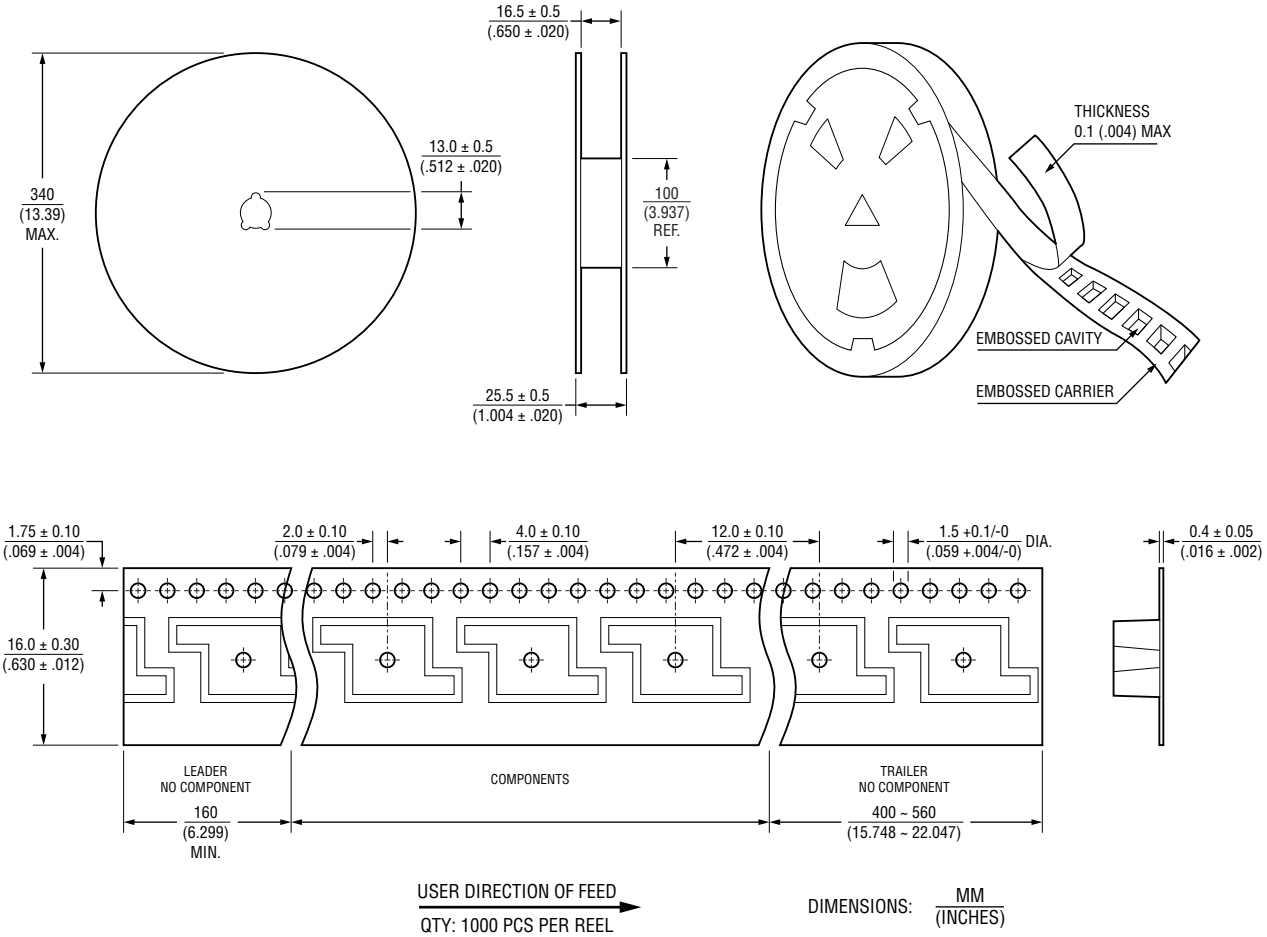
Value Code
(See Table)

Tolerance
K = 10 %
G = 2 %
J = 5 %

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Packaging Specifications



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REV. 07/26

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