

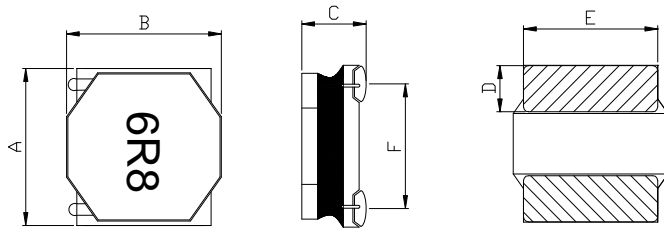
SMD Power Inductor **HPC5040NV-Series**

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°C (Including self-temperature rise)

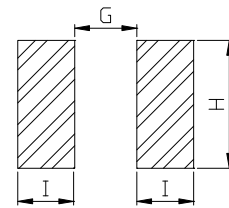


2. Dimensions



Series	Inductance	A(mm)	B(mm)	C(mm)	D(mm)	E (mm)	F(mm)
HPC5040NV	≤10 uH	4.95±0.2	4.95±0.2	3.9±0.2	1.3±0.3	4.2±0.2	3.7ref
	>10 uH			3.8±0.2			

Recommended Land pattern



G(mm)	H(mm)	I(mm)
2.1	4.2	1.5

Note: 1. The above PCB layout reference only.
 2. Recommend solder paste thickness at 0.12mm and above.

3. Part Numbering



A: Series
 B: Dimension
 C: Type
 D: Inductance
 E: Inductance Tolerance

A/B*C
 V=Vehicle
 6R8=6.80uH
 M=±20%.
 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°C ±20%.
		K	L	M	Y	Temperature current I rms (A)	Saturation current I sat (A)	
HPC5040NV-1R0	1.00	/	/	±20%	±30%	5.00	7.50	12
HPC5040NV-1R5	1.50	/	/	±20%	±30%	4.50	6.50	15
HPC5040NV-2R2	2.20	/	/	±20%	±30%	3.80	5.70	21
HPC5040NV-3R3	3.30	/	/	±20%	±30%	3.50	4.40	24
HPC5040NV-4R7	4.70	/	/	±20%	±30%	3.20	3.90	32
HPC5040NV-6R8	6.80	/	/	±20%	±30%	2.50	3.30	43
HPC5040NV-100	10.0	/	/	±20%	±30%	2.20	2.52	56
HPC5040NV-150	15.0	/	±15%	±20%	±30%	1.80	2.00	80
HPC5040NV-220	22.0	/	±15%	±20%	±30%	1.50	1.62	123
HPC5040NV-330	33.0	/	±15%	±20%	±30%	1.20	1.30	180
HPC5040NV-470	47.0	±10%	±15%	±20%	±30%	1.00	1.10	270
HPC5040NV-680	68.0	±10%	±15%	±20%	±30%	0.80	0.90	400
HPC5040NV-101	100	±10%	±15%	±20%	±30%	0.72	0.75	560

Note:

- All test data referenced to 25°C ambient , Ls:100KHz/1V.
- Testing Instrument : HP4284A,CH11025,CH3302,CH1320 ,CH1320S LCR METER / Rdc:CH502BC MICRO OHMMETER.
- Heat Rated Current (I rms) will cause the coil temperature rise approximately Δt of 40°C.
- Saturation Current (Isat) will cause L0 to drop approximately 30%..
- The part temperature (ambient + temp rise) should not exceed 125°C 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.
- Special inquiries besides the above common used types can be met on your requirement.

5. Typical Performance Curves

