



## XTHCI 10H SERIES

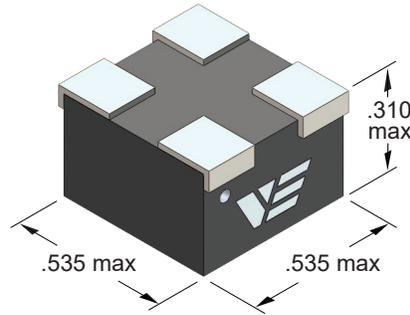
### HIGH CURRENT INDUCTOR



### +200°C

Inductance Range	DCR max (Ohms)	Current Rating (A)
0.250 uH - 10 mH	0.003 - 12.10	15.3 - 0.23

ALL DIMENSIONS: INCHES



THRU-HOLE & GULL-WING PACKAGES ALSO AVAILABLE

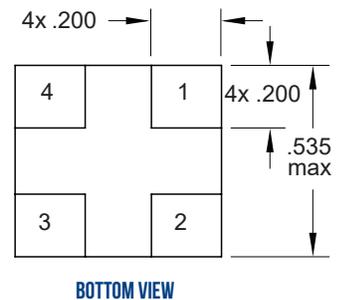
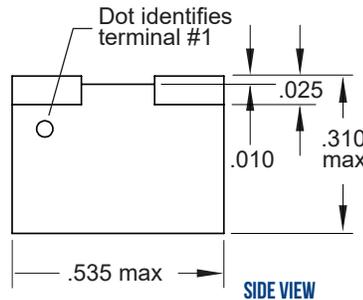
### ELECTRICAL SPECIFICATIONS

- **Operating Temperature:** -40°C to +200
- **Storage Temperature:** -40°C to +200
- **Temperature Rise:** < 30°C
- **Dielectric Withstanding Voltage:** 100 V<sub>RMS</sub>
- **Different electrical values available upon request**

### FEATURES

- **Ideal** for geophysical application in environments < 200°C, (for +200°C high temperature version, see product key)
- **Compact**, low profile, ideal for automatic placement
- **Terminations:** HMP required high temperature version
- **Welded Internal Connections**
- **Moisture, Shock and Immersion Resistant**
- **Magnetically Shielded**
- **Other termination finishes available upon request**
- **Resistance to Soldering Heat:** 265°C for 10 seconds high temperature version
- **Multiple Configurations:** Series, parallel, transformer, dual inductor

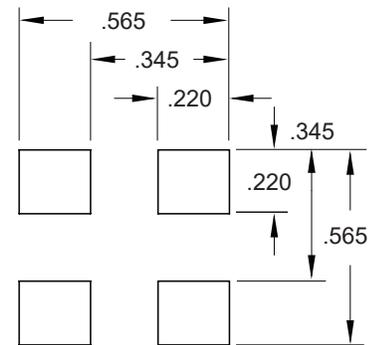
MARKINGS: LASER ETCH OR INK



### APPLICATIONS

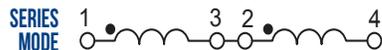
- Filter inductors
- Power supplies
- Ripple suppressors
- DC/DC converters
- Common mode chokes
- SEPIC converters
- Isolation transformers

IN	MM
0.565	14.35
0.535	13.59
0.345	8.76
0.310	7.87
0.220	5.59
0.200	5.08
0.025	0.64
0.010	0.25

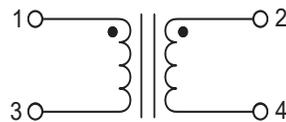


RECOMMENDED MOUNTING PAD CIRCUIT SIDE

#### TYPICAL USER CONNECTIONS



#### SCHEMATIC



#### CUSTOM DESIGNS & MODIFICATIONS:

Other electrical configurations and performance characteristics are available in various sizes and package types





## DATA TABLE

Vanguard P/N	Series Inductance (uH)	Series DCR max (Ohms)	Series Rated Current (Adc)	Series Inc. Current ΔL 10% (Adc)	Series Inc. Current ΔL 20% (Adc)
XTHCI10H-101M	1.0	0.009	7.6	16.6	23.0
XTHCI10H-241M	2.4	0.012	7.1	11.0	15.3
XTHCI10H-421M	4.2	0.016	6.3	8.3	11.5
XTHCI10H-102M	10.0	0.020	5.2	5.5	7.7
XTHCI10H-252M	25.0	0.030	4.4	3.7	5.1
XTHCI10H-502M	50.0	0.060	3.2	2.4	3.3
XTHCI10H-752M	75.0	0.070	2.9	1.9	2.7
XTHCI10H-103K	100.0	0.090	2.7	1.7	2.3
XTHCI10H-253K	250.0	0.440	1.2	1.1	1.5
XTHCI10H-503K	500.0	0.900	0.81	0.77	1.1
XTHCI10H-753K	750.0	1.00	0.78	0.41	0.60
XTHCI10H-104K	1.0 mH	1.50	0.64	0.35	0.52
XTHCI10H-204K	2.0 mH	2.70	0.48	0.25	0.37
XTHCI10H-304K	3.0 mH	4.20	0.38	0.20	0.30
XTHCI10H-504K	5.0 mH	6.90	0.30	0.16	0.23
XTHCI10H-754K	7.5 mH	10.40	0.25	0.13	0.19
XTHCI10H-105K	10.0 mH	12.10	0.23	0.11	0.16

Vanguard P/N	Parallel Inductance (uH)	Parallel DCR max (Ohms)	Parallel Rated Current (Adc)	Parallel Inc. Current ΔL 10% (Adc)	Parallel Inc. Current ΔL 20% (Adc)
XTHCI10H-101M	0.250	0.003	15.3	33.1	46.0
XTHCI10H-241M	0.600	0.003	14.2	22.1	30.7
XTHCI10H-421M	1.05	0.004	12.5	16.6	23.0
XTHCI10H-102M	2.50	0.005	10.4	11.0	15.3
XTHCI10H-252M	6.25	0.008	8.7	7.4	10.2
XTHCI10H-502M	12.50	0.015	6.4	4.7	6.6
XTHCI10H-752M	18.75	0.020	5.8	3.9	5.4
XTHCI10H-103K	25.0	0.025	5.3	3.3	4.6
XTHCI10H-253K	62.5	0.110	2.4	2.1	3.0
XTHCI10H-503K	125.0	0.225	1.6	1.5	2.1
XTHCI10H-753K	187.5	0.250	1.6	0.81	1.2
XTHCI10H-104K	250.0	0.375	1.3	0.71	1.0
XTHCI10H-204K	500.0	0.675	0.96	0.50	0.73
XTHCI10H-304K	750.0	1.05	0.77	0.41	0.60
XTHCI10H-504K	1.250 mH	1.75	0.60	0.31	0.46
XTHCI10H-754K	1.875 mH	2.60	0.49	0.26	0.38
XTHCI10H-105K	2.500 mH	3.00	0.46	0.22	0.33

1/ Inductance measured at 10 kHz, 0.1 V<sub>RMS</sub>

2/ DCR measured at room temperature

3/ Current Rating is based on a 30°C maximum temperature rise at an ambient temperature of 100°C

4/ Incremental current is the approximate value that will result in a percentage drop of inductance as indicated in the table

5/ Maximum Weight: TBD

6/ Units are series mode tested only, parallel mode values are reference only

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DATA TABLE

VE PART NUMBER  
STRUCTURE KEY

**INDUCTANCE**  
( uH )  
( mH )

101 = 1.0 uH  
503 = 100 uH  
105 = 10 mH

EXAMPLE: XTHCI10H-101KS-7-T

**TOLERANCE**  
( % )

K	± 10
M	± 20

**TERMINATION**

S	HMP
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**RELIABILITY**

7	Other
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**PACKAGING**  
( Default Bulk )

B	Bulk
T	Tape and Reel

Tape and reel specs  
Pcs. / reel maximum: (13") 320  
Pitch between parts: 24 mm  
Tape width: 24 mm

Parts that don't meet minimum reel requirements will be supplied on cut tape

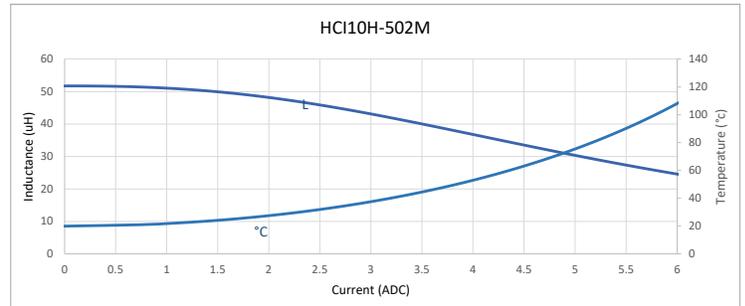
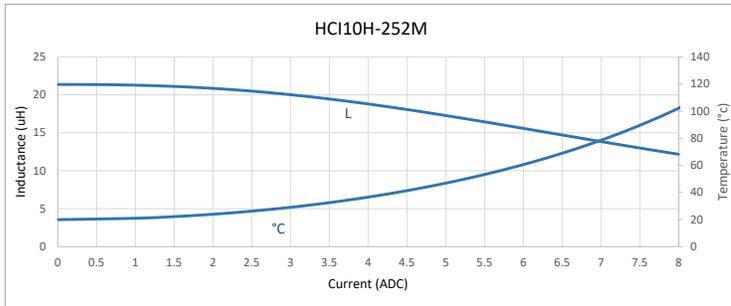
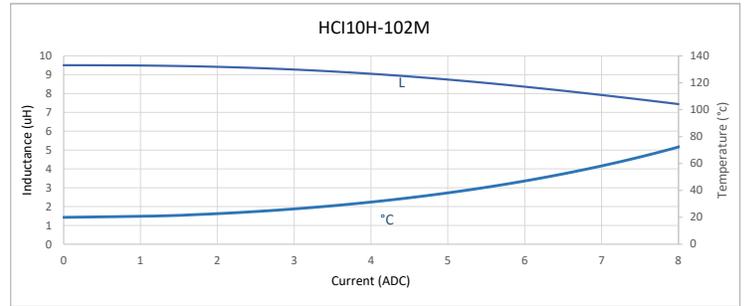
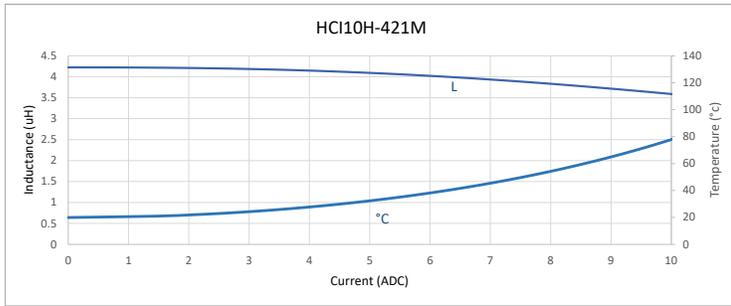
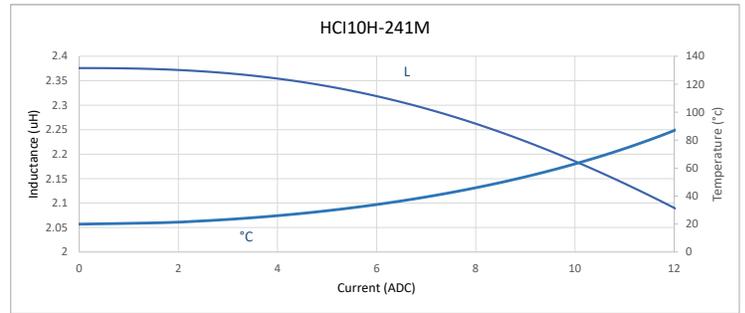
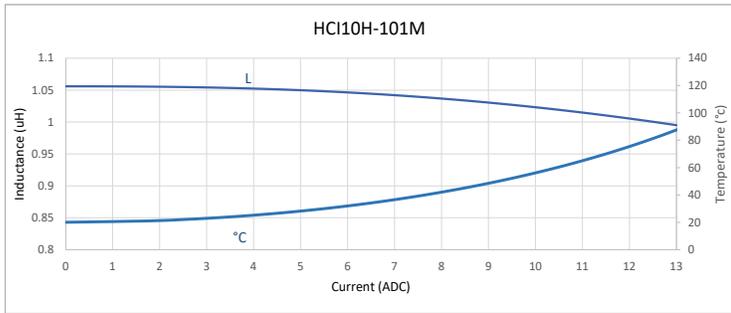
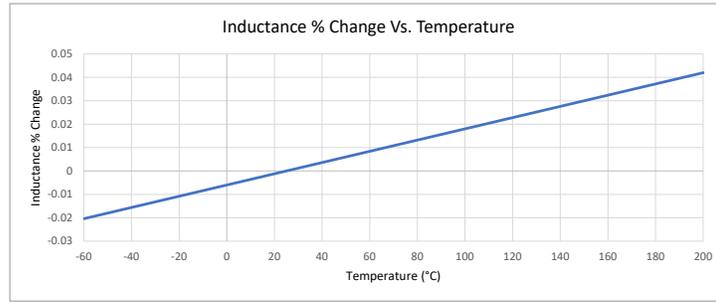
*Tape and Reel not available for Thru-Hole or Gull-Wing Packages*

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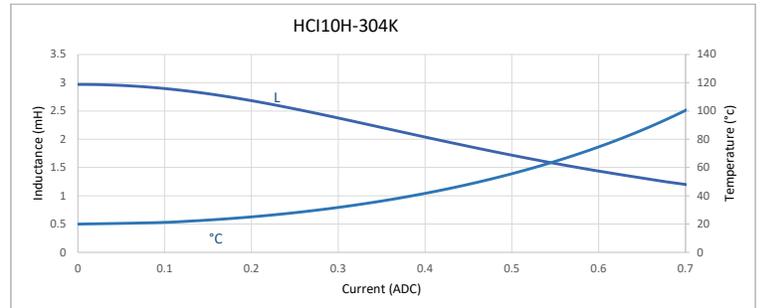
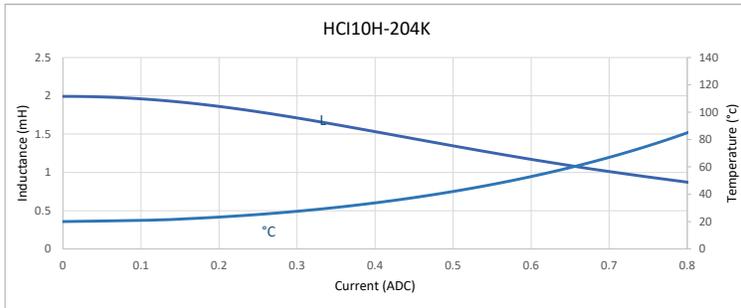
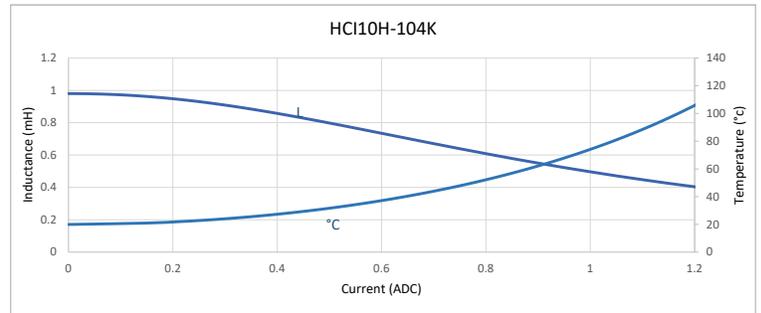
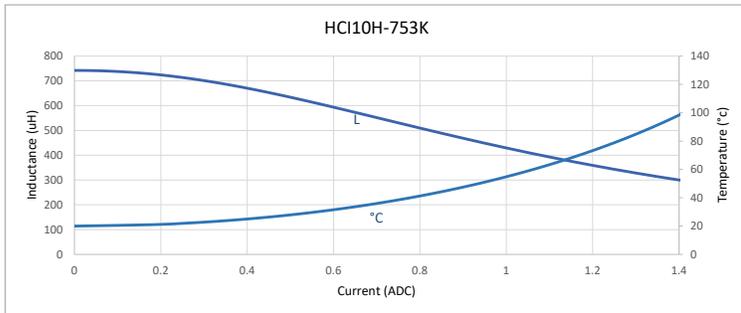
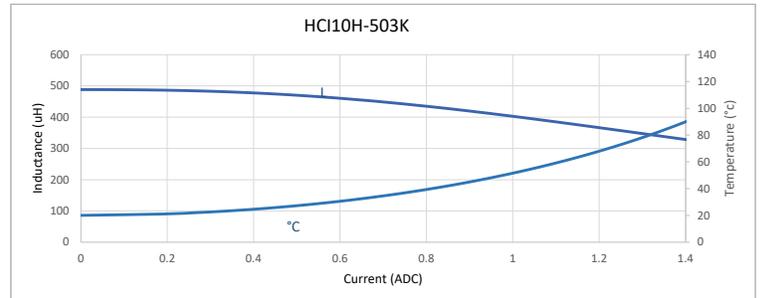
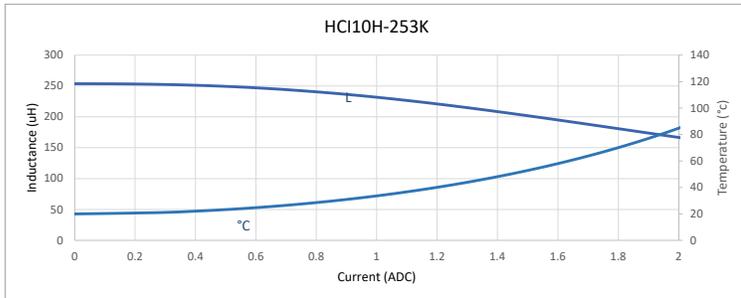
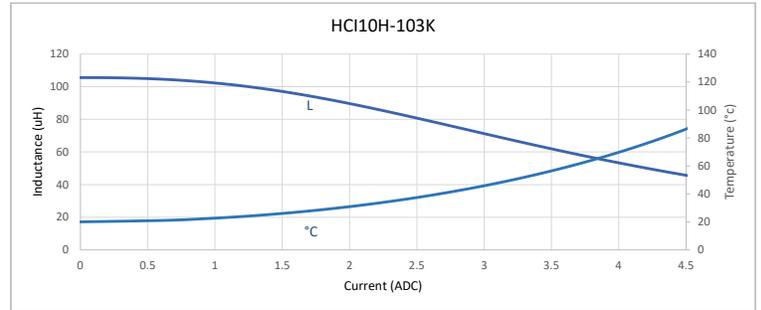
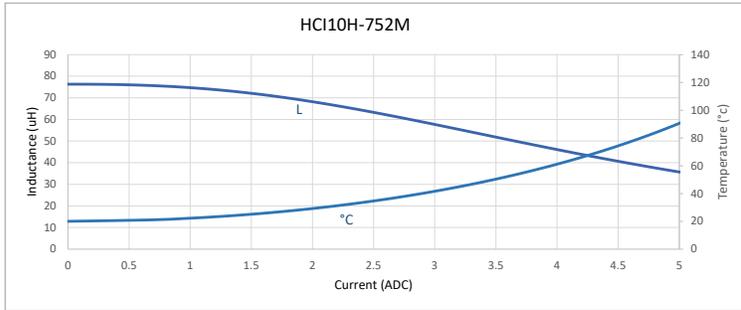
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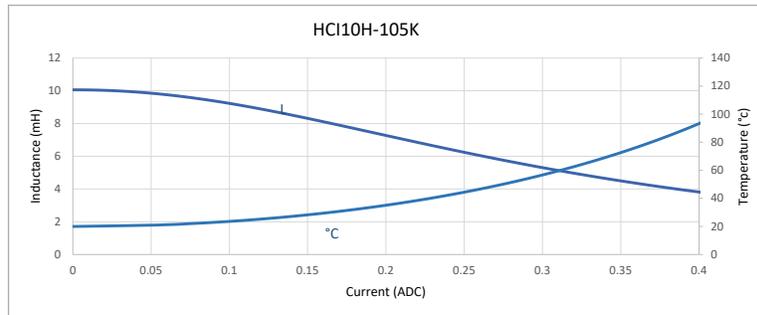
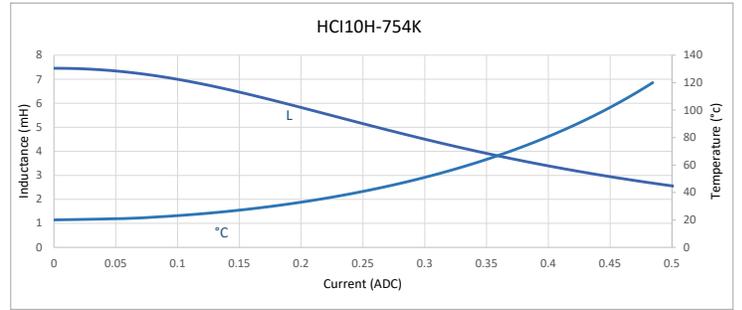
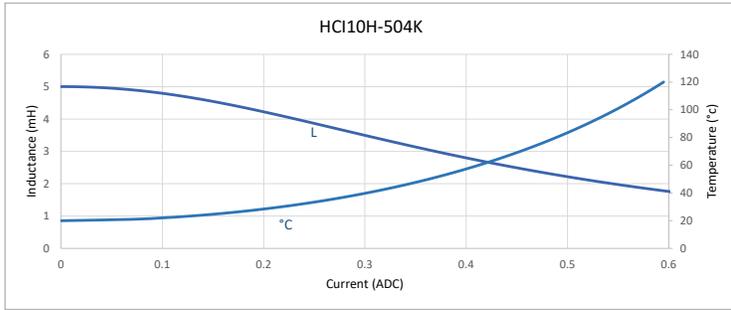


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