

# Molded Chip Inductors AE235RBA

**This series is no longer available for new designs.**

It has been replaced by [AR235RAA](#), which is an improved version and a drop-in replacement.



- Exceptional Q and high SRFs, DCR and current carrying characteristics
- Outstanding self-resonant frequency
- Passes NASA low outgassing (Outgassing meets ASTM E595)
- Fits standard 0402 footprint

**Core material** Ceramic

**Weight** 1.5 – 3.0 mg

**Terminations** Gold over nickel. (Tin-lead (63/37) and tin-silver-copper are also available.)

**Ambient temperature** –55°C to +125°C with I<sub>max</sub> current

**Maximum part temperature** +155°C (ambient + temp rise)

**Storage temperature** Component: –55°C to +155°C.

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)** +25 to +155 ppm/°C

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

**Enhanced crush-resistant packaging** 2000 per 7" reel

Paper tape: 8 mm wide, 1.0 mm thick, 4 mm pocket spacing

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

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)
AE235RBA1N4JAZ	1.4	15	5000	0.090	600
AE235RBA2N2JAZ	2.2	15	5000	0.105	600
AE235RBA2N4JAZ	2.4	12	5000	0.120	600
AE235RBA3N8JAZ	3.8	15	5000	0.135	600
AE235RBA3N9JAZ	3.9	15	5000	0.135	600
AE235RBA5N6JAZ	5.6	18	5000	0.165	600
AE235RBA6N2JAZ	6.2	20	5000	0.165	600
AE235RBA6N8JAZ	6.8	20	5000	0.165	600
AE235RBA23NJAZ <sup>6</sup>	23	21	3450	0.350	400
AE235RBA40NJAZ <sup>6</sup>	40	21	2650	0.545	290
AE235RBA51NJAZ <sup>6</sup>	51	21	2250	1.13	100
AE235RBA56NJAZ <sup>6</sup>	56	22	1775	1.20	100
AE235RBA68NJAZ <sup>6</sup>	68	22	1700	1.35	100
AE235RBAR10JAZ <sup>6</sup>	100	21	1400	2.18	40

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

$$\begin{array}{c} \text{AE235RBA10JAZ} \\ \text{AE235RBAR10JAZ} \end{array}$$

**Termination:** **A** = Gold over nickel over moly-mag

**F** = Tin-silver-copper (95.5/4/0.5) over gold over moly-mag

**C** = Tin-lead (63/37) 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 at 250 MHz using a Coilcraft SMD-A test fixture and Coilcraft-provided correlation pieces with an Agilent/HP 4286A impedance analyzer or equivalent.

3. Q measured at the same frequency as inductance using an Agilent/HP 4291A with an Agilent/HP 16197A test fixture or equivalents.

4. SRF measured using an Agilent/HP 8753ES network analyzer and a Coilcraft CCF1232 test fixture.

5. DCR measured on a Keithley 580 micro-ohmmeter and a Coilcraft CCF1010 test fixture.

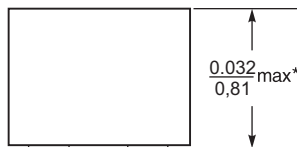
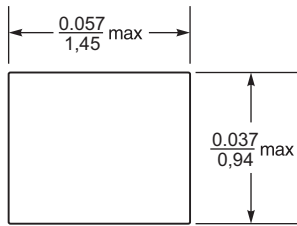
6. Part is not compliant with MIL-STD-981 Family 50, Class S due to wire gauge.

7. Electrical specifications at 25°C.

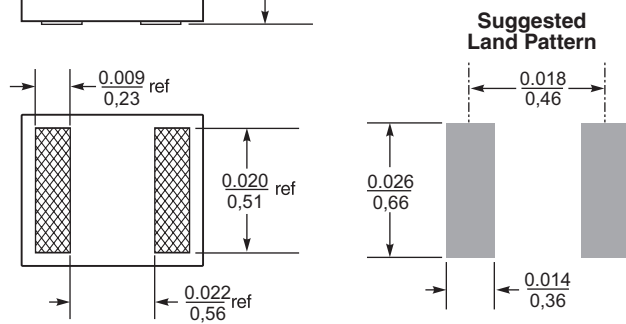
Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

# AE235RBA Molded Chip Inductors (0402)

## Dimensions



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



Dimensions are in  $\frac{\text{inches}}{\text{mm}}$