

# Chip Inductors for Critical Applications ST336RAM

- Higher inductance values than ceramic 0805 inductors
- Heavy gauge wire for low DCR
- Ferrite construction for high current handling

Part number <sup>1</sup>	Inductance <sup>2</sup> ±5% (µH)	Q min <sup>3</sup>	Impedance typ (Ohms)	SRF min <sup>4</sup> (MHz)	DCR max <sup>5</sup> (Ohms)	I <sub>max</sub> (mA)	Color code
ST336RAM111JRZ	0.11 @ 7.9 MHz	14 @ 7.9 MHz	370 @ 500MHz	1000	0.05	700	Brown
ST336RAM681JRZ	0.68 @ 7.9 MHz	15 @ 7.9 MHz	430 @ 100 MHz	340	0.30	410	Orange
ST336RAM102JRZ	1.0 @ 7.9 MHz	13 @ 7.9 MHz	670 @ 100 MHz	280	0.39	360	Yellow
ST336RAM122JRZ	1.2 @ 7.9 MHz	15 @ 7.9 MHz	860 @ 100 MHz	300	0.64	260	Brown
ST336RAM152JRZ	1.5 @ 7.9 MHz	16 @ 7.9 MHz	1000 @ 100 MHz	225	0.74	250	Green
ST336RAM182JRZ	1.8 @ 7.9 MHz	16 @ 7.9 MHz	1360 @ 100 MHz	240	0.98	210	Blue
ST336RAM222JRZ	2.2 @ 7.9 MHz	15 @ 7.9 MHz	840 @ 50 MHz	90	0.98	190	Brown
ST336RAM272JRZ	2.7 @ 7.9 MHz	15 @ 7.9 MHz	1050 @ 50 MHz	80	1.16	190	Violet
ST336RAM332JRZ	3.3 @ 7.9 MHz	15 @ 7.9 MHz	1670 @ 50 MHz	65	1.20	190	Gray
ST336RAM472JRZ	4.7 @ 7.9 MHz	14 @ 7.9 MHz	950 @ 25 MHz	40	1.50	170	Black
ST336RAM682JRZ	6.8 @ 7.9 MHz	14 @ 7.9 MHz	450 @ 10 MHz	28	1.90	150	Brown
ST336RAM103JRZ	10 @ 2.5 MHz	14 @ 2.5 MHz	740 @ 10 MHz	18	2.20	130	Red
ST336RAM153JRZ	15 @ 2.5 MHz	13 @ 2.5 MHz	1300 @ 10 MHz	15	4.25	90	Yellow
ST336RAM223JRZ	22 @ 2.5 MHz	13 @ 2.5 MHz	1620 @ 10 MHz	15	6.70	75	Green

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

### ST336RAM223JRZ

**Termination:** R = Matte tin over nickel over silver-platinum-glass frit.

**Special order:**

Q = Tin-silver-copper (95.5/4/0.5) over tin over nickel over silver-platinum-glass frit or

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

**Screening:** Z = Unscreened

H = Coilcraft CP-SA-10001 Group A

- 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 at 0.1 Vrms, using Coilcraft SMD-A fixture in Agilent/HP 4286A impedance analyzer or equivalent with Coilcraft-provided correlation pieces.

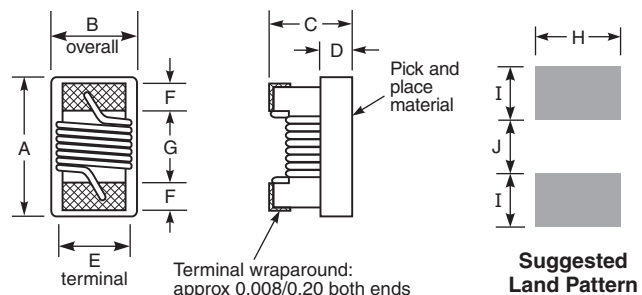
3. Q measured on Agilent/HP 4291A with Agilent/HP 16197A test fixture or equivalents.

4. SRF measured using Agilent/HP 8753ES network analyzer or equivalent with Coilcraft SMD-D test fixture.

5. DCR measured on a Keithley 580 Micro-ohmmeter or equivalent with a Coilcraft CCF858 test fixture.

6. Electrical specifications at 25°C.

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



A	B	C	D	E	F	G	H	I	J
max	max	max	ref						
0.090	0.068	0.060	0.020	0.050	0.016	0.040	0.070	0.040	0.030
2,29	1,73	1,52	0,51	1,27	0,41	1,02	1,78	1,02	0,76

Note: Dimensions are before optional solder application. For maximum overall dimensions including solder, add 0.0025 in / 0,064 mm to **B** and 0.006 in / 0,15 mm to **A** and **C**.

**Core material** Ferrite

**Terminations** Matte tin over nickel over silver-platinum-glass frit.

**Weight** 16.7– 18.0 mg

**Ambient temperature** –40°C to +85°C with I<sub>max</sub> current

**Maximum part temperature** +100°C (ambient + temp rise).

**Storage temperature** Component: –55°C to +100°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

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

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

Plastic tape: 8 mm wide, 0.23 mm thick, 4 mm pocket spacing, 1.6 mm pocket depth



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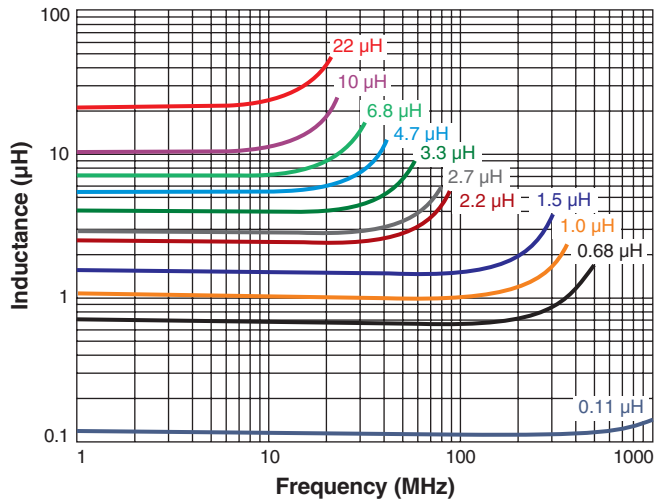
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Document ST781-1 Revised 04/05/22

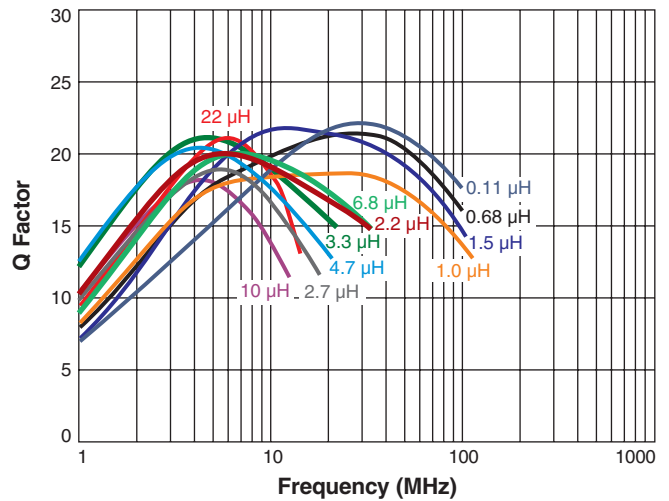
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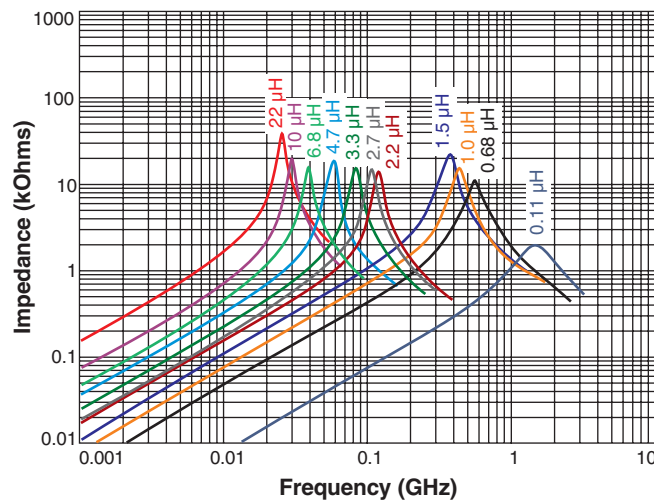
L vs Frequency



Q vs Frequency



Impedance vs Frequency



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Document ST781-1 Revised 04/05/22

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