

# Power Inductor for Critical Applications ST336PHA



- Shielded power inductors
- Excellent current handling for a part this size; low DCR

**Core material** Ceramic/Ferrite

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

**Weight** 57.6–62.4 mg

**Ambient temperature** –40°C to +65°C with Irms current

**Maximum part temperature** +105°C (ambient + temp rise)

**Storage temperature** Component: –55°C to +105°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)

**Packaging** 1500/7" reel; 7500/13" reel Plastic tape: 8 mm wide, 0.23 mm thick, 4 mm pocket spacing, 2.34 mm pocket depth

Part number <sup>1</sup>	L <sup>2</sup> ±10% (µH)	Q min <sup>3</sup> at 1 MHz	DCR <sup>4</sup> max (Ohms)	SRF <sup>5</sup> typ (MHz)	Isat <sup>6</sup> (A)	Irms <sup>7</sup> (A)
ST336PHA102KLZ	1.0	21	0.14	340	0.90	1.6
ST336PHA152KLZ	1.5	21	0.18	265	0.85	1.3
ST336PHA272KLZ	2.7	21	0.35	190	0.60	0.88
ST336PHA332KLZ	3.3	21	0.50	180	0.55	0.70
ST336PHA392KLZ	3.9	21	0.74	165	0.50	0.61
ST336PHA472KLZ	4.7	21	0.85	155	0.43	0.59
ST336PHA562KLZ	5.6	21	0.91	143	0.38	0.57
ST336PHA682KLZ	6.8	21	1.37	118	0.32	0.46
ST336PHA103KLZ	10	21	1.51	66	0.27	0.43
ST336PHA153KLZ	15	21	2.04	34	0.22	0.34
ST336PHA223KLZ	22	25	2.48	22	0.18	0.33
ST336PHA333KLZ	33	25	3.00	17	0.16	0.28
ST336PHA473KLZ	47	25	3.85	15	0.15	0.26
ST336PHA683KLZ	68	28	4.42	12	0.12	0.24
ST336PHA823KLZ	82	30	6.00	12	0.11	0.21
ST336PHA104KLZ	100	32	6.96	9.0	0.10	0.19
ST336PHA124KLZ	120	32	7.51	7.7	0.10	0.18
ST336PHA154KLZ	150	32	8.33	5.0	0.08	0.18
ST336PHA224KLZ	220	32	13.71	5.0	0.07	0.14
ST336PHA334KLZ	330	32	20.53	3.5	0.06	0.11

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

**ST336PHA334KLZ**

**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

Custom screening also available

2. Inductance measured at 100 kHz, 0.1 Vrms, using a Coilcraft SMD-A fixture in Agilent/HP 4263B LCR meter.
  3. Q measured on an Agilent/HP 4291 with an Agilent/HP 16197 test fixture.
  4. DCR measured on a micro-ohmmeter and a Coilcraft CCF858 test fixture.
  5. SRF measured using an Agilent/HP 8753D network analyzer and a Coilcraft CCF1297 test fixture.
  6. DC current at which the inductance drops 10% (typ) from its value without current. This information is for reference only and does not represent absolute maximum ratings.
  7. Current that causes a 40°C temperature rise from 25°C ambient.
  8. Electrical specifications at 25°C.
- Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

**COILCRAFT** ACCURATE  
PRECISION REPEATABLE  
MEASUREMENTS  
SEE WEB SITE **TEST FIXTURES**

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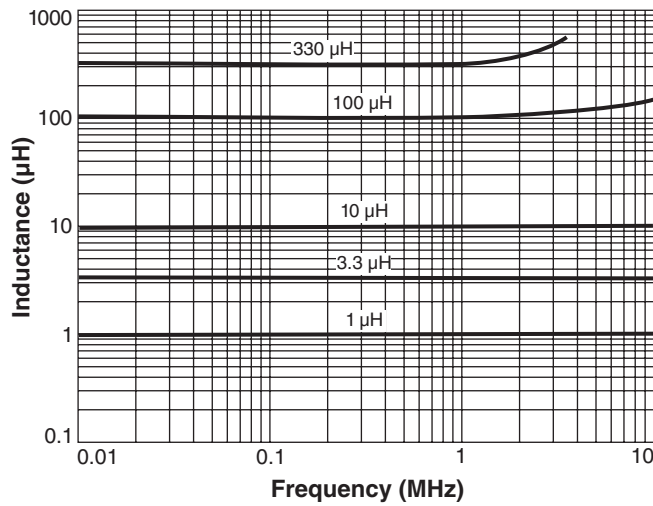
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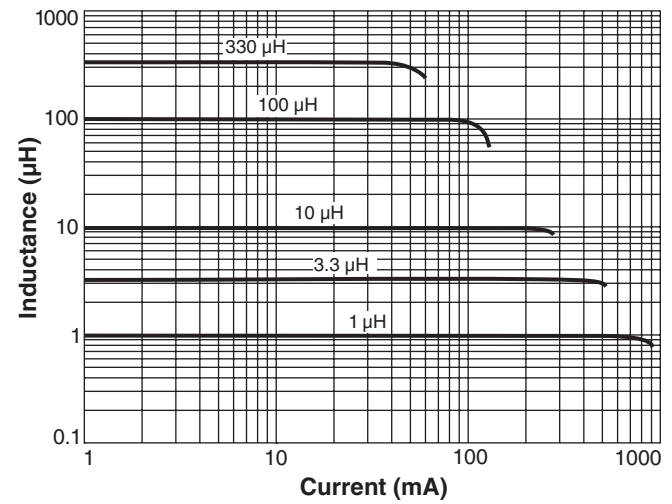
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# Power Inductor for Critical Applications – ST336PHA

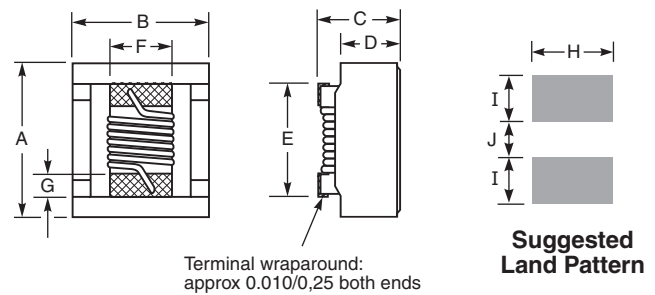
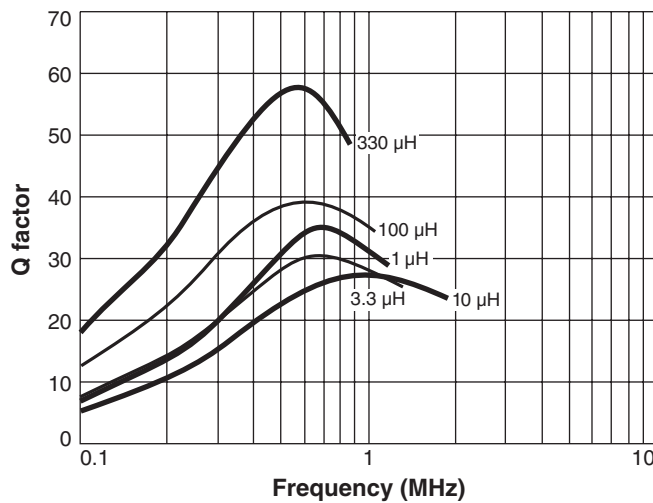
## Typical L vs Frequency



## Typical L vs Current



## Typical Q vs Frequency



A	B	C	D	E	F	G	H	I	J	
max	max	max								inches
0.133	0.118	0.079	0.053	0.080	0.050	0.020	0.070	0.040	0.030	
3,38	3,00	2,00	1,35	2,03	1,27	0,51	1,78	1,02	0,76	mm

Note: Height dimension is before optional solder application. For maximum height including solder, add 0.006 in / 0,15 mm.

