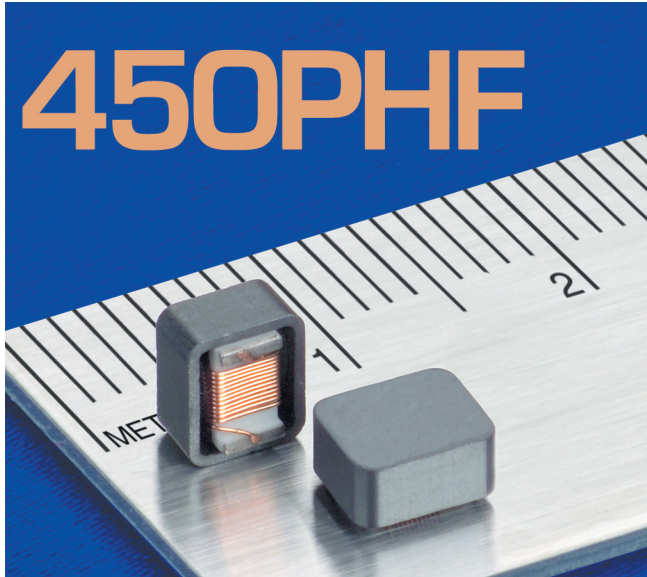


Power Inductor for Critical Applications ST450PHF



- Shielded power inductors
- High inductance with tight tolerance
- 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 330 – 360 mg

Ambient temperature –40°C to +85°C with Irms current

Maximum part temperature +125°C (ambient + temp rise).

Storage temperature Component: –55°C to +125°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 600 per 7" reel Plastic tape: 12 mm wide, 0.25 mm thick, 4 mm pocket spacing

Part number ¹	L ² (µH)	% tol	Q ³ min	DCR max ⁴ (Ohms)	SRF typ ⁵ (MHz)	Isat ⁶ (mA)	Imax (mA)
ST450PHF102_LZ	1.0	10,5	30	0.070	320	3100	2950
ST450PHF122_LZ	1.2	10,5	35	0.110	280	2800	2600
ST450PHF152_LZ	1.5	10,5	20	0.105	200	2100	2850
ST450PHF222_LZ	2.2	10,5	30	0.120	175	1800	2700
ST450PHF242_LZ	2.4	10,5	25	0.175	160	1900	2050
ST450PHF272_LZ	2.7	10,5	30	0.200	165	1400	2100
ST450PHF332_LZ	3.3	10,5	33	0.185	160	1400	1900
ST450PHF392_LZ	3.9	10,5	32	0.195	145	1300	1700
ST450PHF472_LZ	4.7	10,5	28	0.15	125	1000	1800
ST450PHF562_LZ	5.6	10,5	35	0.40	110	1000	1650
ST450PHF682_LZ	6.8	10,5	35	0.35	110	850	1450
ST450PHF103_LZ	10	10,5	35	0.55	90	710	1400
ST450PHF153_LZ	15	10,5	40	0.75	75	680	1150
ST450PHF223_LZ	22	10,5	45	0.85	15	600	855
ST450PHF333_LZ	33	10,5	45	1.1	10	540	820
ST450PHF393_LZ	39	10,5	45	1.1	9.8	500	710
ST450PHF473_LZ	47	10,5	45	1.2	8.0	390	645
ST450PHF683_LZ	68	10,5	45	1.8	14.2	260	650
ST450PHF104_LZ	100	10,5	45	2.5	4.5	260	520
ST450PHF154_LZ	150	10,5	40	3.8	3.4	220	475
ST450PHF224_LZ	220	10,5	45	5.4	3.0	180	390
ST450PHF274_LZ	270	10,5	35	6.5	2.0	150	350
ST450PHF334_LZ	330	10,5	45	6.8	3.0	150	310
ST450PHF394_LZ	390	10,5	35	7.6	2.6	140	310
ST450PHF474_LZ	470	10,5	35	8.7	2.1	130	280
ST450PHF564_LZ	560	10,5	20	11.2	1.60	110	280
ST450PHF684_LZ	680	10,5	25	12.7	1.90	100	250
ST450PHF824_LZ	820	10,5	25	16.8	1.45	90	210
ST450PHF105_LZ	1000	10,5	30	19.5	1.68	90	160

- Please specify **tolerance, termination and screening** codes:

ST450PHF105KLZ

Tolerance: J = 5% K = 10%

Termination: L = Silver-palladium-platinum-glass frit terminations

Special order:

S = Tin-lead (63/37).

Screening: Z = Unscreened

Y = Unscreened (SLDC Option A)

W = Unscreened (SLDC Option B)

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

G = Coilcraft CP-SA-10001 Group A (SLDC Option A)

D = Coilcraft CP-SA-10001 Group A (SLDC Option B)

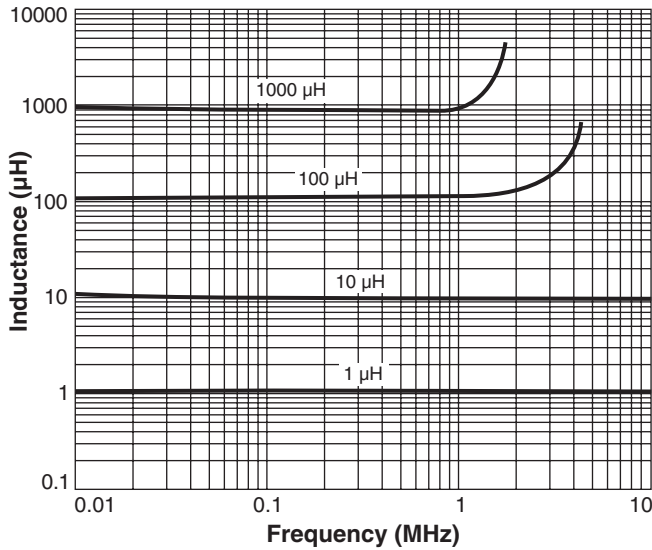
All screening performed to the document's latest revision

Custom screening also available

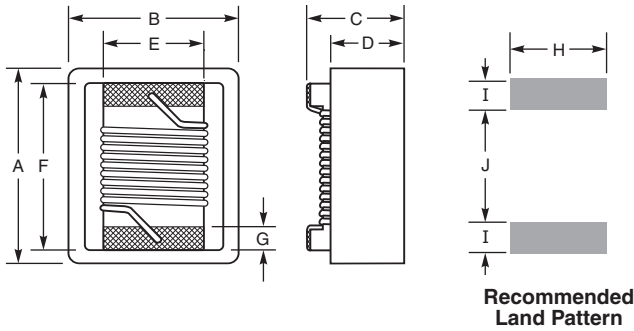
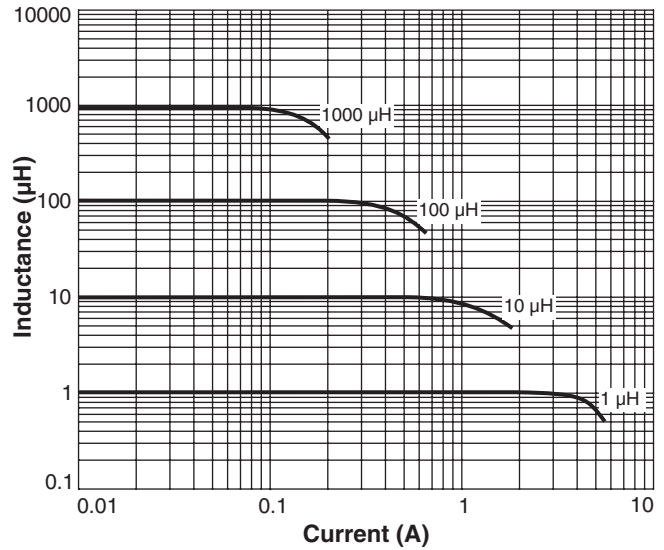
- Inductance measured at 100 kHz, 0.1 Vrms, using Coilcraft SMD-A fixture in Agilent/HP 4263B impedance analyzer or equivalent.
 - Q measured at 1 MHz on an Agilent/HP 4291 with an Agilent/HP 16193 test fixture.
 - DCR measured on micro-ohmmeter and a Coilcraft CCF859 test fixture.
 - SRF measured using an Agilent/HP 8753D network analyzer and a Coilcraft CCF1301 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. This information is for reference only and does not represent absolute maximum ratings.
 - Electrical specifications at 25°C.
- Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

Power Inductors for Critical Applications ST450PHF

Typical L vs Frequency



Typical L vs Current



A	B	C	D	E	F	G	H	I	J
max	max	max	ref	ref	ref				
0.231	0.196	0.150	0.107	0.100	0.178	0.025	0.120	0.045	0.118
5,87	4,98	3,81	2,72	2,54	4,52	0,64	3,05	1,14	3,00

Note: Termination dimensions are before optional solder application.
For maximum termination dimensions including solder, add 0.006 in / 0,15 mm.

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