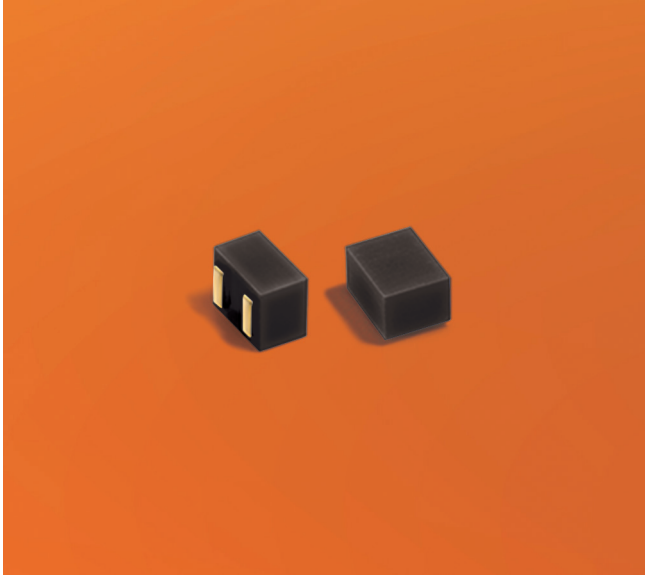


# Molded Chip Inductors AE336RBA



- 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

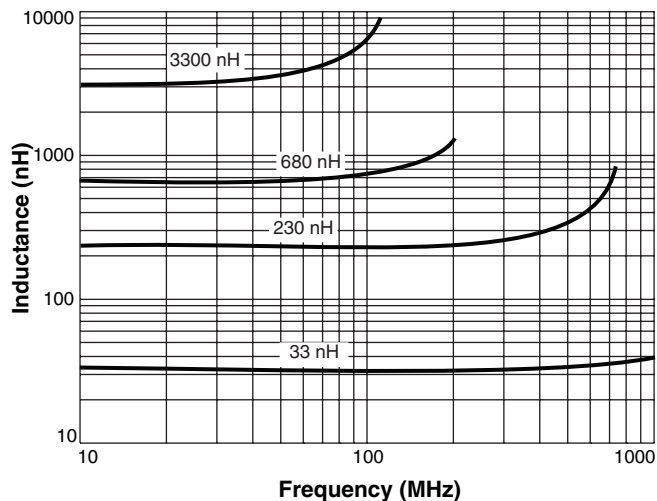
**Moisture Sensitivity Level (MSL)** 1 (unlimited floor life at <30°C / 85% relative humidity)

**Enhanced crush-resistant packaging** 2000/7" reel; Plastic tape:

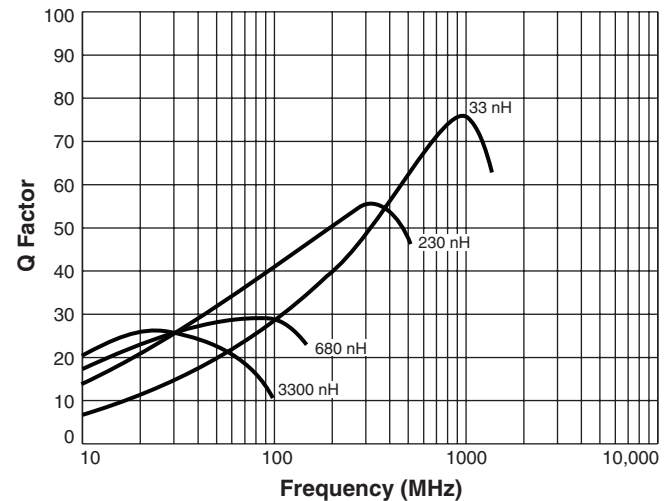
12 mm wide, 0.254 mm thick, 4 mm pocket spacing, 1.98 mm pocket depth

**PCB washing** Tested to MIL-STD-202 Method 215 plus an additional aqueous wash.

## Typical L vs Frequency



## Typical Q vs Frequency



# AE336RBA Molded Chip Inductors (0805)

Part number <sup>1</sup>	Inductance <sup>2</sup> ±5% (nH)	Q min <sup>3</sup>	SRF min <sup>4</sup> (MHz)	DCR max <sup>5</sup> (Ohms)	I <sub>max</sub> (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

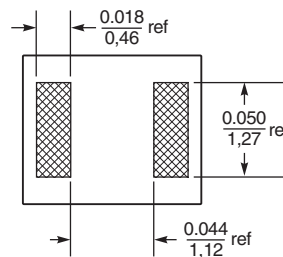
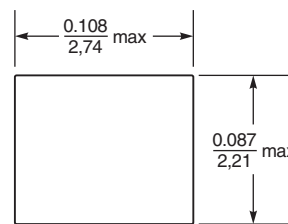
1. When ordering, please specify **termination** and **screening** codes:

**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.

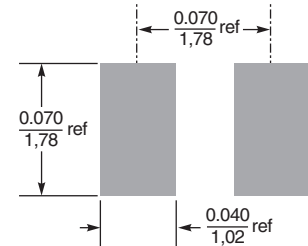
- Inductance measured using a Coilcraft SMD-A fixture in an Agilent/HP 4286A impedance analyzer with Coilcraft-provided correlation pieces.
- Q measured using an Agilent/HP 4291A with an Agilent/HP 16193 test fixture.
- SRF measured using an Agilent/HP 8720D network analyzer and a Coilcraft SMD-D test fixture.
- DCR measured on a Cambridge Technology micro-ohmmeter and a Coilcraft CCF858 test fixture.
- Current that causes a 15°C temperature rise from 25°C ambient.
- 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  $\frac{\text{inches}}{\text{mm}}$