



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

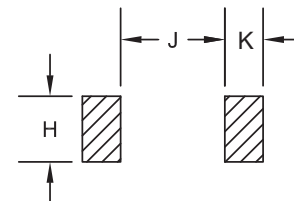
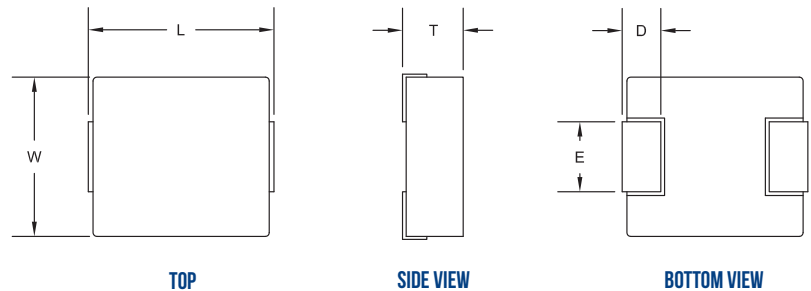
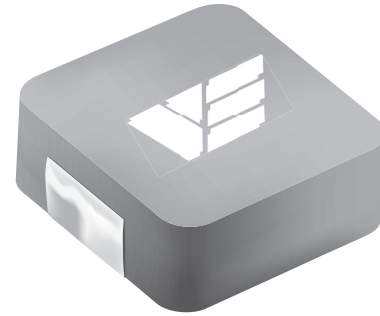
- Molded Construction
- Magnetically Shielded
- Composite Core
- Low DCR
- Excellent efficiency
- Superior ability to handle transients
- High current carrying capacity
- Terminations: Tin-lead/RoHS

APPLICATIONS

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

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



RECOMMENDED MOUNTING PAD

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





DATA TABLE

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-R56MS-**-*	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

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		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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