

# Chip Inductors for Critical Applications ST336RAB

- Ferrite core surface mount inductors
- Lower DCR and higher current ratings than other 0805 Series.
- Available in inductance values from 0.078 to 27  $\mu\text{H}$ , all at 2% and 5% tolerance.

Part number <sup>1</sup>	Inductance <sup>2</sup> ( $\mu\text{H}$ )	Percent tolerance	Q min <sup>3</sup>	SRF min <sup>4</sup> (MHz)	DCR max <sup>5</sup> (Ohms)	I <sub>max</sub> (A)
ST336RAB78N_LZ	0.078 @ 7.9 MHz	5,2	19 @ 7.9 MHz	1440	0.042	2.0
ST336RAB111_LZ	0.110 @ 7.9 MHz	5,2	19 @ 7.9 MHz	1200	0.05	2.0
ST336RAB471_LZ	0.470 @ 7.9 MHz	5,2	19 @ 7.9 MHz	500	0.31	0.720
ST336RAB681_LZ	0.680 @ 7.9 MHz	5,2	20 @ 7.9 MHz	400	0.46	0.590
ST336RAB102_LZ	1.0 @ 7.9 MHz	5,2	20 @ 7.9 MHz	340	0.69	0.500
ST336RAB122_LZ	1.2 @ 7.9 MHz	5,2	15 @ 7.9 MHz	280	1.20	0.400
ST336RAB152_LZ	1.5 @ 7.9 MHz	5,2	20 @ 7.9 MHz	275	1.03	0.490
ST336RAB182_LZ	1.8 @ 7.9 MHz	5,2	20 @ 7.9 MHz	246	1.15	0.410
ST336RAB222_LZ	2.2 @ 7.9 MHz	5,2	20 @ 7.9 MHz	106	1.28	0.365
ST336RAB272_LZ	2.7 @ 7.9 MHz	5,2	20 @ 7.9 MHz	105	1.48	0.350
ST336RAB332_LZ	3.3 @ 7.9 MHz	5,2	20 @ 7.9 MHz	83	1.57	0.330
ST336RAB392_LZ	3.9 @ 7.9 MHz	5,2	20 @ 7.9 MHz	52	1.70	0.300
ST336RAB472_LZ	4.7 @ 7.9 MHz	5,2	20 @ 7.9 MHz	50	1.87	0.280
ST336RAB682_LZ	6.8 @ 7.9 MHz	5,2	20 @ 7.9 MHz	35	2.25	0.260
ST336RAB822_LZ	8.2 @ 2.5 MHz	5,2	18 @ 2.5 MHz	27	2.55	0.250
ST336RAB103_LZ	10.0 @ 2.5 MHz	5,2	18 @ 2.5 MHz	21	3.45	0.200
ST336RAB153_LZ	15.0 @ 2.5 MHz	5,2	18 @ 2.5 MHz	17	5.03	0.180
ST336RAB223_LZ	22.0 @ 2.5 MHz	5,2	18 @ 2.5 MHz	13	6.18	0.150
ST336RAB273_LZ	27.0 @ 2.5 MHz	5,2	15 @ 2.5 MHz	11	11.04	0.120

1. When ordering, specify **tolerance, termination and testing** codes:

ST336RAB273GLZ

**Tolerance:** G = 2% J = 5%

**Termination:** L = Silver-palladium-platinum-glass frit.

**Special order:**

T = Tin-silver-copper (95.5/4/0.5) or

S = Tin-lead (63/37).

**Testing:** Z = Unscreened

H = Group A screening per Coilcraft CP-SA-10001

All screening performed to the document's latest revision

2. Inductance measured using a Coilcraft SMD-A fixture in an Agilent/HP 4286A impedance analyzer or equivalent with Coilcraft-provided correlation pieces.
  3. Q measured on an Agilent/HP 4291A with an Agilent/HP 16197 test fixture or equivalents.
  4. SRF measured using an Agilent/HP 8753ES network analyzer or equivalent with a Coilcraft SMD-D test fixture.
  5. DCR measured on a Keithley 580 micro-ohmmeter or equivalent and a Coilcraft CCF858 test fixture.
  6. Electrical specifications at 25°C.
- Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

**Core material** Ceramic/Ferrite

**Terminations** Silver-palladium-platinum-glass frit. Other terminations available at additional cost.

**Ambient temperature** -40°C to +85°C with Irms current

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

**Storage temperature** Component: -55°C to +100°C.  
Packaging: -40°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 +255 ppm/°C

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

**Packaging** 2000 per 7" reel Plastic tape: 8 mm wide, 0.23 mm thick, 4 mm pocket spacing, 1.6 mm pocket depth



CRITICAL PRODUCTS & SERVICES

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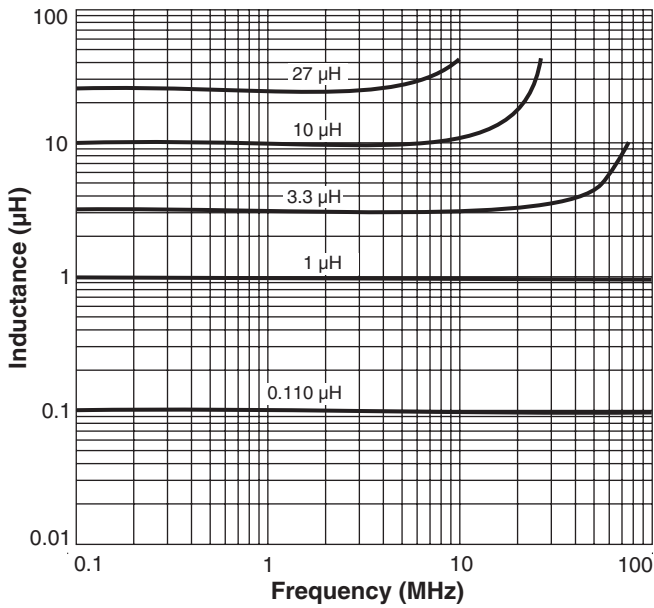
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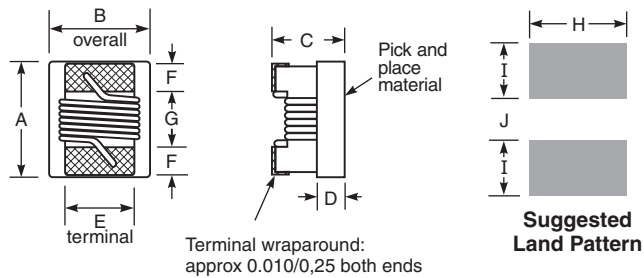
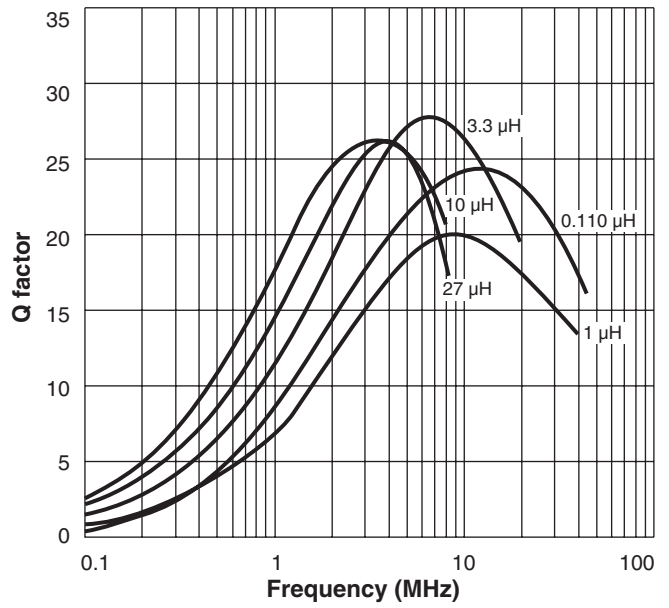
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# ST336RAB Series (0805)

## Typical L vs Frequency



## Typical Q vs Frequency



A	B	C	D	E	F	G	H	I	J
max	max	max	ref						
0.090	0.075	0.063	0.020	0.050	0.020	0.040	0.070	0.040	0.030
2,29	1,91	1,60	0,51	1,27	0,51	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**.



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