



HCPI040 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

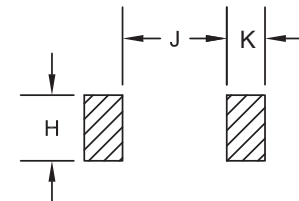
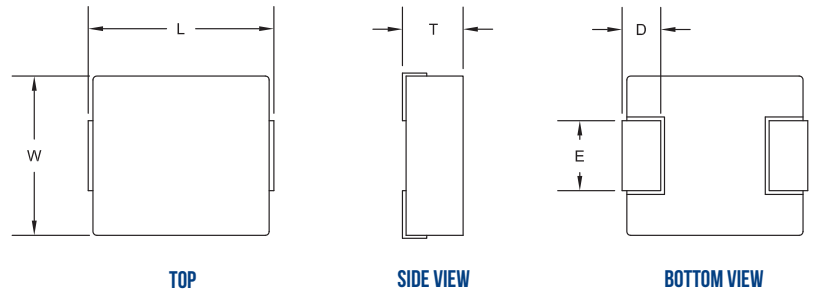
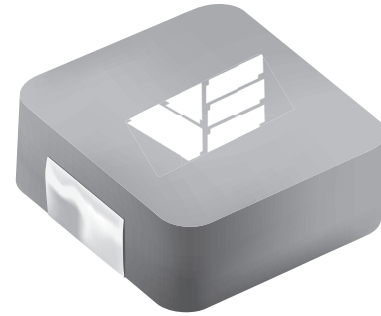
- Molded Construction
- Magnetically Shielded
- Composite Core
- Low DCR
- Excellent efficiency
- Superior ability to handle transients
- High current carrying capacity
- Terminations: Tin-lead/RoHS

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)
0.047 to 10.00	3.25 to 440	1.2 to 13

ALL DIMENSIONS: INCHES



RECOMMENDED MOUNTING PAD

Size	L	W	T _{max}	D	E	H ref.	J ref.	K ref.
HCPI041	0.175 ± 0.010	0.160 ± 0.010	0.047	0.030 ± 0.012	0.079 ± 0.012	0.090	0.065	0.065
HCPI042	0.175 ± 0.010	0.160 ± 0.010	0.059	0.030 ± 0.012	0.079 ± 0.012	0.090	0.065	0.065
HCPI043	0.175 ± 0.010	0.160 ± 0.010	0.079	0.030 ± 0.012	0.079 ± 0.012	0.090	0.065	0.065

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-041V1-47NMS-**-*	0.047	3.25	3.75	13	32	HCPI041
HCPI-041V1-R10MS-**-*	0.1	5.5	6	11.5	25	HCPI041
HCPI-041V1-R22MS-**-*	0.22	11	12	8.5	20	HCPI041
HCPI-041V1-R47MS-**-*	0.47	20	22	5	13	HCPI041
HCPI-041V1-R68MS-**-*	0.68	29.3	31.4	4.9	9.3	HCPI041
HCPI-041V1-1R0MS-**-*	1	50	52.5	4	8.5	HCPI041
HCPI-041S1-2R2MS-**-*	2.2	80.2	90.0	2.45	2.75	HCPI041
HCPI-041S1-3R3MS-**-*	3.3	113	124	1.85	2.3	HCPI041
HCPI-041S1-4R7MS-**-*	4.7	197	217	1.55	1.7	HCPI041
HCPI-041S1-100MS-**-*	10.0	370	440	1.2	1.4	HCPI041
HCPI-042M1-R22MS-**-*	0.22	11.0	12.0	8.5	20.0	HCPI042
HCPI-042M1-R47MS-**-*	0.47	18.0	20.0	8.0	11.0	HCPI042
HCPI-042M1-R68MS-**-*	0.68	19.2	20.0	5.0	8.0	HCPI042
HCPI-042M1-1R02MS-**-*	1.0	40.0	44.0	4.5	9.0	HCPI042
HCPI-043S1-4R7MS-**-*	4.7	118	132	2.4	2.8	HCPI043
HCPI-043S1-6R8MS-**-*	6.8	162	178	2.0	2.1	HCPI043
HCPI-043S1-8R2MS-**-*	8.2	188	207	1.8	2.0	HCPI043
HCPI-043S1-100MS-**-*	10.0	256	282	1.6	1.8	HCPI043
HCPI-043S1-220MS-**-*	22.0	460	550	0.8	1.0	HCPI043
HCPI-043V1-R10MS-**-*	0.1	4.5	5.0	11.0	35.0	HCPI043
HCPI-043V1-R22MS-**-*	0.22	7.3	8.0	13.0	24.0	HCPI043
HCPI-043V1-R33MS-**-*	0.33	9.6	13.0	9.0	18.0	HCPI043
HCPI-043V1-R47MS-**-*	0.47	16.0	18.0	5.6	11.5	HCPI043
HCPI-043V1-1R0MS-**-*	1.0	33.0	37.0	3.75	8.5	HCPI043
HCPI-043V1-1R2MS-**-*	1.2	41.0	48.0	3.1	7.0	HCPI043
HCPI-043V1-1R5MS-**-*	1.5	43.3	46.3	5.1	6.1	HCPI043
HCPI-043V1-2R2MS-**-*	2.2	80.0	90.0	2.85	6.0	HCPI043
HCPI-044V2-R10MS-**-*	0.1	4.1	4.5	12.0	12.0	HCPI043
HCPI-044V2-R22MS-**-*	0.22	6.5	7.0	9.0	9.0	HCPI043
HCPI-044V2-R47MS-**-*	0.47	14.5	16.0	7.0	7.0	HCPI043

Inductance measured at 100 kHz, 0.25 V

CUSTOM DESIGNS & MODIFICATIONS:

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-044V2-1R0MS-*-*	1.0	24.0	27.0	4.5	5.0	HCPI043
HCPI-044V2-2R2MS-*-*	2.2	61.0	68.0	3.25	3.25	HCPI043
HCPI-044V2-4R7MS-*-*	4.7	95.0	105	1.7	1.75	HCPI043

Inductance measured at 100 kHz, 0.25 V

VE PART NUMBER STRUCTURE KEY

EXAMPLE: HCPI-041V1-R10MS-1-T

INDUCTANCE (uH)

0.10
R10

*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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