



HCI 13M SERIES HIGH CURRENT INDUCTOR



RoHS VERSION AVAILABLE

HI-RELIABILITY

Inductance Range	DCR max (Ohms)	Current Rating (A)
1.25 uH - 10 mH	0.004 - 13.4	15.9 - 0.25

ALL DIMENSIONS: INCHES

THRU-HOLE & GULL-WING PACKAGES ALSO AVAILABLE

ELECTRICAL SPECIFICATIONS

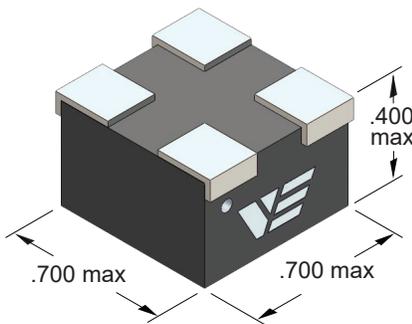
- **Operating Temperature:** -55°C to +130°C
- **Storage Temperature:** -60°C to +135°C
- **Temperature Rise:** < 30°C
- **Dielectric Withstanding Voltage:** 100 V_{RMS}
- **Different electrical values available upon request**

FEATURES

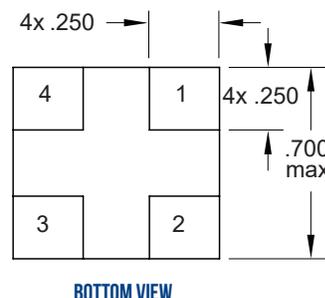
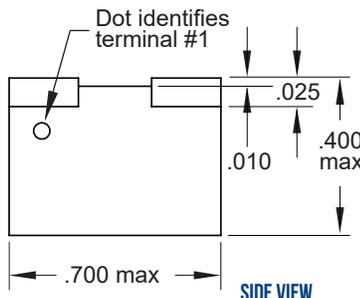
- **Compact**, low profile, ideal for automatic placement
- **Terminations:** Tin-lead, Lead Free (RoHS)
- **Welded Internal Connections**
- **Moisture, Shock and Immersion Resistant**
- **Magnetically Shielded**
- **Other termination finishes available upon request**
- **Multiple Configurations:** Series,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

APPLICATIONS

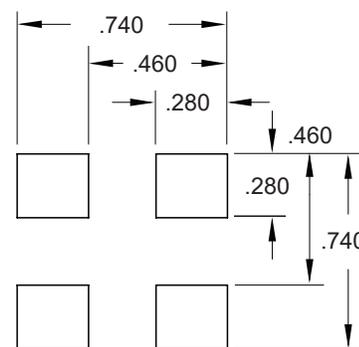
- Filter inductors
- Power supplies
- Ripple suppressors
- DC/DC converters
- Common mode chokes
- SEPIC converters
- Isolation transformers



MARKINGS: LASER ETCH OR INK



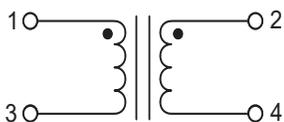
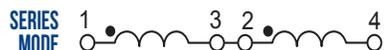
IN	MM
0.740	18.80
0.700	17.78
0.460	11.68
0.400	10.16
0.280	7.11
0.250	6.35
0.025	0.64
0.010	0.25



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)
HC113M-501K	5.0	0.017	7.1	5.8	7.9
HC113M-102K	10.0	0.024	6.0	4.1	5.7
HC113M-182K	18.0	0.036	4.8	3.2	4.4
HC113M-252K	25.0	0.051	4.1	2.9	4.0
HC113M-502K	50.0	0.075	3.3	1.9	2.6
HC113M-752K	75.0	0.090	3.1	1.6	2.2
HC113M-103K	100.0	0.17	2.2	1.4	1.9
HC113M-203K	200.0	0.35	1.6	1.1	1.1
HC113M-253K	250.0	0.50	1.3	1.0	1.0
HC113M-503K	500.0	0.85	1.0	0.68	0.71
HC113M-753K	750.0	1.3	0.81	0.56	0.58
HC113M-104K	1.0 mH	1.4	0.79	0.55	0.48
HC113M-204K	2.0 mH	3.1	0.52	0.38	0.33
HC113M-304K	3.0 mH	4.7	0.42	0.32	0.27
HC113M-504K	5.0 mH	6.1	0.37	0.24	0.21
HC113M-754K	7.5 mH	11.6	0.27	0.20	0.17
HC113M-105K	10.0 mH	13.4	0.25	0.17	0.15

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)
HC113M-501K	1.25	0.004	15.9	14.1	11.5
HC113M-102K	2.50	0.006	11.3	11.9	8.2
HC113M-182K	4.50	0.009	8.8	9.7	6.4
HC113M-252K	6.25	0.013	7.9	8.2	5.8
HC113M-502K	12.50	0.019	5.3	6.7	3.8
HC113M-752K	18.75	0.023	4.4	6.1	3.2
HC113M-103K	25.00	0.042	3.8	4.5	2.7
HC113M-203K	50.00	0.083	2.3	3.2	2.2
HC113M-253K	62.50	0.12	2.1	2.7	2.0
HC113M-503K	125.0	0.22	1.4	2.0	1.4
HC113M-753K	187.5	0.33	1.2	1.6	1.1
HC113M-104K	250.0	0.33	0.96	1.6	1.1
HC113M-204K	500.0	0.77	0.66	1.0	0.77
HC113M-304K	750.0	1.2	0.55	0.85	0.63
HC113M-504K	1.250 mH	1.5	0.42	0.74	0.49
HC113M-754K	1.875 mH	2.9	0.34	0.54	0.40
HC113M-105K	2.500 mH	3.4	0.30	0.50	0.34

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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VE PART NUMBER
STRUCTURE KEY

INDUCTANCE
(uH)
(mH)

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

EXAMPLE: HCI13M-501MS-1-T

TOLERANCE
(%)

K	± 10
M	± 20

TERMINATION

S	SnPb
R	Pure Tin

RELIABILITY

1	COTS/EM
7	Other

PACKAGING
(Default Bulk)

B	Bulk
T	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

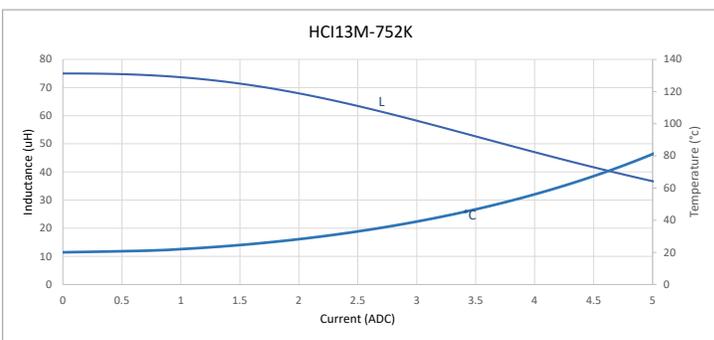
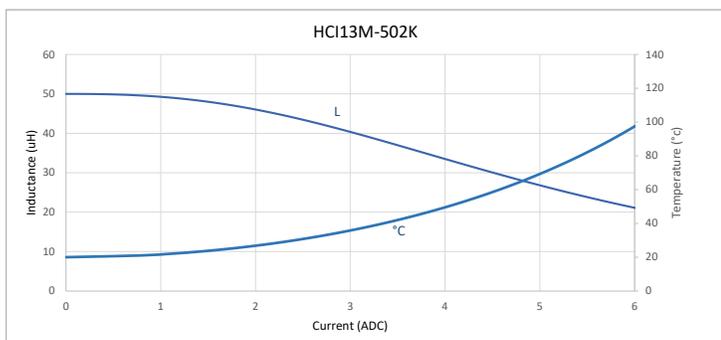
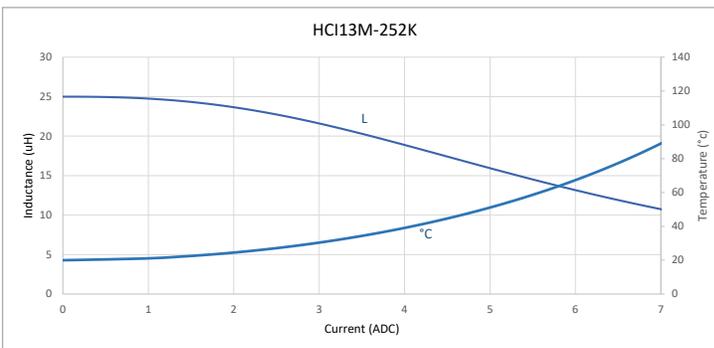
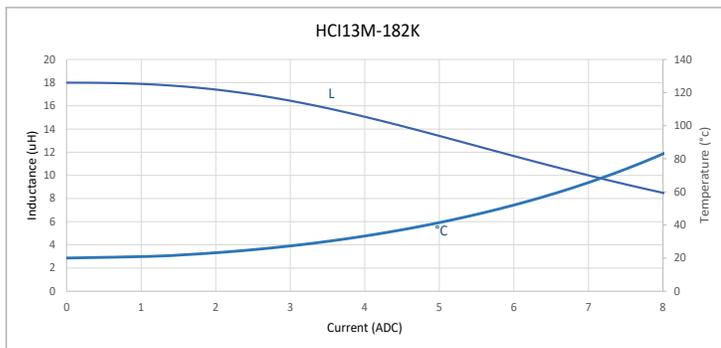
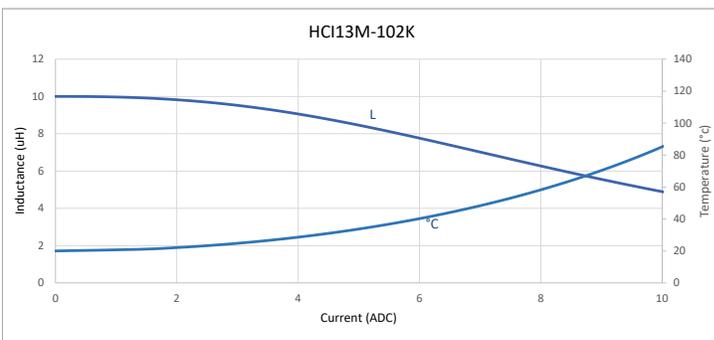
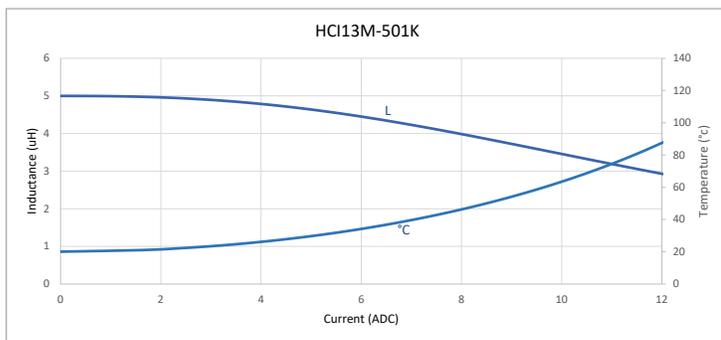
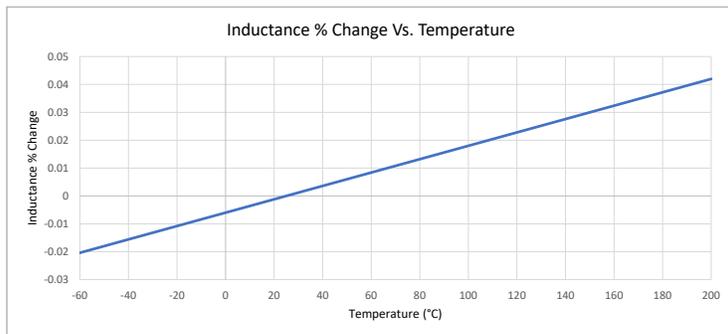
Tape and Reel not available for Thru-Hole or Gull-Wing Packages

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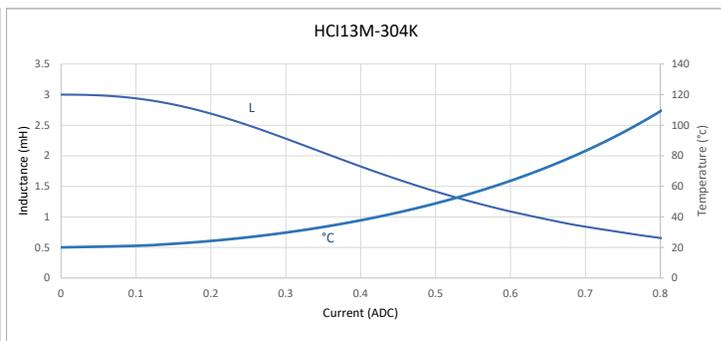
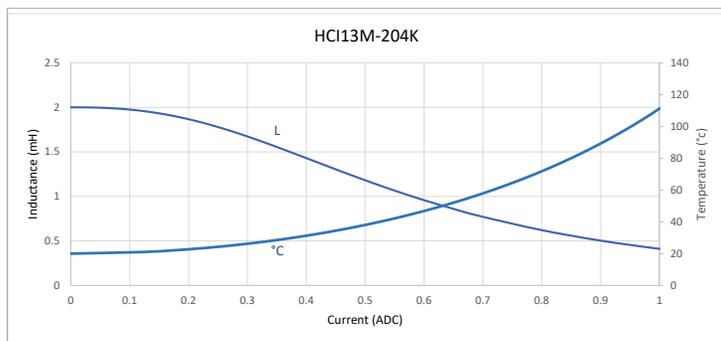
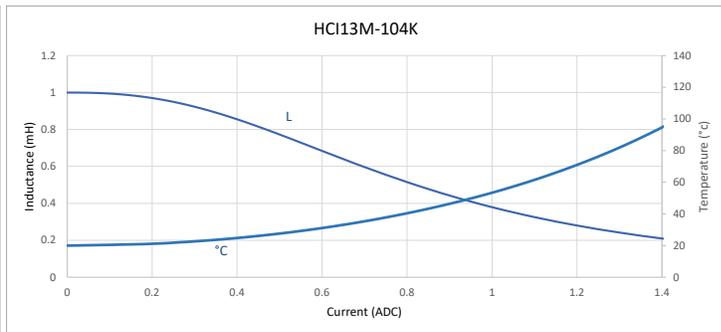
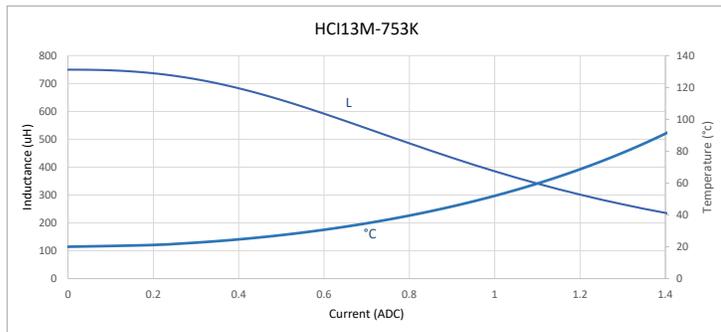
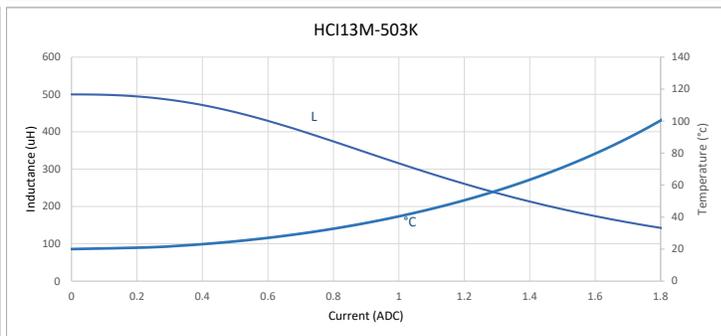
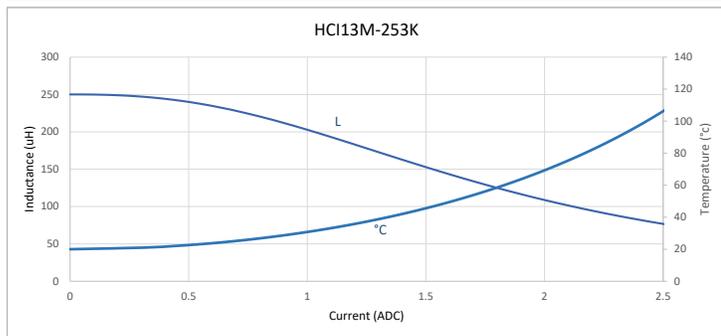
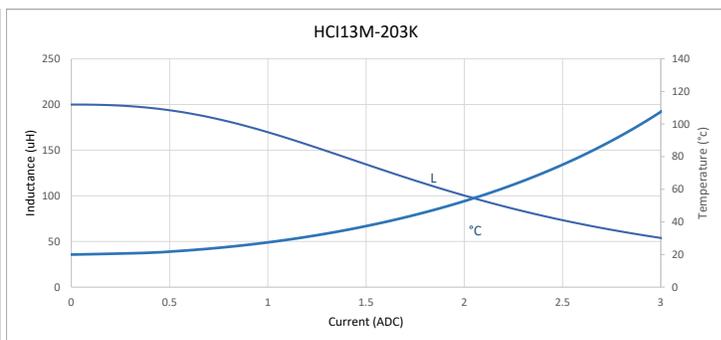
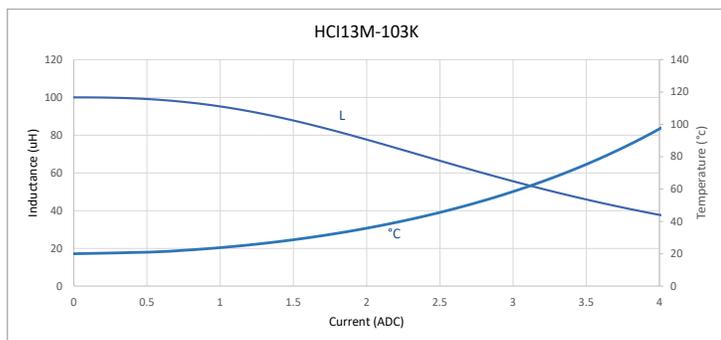




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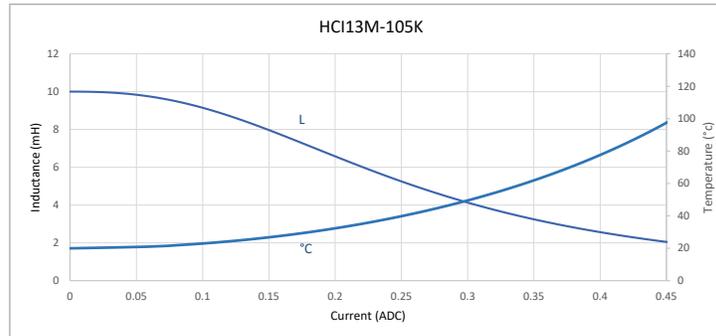
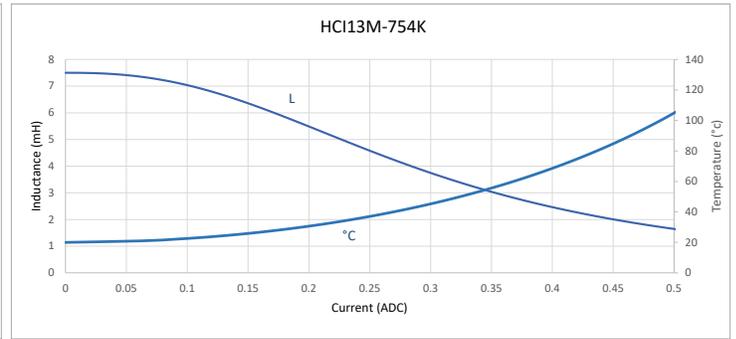
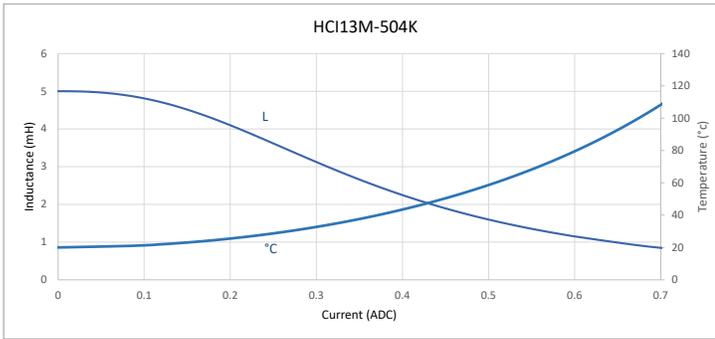


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