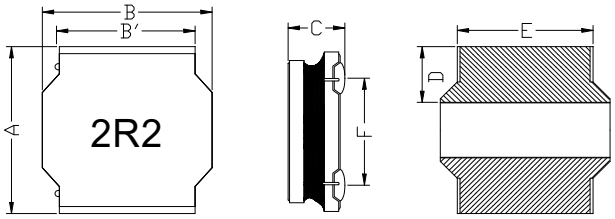
SMD Power Inductor

HPC6045NV-SERIES

1. Features

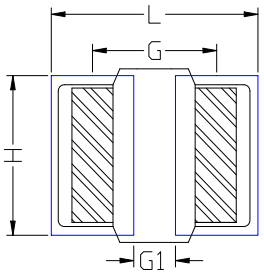
1. This specification applies Low Profile Power Inductors.
2. 100% Lead(Pb) & Halogen-Free and RoHS compliant.
3. High reliability -Reliability tests comply with AEC-Q200
4. Operating temperature：-55~+125℃(Including self - temperature rise)

2. Dimension



Series	A(mm)	B(mm)	B'(mm)	C(mm)	D(mm)	E(mm)	F(mm)
HPC6045NV	6.0±0.3	6.0±0.3	4.8±0.2	4.2±0.3	1.9±0.3	4.8±0.3	4.25±0.3

Recommendend Land pattern



L(mm)	G(mm)	H(mm)	G1(mm)
8.5	5.5	6.3	2.5

Note: 1. The above PCB layout reference only.
2. Recommend solder paste thickness at 0.15mm and above.

3. Part Numbering

HPC	6045	NV	-	2R2	M
A	B	C		D	E

A: Series	
B: Dimension	A/B*C
C: Type	V=Vehicle
D: Inductance	2R2=2.20uh
E: Inductance Tolerance	K=±10%,M=±20%,Y=±30%.
	marking direction cannot decide polarity. Color: Black, unidirectional.
	magnetic shielding

4. Specification

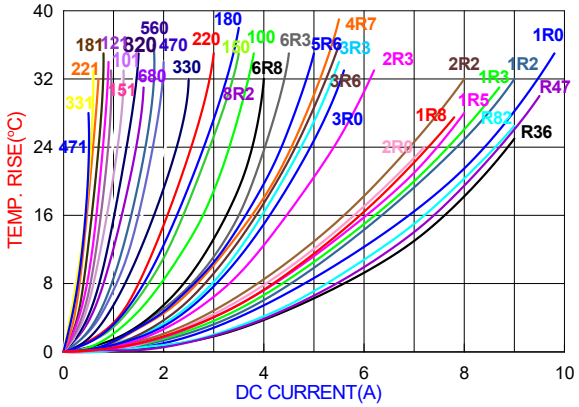
Part Number	Inductance L0 (uH) @ 0 A	Tolerance				Rated current		DCR (mΩ) @25℃ ±20%.
		K	L	M	Y	Temperature current I rms (A)	Saturation current I sat (A)	
HPC6045NV-R36	0.36	/	/	±20%	±30%	9.00	18.00	4.80
HPC6045NV-R47	0.47	/	/	±20%	±30%	8.60	17.00	6.80
HPC6045NV-R82	0.82	/	/	±20%	±30%	8.20	14.50	8.50
HPC6045NV-1R0	1.00	/	/	±20%	±30%	8.00	13.50	10.0
HPC6045NV-1R2	1.20	/	/	±20%	±30%	7.50	12.50	10.5
HPC6045NV-1R3	1.30	/	/	±20%	±30%	7.50	12.50	10.5
HPC6045NV-1R5	1.50	/	/	±20%	±30%	7.00	12.00	11.7
HPC6045NV-1R8	1.80	/	/	±20%	±30%	6.80	11.00	12.0
HPC6045NV-2R0	2.00	/	/	±20%	±30%	6.50	10.50	13.5
HPC6045NV-2R2	2.20	/	/	±20%	±30%	6.00	9.50	15.0
HPC6045NV-2R3	2.30	/	/	±20%	±30%	5.80	9.30	16.0
HPC6045NV-3R0	3.00	/	/	±20%	±30%	5.20	8.00	20.0
HPC6045NV-3R3	3.30	/	/	±20%	±30%	5.00	7.80	21.0
HPC6045NV-3R6	3.60	/	/	±20%	±30%	4.90	7.40	22.5
HPC6045NV-4R7	4.70	/	±15%	±20%	±30%	4.50	6.80	26.0
HPC6045NV-5R6	5.60	/	±15%	±20%	±30%	4.10	6.40	31.0
HPC6045NV-6R3	6.30	/	±15%	±20%	±30%	3.80	5.90	33.0
HPC6045NV-6R8	6.80	/	±15%	±20%	±30%	3.60	5.70	34.0
HPC6045NV-8R2	8.20	/	±15%	±20%	±30%	3.40	5.10	46.0
HPC6045NV-100	10.0	±10%	±15%	±20%	±30%	3.20	4.60	52.0
HPC6045NV-150	15.0	±10%	±15%	±20%	±30%	2.80	3.80	71.0
HPC6045NV-180	18.0	±10%	±15%	±20%	±30%	2.60	3.40	80.0
HPC6045NV-220	22.0	±10%	±15%	±20%	±30%	2.30	3.30	96.0
HPC6045NV-330	33.0	±10%	±15%	±20%	±30%	1.80	2.50	145
HPC6045NV-470	47.0	±10%	±15%	±20%	±30%	1.60	2.00	200
HPC6045NV-560	56.0	±10%	±15%	±20%	±30%	1.40	1.80	230
HPC6045NV-680	68.0	±10%	±15%	±20%	±30%	1.10	1.60	305
HPC6045NV-820	82.0	±10%	±15%	±20%	±30%	0.98	1.50	365
HPC6045NV-101	100	±10%	±15%	±20%	±30%	0.92	1.33	456
HPC6045NV-121	120	±10%	±15%	±20%	±30%	0.85	1.20	500
HPC6045NV-151	150	±10%	±15%	±20%	±30%	0.75	1.10	626
HPC6045NV-181	180	±10%	±15%	±20%	±30%	0.68	1.00	745
HPC6045NV-221	220	±10%	±15%	±20%	±30%	0.60	0.88	900
HPC6045NV-331	330	±10%	±15%	±20%	±30%	0.55	0.60	1400
HPC6045NV-471	470	±10%	±15%	±20%	±30%	0.40	0.50	2050

Note:

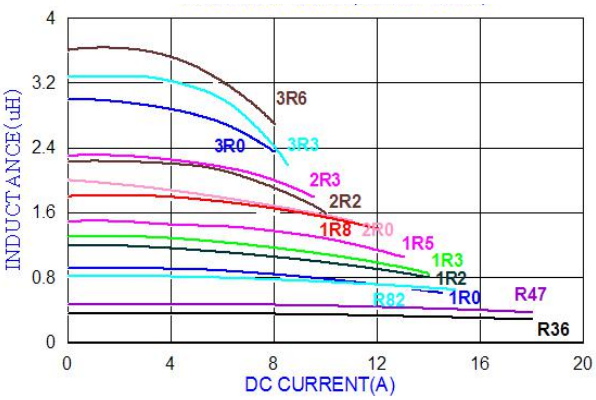
1. All test data referenced to 25℃ ambient , Ls/Q:1MHz/1V.
2. Testing Instrument : HP4284A,CH11025,CH3302,CH1320 ,CH1320S LCR METER / Rdc:CH502BC MICRO OHMMETER.
3. Heat Rated Current (Irms) will cause the coil temperature rise approximately △t of 40℃
4. Saturation Current (Isat) will cause L0 to drop approximately 30%
5. Rated DC Current： The less value whith is Irms or Isat.
6. The part temperature (ambient + temp rise) should not exceed 125℃under worst case operating conditions.Circuit design,component,PCB trace size and thickness,airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
7. Special inquiries besides the above common used types can be met on your requirement.

5. Typical Performance Curves

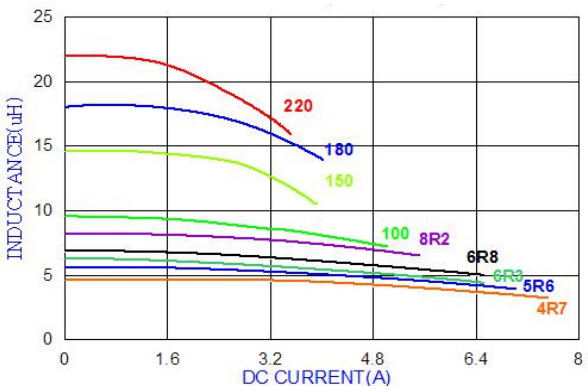
HPC6045NV-Series



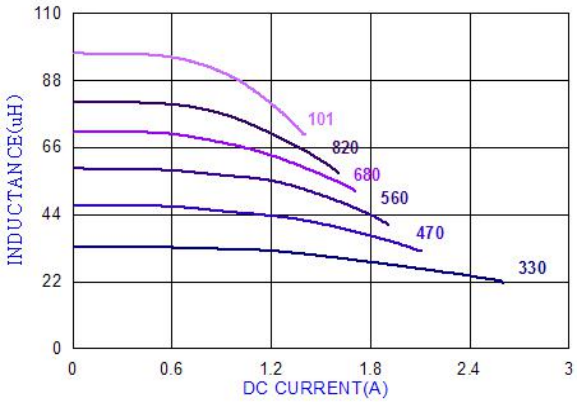
HPC6045NV-Series(0.36uH-3.6uH)



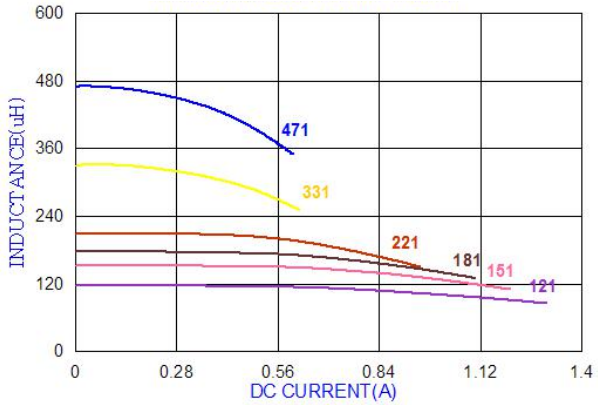
HPC6045NV-Series(4.7uH-22uH)



HPC6045NV-Series(33uH-100uH)



HPC6045NV-Series(120uH-470uH)



单击下面可查看定价，库存，交付和生命周期等信息

>>TAI-TECH(台庆)