



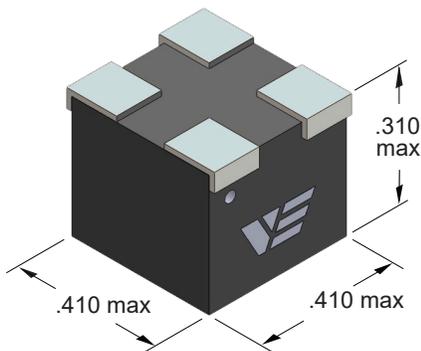
XTHCI7H SERIES HIGH CURRENT INDUCTOR



+200°C

Inductance Range	DCR max (Ohms)	Current Rating (A)
40 nH - 10 mH	0.008 - 21.1	9.4 - 0.17

ALL DIMENSIONS: INCHES



THRU-HOLE &
GULL-WING PACKAGES ALSO
AVAILABLE

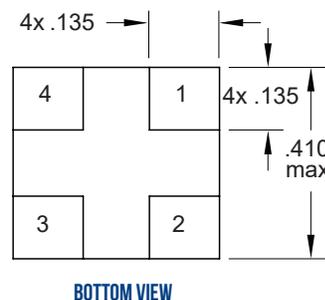
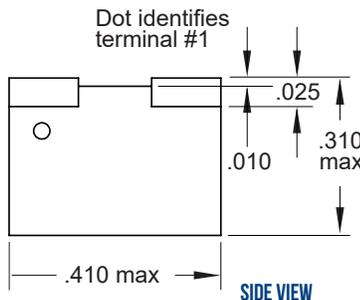
ELECTRICAL SPECIFICATIONS

- **Operating Temperature:** -40°C to +200°C
- **Storage Temperature:** -40°C to +200°C
- **Temperature Rise:** < 30°C
- **Dielectric Withstanding Voltage:** 100 V_{RMS}
- **Different electrical values available upon request**

FEATURES

- **Ideal** for geophysical application in environments < 200°C
- **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

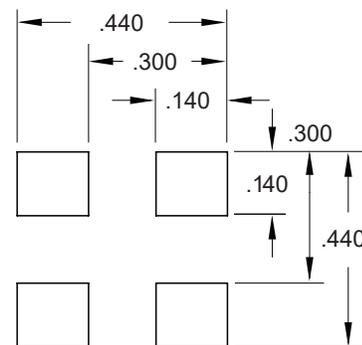
MARKINGS: LASER ETCH OR INK



APPLICATIONS

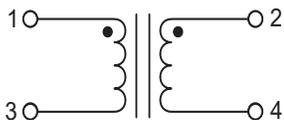
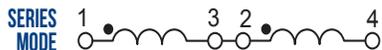
- Filter inductors
- Power supplies
- Ripple suppressors
- DC/DC converters
- Common mode chokes
- SEPIC converters
- Isolation transformers

IN	MM
0.440	11.18
0.410	10.41
0.310	7.87
0.300	7.62
0.140	3.56
0.135	3.43
0.025	0.64
0.010	0.25



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)
XTHCI7H-161M*-*	1.6	0.030	4.7	10.3	14.3
XTHCI7H-371M*-*	3.7	0.040	3.9	6.9	9.6
XTHCI7H-651M*-*	6.5	0.050	3.5	5.2	7.2
XTHCI7H-102M*-*	10.0	0.060	3.2	4.1	5.7
XTHCI7H-252M*-*	25.0	0.090	2.7	3.0	4.1
XTHCI7H-502M*-*	50.0	0.140	2.1	1.9	2.6
XTHCI7H-752M*-*	75.0	0.160	2.0	1.6	2.2
XTHCI7H-103K*-*	100.0	0.190	1.8	1.4	1.9
XTHCI7H-253K*-*	250.0	0.730	0.89	0.83	1.1
XTHCI7H-503K*-*	500.0	1.60	0.59	0.59	0.82
XTHCI7H-753K*-*	750.0	1.70	0.58	0.32	0.48
XTHCI7H-104K*-*	1.0 mH	2.50	0.48	0.28	0.41
XTHCI7H-204K*-*	2.0 mH	4.40	0.36	0.20	0.29
XTHCI7H-304K*-*	3.0 mH	5.50	0.33	0.16	0.23
XTHCI7H-504K*-*	5.0 mH	11.8	0.22	0.12	0.18
XTHCI7H-754K*-*	7.5 mH	18.3	0.18	0.10	0.15
XTHCI7H-105K*-*	10.0 mH	21.1	0.17	0.09	0.13

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)
XTHCI7H-161M*-*	0.400	0.008	9.4	20.7	28.7
XTHCI7H-371M*-*	0.925	0.010	7.8	13.8	19.1
XTHCI7H-651M*-*	1.625	0.013	6.9	10.3	14.3
XTHCI7H-102M*-*	2.50	0.015	6.3	8.3	11.5
XTHCI7H-252M*-*	6.25	0.023	5.3	5.9	8.2
XTHCI7H-502M*-*	12.50	0.035	4.3	3.8	5.2
XTHCI7H-752M*-*	18.75	0.040	3.9	3.2	4.4
XTHCI7H-103K*-*	25.0	0.048	3.7	2.8	3.8
XTHCI7H-253K*-*	62.5	0.183	1.8	1.7	2.3
XTHCI7H-503K*-*	125.0	0.400	1.2	1.2	1.6
XTHCI7H-753K*-*	187.5	0.425	1.2	0.65	0.95
XTHCI7H-104K*-*	250.0	0.625	0.96	0.56	0.82
XTHCI7H-204K*-*	500.0	1.10	0.72	0.39	0.58
XTHCI7H-304K*-*	750.0	1.38	0.65	0.32	0.47
XTHCI7H-504K*-*	1.250 mH	2.95	0.44	0.25	0.36
XTHCI7H-754K*-*	1.875 mH	4.58	0.36	0.20	0.30
XTHCI7H-105K*-*	2.500 mH	5.28	0.33	0.17	0.26

1/ Inductance measured at 10 kHz, 0.1 V_{RMS}

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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XTHCI7H SERIES





VE PART NUMBER
STRUCTURE KEY

EXAMPLE: XTHCI7H-161KS-7-T

INDUCTANCE
(uH) (mH)

161 = 1.6 uH
103 = 100 uH
105 = 10 mH

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") 430
Pitch between parts: 16 mm
Tape width: 24 mm

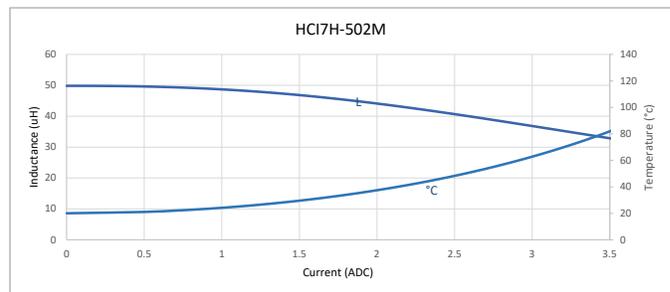
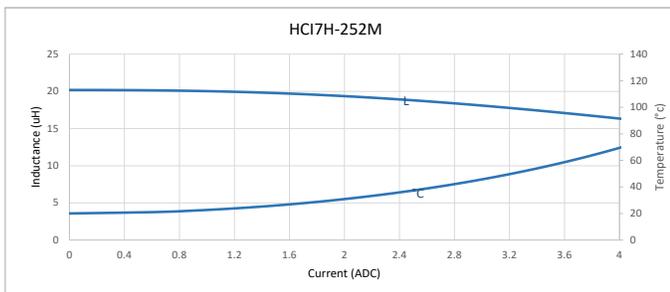
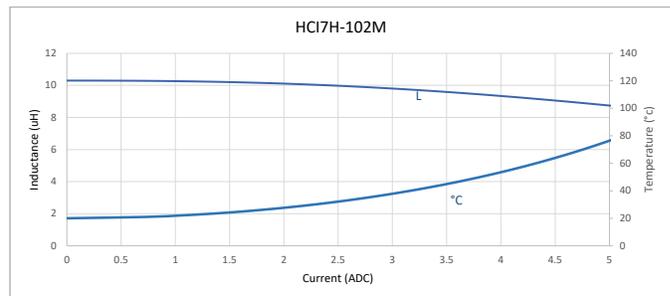
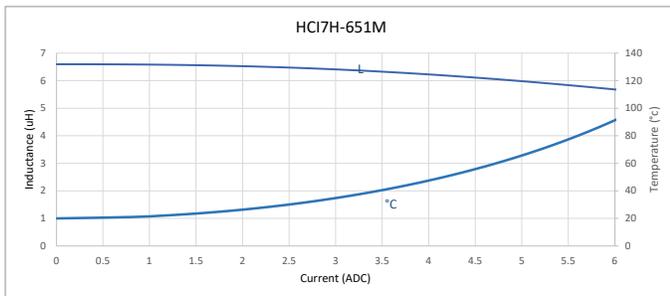
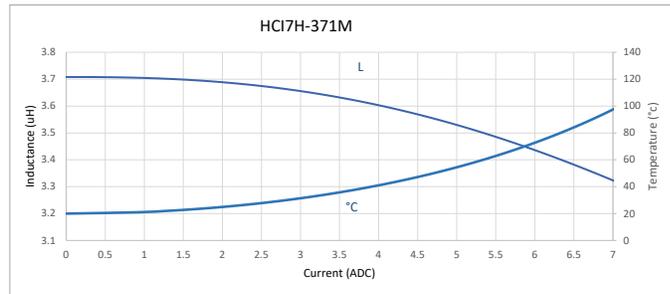
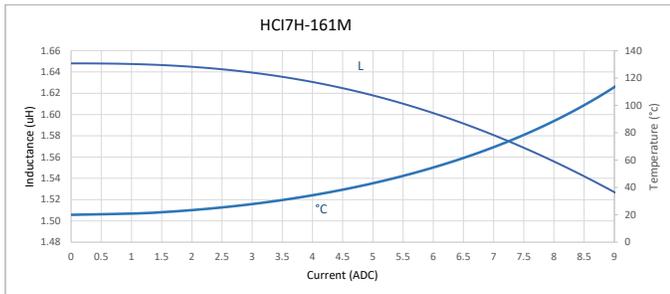
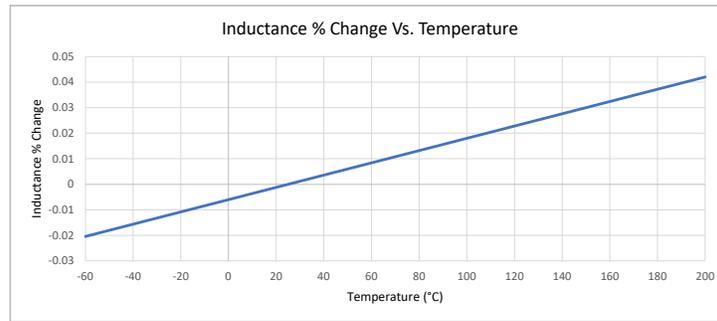
Parts that don't meet minimum reel requirements will be supplied on cut tape

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

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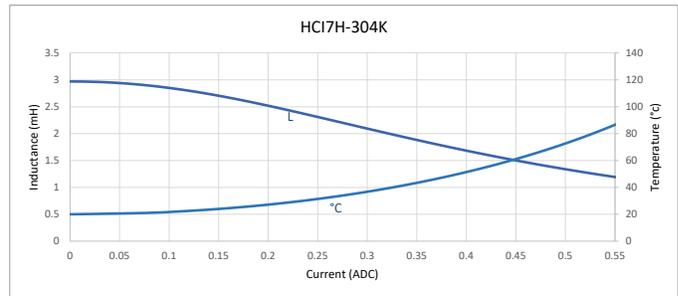
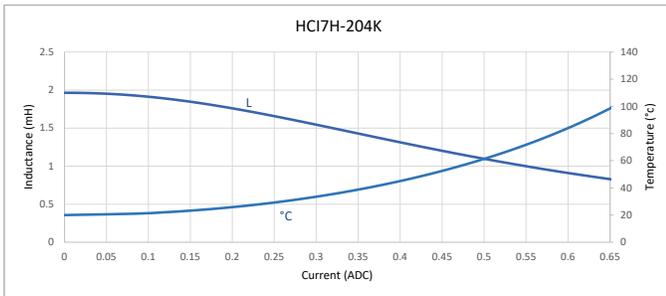
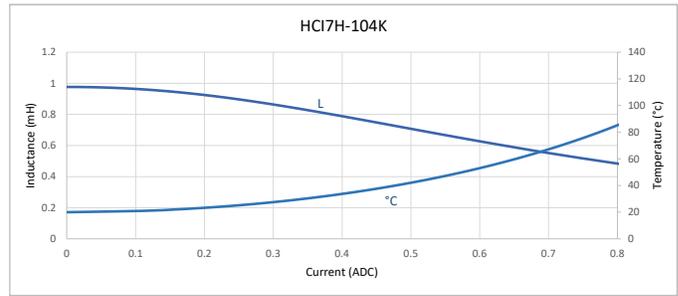
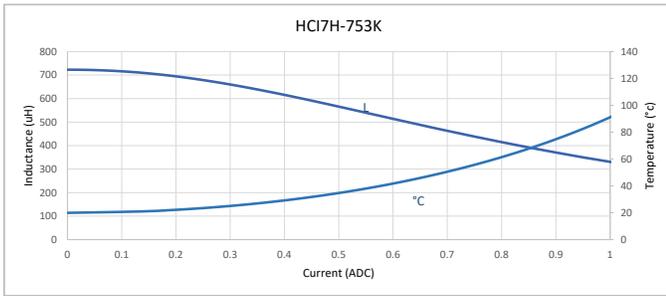
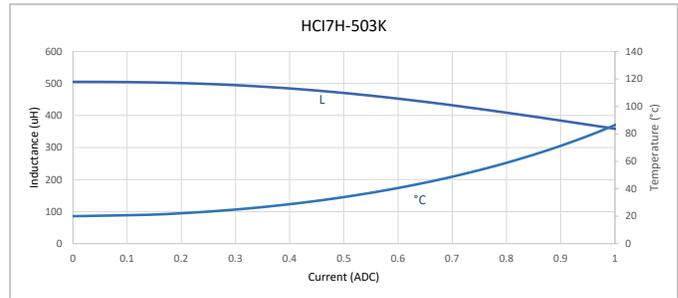
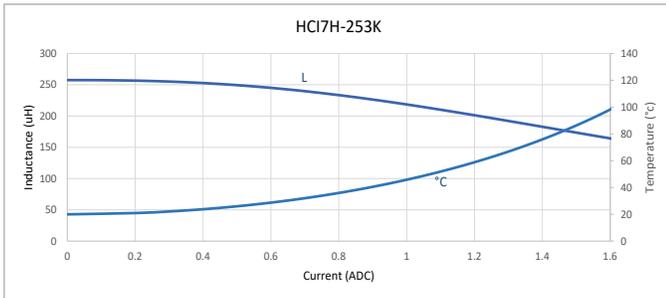
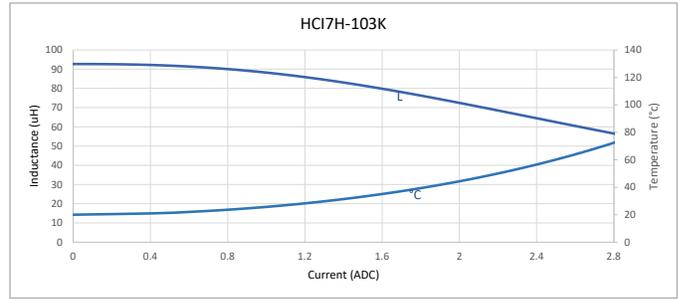
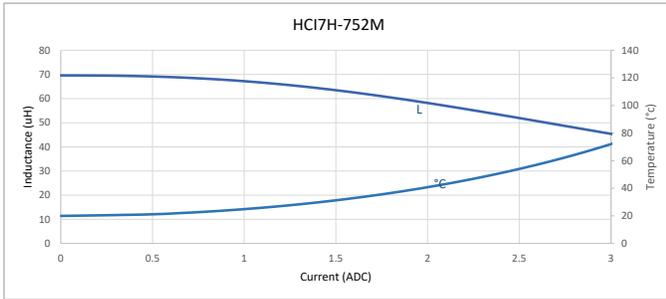


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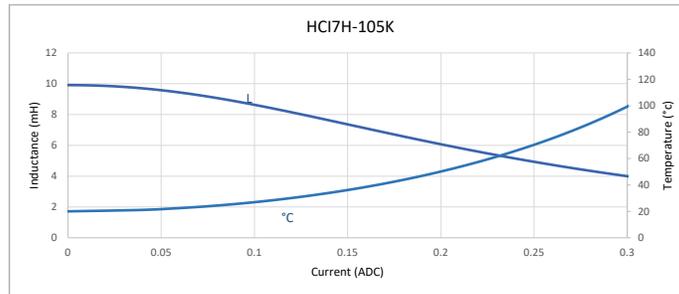
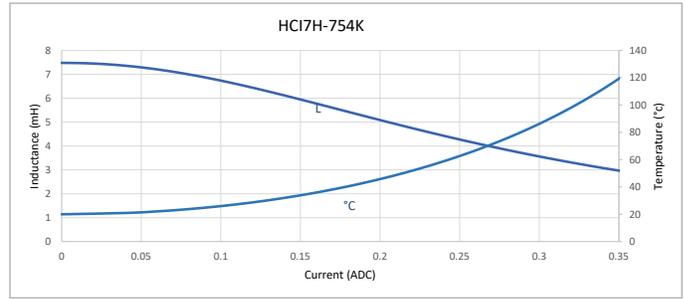
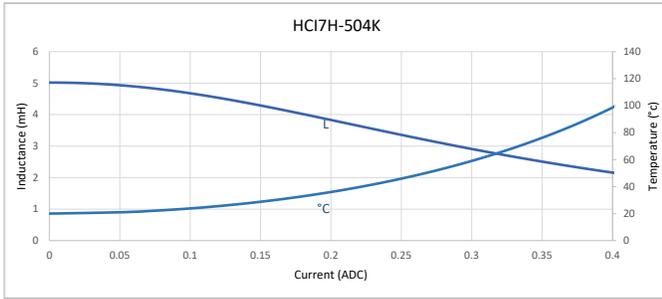


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