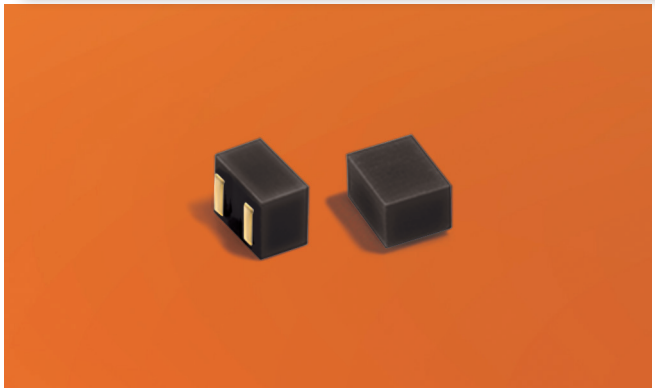
# Molded Chip Inductors AE336RBA

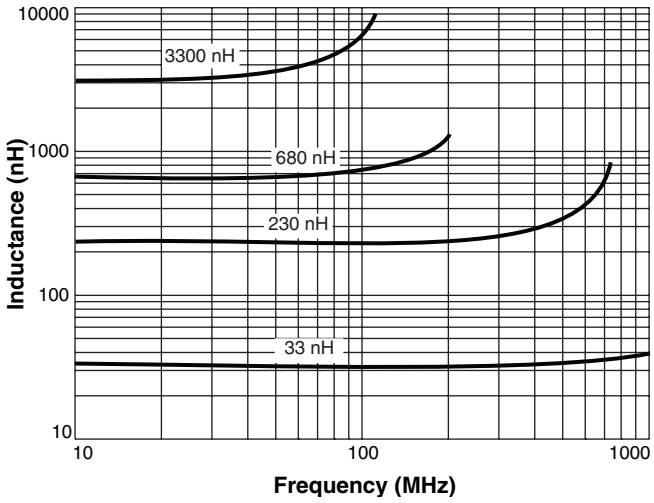
**This series is no longer available for new designs.**
It has been replaced by AR312RAA, which is an improved version and a drop-in replacement.



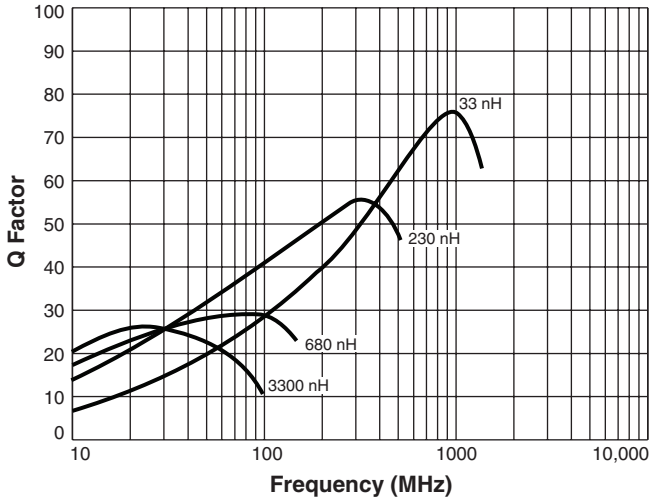
- Exceptional Q values, even at high frequencies
- Passes NASA low outgassing (Outgassing meets ASTM E595)
- Resistant to harsh chemical washes; excellent board adhesion
- Fits standard 0805 footprint

**Core material** Ceramic
**Weight** 18.0 – 23.0 mg
**Terminations** Gold over nickel. (Tin-lead (63/37) and tin-silver-copper are also available.)
**Ambient temperature** –55°C to +125°C with Irms current, +125°C to +155°C with derated current
**Storage temperature** Component: –55°C to +155°C. Tape and reel packaging: –55°C to +80°C
**Resistance to soldering heat** Minimum five 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)
**Enhanced crush-resistant packaging** 2000/7″ reel; Plastic tape: 12 mm wide, 0.254 mm thick, 4 mm pocket spacing, 1.98 mm pocket depth
**PCB washing** Tested to MIL-STD-202 Method 215 plus an additional aqueous wash.

## Typical L vs Frequency




## Typical Q vs Frequency

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# AE336RBA Molded Chip Inductors (0805)

| Part number[1] | Inductance[2] ±5% (nH) | Q min[3] | SRF min[4] (MHz) | DCR max[5] (Ohms) | Imax (mA) |
|---|---|---|---|---|---|
| AE336RBA3N0JAZ | 3.0@250 MHz | 71 @1000 MHz | 5000 | 0.105 | 800 |
| AE336RBA050JAZ | 5.6@250 MHz | 63 @1000 MHz | 4420 | 0.100 | 600 |
| AE336RBA110JAZ | 11@250 MHz | 54 @ 500 MHz | 2975 | 0.144 | 600 |
| AE336RBA330JAZ | 33@250 MHz | 57 @ 500 MHz | 1530 | 0.332 | 500 |
| AE336RBA121JAZ | 120@150 MHz | 51 @ 250 MHz | 893 | 0.575 | 380 |
| AE336RBA151JAZ | 150@100 MHz | 32 @ 100 MHz | 822 | 0.628 | 340 |
| AE336RBA231JAZ | 230@100 MHz | 32 @ 100 MHz | 613 | 1.04 | 270 |
| AE336RBA321JAZ | 320@100 MHz | 33 @ 100 MHz | 519 | 1.58 | 230 |
| AE336RBA471JAZ | 470@ 50 MHz | 30 @ 100 MHz | 315 | 1.47 | 230 |
| AE336RBA681JAZ | 680@ 25 MHz | 23 @ 50 MHz | 242 | 2.24 | 190 |
| AE336RBA102JAZ | 1000@ 25 MHz | 22 @ 25 MHz | 220 | 3.00 | 150 |
| AE336RBA222JAZ | 2200@ 25 MHz | 18 @ 25 MHz | 85 | 4.80 | 140 |
| AE336RBA332JAZ | 3300@ 25 MHz | 22 @ 25 MHz | 110 | 8.07 | 80 |

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

**AE336RBA332JAZ**

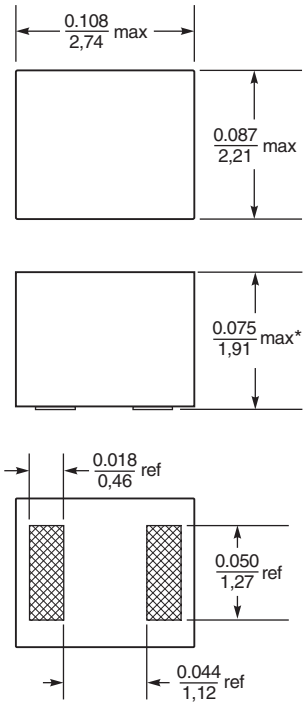
**Termination:** **A** = Gold over nickel over moly-mag
**C** = Tin-lead (63/37) over gold over nickel over moly-mag.
**F** = Tin-silver-copper (95.5/4/0.5) over gold over nickel over moly-mag.

**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.
- Testing T and U have been replaced with more detailed codes 4, 5, and 1, 2, 3, respectively. Codes T and U can still be used, if necessary. Custom testing also available.
- Country of origin restrictions available; prefix option G or F.

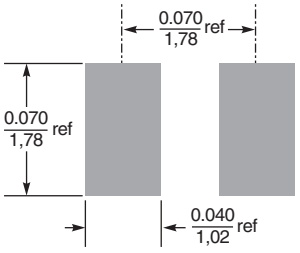
2. Inductance measured using a Coilcraft SMD-A fixture in an Agilent/HP 4286A impedance analyzer with Coilcraft-provided correlation pieces.
3. Q measured using an Agilent/HP 4291A with an Agilent/HP 16193 test fixture.
4. SRF measured using an Agilent/HP 8720D network analyzer and a Coilcraft SMD-D test fixture.
5. DCR measured on a Cambridge Technology micro-ohmmeter and a Coilcraft CCF858 test fixture.
6. Current that causes a 15°C temperature rise from 25°C ambient.
7. Electrical specifications at 25°C.

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




* Height dimension is before optional solder application. For maximum height dimension including solder, add 0.006 in / 0,152 mm.

**Suggested Land Pattern**




Dimensions are in inches / mm

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