



## HCI 13H SERIES

### HIGH CURRENT INDUCTOR



RoHS VERSION AVAILABLE

HI-RELIABILITY

Inductance Range	DCR max (Ohms)	Current Rating (A)
1.25 uH - 10 mH	0.005 - 15.00	26.3 - 0.24

ALL DIMENSIONS: INCHES

THRU-HOLE & GULL-WING PACKAGES ALSO AVAILABLE

### ELECTRICAL SPECIFICATIONS

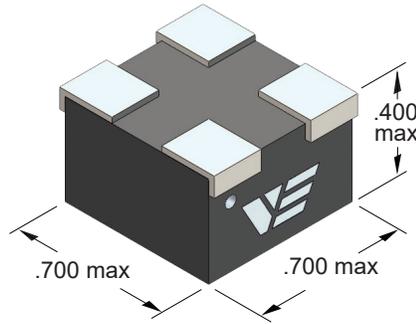
- **Operating Temperature:** -55°C to +130°C
- **Storage Temperature:** -60°C to +135°C
- **Temperature Rise:** < 30°C
- **Dielectric Withstanding Voltage:** 100 V<sub>RMS</sub>
- **Different electrical values available upon request**

### FEATURES

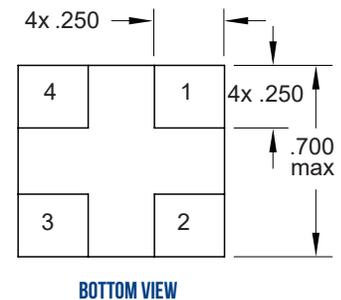
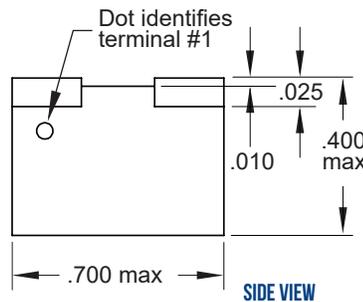
- **Compact**, low profile, ideal for automatic placement
- **Terminations:** Tin-lead, Lead Free (RoHS)
- **Welded Internal Connections**
- **Moisture, Shock and Immersion Resistant**
- **Magnetically Shielded**
- **Other termination finishes available upon request**
- **Multiple Configurations:** Series, parallel, transformer, dual inductor

### APPLICATIONS

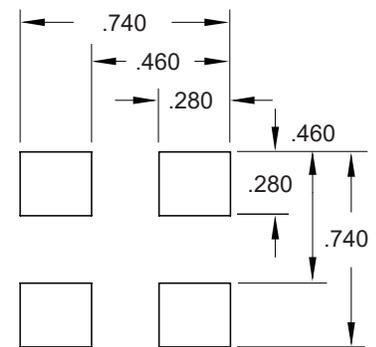
- Filter inductors
- Power supplies
- Ripple suppressors
- DC/DC converters
- Common mode chokes
- SEPIC converters
- Isolation transformers



MARKINGS: LASER ETCH OR INK



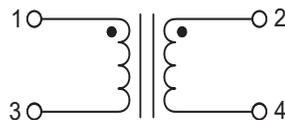
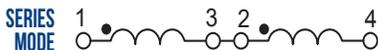
IN	MM
0.740	18.80
0.700	17.78
0.460	11.68
0.400	10.16
0.280	7.11
0.250	6.35
0.040	1.01
0.010	0.25



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)
HC113H-501K	5.0	0.017	7.1	9.5	13.2
HC113H-102K	10.0	0.025	6.0	6.8	9.4
HC113H-182K	18.0	0.040	4.8	5.3	7.3
HC113H-252K	25.0	0.050	4.1	4.3	6.0
HC113H-502K	50.0	0.075	3.3	3.6	5.1
HC113H-752K	75.0	0.090	3.1	3.4	4.7
HC113H-103K	100.0	0.170	2.2	2.3	3.1
HC113H-203K	200.0	0.330	1.6	1.1	1.6
HC113H-253K	250.0	0.500	1.3	0.95	1.4
HC113H-503K	500.0	0.860	1.0	0.65	0.96
HC113H-753K	750.0	1.30	0.81	0.54	0.79
HC113H-104K	1.0 mH	1.40	0.80	0.53	0.78
HC113H-204K	2.0 mH	3.40	0.50	0.33	0.49
HC113H-304K	3.0 mH	5.30	0.40	0.27	0.40
HC113H-504K	5.0 mH	6.80	0.35	0.21	0.31
HC113H-754K	7.5 mH	13.00	0.26	0.17	0.25
HC113H-105K	10.0 mH	15.00	0.24	0.15	0.22

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)
HC113H-501K	1.25	0.005	26.3	14.1	18.9
HC113H-102K	2.50	0.006	18.8	11.9	13.5
HC113H-182K	4.50	0.009	14.6	9.7	10.5
HC113H-252K	6.25	0.013	12.0	8.2	8.6
HC113H-502K	12.50	0.019	10.1	6.7	7.3
HC113H-752K	18.75	0.023	9.4	6.1	6.8
HC113H-103K	25.0	0.042	6.3	4.5	4.5
HC113H-203K	50.0	0.083	3.1	3.2	2.1
HC113H-253K	62.5	0.118	2.8	2.7	1.9
HC113H-503K	125.0	0.215	1.9	2.0	1.3
HC113H-753K	187.5	0.325	1.6	1.6	1.1
HC113H-104K	250.0	0.330	1.6	1.6	1.1
HC113H-204K	500.0	0.850	0.97	1.0	0.66
HC113H-304K	750.0	1.32	0.79	0.80	0.54
HC113H-504K	1.250 mH	1.71	0.61	0.70	0.42
HC113H-754K	1.875 mH	3.23	0.50	0.51	0.34
HC113H-105K	2.500 mH	3.73	0.43	0.48	0.29

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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## HC113H SERIES





VE PART NUMBER  
STRUCTURE KEY

**INDUCTANCE**  
( uH )  
( mH )

501 = 5.0 uH  
103 = 100 uH  
105 = 10 mH

EXAMPLE: HCl13H-501KS-1-T

**TOLERANCE**  
( % )

<b>K</b>	± 10
<b>M</b>	± 20

**TERMINATION**

<b>S</b>	SnPb
<b>R</b>	Pure Tin

**RELIABILITY**

<b>1</b>	COTS/EM
<b>7</b>	Other

**PACKAGING**  
( Default Bulk )

<b>B</b>	Bulk
<b>T</b>	Tape and Reel

Tape and reel specs  
Pcs. / reel maximum: (13") 250  
Pitch between parts: 24 mm  
Tape width: 32 mm

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

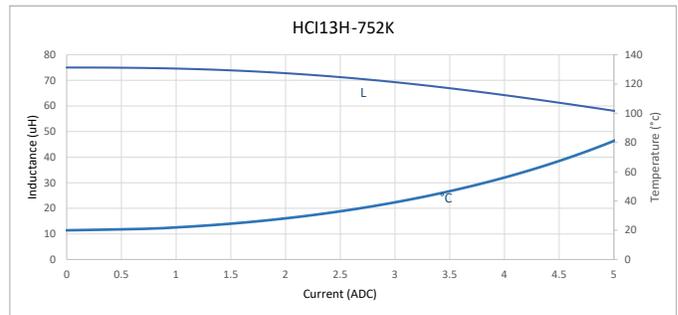
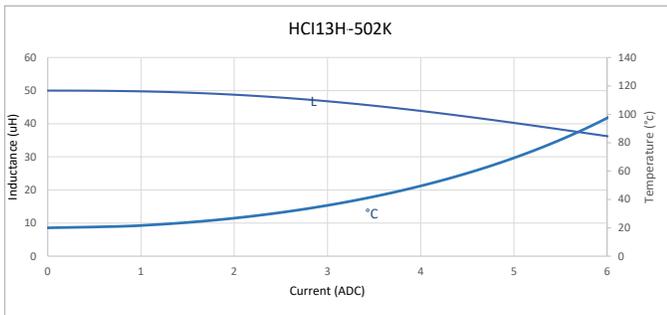
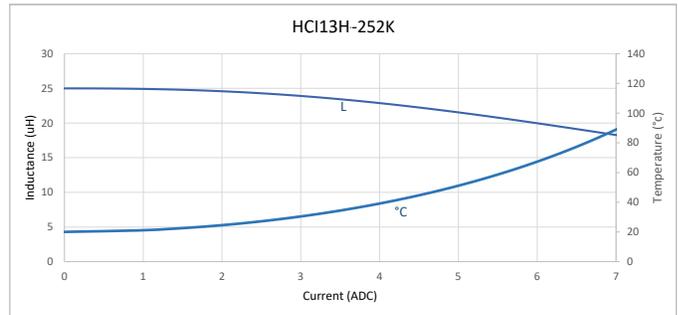
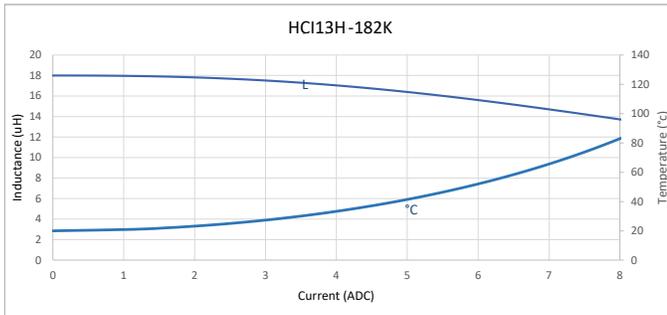
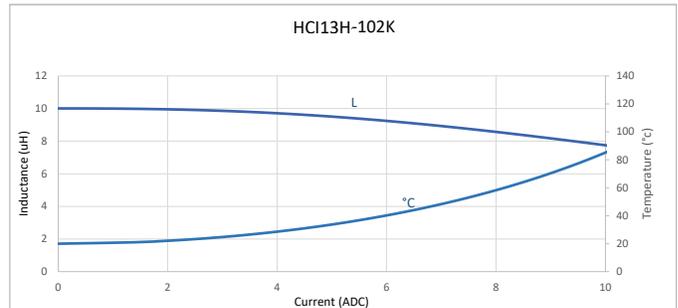
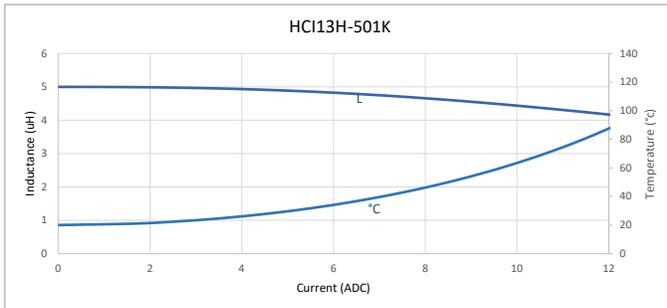
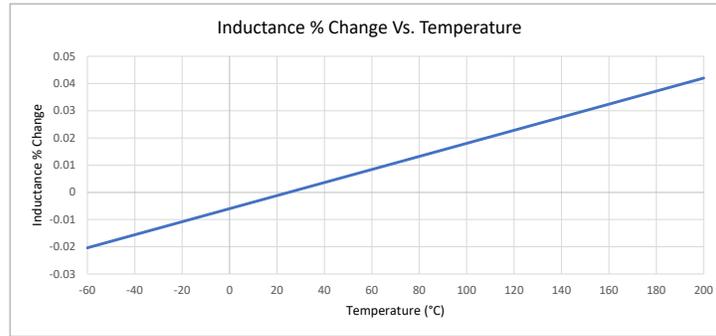
*Tape and Reel not available for Thru-Hole or Gull-Wing Packages*

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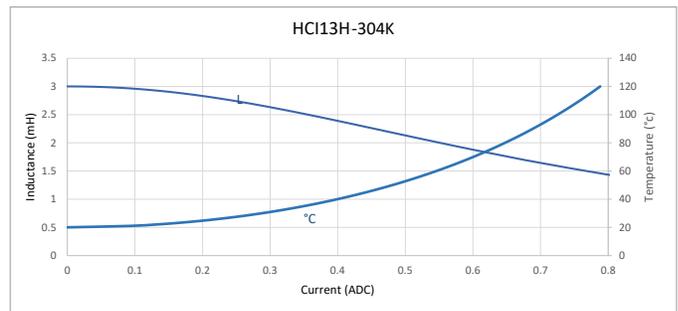
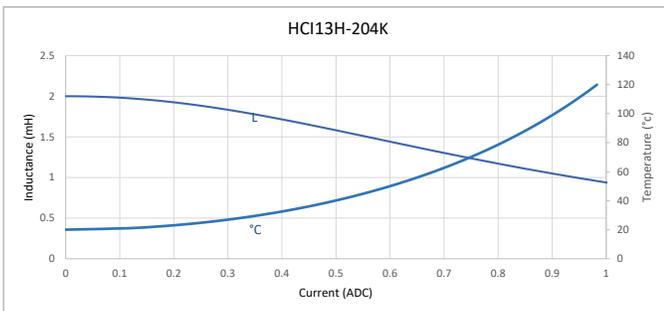
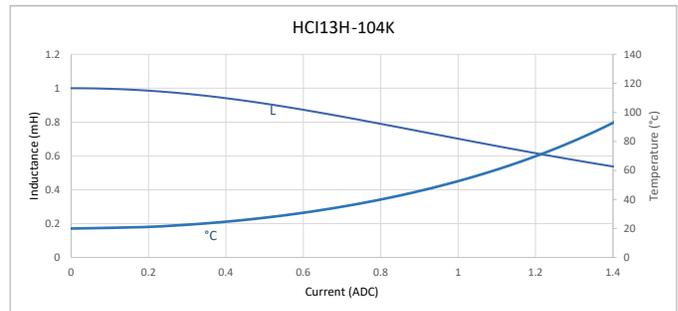
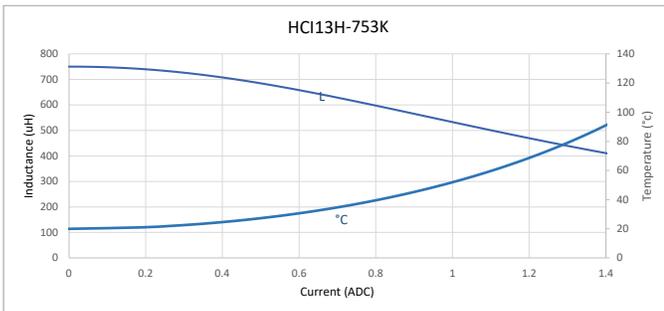
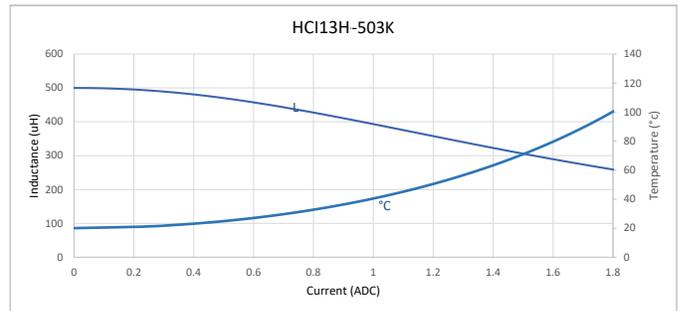
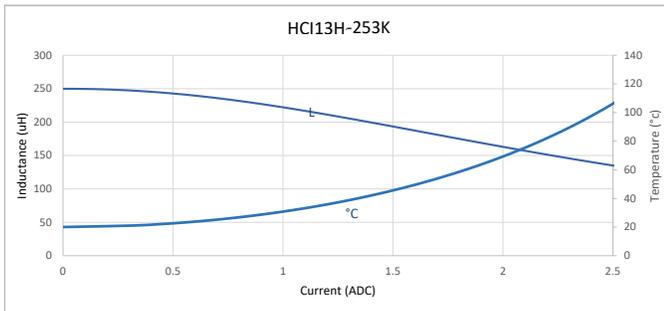
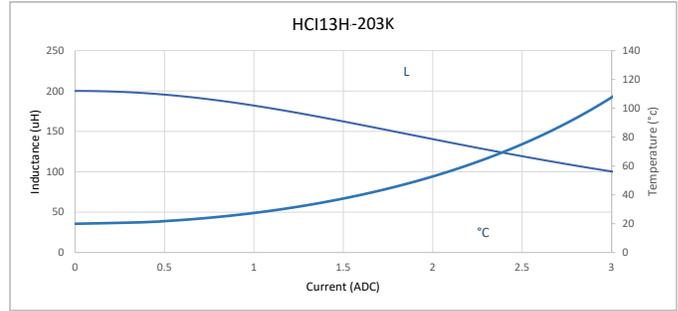
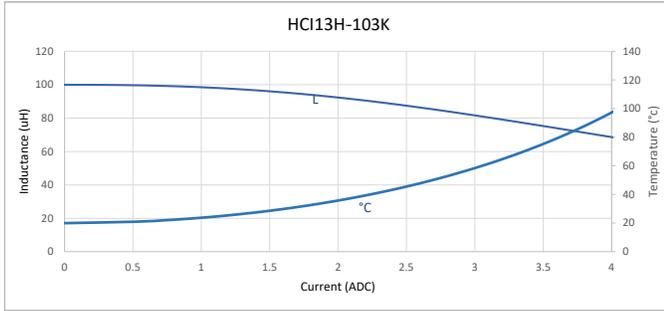


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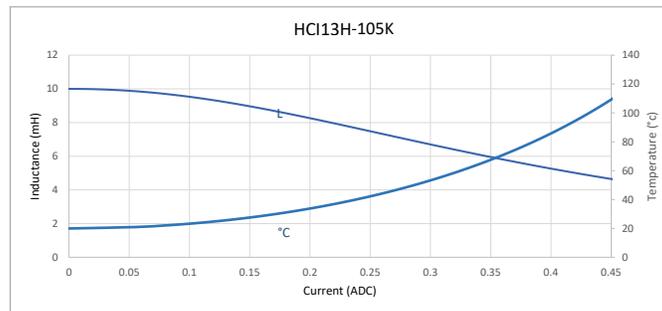
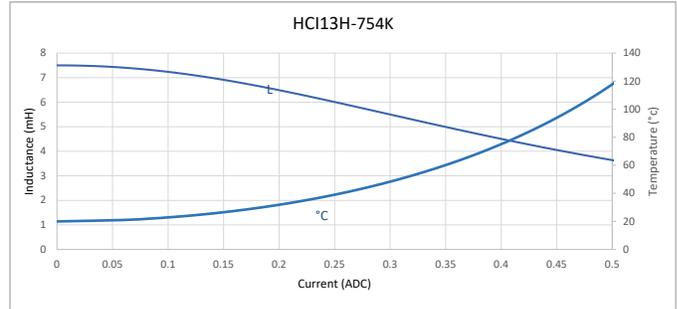
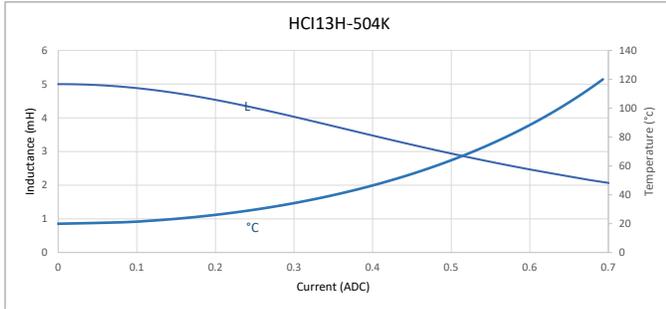


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