

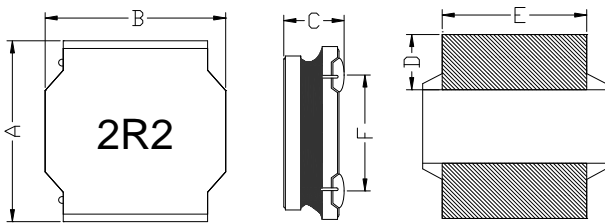
**SMD Power Inductor** **HPC8040NV-Series**

**1. Features**

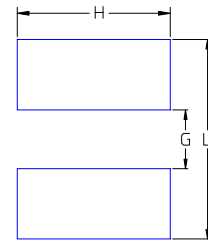
1. This specification applies Low Profile Power Inductors.
2. 100% Lead(Pb) & Halogen-Free and RoHS compliant.
3. High reliability -Reliability test meet AEC-Q200.
4. Operating temperature: -55~+125°C (Including self-temperature rise)



**2. Dimensions**



**Recommended Land pattern**



Series	Inductance	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)	F(mm)
HPC8040NV	<1.0uH	8.0±0.3	8.0±0.3	4.2Max	2.4±0.3	6.3±0.3	5.5±0.3
	≥1.0uH			3.7±0.3			

L(mm)	G(mm)	H(mm)
8.5	2.8	6.6

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

**3. Part Numbering**



- A: Series
  - B: Dimension
  - C: Type
  - D: Inductance
  - E: Inductance Tolerance
- A/B°C  
 V: Vehicle  
 2R2=2.20uH  
 M=±20%  
 marking direction cannot decide polarity. Color: Black, unidirectional magnetic shielding

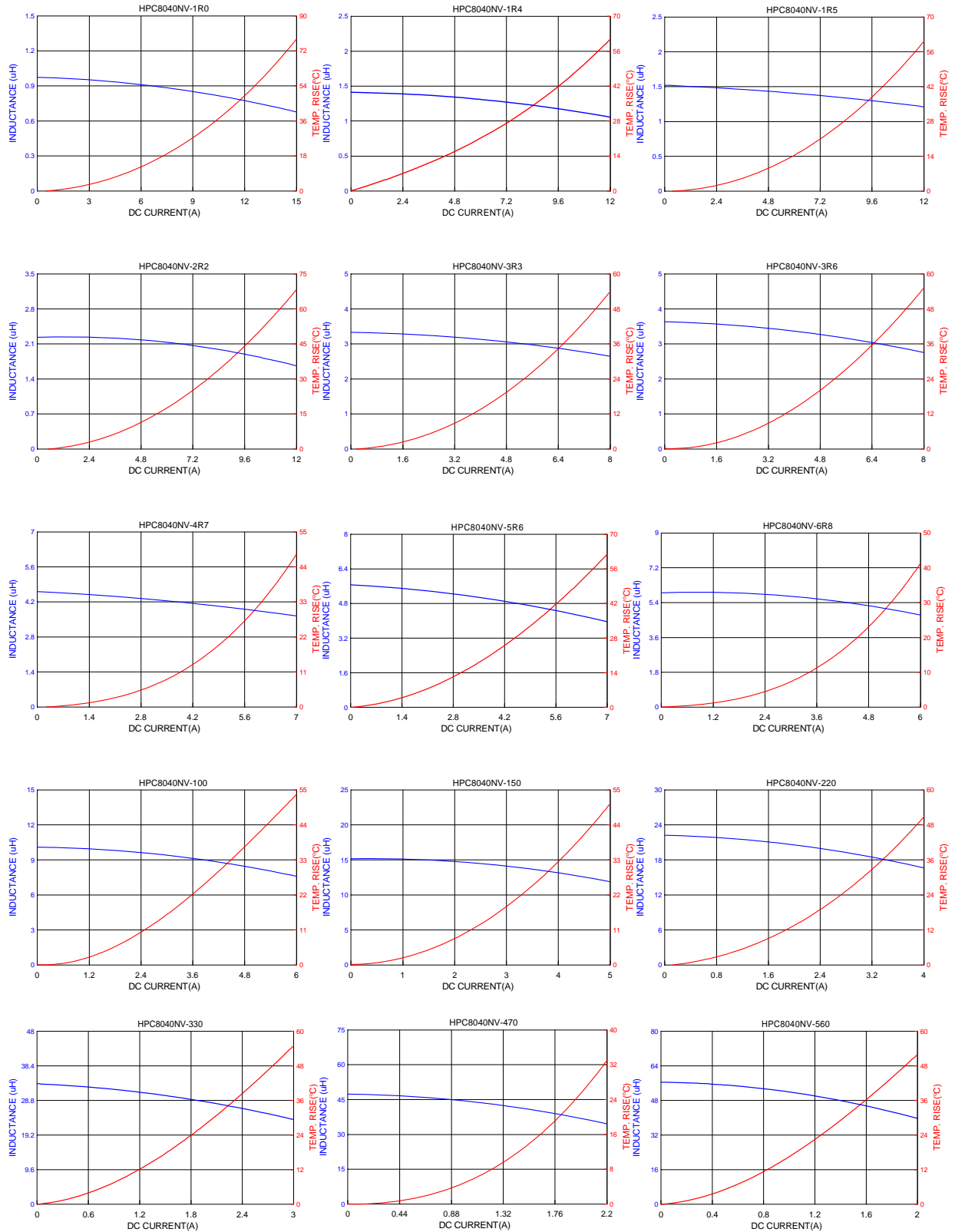
## 4. Specification

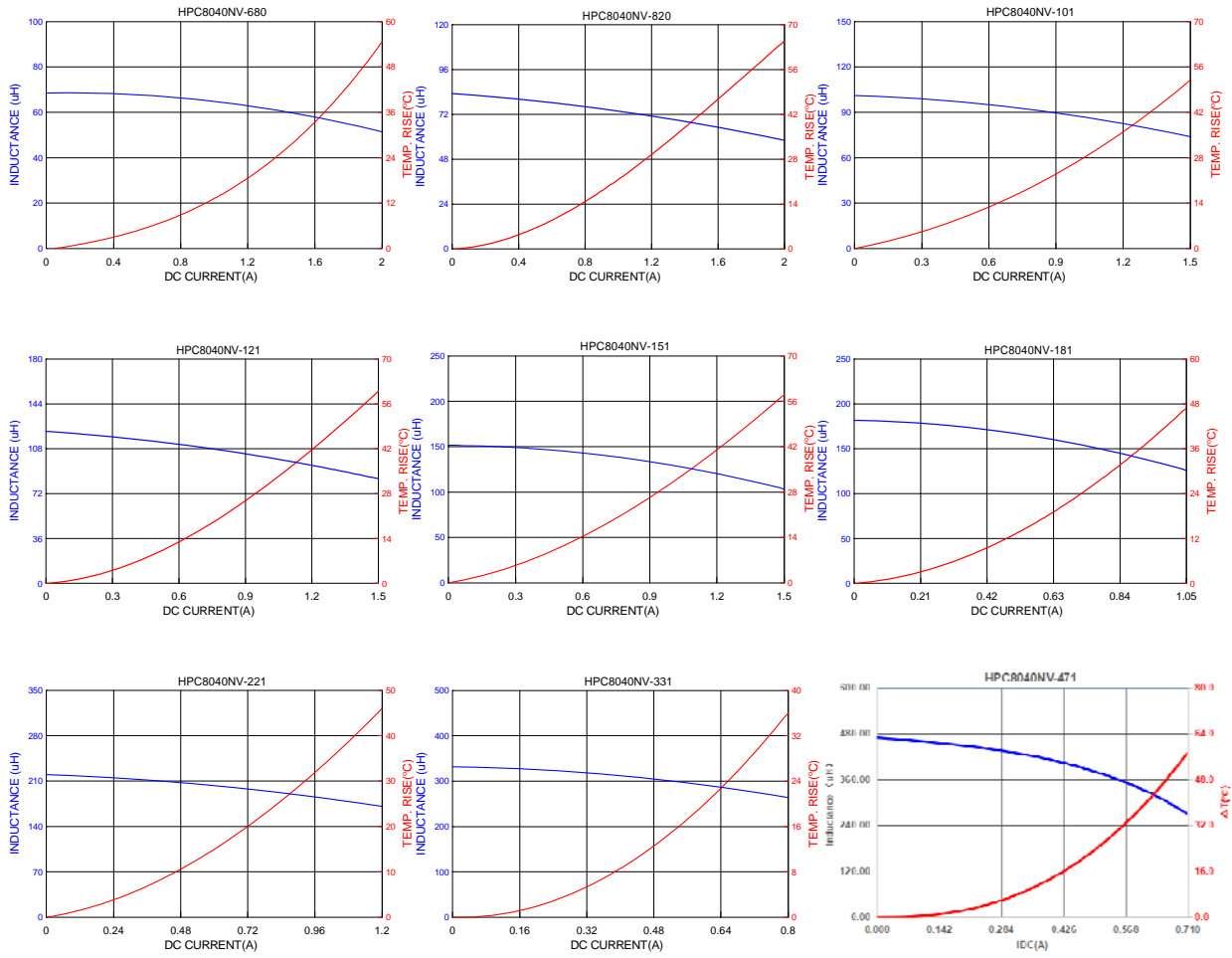
Part Number	Inductance L0 (uH) @ 0 A	Tolerance				Frequency	Rated current				DCR (mΩ) @25°C ±20%	SRF (MHz) Ref	Q (Min)
							Temperature current I rms (A)		Saturation current I sat (A)				
		K	L	M	Y		Typ	Max	Typ	Max			
HPC8040NV-R50	0.50	/	/	±20%	±30%	1MHz/1V	12.00	10.00	17.00	15.00	5.5	165	20
HPC8040NV-1R0	1.00	/	/	±20%	±30%	1MHz/1V	8.50	8.00	13.80	13.00	8.2	85	15
HPC8040NV-1R4	1.40	/	/	±20%	±30%	1MHz/1V	8.20	7.80	11.80	11.20	10	78	15
HPC8040NV-1R5	1.50	/	/	±20%	±30%	1MHz/1V	8.00	7.70	11.50	11.00	10	66	15
HPC8040NV-2R2	2.20	/	/	±20%	±30%	1MHz/1V	7.40	6.90	9.80	9.20	11.5	57	15
HPC8040NV-3R3	3.30	/	/	±20%	±30%	1MHz/1V	6.60	6.20	8.00	7.50	15	48	15
HPC8040NV-3R6	3.60	/	/	±20%	±30%	1MHz/1V	6.40	6.00	7.60	7.00	15	42	15
HPC8040NV-4R7	4.70	/	±15%	±20%	±30%	1MHz/1V	5.80	5.30	6.70	6.00	19.5	38	15
HPC8040NV-5R6	5.60	/	±15%	±20%	±30%	1MHz/1V	5.40	5.20	6.20	5.80	22	33	15
HPC8040NV-6R8	6.80	/	±15%	±20%	±30%	1MHz/1V	5.10	5.00	5.60	5.10	25	29	15
HPC8040NV-100	10.0	±10%	±15%	±20%	±30%	1MHz/1V	4.60	4.20	5.00	4.30	33	25	15
HPC8040NV-150	15.0	±10%	±15%	±20%	±30%	1MHz/1V	3.60	3.20	4.00	3.60	50	20	12
HPC8040NV-220	22.0	±10%	±15%	±20%	±30%	1MHz/1V	2.90	2.45	3.10	2.80	73	18	12
HPC8040NV-330	33.0	±10%	±15%	±20%	±30%	1MHz/1V	2.30	2.10	2.60	2.10	100	15	12
HPC8040NV-470	47.0	±10%	±15%	±20%	±30%	1MHz/1V	2.00	1.70	2.20	1.90	135	12	12
HPC8040NV-560	56.0	±10%	±15%	±20%	±30%	1MHz/1V	1.75	1.60	1.90	1.60	160	10.5	12
HPC8040NV-680	68.0	±10%	±15%	±20%	±30%	1MHz/1V	1.65	1.50	1.75	1.50	205	9.5	12
HPC8040NV-820	82.0	±10%	±15%	±20%	±30%	1MHz/1V	1.40	1.30	1.60	1.40	230	8.5	12
HPC8040NV-101	100	±10%	±15%	±20%	±30%	1MHz/1V	1.20	1.10	1.45	1.20	300	8.0	10
HPC8040NV-121	120	±10%	±15%	±20%	±30%	1MHz/1V	1.10	1.00	1.30	1.10	350	7.5	10
HPC8040NV-151	150	±10%	±15%	±20%	±30%	1MHz/1V	0.98	0.90	1.20	1.03	410	7.0	10
HPC8040NV-181	180	±10%	±15%	±20%	±30%	1MHz/1V	0.91	0.83	1.04	0.94	490	6.5	10
HPC8040NV-221	220	±10%	±15%	±20%	±30%	1MHz/1V	0.85	0.76	0.99	0.90	610	5.5	10
HPC8040NV-331	330	±10%	±15%	±20%	±30%	100KHz/1V	0.70	0.66	0.75	0.70	850	5.0	10
HPC8040NV-471	470	±10%	±15%	±20%	±30%	100KHz/1V	0.63	0.58	0.60	0.55	1300	3.4	10

## Note:

1. All test data referenced to 25°C ambient .
2. Testing Instrument : HP4284A,CH11025,CH3302,CH1320 ,CH1320S LCR METER / Rdc:CH502BC MICRO OHMMETER.
3. Heat Rated Current (I rms) will cause the coil temperature rise approximately ΔT of 40°C
4. Saturation Current (Isat) will cause L0 to drop approximately 30%.
5. 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.
6. Special inquiries besides the above common used types can be met on your requirement.

### 5. Typical Performance Curves





单击下面可查看定价，库存，交付和生命周期等信息

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