

# Chip Inductors for Critical Applications AR336RAB

- High temperature materials allow operation in ambient temperatures up to 155°C.
- Passes NASA low outgassing specifications
- Standard tin-lead (Sn-Pb) terminations ensure the best possible board adhesion. Note: Nickel barrier termination (tin-lead over tin over nickel over silver-platinum-glass frit, termination code P) is recommended for hand soldering applications.

Part number <sup>1</sup>	Inductance <sup>2</sup> ( $\mu$ H)	Percent tolerance	Q min <sup>3</sup>	SRF min <sup>4</sup> (MHz)	DCR max <sup>5</sup> (Ohms)	I <sub>max</sub> (mA)
AR336RAB78N_PZ	0.078 @ 7.9MHz	5,2	19	1300	0.042	800
AR336RAB111_PZ	0.11 @ 7.9MHz	5,2	19	1250	0.055	800
AR336RAB181_PZ	0.18 @ 7.9MHz	5,2	20	900	0.100	800
AR336RAB241_PZ	0.24 @ 7.9MHz	5,2	18	780	0.210	590
AR336RAB271_PZ	0.27 @ 7.9MHz	5,2	18	620	0.320	480
AR336RAB471_PZ	0.47 @ 7.9MHz	5,2	20	510	0.300	510
AR336RAB561_PZ	0.56 @ 7.9MHz	5,2	20	580	0.455	450
AR336RAB681_PZ	0.68 @ 7.9MHz	5,2	25	530	0.480	430
AR336RAB102_PZ	1.0 @ 7.9MHz	5,2	20	340	0.690	280
AR336RAB122_PZ	1.2 @ 7.9MHz	5,2	25	310	1.25	270
AR336RAB152_PZ	1.5 @ 7.9MHz	5,2	25	320	1.10	260
AR336RAB182_PZ	1.8 @ 7.9MHz	5,2	30	270	1.25	250
AR336RAB222_PZ	2.2 @ 7.9MHz	5,2	30	110	1.35	240
AR336RAB272_PZ	2.7 @ 7.9MHz	5,2	30	210	1.50	230
AR336RAB332_PZ	3.3 @ 7.9MHz	5,2	30	85	1.60	220
AR336RAB392_PZ	3.9 @ 7.9MHz	5,2	30	55	1.70	210
AR336RAB472_PZ	4.7 @ 7.9MHz	5,2	30	55	1.90	200
AR336RAB562_PZ	5.6 @ 7.9MHz	5,2	20	40	2.05	190
AR336RAB682_PZ	6.8 @ 7.9MHz	5,2	25	33	2.35	180
AR336RAB752_PZ	7.5 @ 7.9MHz	5,2	25	27	2.40	180
AR336RAB822_PZ	8.2 @ 2.5MHz	5,2	24	24	2.55	170
AR336RAB872_PZ	8.7 @ 2.5MHz	5,2	24	24	2.60	170
AR336RAB103_PZ	10 @ 2.5MHz	5,2	21	19	3.80	160
AR336RAB123_PZ	12 @ 2.5MHz	5,2	22	17	3.90	160
AR336RAB153_PZ	15 @ 2.5MHz	5,2	21	14	5.30	130
AR336RAB183_PZ	18 @ 2.5MHz	5,2	14	13	5.80	120
AR336RAB223_PZ	22 @ 2.5MHz	5,2	21	11	6.50	110
AR336RAB273_PZ	27 @ 2.5MHz	5,2	20	10	11.00	80
AR336RAB333_PZ	33 @ 2.5MHz	5,2	22	16	12.30	70
AR336RAB393_PZ	39 @ 2.5MHz	5,2	28	13	13.60	60
AR336RAB473_PZ	47 @ 2.5MHz	5,2	22	9	14.10	50
AR336RAB503_PZ	50 @ 2.5MHz	5,2	22	8	14.60	40
AR336RAB603_PZ	60 @ 2.5MHz	5,2	10	7	15.00	30

1. When ordering, specify **tolerance**, **termination** and **screening** codes:

### AR336RAB603JPZ

**Tolerance:** G = 2% J = 5%

**Termination:** P = Tin-lead (63/37) over tin over nickel over silver-platinum-glass frit.

C = Tin-lead (63/37) over gold over nickel over moly-mag

A = Gold over nickel over moly-mag

**Screening:** Z = Unscreened

H = Coilcraft CP-SA-10001 Group A

1 = EEE-INST-002 (Family 3) Level 1

2 = EEE-INST-002 (Family 3) Level 2

3 = EEE-INST-002 (Family 3) Level 3

4 = MIL-STD-981 (Family 50) Class B

5 = MIL-STD-981 (Family 50) Class S

F = ESCC3201 (F4 operational life performed at 90°C)

• Screening performed to the document's latest revision.

• Lot qualification (Group B) available.

• Custom testing also available.

• Country of origin restrictions available; prefix options G or F.

2. Inductance measured using a Coilcraft SMD-A fixture in an Agilent/HP 4286A impedance analyzer with Coilcraft-provided correlation pieces.

3. Q measured on an Agilent/HP 4291A with an Agilent/HP 16193 test fixture.

4. SRF measured using an Agilent/HP 8753D network analyzer with a Coilcraft SMD-D test fixture.

5. DCR measured on a Cambridge Technology Micro-ohmmeter.

6. Electrical specifications at 25°C.

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



CRITICAL PRODUCTS & SERVICES

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

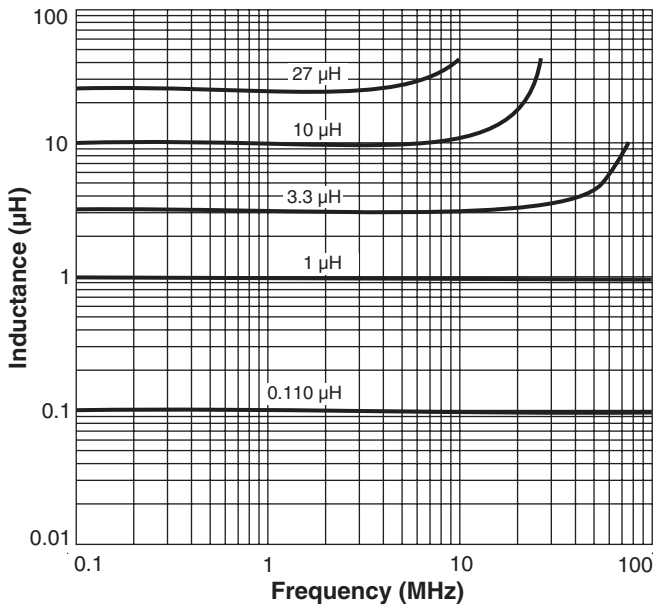
Fax 847-639-1508  
Email cps@coilcraft.com  
www.coilcraft-cps.com

Document AR288-1 Revised 09/16/22

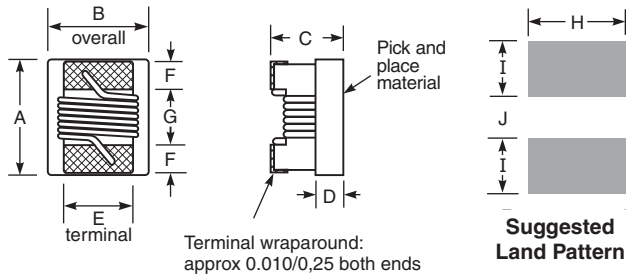
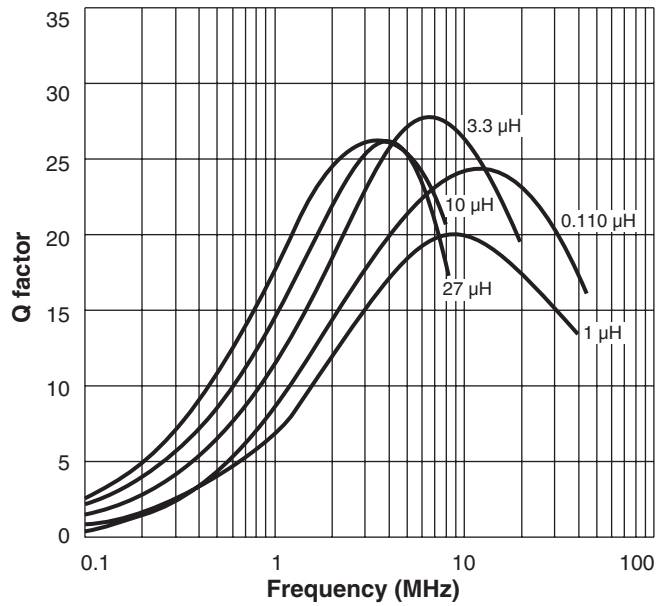
This product may not be used in medical or high risk applications without prior Coilcraft approval. Specifications subject to change without notice. Please check our web site for latest information.

# AR336RAB Series Chip Inductors

## Typical L vs Frequency



## Typical Q vs Frequency



A	B	C	D	E	F	G	H	I	J
max	max	max	ref	0.050	0.020	0.040	0.070	0.040	0.030
0.090	0.078	0.063	0.020	0.050	0.020	0.040	0.070	0.040	0.030
2,29	1,98	1,60	0,51	1,27	0,51	1,02	1,78	1,02	0,76

**Note:** Dimensions are before solder application. For maximum overall dimensions including solder, add 0.0025 in / 0.064 mm to E and 0.006 in / 0.15 mm to A and C..

**Core material** Ceramic/Ferrite

**Terminations** Tin-lead (63/37) over tin over nickel over silver-platinum-glass frit. Other terminations available at additional cost.

**Weight** 14.0–20.0 mg

**Ambient temperature** –55°C to +125°C with I<sub>max</sub> 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)** +100 to +250 ppm/°C

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

**Packaging** 2000/7" reel; 7500/13" reel; Plastic tape: 8 mm wide, 0.23 mm thick, 4 mm pocket spacing, 1.6 mm pocket depth

**PCB washing** Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787\\_PCB\\_Washing.pdf](#).



CRITICAL PRODUCTS & SERVICES

© Coilcraft, Inc. 2022

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

Fax 847-639-1508  
Email [cps@coilcraft.com](mailto:cps@coilcraft.com)  
[www.coilcraft-cps.com](http://www.coilcraft-cps.com)

Document AR288-2 Revised 09/16/22

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.