

# 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> (mA)	Color code
ST336RAB78N_RZ	0.078 @ 7.9MHz	5,2	19 @ 7.9MHz	1300	0.042	800	Black
ST336RAB111_RZ	0.110 @ 7.9MHz	5,2	19 @ 7.9MHz	1200	0.05	800	Brown
ST336RAB471_RZ	0.470 @ 7.9MHz	5,2	19 @ 7.9MHz	500	0.31	510	Red
ST336RAB681_RZ	0.680 @ 7.9MHz	5,2	20 @ 7.9MHz	400	0.46	430	Orange
ST336RAB102_RZ	1.0 @ 7.9MHz	5,2	20 @ 7.9MHz	340	0.69	280	Yellow
ST336RAB122_RZ	1.2 @ 7.9MHz	5,2	15 @ 7.9MHz	280	1.2	220	Brown
ST336RAB152_RZ	1.5 @ 7.9MHz	5,2	20 @ 7.9MHz	275	1.03	260	Green
ST336RAB182_RZ	1.8 @ 7.9MHz	5,2	20 @ 7.9MHz	246	1.15	250	Blue
ST336RAB222_RZ	2.2 @ 7.9MHz	5,2	20 @ 7.9MHz	106	1.28	240	Brown
ST336RAB272_RZ	2.7 @ 7.9MHz	5,2	20 @ 7.9MHz	105	1.48	230	Violet
ST336RAB332_RZ	3.3 @ 7.9MHz	5,2	20 @ 7.9MHz	83	1.57	220	Gray
ST336RAB392_RZ	3.9 @ 7.9MHz	5,2	20 @ 7.9MHz	52	1.7	210	White
ST336RAB472_RZ	4.7 @ 7.9MHz	5,2	20 @ 7.9MHz	50	1.87	200	Black
ST336RAB682_RZ	6.8 @ 7.9MHz	5,2	20 @ 7.9MHz	30	2.25	180	Brown
ST336RAB822_RZ	8.2 @ 2.5MHz	5,2	18 @ 2.5MHz	25	2.55	170	Red
ST336RAB103_RZ	10.0 @ 2.5MHz	5,2	18 @ 2.5MHz	21	3.45	160	Orange
ST336RAB153_RZ	15.0 @ 2.5MHz	5,2	18 @ 2.5MHz	17	5.03	130	Yellow
ST336RAB223_RZ	22.0 @ 2.5MHz	5,2	18 @ 2.5MHz	13	6.18	110	Green
ST336RAB273_RZ	27.0 @ 2.5MHz	5,2	15 @ 2.5MHz	11	11.04	80	Blue

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

ST336RAB273GRZ

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

**Termination:** R = Matte tin over nickel over silver-platinum glass frit  
 L = Silver-palladium-platinum glass frit.  
 P = Tin-lead (63/37) over tin over nickel over silver-platinum-glass frit.  
 Q = Tin-silver-copper (95.5/4/0.5) over tin over nickel over silver-platinum-glass frit.  
 S = Tin-lead (63/37) over silver-platinum-glass frit.  
 T = Tin-silver-copper (95.5/4/0.5) 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 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 CCF1297 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.



CRITICAL PRODUCTS & SERVICES

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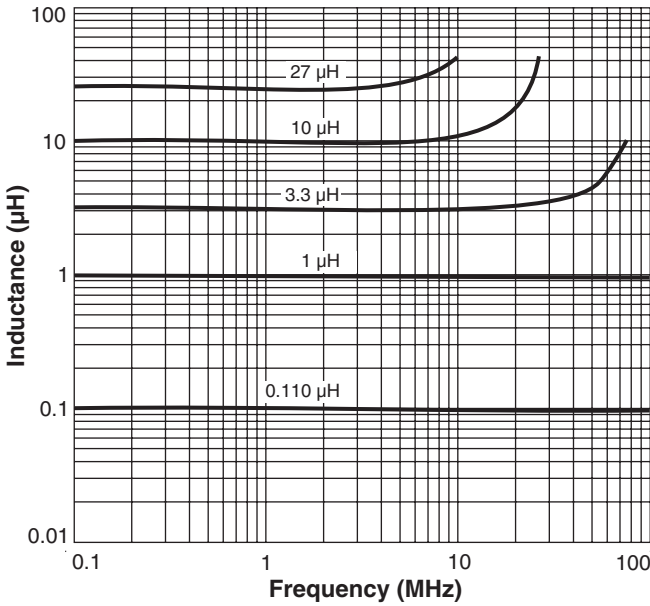
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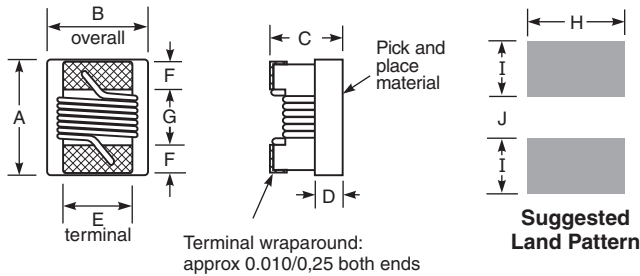
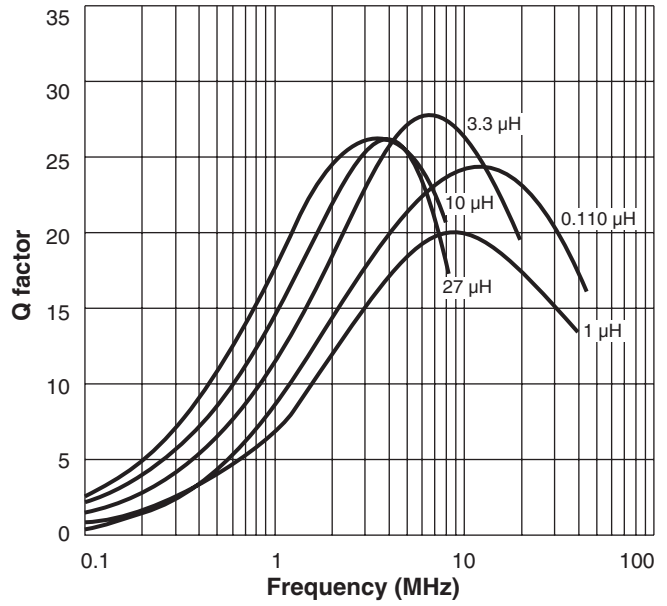
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# ST336RAB Series (0805)

## 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.

**Core material** Ceramic/Ferrite

**Terminations** Matte tin over nickel over silver-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

