

Coupled Inductors for Critical Applications ST450PHD



- Coupled inductors optimized for xDSL filtering applications
- Can be used as a common mode choke, 1:1 transformer or in SEPIC applications

Core material Ferrite

Terminations Gold over nickel over moly-manganese. Other terminations available at additional cost.

Weight 0.30 – 0.36 g

Ambient temperature –40°C to +85°C with I_{max} current

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

Storage temperature Component: –55°C to +125°C.
Tape and reel 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 600/7" reel; 2200/13" reel Plastic tape: 12 mm wide, 0.25 mm thick, 8 mm pocket spacing, 3.9 mm pocket depth

Part number ¹	L ±20% ² (μH)	Q min ³	DCR max (Ohms)	SRF min (MHz)	I _{sat} ⁴ (mA)	I _{max} (mA)
ST450PHD102ML_	1.0	38	0.20	285	2400	2100
ST450PHD222ML_	2.2	29	0.33	175	1500	1200
ST450PHD472ML_	4.7	43	0.41	102	1500	1000
ST450PHD103ML_	10	35	0.74	74	800	780
ST450PHD153ML_	15	37	0.96	65	700	710
ST450PHD223ML_	22	38	1.84	54	500	530
ST450PHD393ML_	39	39	2.60	5.7	450	420
ST450PHD473ML_	47	40	2.66	4.8	400	390

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

ST450PHD473MLZ

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

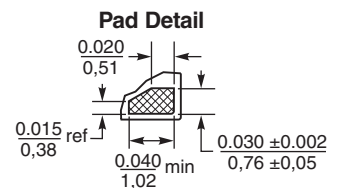
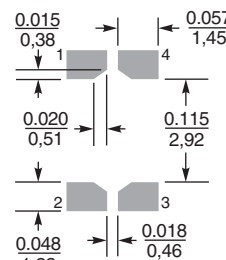
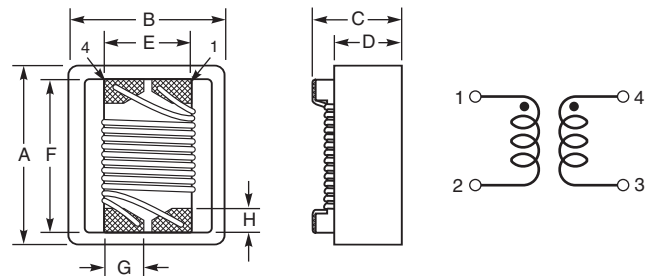
2. Per winding. Tested at 100 kHz, 0.1 V_{rms}, 0 Adc.

3. Q measured at 1 MHz.

4. DC current at 25°C that causes the inductance to drop 10% (typ) from its value without current.

5. Electrical specifications at 25°C.

Refer to Doc 362 "Soldering Surface Mount Components" before soldering.



Suggested Land Pattern

A	B	C	D	E	F	G	H
max	max	max	ref	ref	ref	min	H
0.231	0.196	0.150	0.107	0.100	0.178	0.04	0.03 inches
5,87	4,98	3,81	2,72	2,54	4,52	1,02	0,76 mm

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



CRITICAL PRODUCTS & SERVICES

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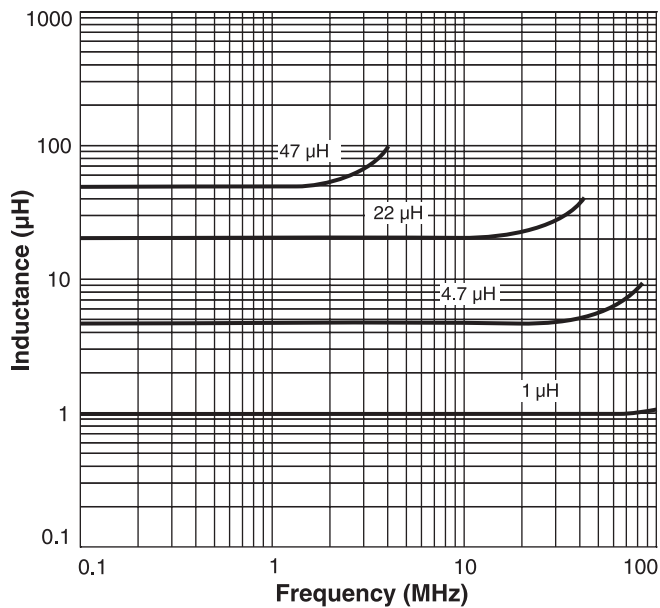
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This product may not be used in medical or high risk applications without prior Coilcraft approval. Specifications subject to change without notice. Please check our web site for latest information.

ST450PHD Coupled Inductors

Typical L vs Frequency



Typical Q vs Frequency

