



XTHCI5H SERIES

HIGH CURRENT INDUCTOR



+200°C

Inductance Range	DCR max (Ohms)	Current Rating (A)
0.14 uH - 10 mH	0.008 - 57.2	6.0 - 0.08

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**

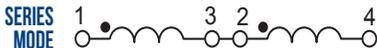
FEATURES

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

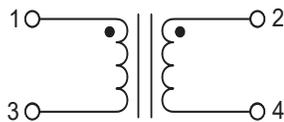
APPLICATIONS

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

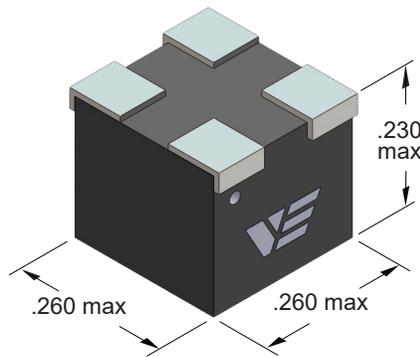
TYPICAL USER CONNECTIONS



SCHEMATIC

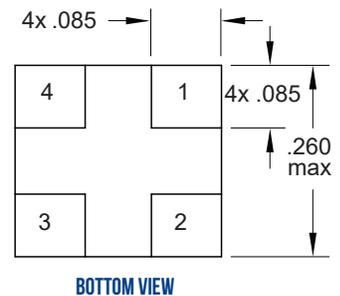
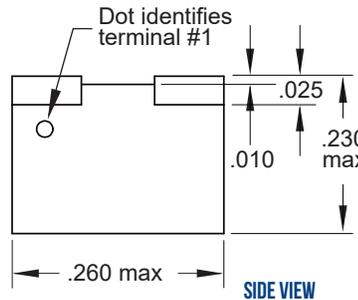


ALL DIMENSIONS: INCHES

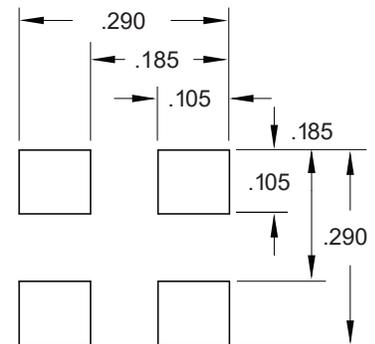


THRU-HOLE & GULL-WING PACKAGES ALSO AVAILABLE

MARKINGS: LASER ETCH OR INK



IN	MM
0.290	7.37
0.260	6.60
0.230	5.85
0.185	4.70
0.105	2.67
0.085	2.16
0.025	0.64
0.010	0.25



RECOMMENDED MOUNTING PAD CIRCUIT SIDE

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)
XTHCI5H-R56M*-*-*	0.56	0.030	3.0	7.2	9.9
XTHCI5H-121M*-*-*	1.3	0.040	2.6	4.8	6.6
XTHCI5H-221M*-*-*	2.2	0.050	2.3	3.6	5.0
XTHCI5H-501M*-*-*	5.0	0.080	2.0	2.4	3.3
XTHCI5H-102M*-*-*	10.0	0.140	1.6	1.8	2.5
XTHCI5H-252M*-*-*	25.0	0.220	1.2	1.1	1.5
XTHCI5H-502M*-*-*	50.0	0.410	0.94	0.75	1.0
XTHCI5H-752M*-*-*	75.0	0.490	0.94	0.62	0.86
XTHCI5H-103K*-*-*	100.0	0.580	0.86	0.53	0.74
XTHCI5H-253K*-*-*	250.0	1.50	0.54	0.33	0.46
XTHCI5H-503K*-*-*	500.0	3.20	0.36	0.24	0.33
XTHCI5H-753K*-*-*	750.0	5.10	0.28	0.20	0.27
XTHCI5H-104K*-*-*	1.0 mH	7.60	0.23	0.17	0.23
XTHCI5H-204K*-*-*	2.0 mH	13.1	0.17	0.12	0.17
XTHCI5H-304K*-*-*	3.0 mH	20.1	0.14	0.10	0.14
XTHCI5H-504K*-*-*	5.0 mH	25.8	0.12	0.08	0.11
XTHCI5H-754K*-*-*	7.5 mH	40.9	0.10	0.06	0.09
XTHCI5H-105K*-*-*	10.0 mH	57.2	0.08	0.05	0.07

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)
XTHCI5H-R56M*-*-*	0.140	0.008	6.0	14.3	19.9
XTHCI5H-121M*-*-*	0.315	0.010	5.2	9.5	13.2
XTHCI5H-221M*-*-*	0.560	0.013	4.7	7.2	9.9
XTHCI5H-501M*-*-*	1.25	0.020	4.0	4.8	6.6
XTHCI5H-102M*-*-*	2.50	0.035	3.2	3.6	5.0
XTHCI5H-252M*-*-*	6.25	0.055	2.5	2.2	3.1
XTHCI5H-502M*-*-*	12.50	0.103	1.9	1.5	2.1
XTHCI5H-752M*-*-*	18.75	0.123	1.9	1.2	1.7
XTHCI5H-103K*-*-*	25.00	0.145	1.7	1.1	1.5
XTHCI5H-253K*-*-*	62.50	0.368	1.1	0.67	0.92
XTHCI5H-503K*-*-*	125.0	0.800	0.72	0.48	0.66
XTHCI5H-753K*-*-*	187.5	1.30	0.55	0.39	0.54
XTHCI5H-104K*-*-*	250.0	1.90	0.45	0.34	0.47
XTHCI5H-204K*-*-*	500.0	3.30	0.34	0.24	0.33
XTHCI5H-304K*-*-*	800.0	5.00	0.28	0.19	0.27
XTHCI5H-504K*-*-*	1.250 mH	6.50	0.24	0.15	0.21
XTHCI5H-754K*-*-*	1.875 mH	10.2	0.19	0.12	0.17
XTHCI5H-105K*-*-*	2.500 mH	14.3	0.16	0.11	0.15

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

CUSTOM DESIGNS & MODIFICATIONS:

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

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VE PART NUMBER
STRUCTURE KEY

INDUCTANCE
(uH) (mH)

R56 = .56 uH
103 = 100 uH
504 = 5 mH

EXAMPLE: XTHCI5H-R56MS-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: (7") 200, (13") 800
Pitch between parts: 12 mm
Tape width: 16 mm

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

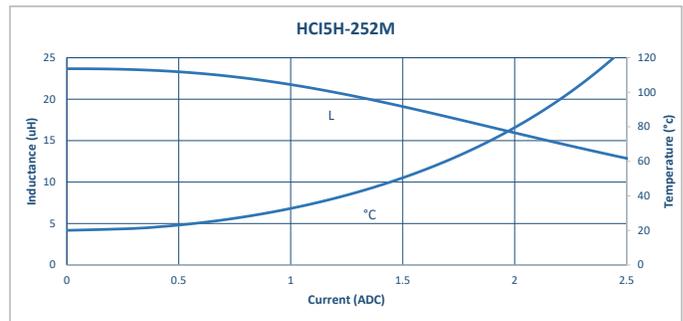
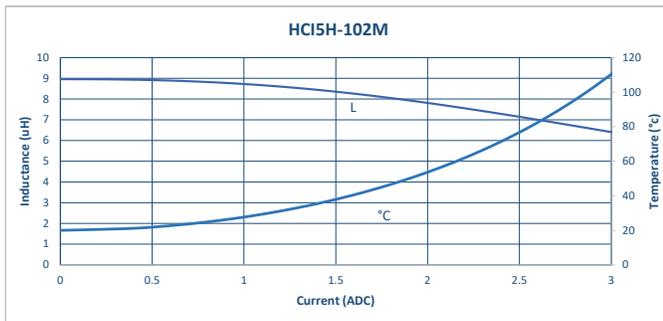
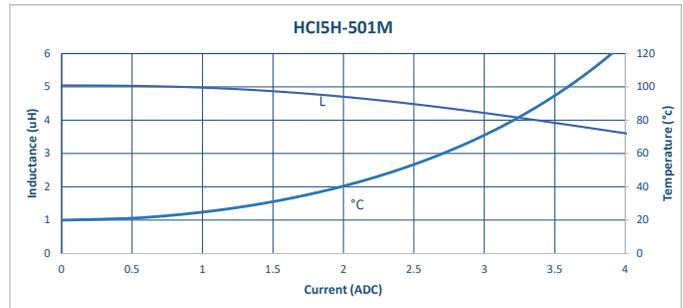
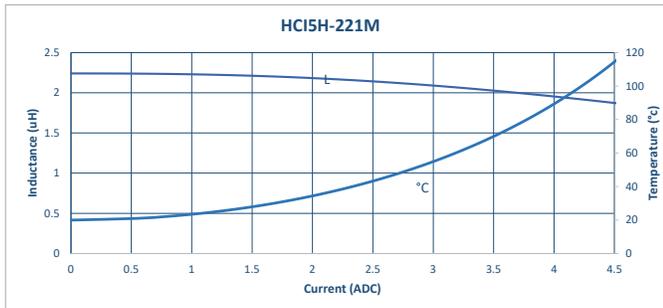
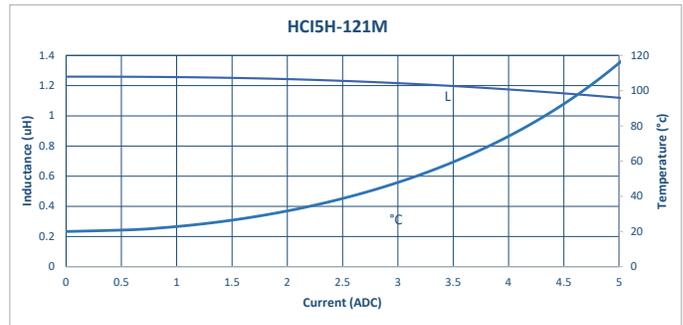
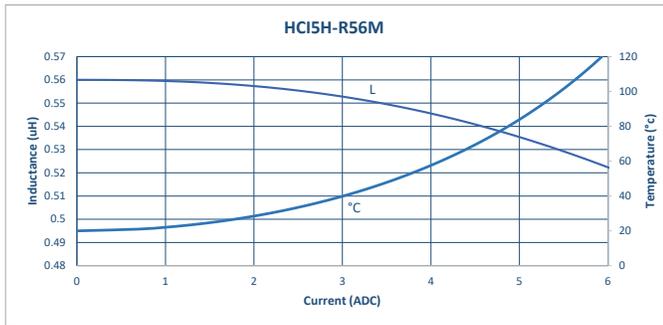
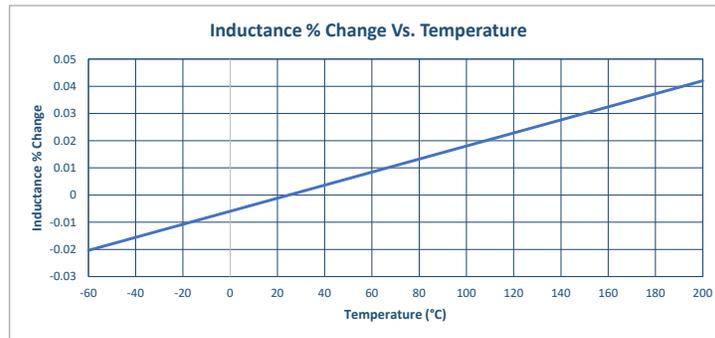
Tape and Reel not available for Thru-Hole or Gull-Wing Packages

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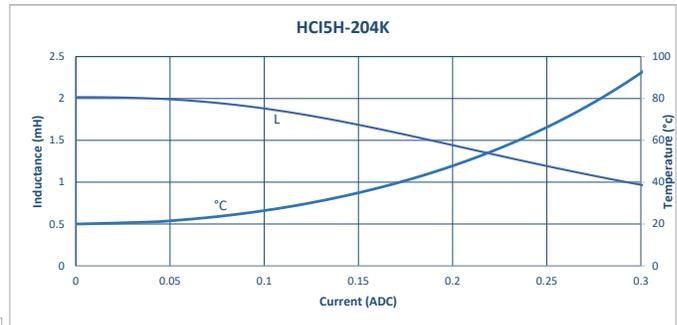
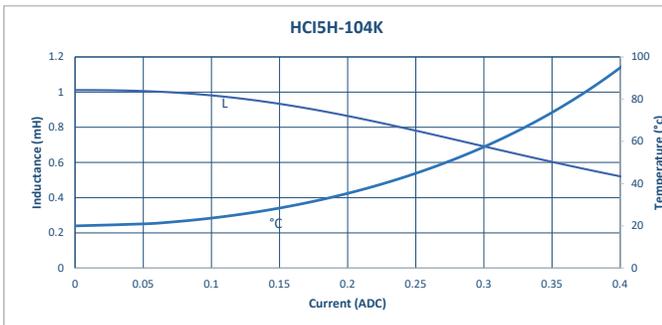
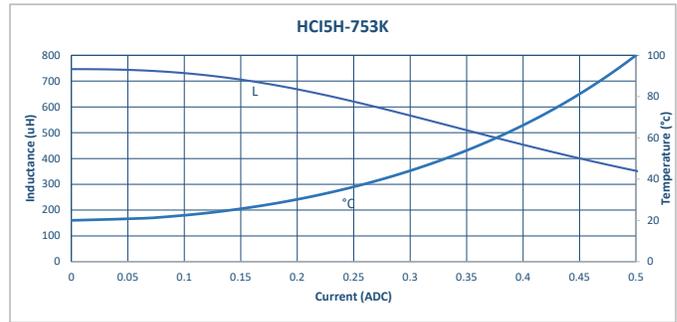
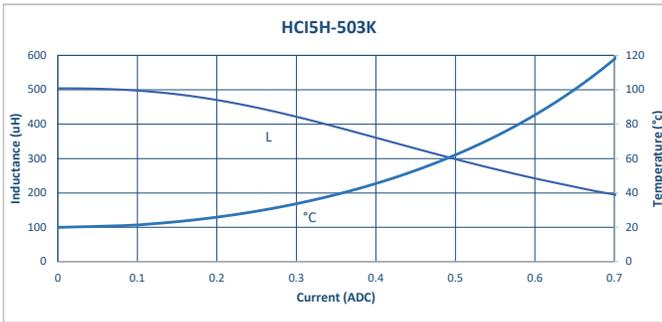
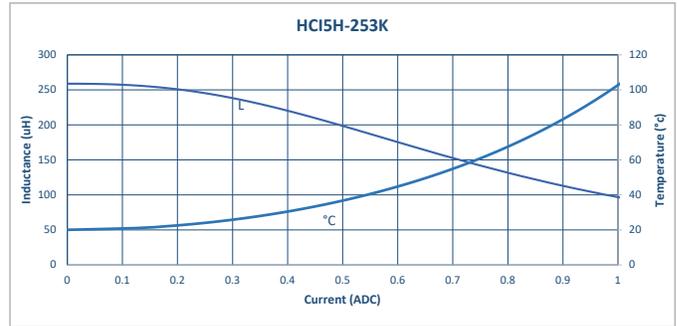
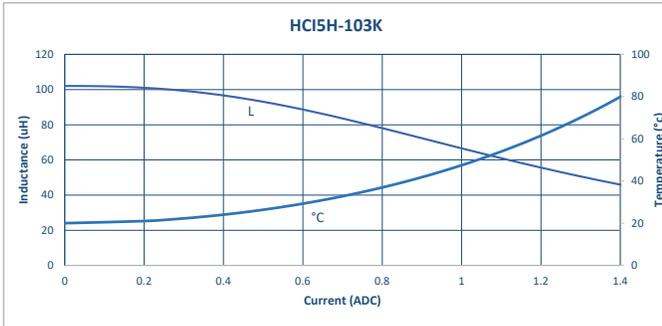
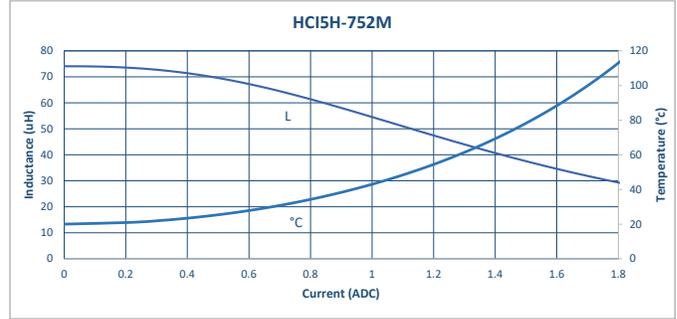
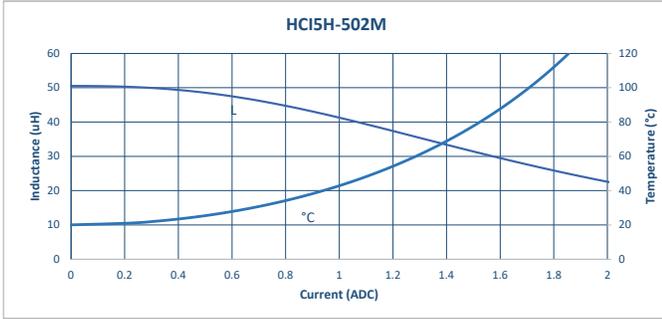


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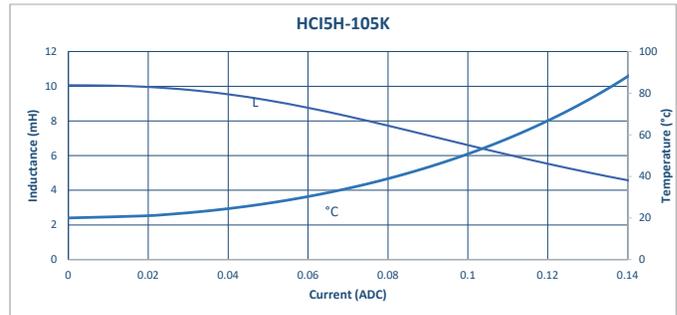
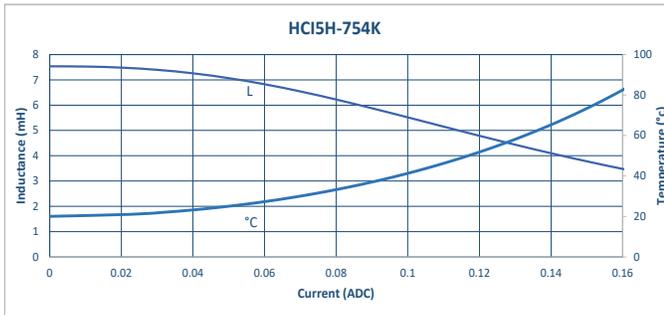
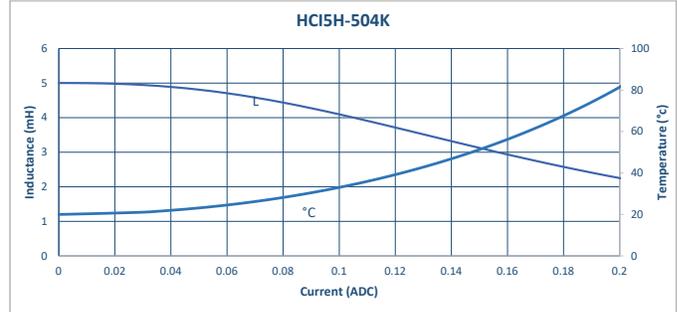
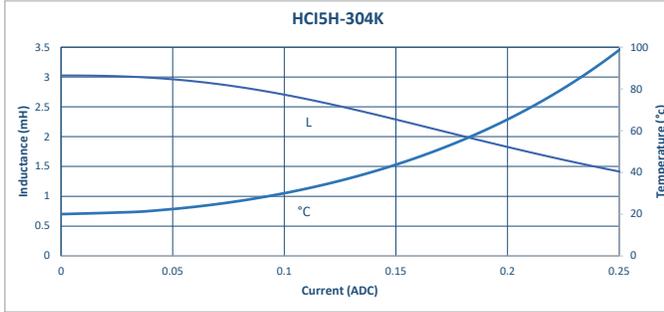


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XTHCl5H SERIES 

