



HCPI060 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

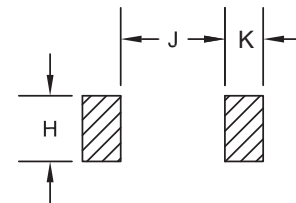
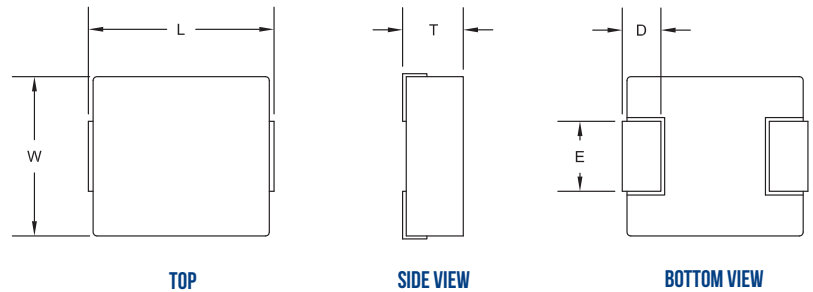
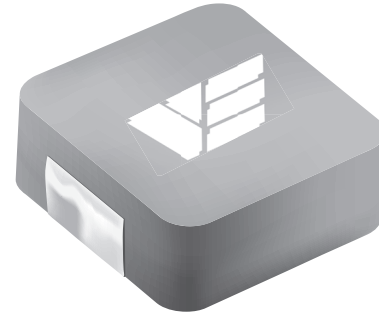
- Molded Construction
- Magnetically Shielded
- Composite Core
- Low DCR
- Excellent efficiency
- Superior ability to handle transients
- High current carrying capacity
- Terminations: Tin-lead/RoHS

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)
15.0 to 0.1	1.5 to 290	1.8 to 32.5

ALL DIMENSIONS: INCHES



RECOMMENDED MOUNTING PAD

Size	L	W	T max	D	E	H ref.	J ref.	K ref.
HCPI061	0.270 ± 0.015	0.255 ± 0.010	0.050	0.051 ± 0.012	0.125 ± 0.012	0.135	0.146	0.072
HCPI062	0.270 ± 0.015	0.255 ± 0.010	0.059	0.051 ± 0.012	0.125 ± 0.012	0.138	0.146	0.093
HCPI063	0.270 ± 0.015	0.255 ± 0.010	0.070	0.051 ± 0.012	0.125 ± 0.012	0.135	0.146	0.072
HCPI064	0.291 max	0.260 ± 0.007	0.070	0.063 ± 0.012	0.118 ± 0.012	0.138	0.146	0.093
HCPI065	0.270 ± 0.015	0.255 ± 0.010	0.118	0.051 ± 0.012	0.125 ± 0.012	0.135	0.146	0.072
HCPI066	0.274 ± 0.015	0.260 ± 0.007	0.118	0.063 ± 0.012	0.118 ± 0.012	0.138	0.146	0.093

CUSTOM DESIGNS & MODIFICATIONS:

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

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Vanguard P/N	Inductance @ 0A ±20% (uH)	DCR (mOhms)		Rated Current (A _{DC})	Saturation Current (I _{sat})	Size
		Typ	Max			
HCPI-061S1-R22MS-*. *	0.22	9.5	10.4	9.0	15.0	HCPI061
HCPI-061S1-R47MS-*. *	0.47	15.0	17.0	8.0	11.0	HCPI061
HCPI-061S1-1R0MS-*. *	1.0	26.0	28.0	6.0	7.0	HCPI061
HCPI-061S1-1R5MS-*. *	1.5	35.5	40.8	4.0	6.0	HCPI061
HCPI-061S1-2R2MS-*. *	2.2	75.0	82.5	3.5	4.4	HCPI061
HCPI-061S1-3R3MS-*. *	3.3	90.0	103	3.0	3.6	HCPI061
HCPI-061S1-4R7MS-*. *	4.7	155	170	2.4	2.8	HCPI061
HCPI-061S1-6R8MS-*. *	6.8	189	217	2.1	2.4	HCPI061
HCPI-061S1-100MS-*. *	10.0	250	290	1.8	2.2	HCPI061
HCPI-061M1-R47MS-*. *	0.47	15.0	17.0	8.0	11.0	HCPI061
HCPI-061M1-R68MS-*. *	0.68	17.0	19.0	7.0	8.0	HCPI061
HCPI-061M1-1R0MS-*. *	1.0	26.0	28.0	6.0	7.0	HCPI061
HCPI-061M1-1R5MS-*. *	1.5	35.5	40.8	4.0	6.0	HCPI061
HCPI-061M1-2R2MS-*. *	2.2	74.0	78.0	3.5	8.0	HCPI061
HCPI-061M1-100MS-*. *	10.0	250	290	1.8	2.2	HCPI061
HCPI-062X2-R56MS-*. *	0.56	9.5	11	9	14	HCPI062
HCPI-062X2-R68MS-*. *	0.68	10.5	12	8.5	12	HCPI062
HCPI-062X2-R82MS-*. *	0.82	15	17	7	10	HCPI062
HCPI-062X2-1R0MS-*. *	1.0	18.5	21	5.5	9	HCPI062
HCPI-062X2-1R2MS-*. *	1.2	25	30	5.4	8.5	HCPI062
HCPI-062X2-2R2MS-*. *	2.2	43	50	3.5	6	HCPI062
HCPI-062X2-3R3MS-*. *	3.3	54	63	3.3	5.5	HCPI062
HCPI-062X5-R33MS-*. *	0.33	6.8	7.8	10.0	19.5	HCPI062
HCPI-062X5-R47MS-*. *	0.47	7.3	8.5	9.8	16.0	HCPI062
HCPI-062X5-R56MS-*. *	0.56	9.5	11.0	9.0	14.0	HCPI062
HCPI-062X5-R68MS-*. *	0.68	10.5	12.0	8.5	12.0	HCPI062
HCPI-062X5-R82MS-*. *	0.82	15.0	17.0	7.0	10.0	HCPI062
HCPI-062X5-1R0MS-*. *	1.0	18.5	21.0	5.5	9.0	HCPI062

Inductance measured at 100 kHz, 0.25 V

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Vanguard P/N	Inductance @ 0A ±20% (uH)	DCR (mOhms)		Rated Current (A _{DC})	Saturation Current (I _{sat})	Size
		Typ	Max			
HCPI-062X5-1R5MS-*.*	1.5	33.0	38.0	4.1	8.3	HCPI062
HCPI-062X5-4R7MS-*.*	4.7	76.0	85.0	3.2	5.0	HCPI062
HCPI-063V1-R10MS-*.*	0.1	3	3.5	18	40	HCPI063
HCPI-063V1-R15MS-*.*	0.15	4.7	5.2	15	35	HCPI063
HCPI-063V1-R22MS-*.*	0.22	5.3	5.7	14	26	HCPI063
HCPI-063V1-R33MS-*.*	0.33	6.6	7	12	18	HCPI063
HCPI-063V1-R47MS-*.*	0.47	8.4	9.3	11	18	HCPI063
HCPI-063V1-R68MS-*.*	0.68	12.7	13.9	9	17	HCPI063
HCPI-063V1-R82MS-*.*	0.82	13.8	15.9	8	17	HCPI063
HCPI-063V1-1R0MS-*.*	1	17.5	18.3	7	14	HCPI063
HCPI-063V1-1R5MS-*.*	1.5	32.6	34	4	11.5	HCPI063
HCPI-063V1-2R2MS-*.*	2.2	40.3	46	3.75	13	HCPI063
HCPI-063V1-2R5MS-*.*	2.5	49.9	52.4	3.5	10.4	HCPI063
HCPI-063V1-3R3MS-*.*	3.3	56.2	60.1	3.25	10	HCPI063
HCPI-063V1-4R7MS-*.*	4.7	76.6	78	3	8	HCPI063
HCPI-063S1-1R0MS-*.*	1.0	17.5	18.3	6.0	10.0	HCPI063
HCPI-063S1-2R2MS-*.*	2.2	27.0	33.0	6.0	10.0	HCPI063
HCPI-063S1-4R7MS-*.*	4.7	72.0	77.0	3.5	4.2	HCPI063
HCPI-063S1-6R8MS-*.*	6.8	120	138	2.5	3.8	HCPI063
HCPI-063S1-100MS-*.*	10.0	145	166	2.0	2.3	HCPI063
HCPI-064X2-R10MS-*.*	0.1	2	2.5	18	45	HCPI064
HCPI-064X2-R22MS-*.*	0.22	4.5	5.2	14	29	HCPI064
HCPI-064X2-R33MS-*.*	0.33	5.2	6.8	12	22	HCPI064
HCPI-064X2-R47MS-*.*	0.47	7.3	8.4	11	18	HCPI064
HCPI-064X2-R68MS-*.*	0.68	10.8	12.7	9	17	HCPI064
HCPI-064X2-1R0MS-*.*	1	14.5	17	7	14	HCPI064
HCPI-064X2-1R5MS-*.*	1.5	20	26	6.5	12	HCPI064
HCPI-064X2-2R0MS-*.*	2	28	32	6	11	HCPI064

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Vanguard P/N	Inductance @ 0A ±20% (uH)	DCR (mOhms)		Rated Current (A _{DC})	Saturation Current (I _{sat})	Size
		Typ	Max			
HCPI-064X2-2R2MS-**-*	2.2	31	35	6	13	HCPI064
HCPI-064X2-3R3MS-**-*	3.3	56	60	3.5	10	HCPI064
HCPI-064X2-4R7MS-**-*	4.7	76.6	78	3	7	HCPI064
HCPI-064X2-6R8MS-**-*	6.8	101	110	2.8	3.5	HCPI064
HCPI-065V1-R10MS-**-*	0.1	1.5	1.7	32.5	60.0	HCPI065
HCPI-065V1-R15MS-**-*	0.15	1.9	2.5	26.0	52.0	HCPI065
HCPI-065V1-R20MS-**-*	0.2	2.4	3.0	24.0	41.0	HCPI065
HCPI-065V1-R22MS-**-*	0.22	2.5	2.8	23.0	40.0	HCPI065
HCPI-065V1-R33MS-**-*	0.33	3.5	3.9	20.0	30.0	HCPI065
HCPI-065V1-R47MS-**-*	0.47	4.0	4.2	17.5	26.0	HCPI065
HCPI-065V1-R68MS-**-*	0.68	5.0	5.5	15.5	25.0	HCPI065
HCPI-065V1-R82MS-**-*	0.82	6.7	8.0	13.0	24.0	HCPI065
HCPI-065V1-1R0MS-**-*	1.0	9.0	10.0	11.0	22.0	HCPI065
HCPI-065V1-1R5MS-**-*	1.5	14.0	15.0	9.0	18.0	HCPI065
HCPI-065V1-2R2MS-**-*	2.2	18.0	20.0	8.0	14.0	HCPI065
HCPI-065V1-3R3MS-**-*	3.3	28.0	30.0	6.0	13.5	HCPI065
HCPI-065V1-4R7MS-**-*	4.7	37.0	40.0	5.5	10.0	HCPI065
HCPI-065V1-6R8MS-**-*	6.8	54.0	60.0	4.5	8.0	HCPI065
HCPI-065V1-8R2MS-**-*	8.2	64.0	68.0	4.0	7.5	HCPI065
HCPI-065V1-100MS-**-*	10.0	102	105	3.0	7.0	HCPI065
HCPI-065M1-5R6MS-**-*	5.6	39.0	42.0	5.5	6.0	HCPI065
HCPI-065M1-100MS-**-*	10.0	61.5	70.0	4.0	4.0	HCPI065
HCPI-065M1-150MS-**-*	15.0	116	127	2.22	2.5	HCPI065
HCPI-066X1-R10MS-**-*	0.1	1.5	1.7	32.5	60.0	HCPI066
HCPI-066X1-R22MS-**-*	0.22	2.5	2.8	23.0	40.0	HCPI066
HCPI-066X1-R33MS-**-*	0.33	3.5	3.9	20.0	30.0	HCPI066
HCPI-066X1-R47MS-**-*	0.47	4.0	4.2	17.5	26.0	HCPI066
HCPI-066X1-R56MS-**-*	0.56	4.7	5.0	16.5	25.5	HCPI066

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		Typ	Max			
HCPI-066X1-R68MS-**-*	0.68	5.0	5.5	15.5	25.0	HCPI066
HCPI-066X1-1R0MS-**-*	1.0	9.0	10.0	11.0	22.0	HCPI066
HCPI-066X1-1R2MS-**-*	1.2	10.0	12.0	10.0	20.0	HCPI066
HCPI-066X1-1R5MS-**-*	1.5	14.0	15.0	9.0	18.0	HCPI066
HCPI-066X1-2R2MS-**-*	2.2	18.0	20.0	8.0	14.0	HCPI066
HCPI-066X1-3R3MS-**-*	3.3	28.0	30.0	6.0	13.5	HCPI066
HCPI-066X1-4R7MS-**-*	4.7	37.0	40.0	5.5	10.0	HCPI066
HCPI-066X1-6R8MS-**-*	6.8	54.0	60.0	4.5	8.0	HCPI066
HCPI-066X2-R10MS-**-*	0.1	1.5	1.7	32.5	60.0	HCPI066
HCPI-066X2-R15MS-**-*	0.15	1.9	2.5	30.0	45.0	HCPI066
HCPI-066X2-R20MS-**-*	0.2	2.4	3.0	24.0	41.0	HCPI066
HCPI-066X2-R22MS-**-*	0.22	2.5	2.8	23.0	40.0	HCPI066
HCPI-066X2-R33MS-**-*	0.33	3.0	3.5	21.0	25.0	HCPI066
HCPI-066X2-R36MS-**-*	0.36	3.3	3.9	20.0	26.0	HCPI066
HCPI-066X2-R47MS-**-*	0.47	3.5	4.1	18.0	20.0	HCPI066
HCPI-066X2-R56MS-**-*	0.56	3.9	4.5	16.5	18.0	HCPI066
HCPI-066X2-R68MS-**-*	0.68	4.5	5.0	16.0	17.0	HCPI066
HCPI-066X2-R82MS-**-*	0.82	7.0	7.5	14.0	16.0	HCPI066
HCPI-066X2-1R0MS-**-*	1.0	8.5	9.0	12.0	15.0	HCPI066
HCPI-066X2-1R5MS-**-*	1.5	10.6	12.1	10.0	14.0	HCPI066
HCPI-066X2-2R2MS-**-*	2.2	18.0	20.0	8.0	10.0	HCPI066
HCPI-066X2-3R3MS-**-*	3.3	25.0	28.0	6.5	10.0	HCPI066
HCPI-066X2-4R7MS-**-*	4.7	32.5	35.0	5.5	6.5	HCPI066
HCPI-066X2-5R6MS-**-*	5.6	39.0	42.0	5.5	6.0	HCPI066
HCPI-066X2-8R2MS-**-*	8.2	54.0	60.0	4.5	6.0	HCPI066
HCPI-066X2-100MS-**-*	10.0	62.0	68.0	4.0	5.5	HCPI066
HCPI-066X6-R36MS-**-*	0.36	2.3	2.55	25.0	29.0	HCPI066
HCPI-066X6-R68MS-**-*	0.68	4.6	5.2	16.0	16.5	HCPI066

Inductance measured at 100 kHz, 0.25 V

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

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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-066X6-1R0MS-*-*	1.0	5.5	6.6	15.0	15.0	HCPI066
HCPI-066X6-2R2MS-*-*	2.2	12.0	13.8	10.0	13.0	HCPI066
HCPI-066X6-3R3MS-*-*	3.3	18.9	21.0	7.0	9.5	HCPI066
HCPI-066X6-6R8MS-*-*	6.8	41.0	48.0	5.5	6.5	HCPI066

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VE PART NUMBER STRUCTURE KEY

EXAMPLE: HCPI-061S1-R22MS-1-T

INDUCTANCE (uH)

0.22
R22

*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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