



HCPI 120 SERIES

HIGH CURRENT INDUCTOR



COTS+

ELECTRICAL SPECIFICATIONS

- Temperature Rise @ Rated Current: $\leq 40^{\circ}\text{C}$
- Operating Temperature: -55°C to $+125^{\circ}\text{C}$
- Standard Tolerance: 20%
- Saturation Current (I_{sat}) will cause initial inductance drop approximate 20%
- All test data is referenced @ 25°C ambient

FEATURES

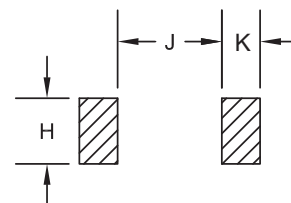
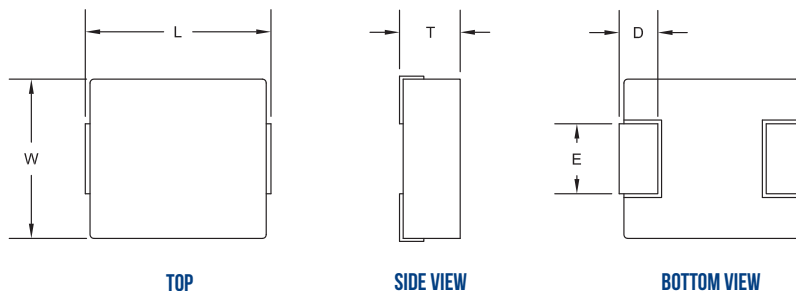
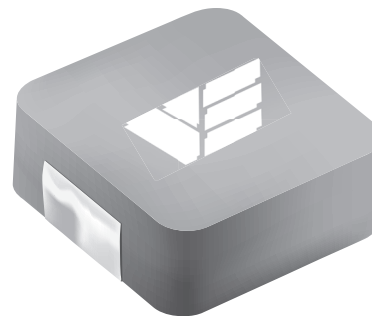
- Molded Construction
- Magnetically Shielded
- Composite Core
- Low DCR
- Excellent efficiency
- Superior ability to handle transients
- High current carrying capacity
- Terminations: Tin-lead/RoHS

APPLICATIONS

- Output/Input Chokes
- Low profile power supplies
- Ideal for Battery/Portable power
- DC/DC power supplies
- High current POL

Inductance Range (μH)	DCR max (mOhms)	Current Rating (A)
0.15 to 10	0.7 to 18.5	9.5 to 53

ALL DIMENSIONS: INCHES



Size	L	W max	T max	D	E	H ref.	J ref.	K ref.
HCPI121	0.520 ± 0.020	0.508	0.138	0.090 ± 0.012	0.138 ± 0.020	0.195	0.310	0.138
HCPI122	0.520 ± 0.020	0.508	0.197	0.090 ± 0.012	0.138 ± 0.020	0.195	0.310	0.138
HCPI123	0.520 ± 0.020	0.508	0.252	0.090 ± 0.012	0.138 ± 0.020	0.195	0.310	0.138

CUSTOM DESIGNS & MODIFICATIONS:

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





Vanguard P/N	Inductance @ 0A ±20% (uH)	DCR (mOhms)		Rated Current (A _{DC})	Saturation Current (I _{sat})	Size
		Typ	Max			
HCPI-121V1-R15MS-**-*	0.15	1.0	1.2	41.0	75.0	HCPI121
HCPI-121V1-R22MS-**-*	0.22	1.1	1.3	38.5	65.0	HCPI121
HCPI-121V1-R33MS-**-*	0.33	1.3	1.5	36.5	62.0	HCPI121
HCPI-121V1-R47MS-**-*	0.47	1.6	2.0	32.0	55.0	HCPI121
HCPI-121V1-R60MS-**-*	0.6	1.8	2.2	29.0	51.0	HCPI121
HCPI-121V1-R68MS-**-*	0.68	2.3	2.5	28.0	49.0	HCPI121
HCPI-121V1-R82MS-**-*	0.82	2.6	3.0	25.0	44.0	HCPI121
HCPI-121V1-1R0MS-**-*	1.0	3.3	3.5	24.0	40.0	HCPI121
HCPI-121V1-1R5MS-**-*	1.5	5.1	5.5	19.0	35.0	HCPI121
HCPI-121V1-2R2MS-**-*	2.2	7.2	8.0	16.0	29.0	HCPI121
HCPI-121V1-3R3MS-**-*	3.3	11.0	12.0	12.0	27.0	HCPI121
HCPI-121V1-4R7MS-**-*	4.7	14.3	15.0	10.0	24.0	HCPI121
HCPI-122V1-R22MS-**-*	0.22	0.65	0.8	51	110	HCPI122
HCPI-122V1-R33MS-**-*	0.33	0.85	1.1	42	80	HCPI122
HCPI-122V1-R47MS-**-*	0.47	1.1	1.3	38	65	HCPI122
HCPI-122V1-R563MS-**-*	0.56	1.3	1.5	36	55	HCPI122
HCPI-122V1-R68MS-**-*	0.68	1.5	1.7	34	54	HCPI122
HCPI-122V1-R82MS-**-*	0.82	2	2.3	31	53	HCPI122
HCPI-122V1-1R0MS-**-*	1.0	2.1	2.5	29	50	HCPI122
HCPI-122V1-1R5MS-**-*	1.5	3.4	4.1	23	48	HCPI122
HCPI-122V1-1R8MS-**-*	1.8	4.2	4.9	19	40	HCPI122
HCPI-122V1-2R2MS-**-*	2.2	4.6	5.5	20	32	HCPI122
HCPI-122V1-3R3MS-**-*	3.3	7.7	9.2	15	32	HCPI122
HCPI-122V1-4R7MS-**-*	4.7	12.8	15	12	27	HCPI122
HCPI-122V1-5R6MS-**-*	5.6	14	16.5	11.5	22	HCPI122
HCPI-122V1-6R8MS-**-*	6.8	15.4	18.5	11	21	HCPI122
HCPI-122V1-8R2MS-**-*	8.2	18.9	22.5	9.5	18	HCPI122
HCPI-122V1-100MS-**-*	10	21.4	25.5	9	16	HCPI122
HCPI-122V1-150MS-**-*	15	27.9	33	8	14	HCPI122

Inductance measured at 100 kHz, 0.25 V

CUSTOM DESIGNS & MODIFICATIONS:

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DATA TABLE

Vanguard P/N	Inductance @ 0A ±20% (uH)	DCR (mOhms)		Rated Current (A _{DC})	Saturation Current (I _{sat})	Size
		Typ	Max			
HCPI-123V1-R15MS-**-*	0.15	0.53	0.6	55.0	118	HCPI123
HCPI-123V1-R22MS-**-*	0.22	0.63	0.7	53.0	112	HCPI123
HCPI-123V1-R33MS-**-*	0.33	0.83	0.9	46.0	65.0	HCPI123
HCPI-123V1-R47MS-**-*	0.47	1.0	1.2	41.0	63.0	HCPI123
HCPI-123V1-R56MS-**-*	0.56	1.2	1.4	37.0	62.0	HCPI123
HCPI-123V1-R68MS-**-*	0.68	1.4	1.6	35.0	60.0	HCPI123
HCPI-123V1-R82MS-**-*	0.82	1.6	1.9	33.0	50.0	HCPI123
HCPI-123V1-1R0MS-**-*	1.0	1.7	2.0	32.0	49.0	HCPI123
HCPI-123V1-1R5MS-**-*	1.5	2.5	3.0	27.0	45.0	HCPI123
HCPI-123V1-1R8MS-**-*	1.8	2.8	3.2	24.0	41.0	HCPI123
HCPI-123V1-2R2MS-**-*	2.2	3.5	4.2	22.0	40.0	HCPI123
HCPI-123V1-3R3MS-**-*	3.3	5.7	6.8	18.0	35.0	HCPI123
HCPI-123V1-4R7MS-**-*	4.7	9.3	11.2	13.5	30.0	HCPI123
HCPI-123V1-6R8MS-**-*	6.8	13.1	14.0	11.5	16.5	HCPI123
HCPI-123V1-8R2MS-**-*	8.2	14.5	15.5	10.5	16.0	HCPI123
HCPI-123V1-100MS-**-*	10.0	16.4	17.2	10.0	15.5	HCPI123

Inductance measured at 100 kHz, 0.25 V

VE PART NUMBER STRUCTURE KEY

EXAMPLE: HCPI-121V1-R15MS-1-T

INDUCTANCE (uH)

0.15
R15

*R = Decimal point

10u = 10R

TOLERANCE (%)

M	± 20
P	± 25

TERMINATION

S	SnPb
R	RoHS

RELIABILITY

1	COTS/EM
2	Group A
3	TBA

PACKAGING (Default Tape and Reel)

T	Tape and Reel
B	Bulk

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