



HCI 10M SERIES

HIGH CURRENT INDUCTOR



RoHS VERSION AVAILABLE

HI-RELIABILITY

Inductance Range	DCR max (Ohms)	Current Rating (A)
0.250 uH - 10 mH	0.00225 - 10.7	15.3 - 0.24

ALL DIMENSIONS: INCHES

THRU-HOLE & GULL-WING PACKAGES ALSO AVAILABLE

ELECTRICAL SPECIFICATIONS

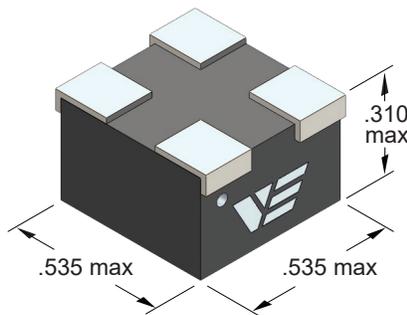
- **Operating Temperature:** -55°C to +130°C
- **Storage Temperature:** -60°C to +135°C
- **Temperature Rise:** < 30°C
- **Dielectric Withstanding Voltage:** 100 V_{RMS}
- **Different electrical values available upon request**

FEATURES

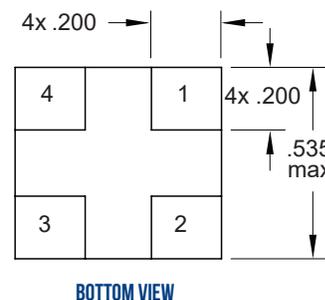
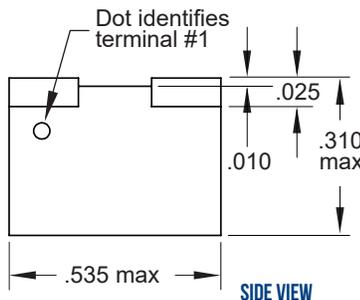
- **Compact**, low profile, ideal for automatic placement
- **Terminations:** Tin-lead, Lead Free (RoHS)
- **Welded Internal Connections**
- **Moisture, Shock and Immersion Resistant**
- **Magnetically Shielded**
- **Other termination finishes available upon request**
- **Multiple Configurations:** Series,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

APPLICATIONS

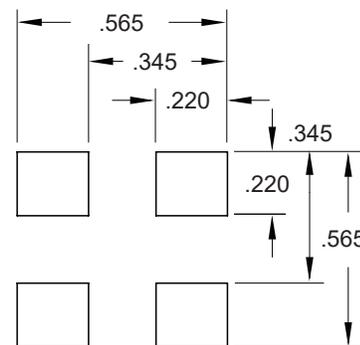
- Filter inductors
- Power supplies
- Ripple suppressors
- DC/DC converters
- Common mode chokes
- SEPIC converters
- Isolation transformers



MARKINGS: LASER ETCH OR INK



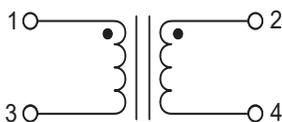
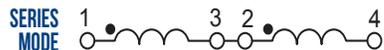
IN	MM
0.565	14.35
0.535	13.59
0.345	8.76
0.310	7.87
0.220	5.59
0.200	5.08
0.025	0.64
0.010	0.25



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)
HCI10M-101M	1.0	0.009	7.6	10.1	13.9
HCI10M-241M	2.4	0.012	7.1	6.7	9.2
HCI10M-421M	4.2	0.016	6.3	5.0	6.9
HCI10M-102M	10.0	0.020	5.2	3.4	4.6
HCI10M-252M	25.0	0.030	4.4	2.2	3.1
HCI10M-502M	50.0	0.060	3.2	1.4	2.0
HCI10M-752M	75.0	0.070	2.9	1.2	1.6
HCI10M-103K	100.0	0.090	2.7	1.0	1.4
HCI10M-253K	250.0	0.440	1.2	0.65	0.89
HCI10M-503K	500.0	0.900	0.81	0.47	0.65
HCI10M-753K	750.0	1.00	0.78	0.32	0.44
HCI10M-104K	1.0 mH	1.50	0.64	0.28	0.39
HCI10M-204K	2.0 mH	2.70	0.48	0.19	0.27
HCI10M-304K	3.0 mH	4.20	0.38	0.16	0.22
HCI10M-504K	5.0 mH	6.20	0.32	0.11	0.16
HCI10M-754K	7.5 mH	9.30	0.26	0.09	0.13
HCI10M-105K	10.0 mH	10.7	0.24	0.08	0.11

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)
HCI10M-101M	0.250	0.00225	15.3	20.1	27.7
HCI10M-241M	0.600	0.003	14.2	13.4	18.5
HCI10M-421M	1.050	0.004	12.5	10.1	13.9
HCI10M-102M	2.50	0.005	10.4	6.7	9.2
HCI10M-252M	6.25	0.0075	8.7	4.5	6.2
HCI10M-502M	12.75	0.015	6.4	2.9	4.0
HCI10M-752M	18.75	0.0175	5.8	2.4	3.3
HCI10M-103K	25.00	0.0225	5.3	2.0	2.8
HCI10M-253K	62.50	0.11	2.4	1.3	1.8
HCI10M-503K	125.0	0.225	1.6	0.93	1.3
HCI10M-753K	187.5	0.25	1.6	0.64	0.89
HCI10M-104K	250.0	0.375	1.3	0.56	0.77
HCI10M-204K	500.0	0.675	0.96	0.39	0.54
HCI10M-304K	750.0	1.05	0.77	0.32	0.44
HCI10M-504K	1.250 mH	1.55	0.64	0.23	0.32
HCI10M-754K	1.875 mH	2.325	0.52	0.19	0.26
HCI10M-105K	2.500 mH	2.675	0.48	0.16	0.23

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)

101 = 1.0 uH
103 = 100 uH
105 = 10 mH

EXAMPLE: HCI10M-101MS-1-T

TOLERANCE (%)

Table with 2 columns: Tolerance Code (K, M) and Tolerance Value (± 10, ± 20)

TERMINATION

Table with 2 columns: Termination Code (S, R) and Termination Type (SnPb, Pure Tin)

RELIABILITY

Table with 2 columns: Reliability Code (1, 7) and Reliability Type (COTS/EM, Other)

PACKAGING (Default Bulk)

Table with 2 columns: Packaging Code (B, T) and Packaging Type (Bulk, 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

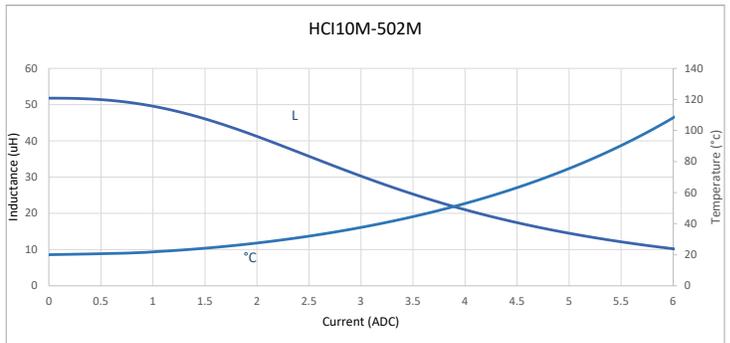
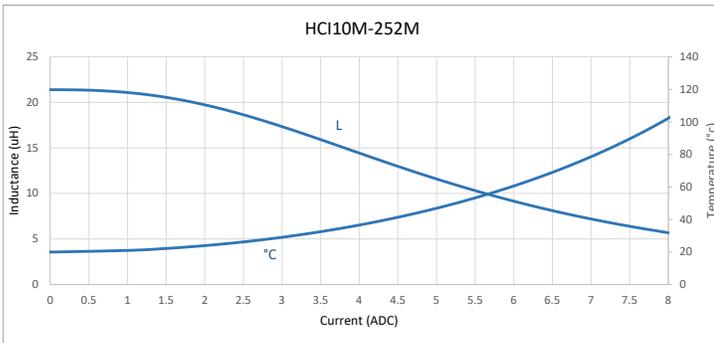
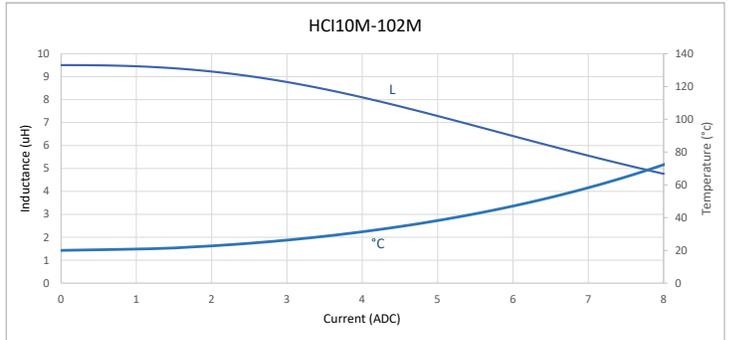
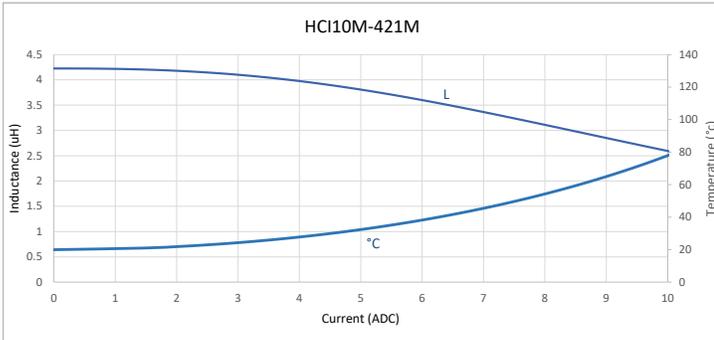
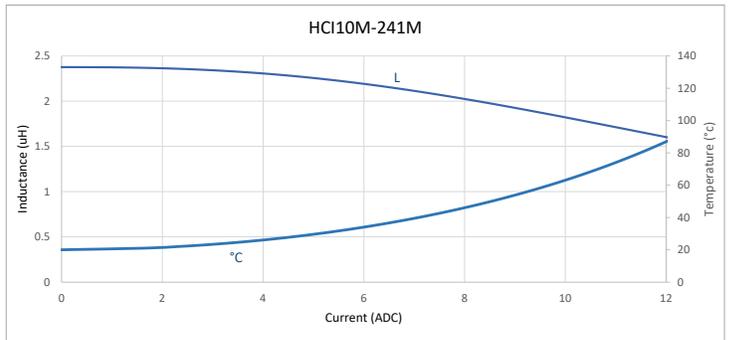
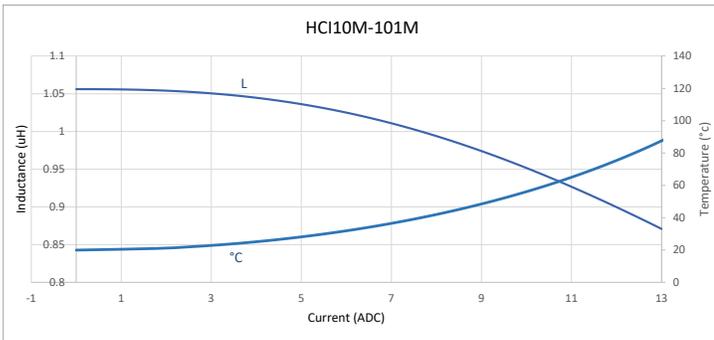
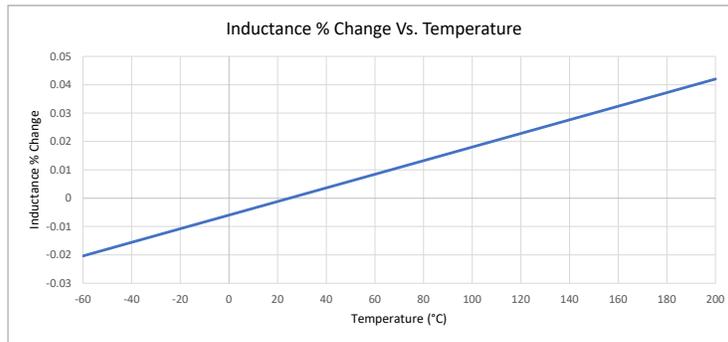
Tape and Reel not available for Thru-Hole or Gull-Wing Packages

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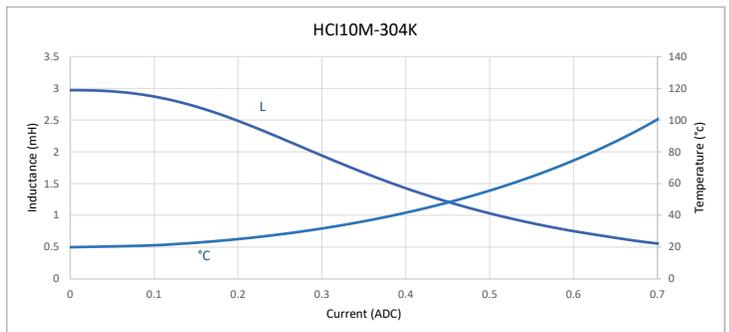
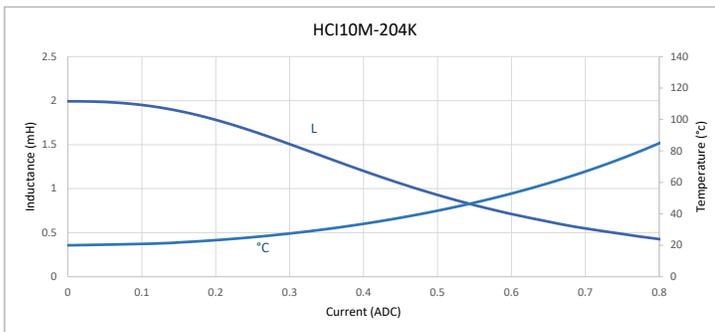
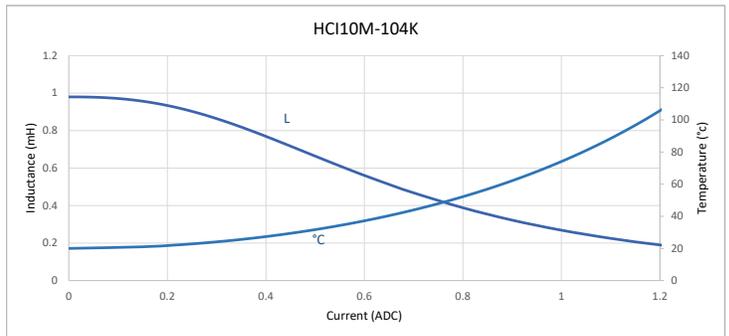
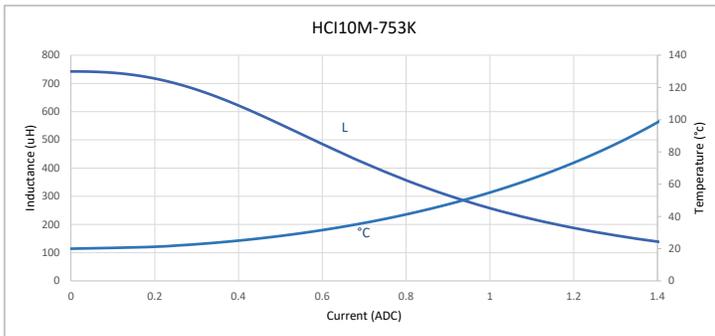
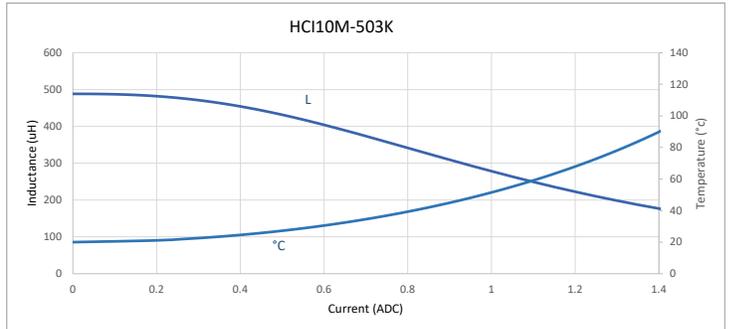
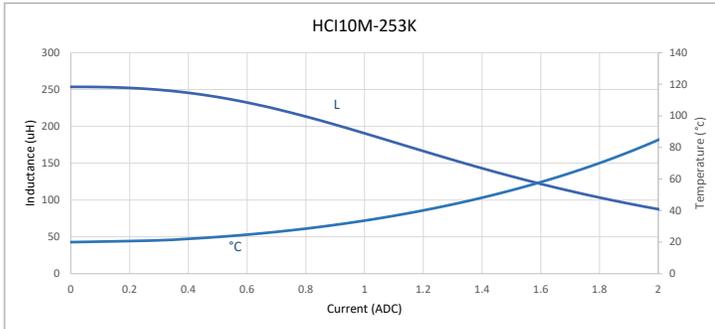
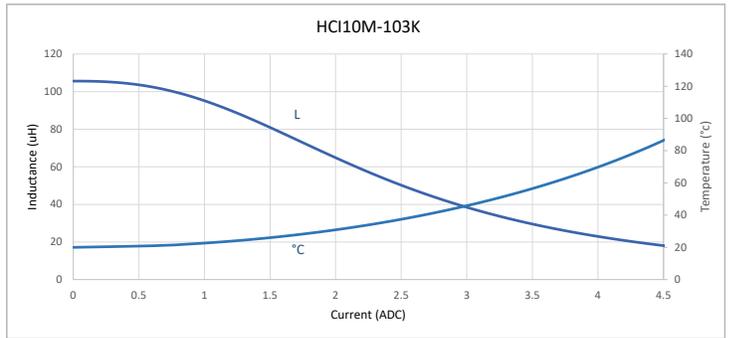
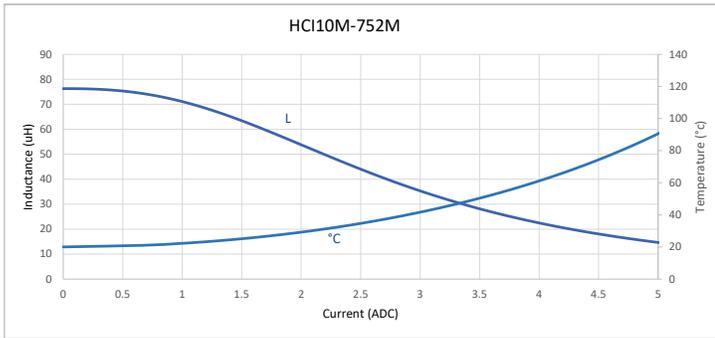


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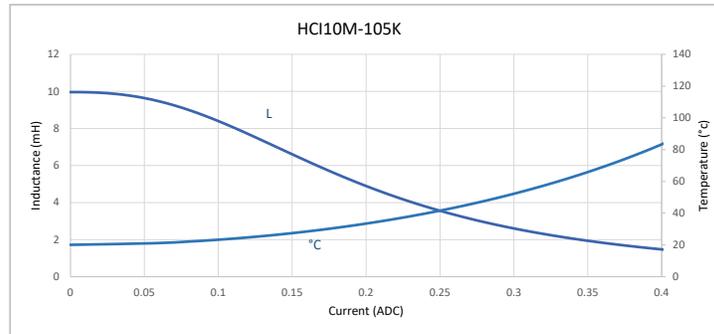
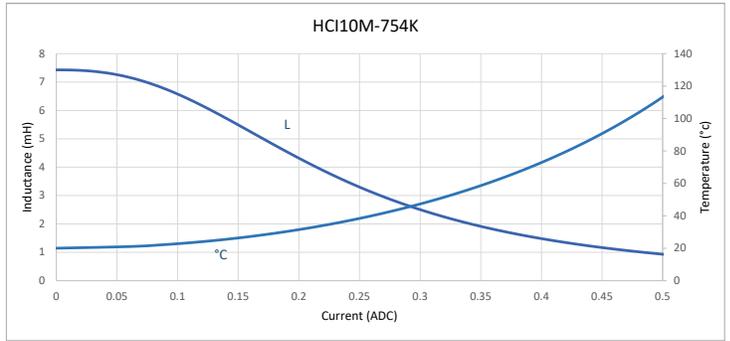
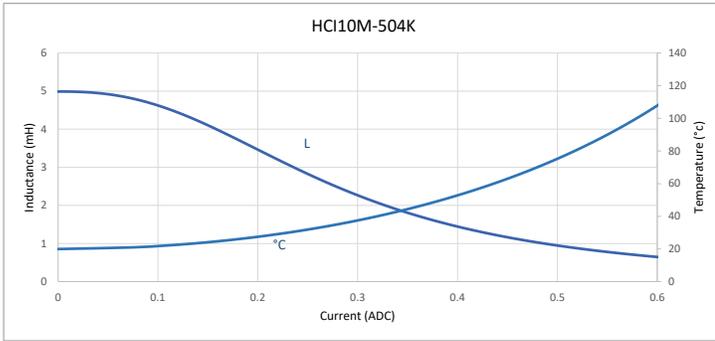


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