

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 ¹	Inductance ² (μ H)	Percent tolerance	Q min ³	SRF min ⁴ (MHz)	DCR max ⁵ (Ohms)	I _{max} (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

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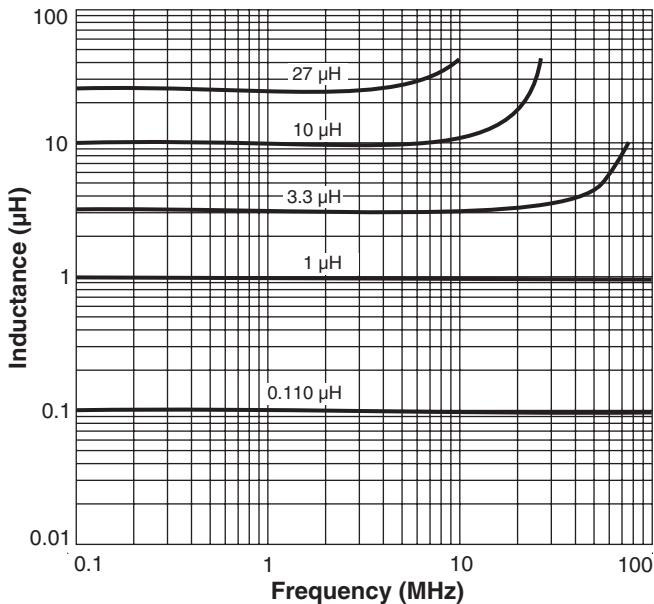
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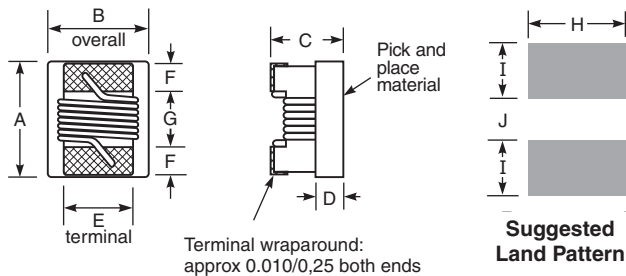
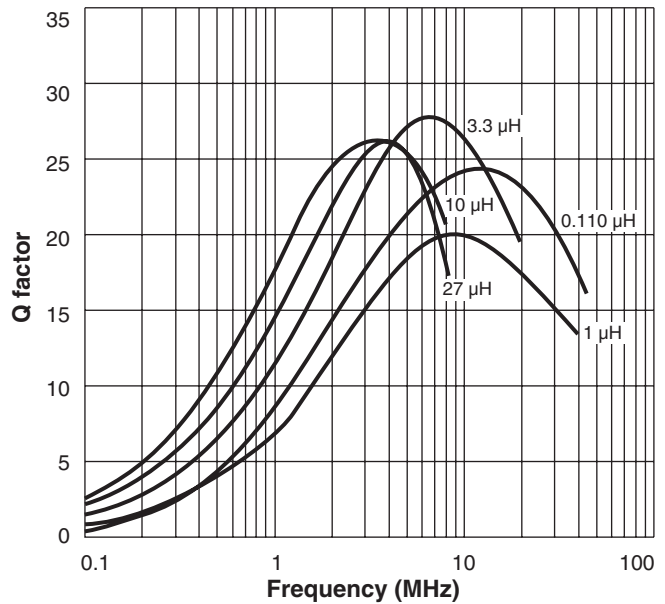
This product may not be used in medical or high risk applications without prior Coilcraft approval. Specifications subject to change without notice. Please check our web site for latest information.

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_{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) +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](#).