

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, +65°C to +105°C with derated current

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

Temperature Coefficient of Inductance (TCL) +100 to +250 ppm/°C

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 ¹	L ² ±10% (μH)	Q min ³ at 1 MHz	DCR ⁴ max (Ohms)	SRF ⁵ typ (MHz)	Isat ⁶ (A)	Irms ⁷ (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 = RoHS compliant silver-palladium-platinum-glass frit. Special order: T = RoHS tin-silver-copper (95.5/4/0.5) or S = non-RoHS tin-lead (63/37).

Testing: Z = COTS

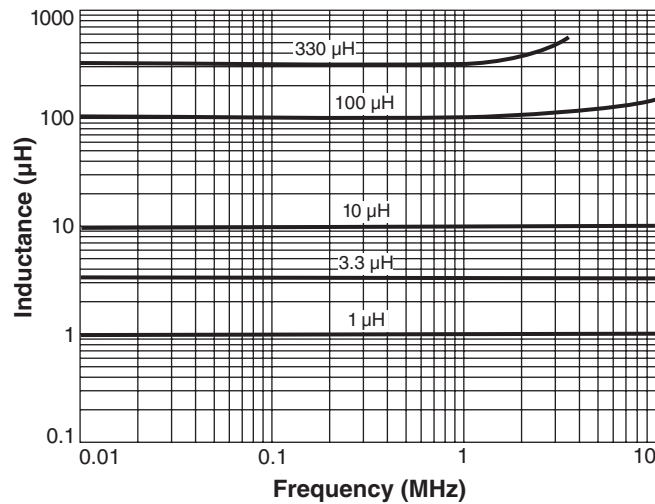
H = Screening per Coilcraft CP-SA-10001

- Inductance measured at 100 kHz, 0.1 Vrms, using a Coilcraft SMD-A fixture in Agilent/HP 4263B LCR meter.
 - Q measured on an Agilent/HP 4291 with an Agilent/HP 16193 test fixture.
 - DCR measured on a micro-ohmmeter and a Coilcraft CCF840 test fixture.
 - SRF measured using an Agilent/HP 8753D network analyzer and a Coilcraft SMD-D test fixture.
 - DC current at which the inductance drops 10% (typ) from its value without current.
 - Current that causes a 40°C temperature rise from 25°C ambient.
 - Electrical specifications at 25°C.
- Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

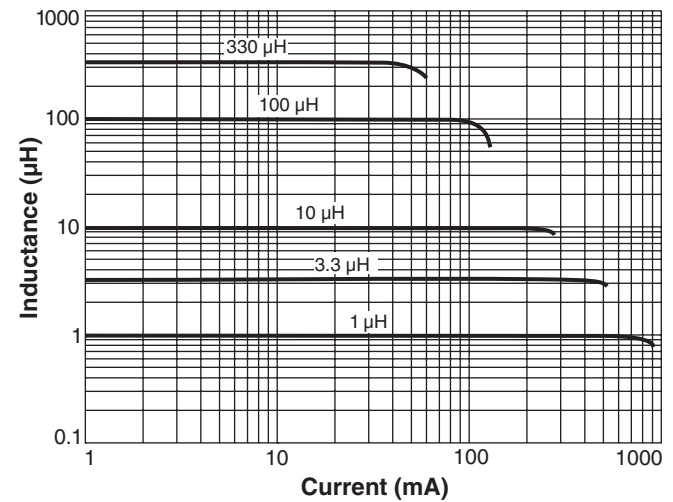
COILCRAFT ACCURATE
PRECISION REPEATABLE
MEASUREMENTS
SEE WEB SITE **TEST FIXTURES**

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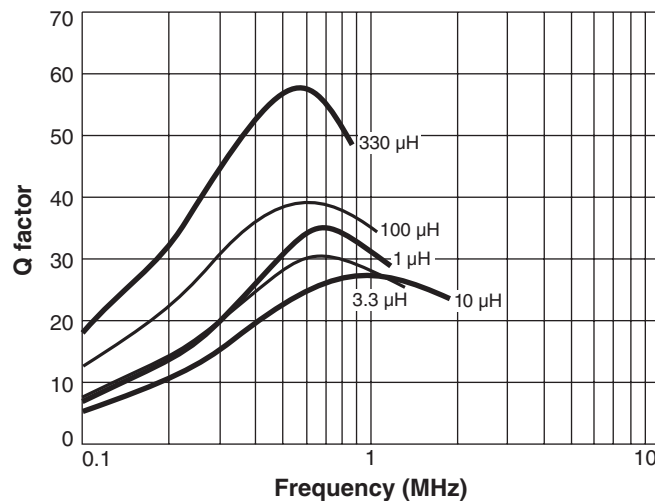
Typical L vs Frequency



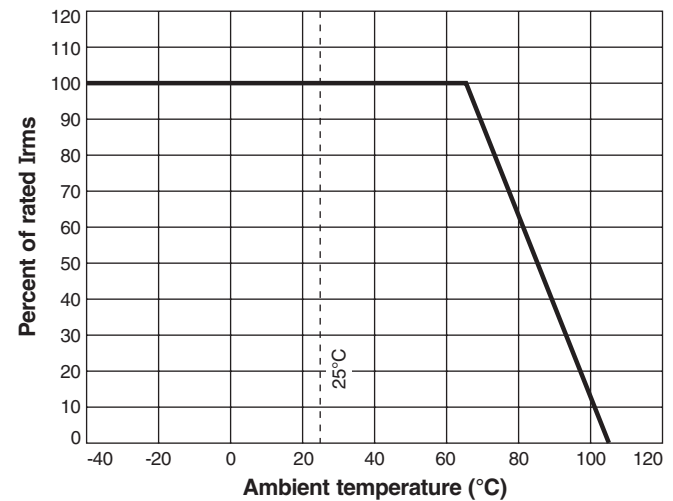
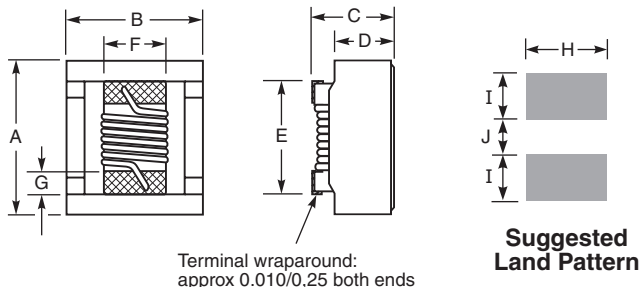
Typical L vs Current



Typical Q vs Frequency



Irms Derating



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.