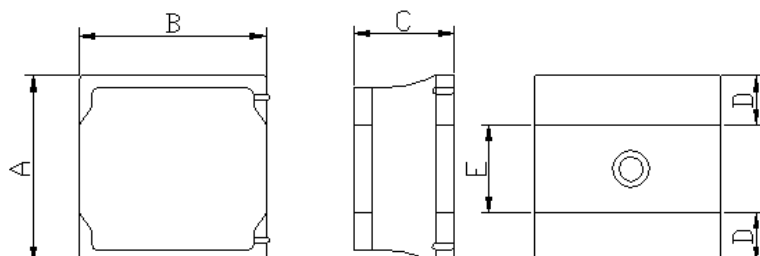


1. Features

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)



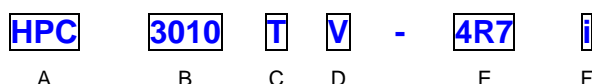
2. Dimension



Series	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)
HPC3010TV	3.0±0.2	3.0±0.2	1.0max.	1.0 ref.	1.0 ref.

Units: mm

3. Part Numbering



- A: Series
 B: Dimension
 C: Lead Free
 D: Category Code V=Vehicle
 E: Inductance 4R7=4.7uH
 F: Inductance Tolerance M=±20% ; Y=±30%

4. Specification

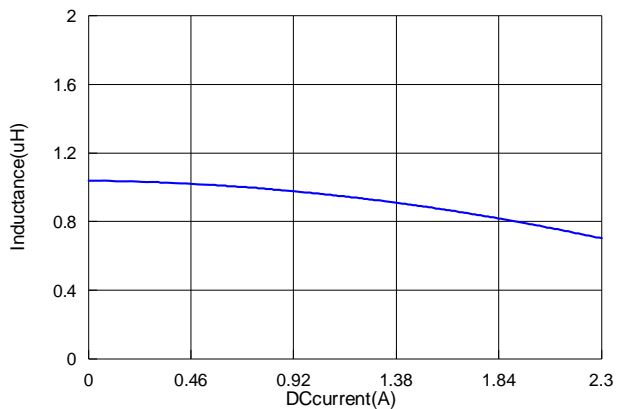
TAI-TECH Part Number	Inductance (uH)	Tolerance (%)	Test Frequency (Hz)	DCR (Ω) ±20%	I sat (A) typ.	I sat (A) max.	I rms (A) typ.	I rms (A) max.
HPC3010TV-1R0Y	1.0	±30%	0.1V/1M	0.055	2.20	1.80	2.50	2.10
HPC3010TV-1R5Y	1.5	±30%	0.1V/1M	0.070	2.00	1.50	2.20	1.90
HPC3010TV-2R2M	2.2	±20%	0.1V/1M	0.090	1.60	1.30	2.10	1.70
HPC3010TV-3R3M	3.3	±20%	0.1V/1M	0.130	1.30	1.10	1.70	1.50
HPC3010TV-4R7M	4.7	±20%	0.1V/1M	0.170	1.20	0.90	1.50	1.30
HPC3010TV-6R8M	6.8	±20%	0.1V/1M	0.260	0.90	0.77	1.30	1.00
HPC3010TV-100M	10	±20%	0.1V/1M	0.350	0.75	0.63	1.00	0.80
HPC3010TV-150M	15	±20%	0.1V/1M	0.510	0.65	0.54	0.80	0.70
HPC3010TV-220M	22	±20%	0.1V/1M	0.750	0.55	0.43	0.75	0.60

Note:

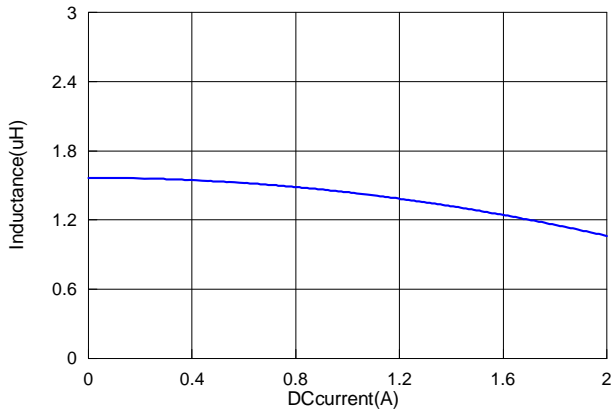
Isat : Based on inductance change (ΔL/L0 : ≤30%) @ ambient temp. 25°C

Irms : Based on temperature rise (ΔT : 40°C.) Max

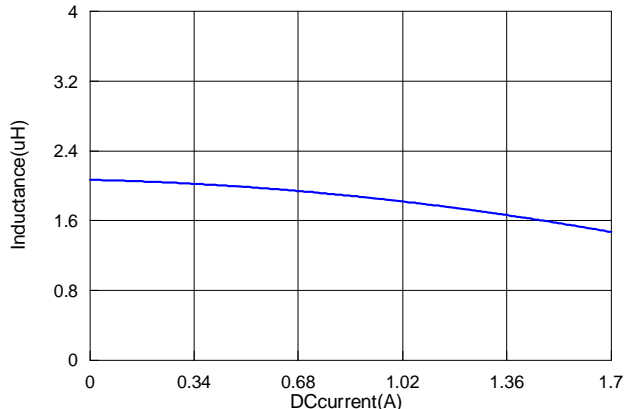
HPC3010TV-1R0



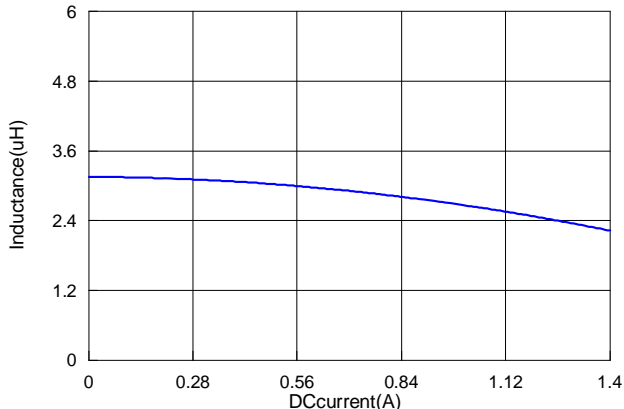
HPC3010TV-1R5



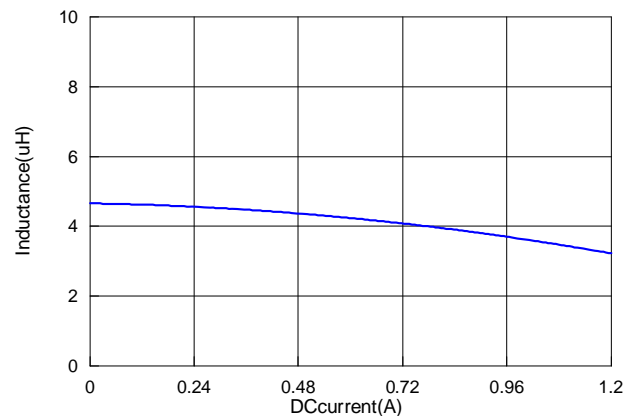
HPC3010TV-2R2



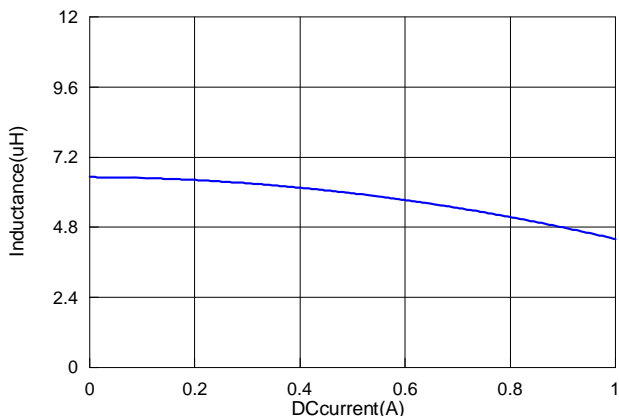
HPC3010TV-3R3



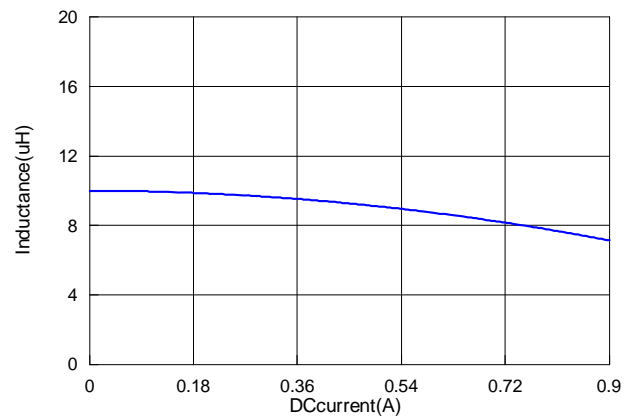
HPC3010TV-4R7



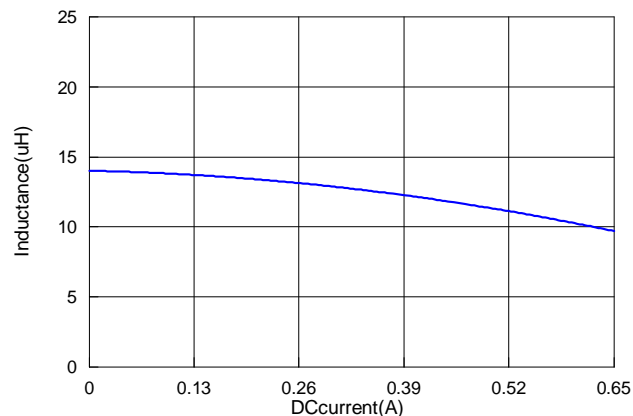
HPC3010TV-6R8



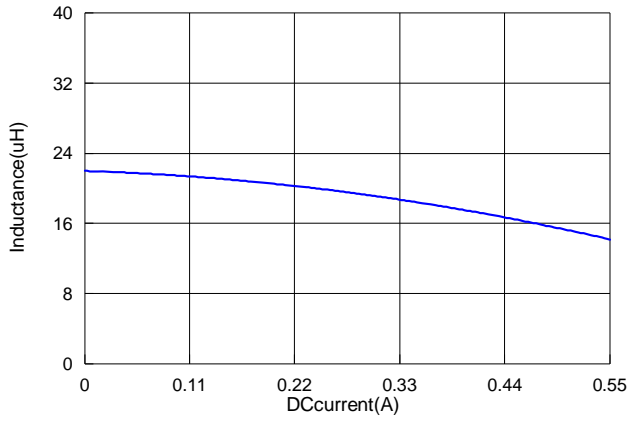
HPC3010TV-100



HPC3010TV-150



HPC3010TV-220

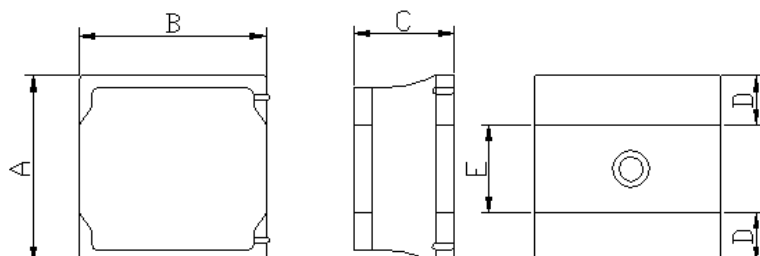


1. Features

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)



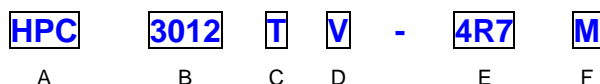
2. Dimension



Series	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)
HPC3012TV	3.0±0.2	3.0±0.2	1.2 max.	1.0 ref.	1.0 ref.

Units: mm

3. Part Numbering



- A: Series
 B: Dimension
 C: Lead Free
 D: Category Code V=Vehicle
 E: Inductance 4R7=4.7uH
 F: Inductance Tolerance M=±20% ; Y=±30%

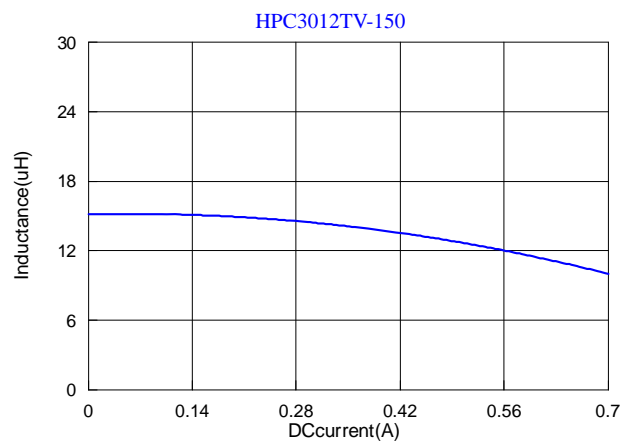
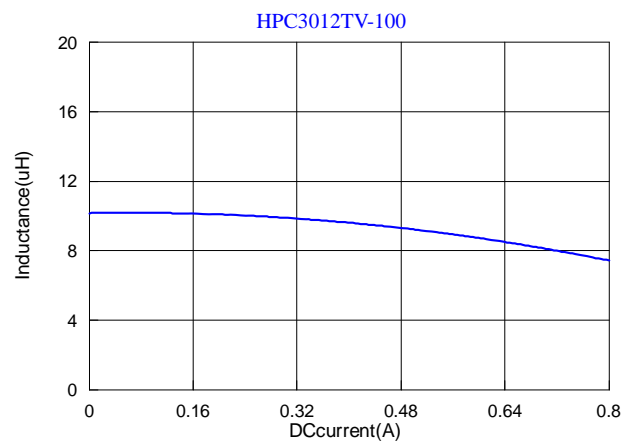
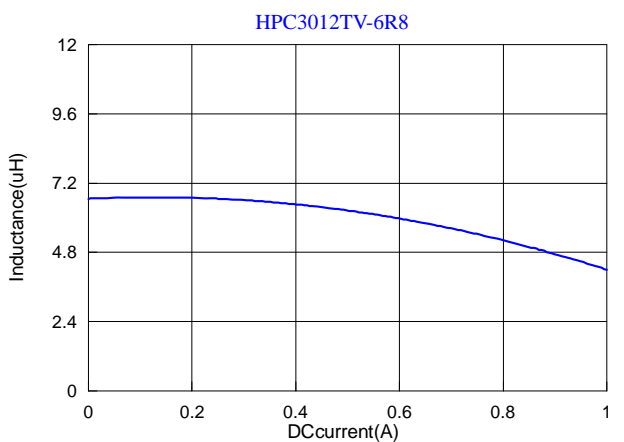
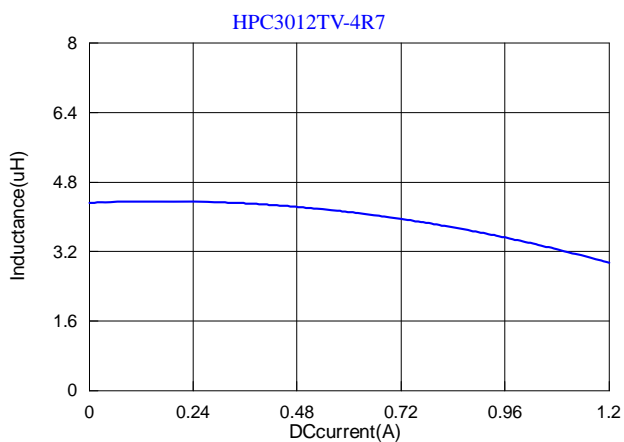
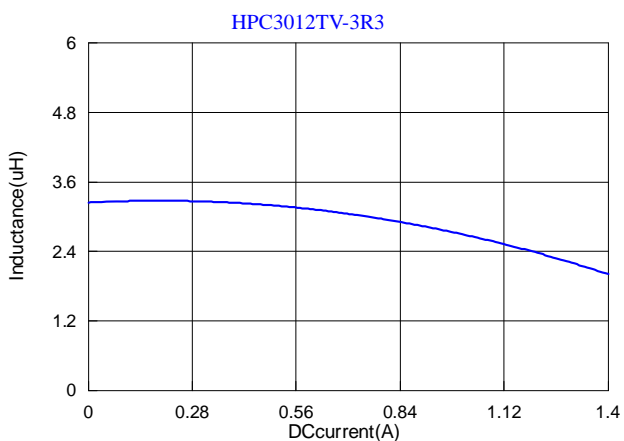
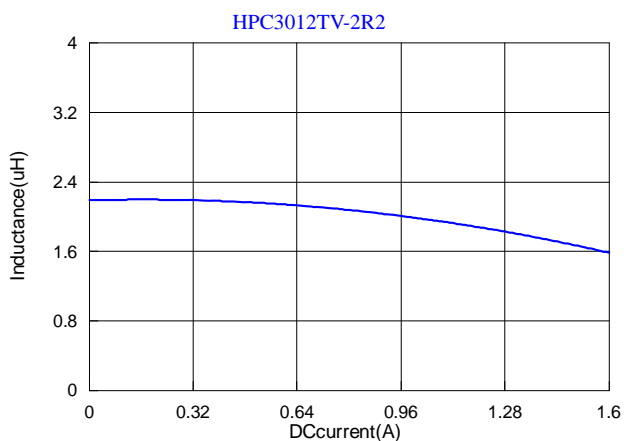
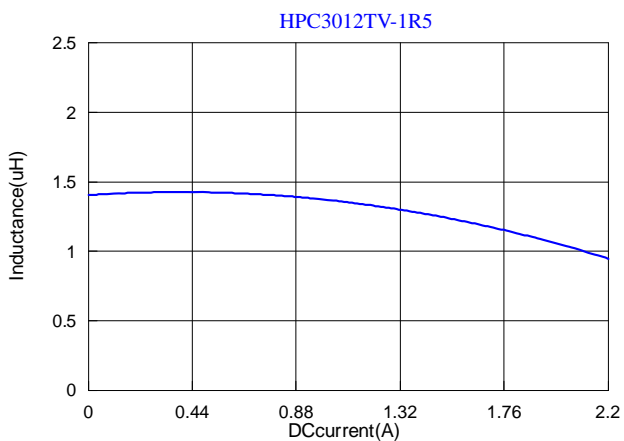
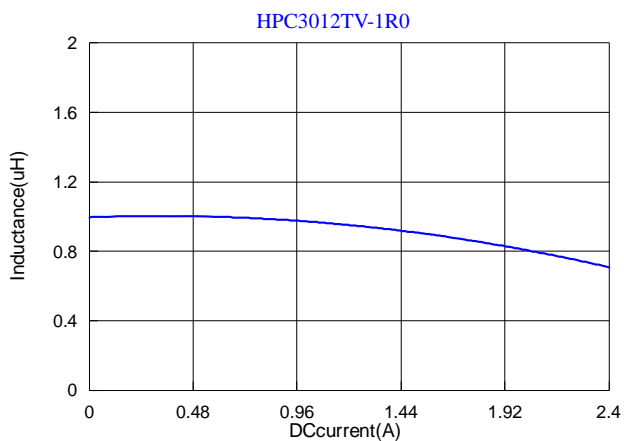
4. Specification

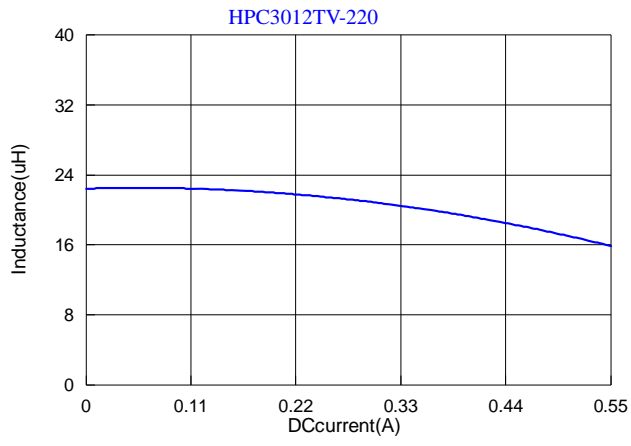
TAI-TECH Part Number	Inductance (uH)	Tolerance (%)	Test Frequency (Hz)	DCR (Ω) ±20%	I sat (A) typ.	I rms (A) typ.
HPC3012TV-1R0Y	1.0	±30%	0.1V/1M	0.042	2.15	2.00
HPC3012 TV-1R5Y	1.5	±30%	0.1V/1M	0.056	1.70	1.85
HPC3012 TV-2R2M	2.2	±20%	0.1V/1M	0.080	1.50	1.70
HPC3012 TV-3R3M	3.3	±20%	0.1V/1M	0.100	1.20	1.55
HPC3012 TV-4R7M	4.7	±20%	0.1V/1M	0.130	1.05	1.30
HPC3012 TV-6R8M	6.8	±20%	0.1V/1M	0.180	0.90	1.05
HPC3012 TV-100M	10	±20%	0.1V/1M	0.245	0.76	0.89
HPC3012 TV-150M	15	±20%	0.1V/1M	0.386	0.62	0.74
HPC3012 TV-220M	22	±20%	0.1V/1M	0.580	0.49	0.61

Note:

Isat : Based on inductance change (ΔL/L0 : ≤30%) @ ambient temp. 25°C

Irms : Based on temperature rise (ΔT : 40°C.)



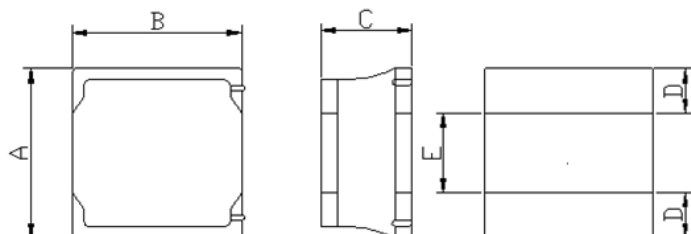


1. Features

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)



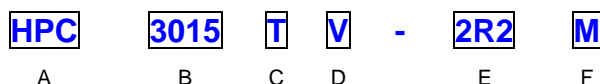
2. Dimension



Series	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)
HPC3015TV	3.0±0.2	3.0±0.2	1.5 max.	1.0 ref.	1.0 ref.

Units: mm

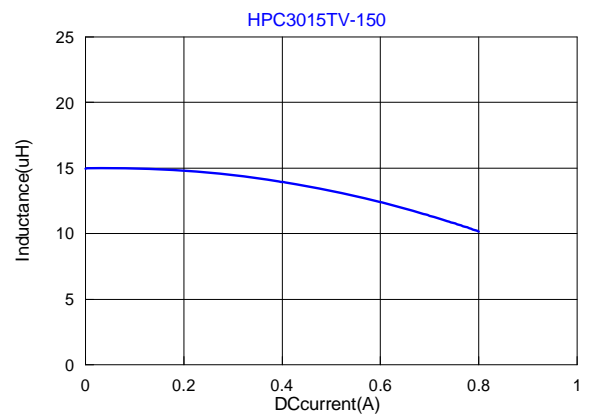
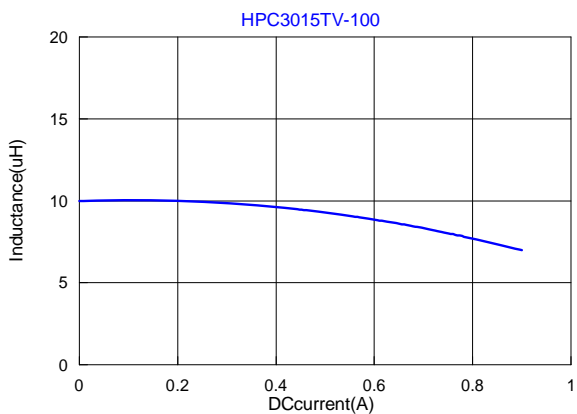
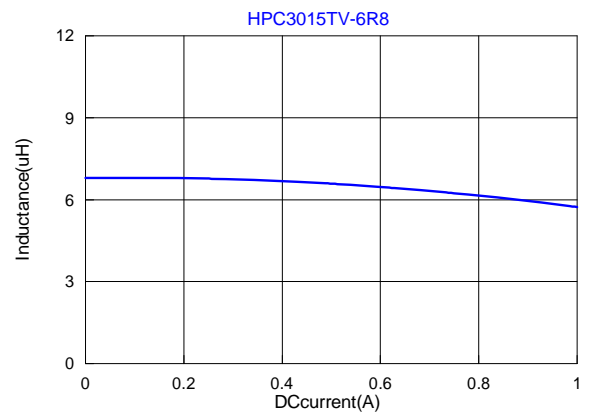
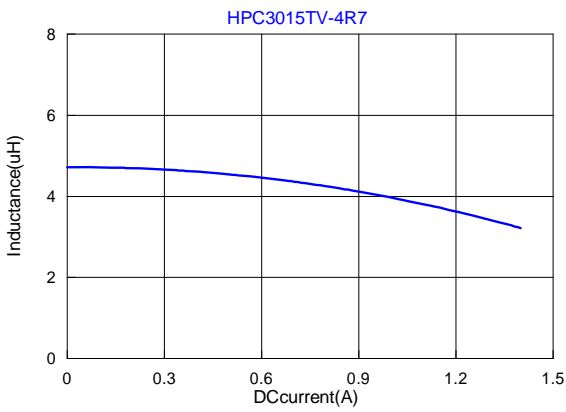
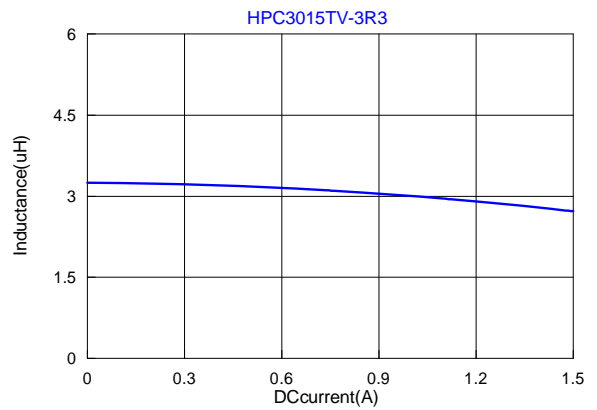
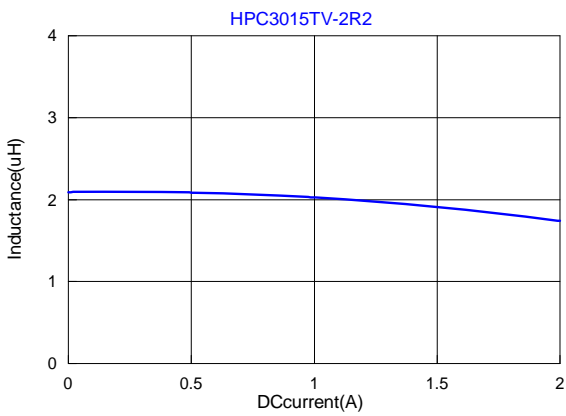
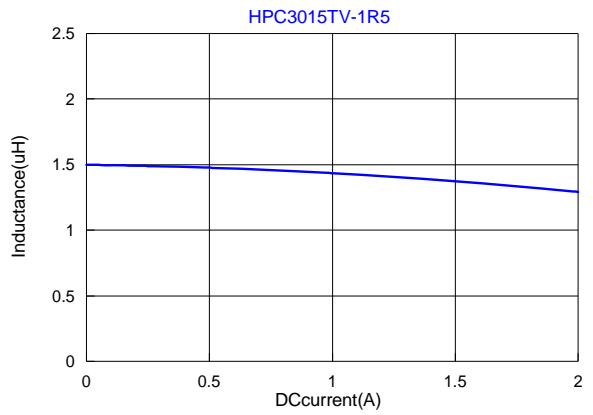
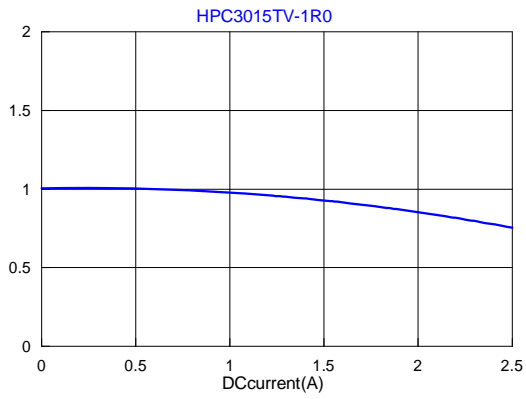
3. Part Numbering

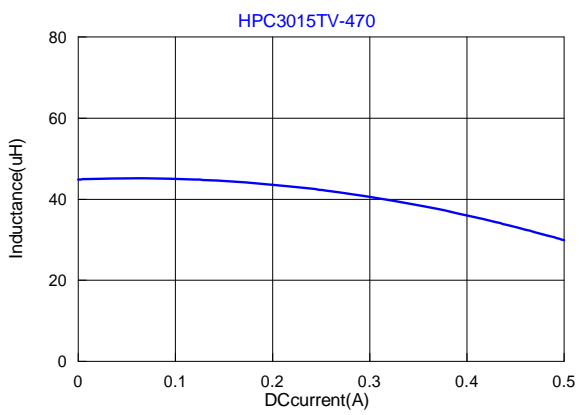
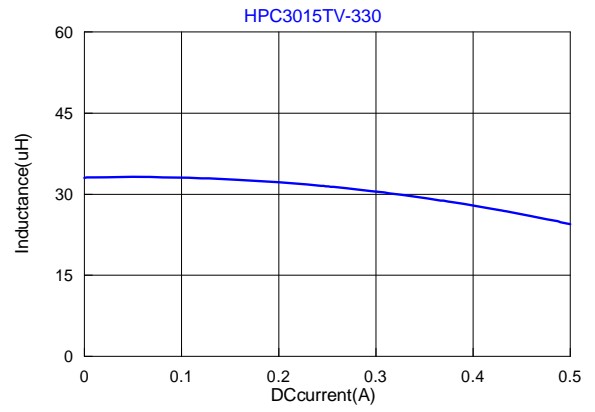
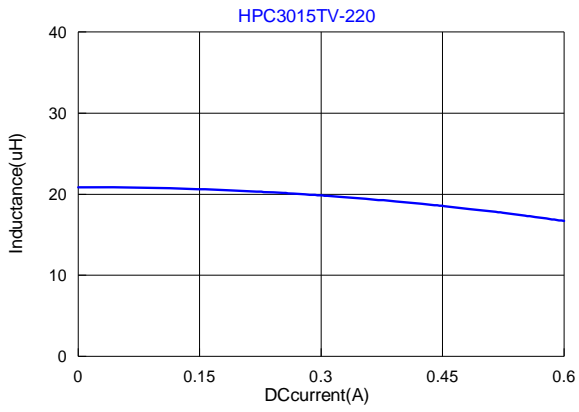


- A: Series
 B: Dimension
 C: Lead Free
 D: Category Code V=Vehicle
 E: Inductance 2R2=2.2uH
 F: Inductance Tolerance M=±20%; Y=±30%

4. Specification

TAI-TECH Part Number	Inductance (uH)	Tolerance (%)	Test Frequency (Hz)	SRF (MHz) typ.	DCR (Ω) ±20%	I sat (A)typ	I sat (A)max.	I rms (A)typ	I rms (A)max.
HPC3015TV -1R0Y	1.0	±30%	1V100K	100	0.030	2.20	2.00	2.20	2.00
HPC3015TV -1R5Y	1.5	±30%	1V100K	87	0.040	2.00	1.80	2.00	1.80
HPC3015TV -2R2M	2.2	±20%	1V100K	64	0.060	1.70	1.50	1.70	1.50
HPC3015TV -3R3M	3.3	±20%	1V100K	49	0.080	1.40	1.20	1.40	1.20
HPC3015TV -4R7M	4.7	±20%	1V100K	40	0.120	1.20	1.00	1.20	1.00
HPC3015TV -6R8M	6.8	±20%	1V100K	36	0.160	1.00	0.90	1.00	0.90
HPC3015TV -100M	10	±20%	1V100K	28	0.220	0.75	0.65	0.80	0.70
HPC3015TV -150M	15	±20%	1V100K	23	0.320	0.65	0.55	0.70	0.60
HPC3015TV -220M	22	±20%	1V100K	20	0.460	0.55	0.45	0.60	0.50
HPC3015TV -330M	33	±20%	1V100K	18	0.800	0.40	0.35	0.45	0.40
HPC3015TV -470M	47	±20%	1V100K	17	1.200	0.35	0.30	0.40	0.35



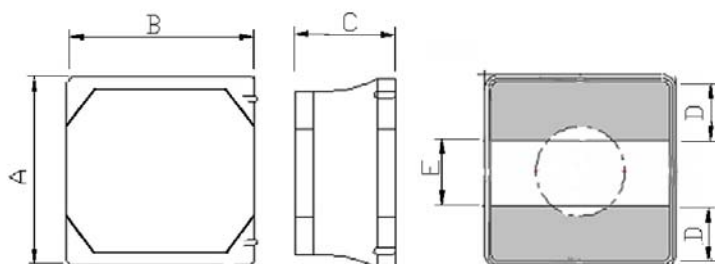


1. Features

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)



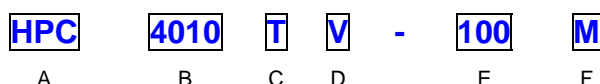
2. Dimension



Series	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)
HPC4010TV	4.0±0.2	4.0±0.2	1.0 max.	1.2 ref.	1.6 ref.

Units: mm

3. Part Numbering



A: Series

B: Dimension

C: Lead Free

D: Category Code

V=Vehicle

E: Inductance

100=10uH

F: Inductance Tolerance

M=±20% ; Y=±30%

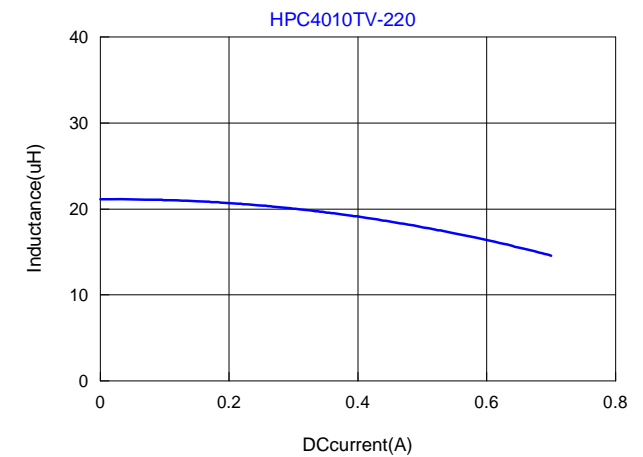
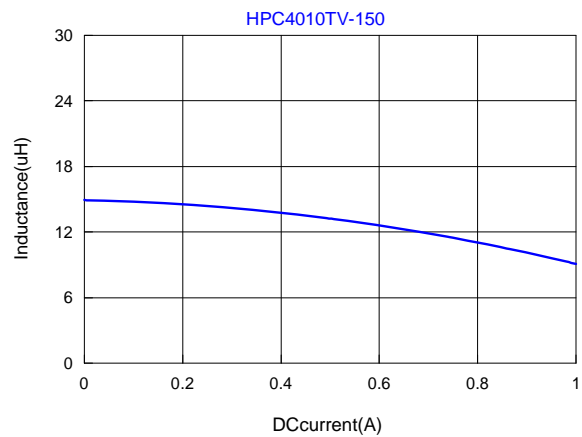
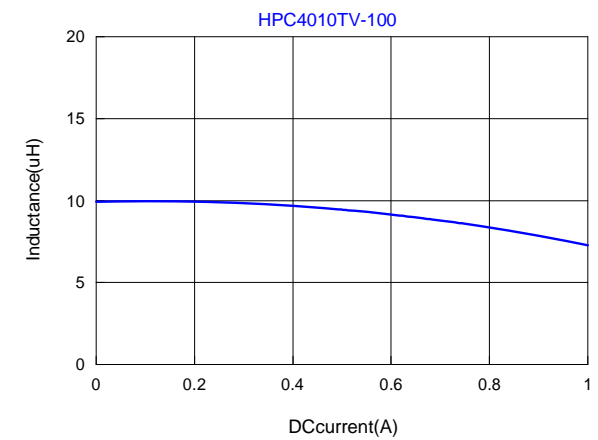
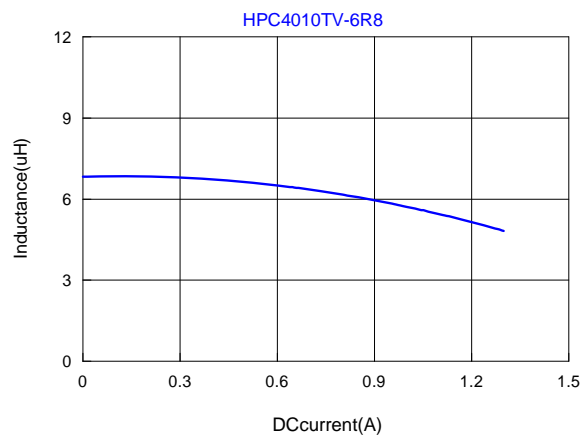
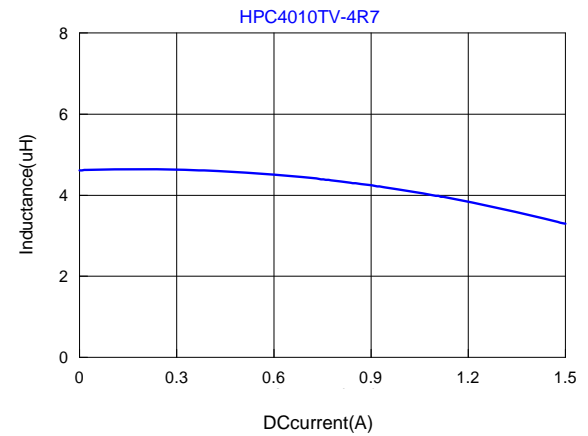
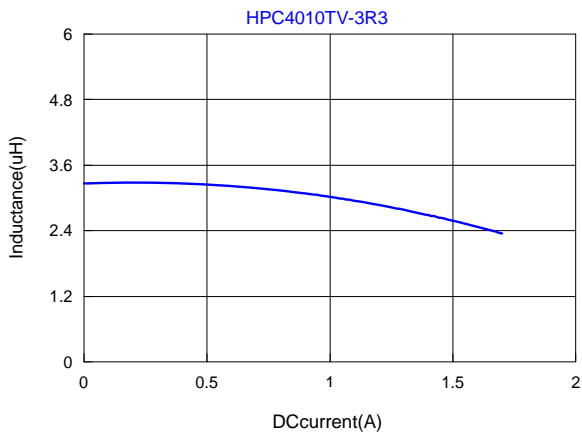
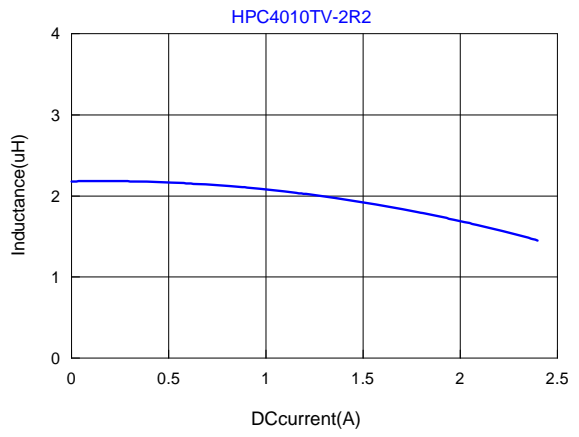
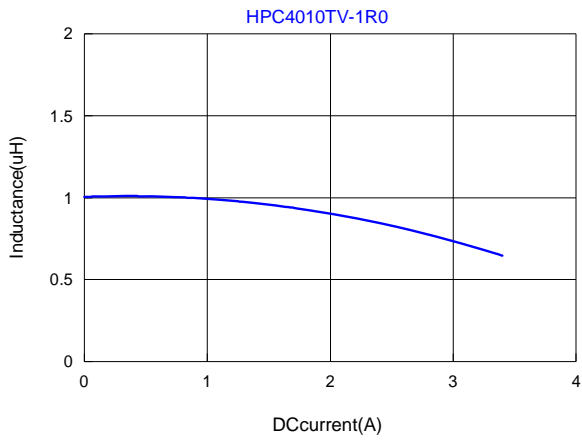
4. Specification

TAI-TECH Part Number	Inductance (uH)	Tolerance (%)	Test Frequency (Hz)	SRF (MHz) typ.	DCR (Ω) ±20%	I sat (A)typ.	I sat (A)Max.	I rms (A)typ.	I rms (A)Max.
HPC4010TV-1R0Y	1.0	±30%	1V100K	116	0.056	2.40	2.00	2.30	1.90
HPC4010TV-2R2M	2.2	±20%	1V100K	73	0.085	1.50	1.20	1.80	1.50
HPC4010TV-3R3M	3.3	±20%	1V100K	58	0.100	1.30	1.10	1.70	1.40
HPC4010TV-4R7M	4.7	±20%	1V100K	47	0.140	1.20	0.95	1.50	1.20
HPC4010TV-6R8M	6.8	±20%	1V100K	38	0.200	1.00	0.80	1.20	1.00
HPC4010TV-100M	10	±20%	1V100K	31	0.300	0.80	0.62	0.90	0.75
HPC4010TV-150M	15	±20%	1V100K	24	0.430	0.70	0.54	0.80	0.60
HPC4010TV-220M	22	±20%	1V100K	19	0.570	0.60	0.45	0.80	0.50

Note:

Isat : Based on inductance change (ΔL/L0 : ≤30%) @ ambient temp. 25°C

I rms : Based on temperature rise (ΔT : 40°C typ.) max

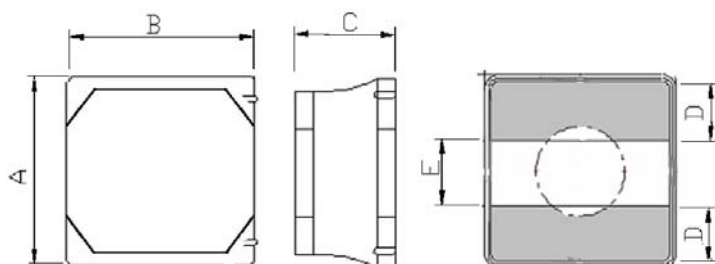


1. Features

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)



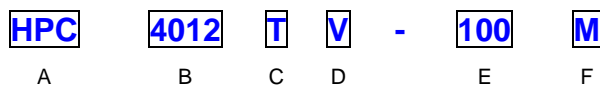
2. Dimension



Series	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)
HPC4012TV	4.0±0.2	4.0±0.2	1.2 max.	1.2 ref.	1.6 ref.

Units: mm

3. Part Numbering



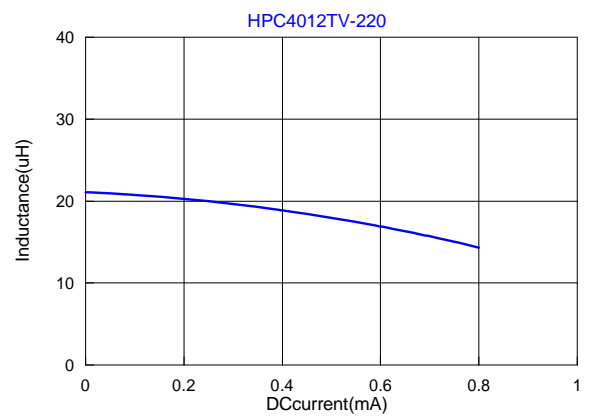
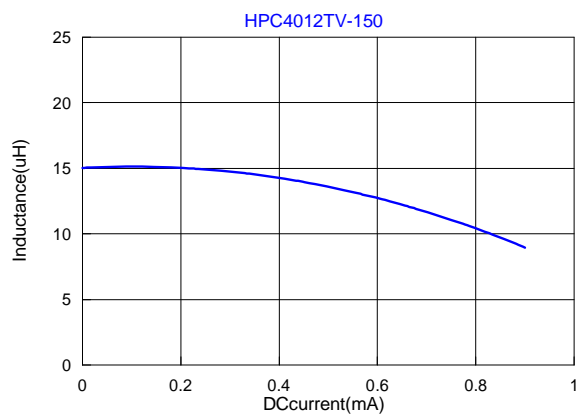
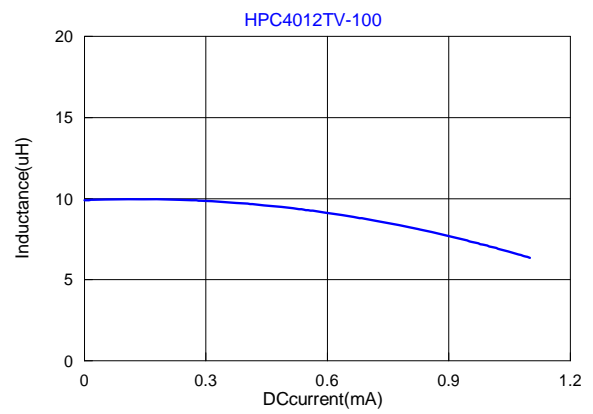
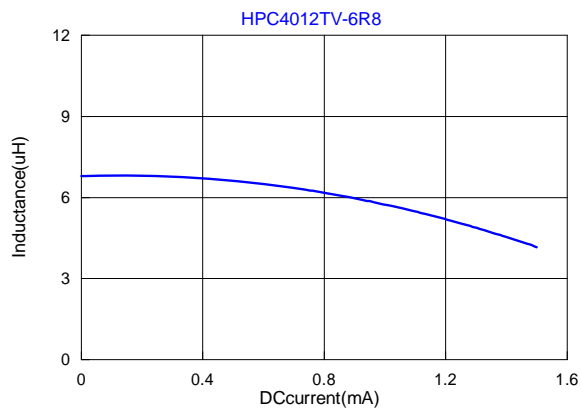
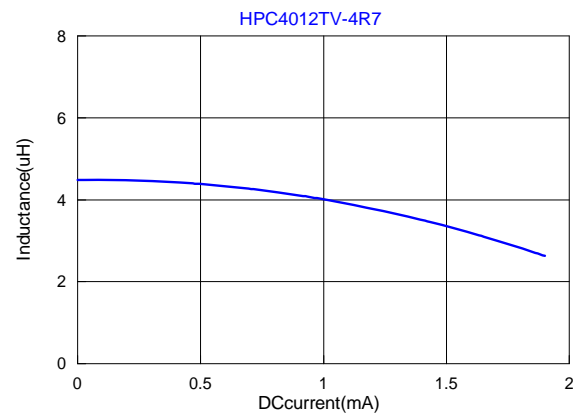
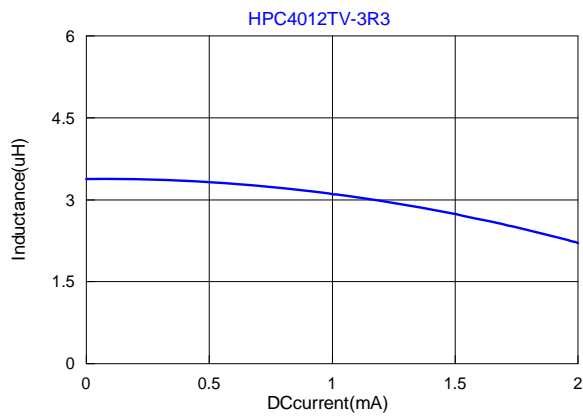
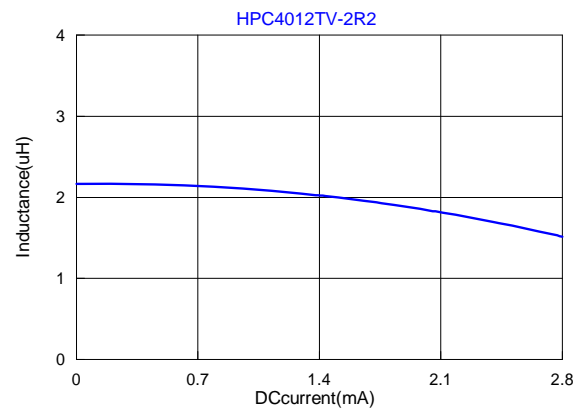
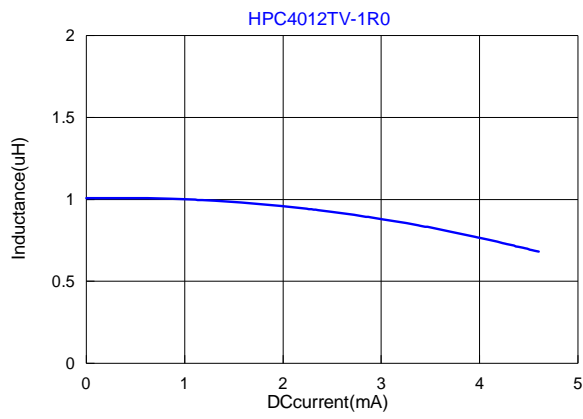
- A: Series
 B: Dimension
 C: Lead Free
 D: Category Code V=Vehicle
 E: Inductance 100=10uH
 F: Inductance Tolerance M=±20% ; Y=±30%

4. Specification

TAI-TECH Part Number	Inductance (uH)	Tolerance (%)	Test Frequency (Hz)	SRF (MHz) typ.	DCR (Ω) ±20%	I sat (A)typ.	I sat (A)Max.	I rms (A)typ.	I rms (A)Max.
HPC4012TV -1R0Y	1.0	±30%	1V100K	100	0.042	3.30	2.80	2.50	2.20
HPC4012TV -2R2M	2.2	±20%	1V100K	70	0.060	1.95	1.65	2.20	1.90
HPC4012TV -3R3M	3.3	±20%	1V100K	60	0.070	1.60	1.40	1.90	1.70
HPC4012TV -4R7M	4.7	±20%	1V100K	45	0.095	1.40	1.20	1.70	1.50
HPC4012TV -6R8M	6.8	±20%	1V100K	35	0.125	1.10	0.90	1.50	1.30
HPC4012TV -100M	10	±20%	1V100K	30	0.180	1.00	0.80	1.30	1.10
HPC4012TV -150M	15	±20%	1V100K	24	0.260	0.80	0.65	0.95	0.75
HPC4012TV -220M	22	±20%	1V100K	18	0.400	0.60	0.50	0.72	0.62

Note:

Isat : Based on inductance change ($\Delta L/L0 : \leq 30\%$) @ ambient temp. 25°CIrms : Based on temperature rise ($\Delta T : 40^\circ\text{C}$ typ.) max

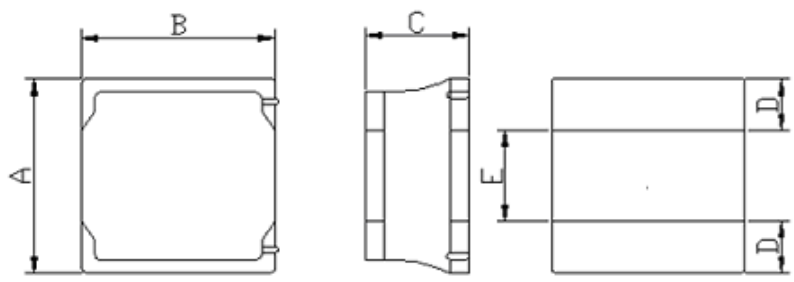


1. Features

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)



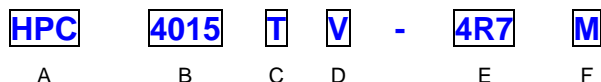
2. Dimension



Series	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)
HPC4015TV	4.0±0.2	4.0±0.2	1.5 max.	1.2 ref.	1.6 ref.

Units: mm

3. Part Numbering



A: Series

B: Dimension

C: Lead Free

D: Inductance

4R7=4.7uH

E: Inductance Tolerance

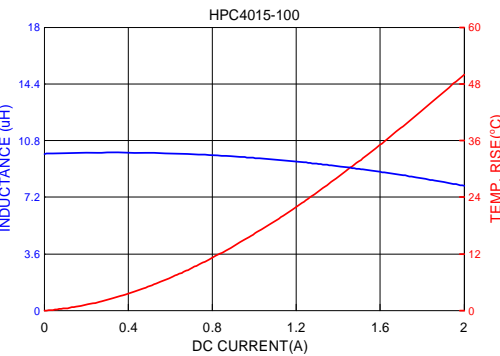
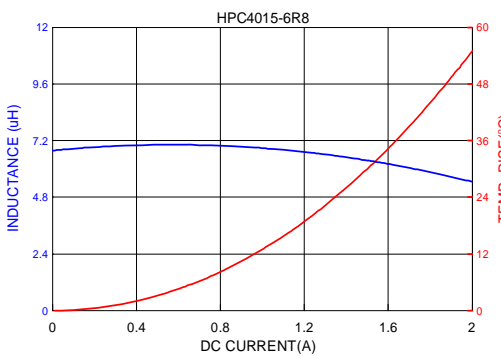
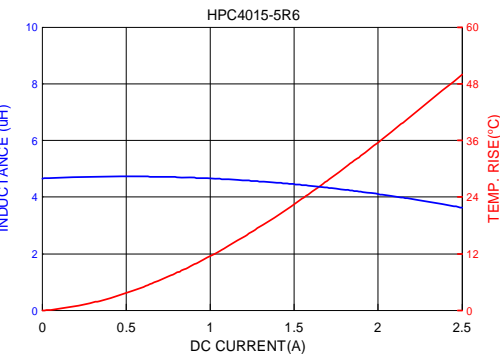
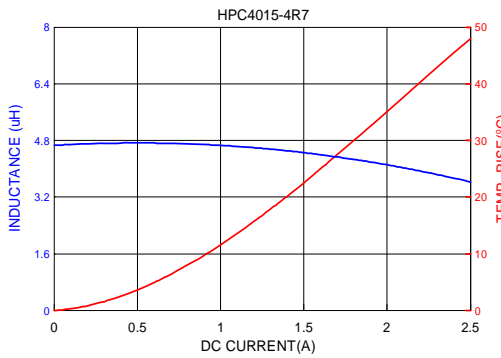
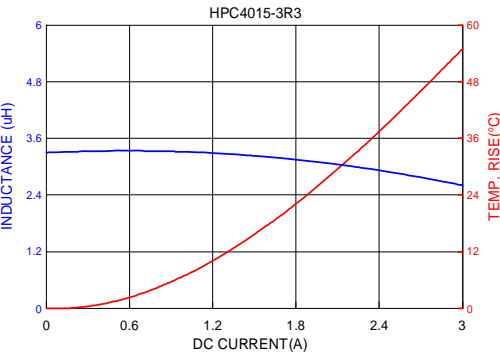
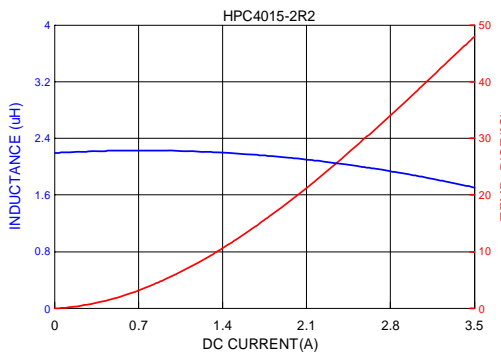
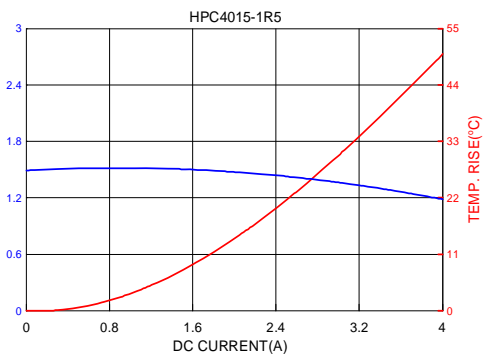
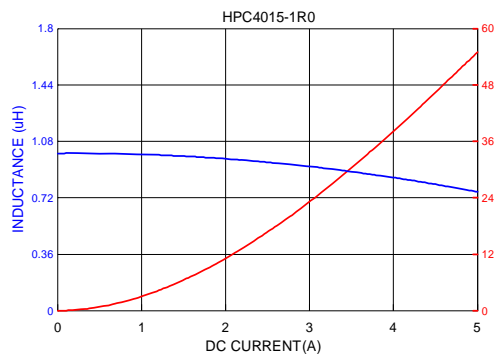
M=±20%

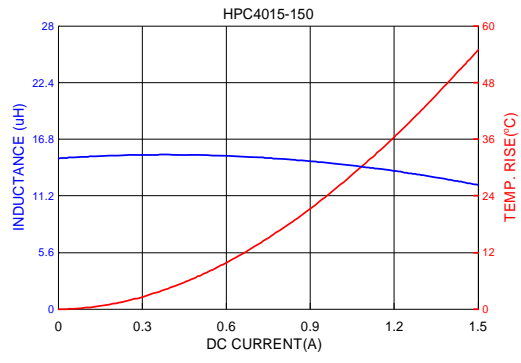
4. Specification

TAI-TECH Part Number	Inductance (uH)	Tolerance (%)	Test Frequency (Hz)	DCR (Ω) ±20%	I sat (A)typ.	I rms (A)typ.
HPC4015TV-1R0M	1.00	±20%	1V100K	33.0	4.00	3.70
HPC4015TV-1R5M	1.50	±20%	1V100K	41.0	3.30	3.30
HPC4015TV-2R2M	2.20	±20%	1V100K	55.0	2.90	2.90
HPC4015TV-3R3M	3.30	±20%	1V100K	65.0	2.30	2.30
HPC4015TV-4R7M	4.70	±20%	1V100K	85.0	1.90	1.90
HPC4015TV-5R6M	5.60	±20%	1V100K	103.0	1.70	1.70
HPC4015TV-6R8M	6.80	±20%	1V100K	110.0	1.60	1.60
HPC4015TV-100M	10.0	±20%	1V100K	160.0	1.40	1.40
HPC4015TV-150M	15.0	±20%	1V100K	230.0	1.10	1.10

.Note:

Isat : Based on inductance change ($\Delta L/L0 : \leq 30\%$) @ ambient temp. 25°CIrms : Based on temperature rise ($\Delta T : 40^\circ\text{C}$.) Max





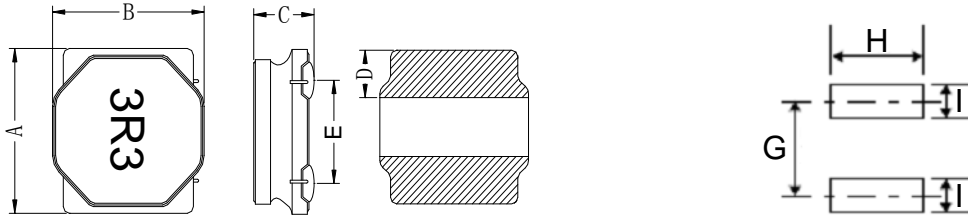
SMD Power Inductor **HPC4018BMV-Series**

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)



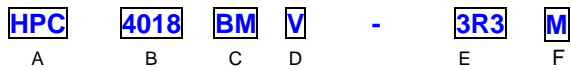
2. Dimension



Series	A	B	C	D	E	G	H	I
HPC4018BMV	4.0±0.2	4.0±0.2	1.8 max.	1.1±0.2	2.5±0.2	2.8 ref.	3.7 ref.	1.2 ref.

Units: mm

3. Part Numbering



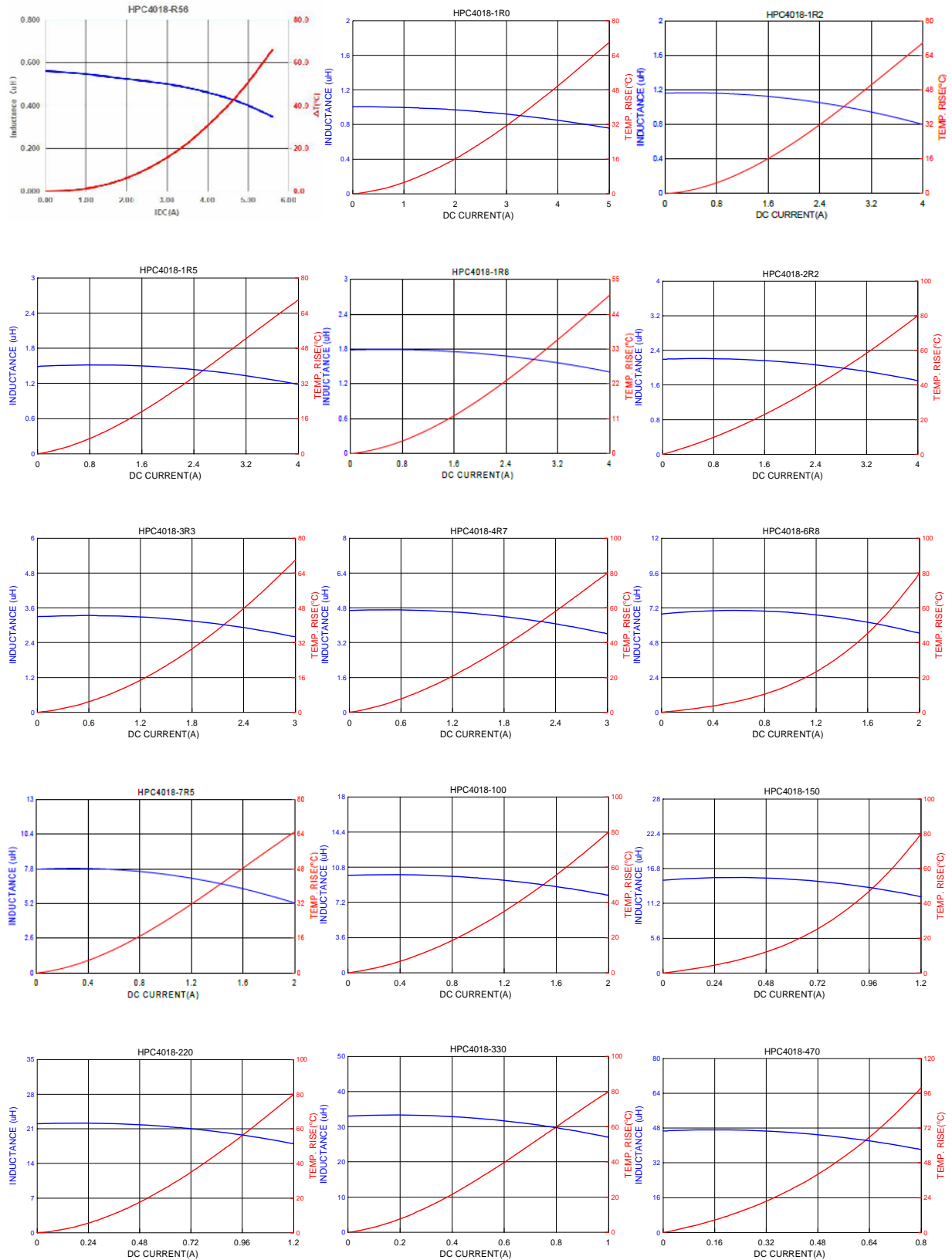
- A: Series
 - B: Dimension
 - C: Control S/N
 - D: Category Code
 - E: Inductance
 - F: Inductance Tolerance
- marking direction cannot decide polarity. Color: Black
 V=Vehicle
 3R3=3.30uH
 M=±20% Y=±30%

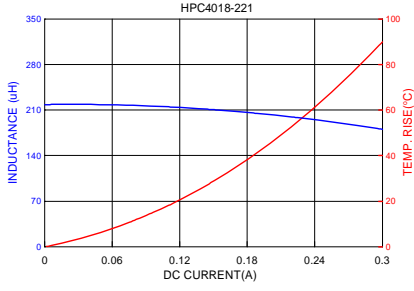
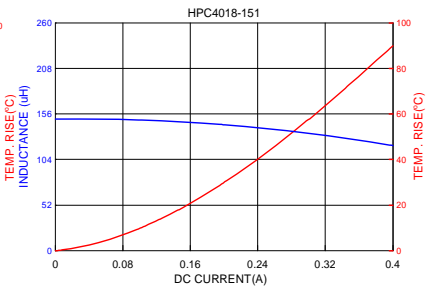
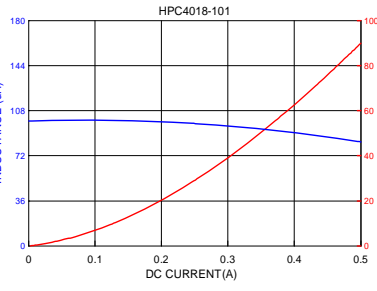
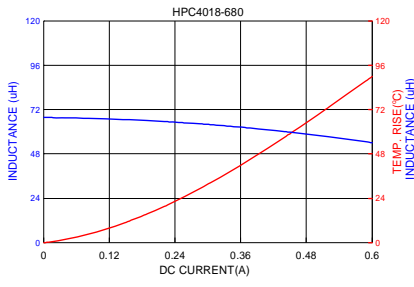
4. Specification

Part Number	Inductance (uH)	Tolerance (%)	Test Frequency (Hz)	SRF (MHz) min.	DCR (Ω) ±20%	I rms (A)	I sat (A)
HPC4018BMV-R56M	0.56	±20%	1V100K	100	0.019	4.50	5.00
HPC4018BMV-1R0Y	1.0	±30%	1V100K	90	0.027	3.20	4.00
HPC4018BMV-1R2Y	1.2	±30%	1V100K	82	0.030	2.80	3.70
HPC4018BMV-1R5Y	1.5	±30%	1V100K	75	0.037	2.40	3.30
HPC4018BMV-1R8M	1.8	±20%	1V100K	67	0.040	2.30	3.20
HPC4018BMV-2R2M	2.2	±20%	1V100K	60	0.042	2.20	3.00
HPC4018BMV-3R3M	3.3	±20%	1V100K	45	0.055	2.00	2.30
HPC4018BMV-4R7M	4.7	±20%	1V100K	35	0.070	1.70	2.00
HPC4018BMV-6R8M	6.8	±20%	1V100K	30	0.098	1.45	1.60
HPC4018BMV-7R5M	7.5	±20%	1V100K	42	0.120	1.35	1.50
HPC4018BMV-100M	10	±20%	1V100K	25	0.150	1.20	1.30
HPC4018BMV-150M	15	±20%	1V100K	18	0.210	0.85	1.10
HPC4018BMV-220M	22	±20%	1V100K	15	0.290	0.72	0.90
HPC4018BMV-330M	33	±20%	1V100K	12	0.460	0.55	0.70
HPC4018BMV-470M	47	±20%	1V100K	10	0.650	0.44	0.60
HPC4018BMV-680M	68	±20%	1V100K	8.3	1.00	0.32	0.52
HPC4018BMV-101M	100	±20%	1V100K	6.5	1.45	0.28	0.42
HPC4018BMV-151M	150	±20%	1V100K	5.5	2.30	0.22	0.34
HPC4018BMV-221M	220	±20%	1V100K	4.0	3.80	0.17	0.275

Note:
 Isat : Based on inductance change (ΔL/L0 : ≤-30%) @ ambient temp. 25°C
 I rms : Based on temperature rise (ΔT : 40°C typ.)

5. Typical Performance Curves





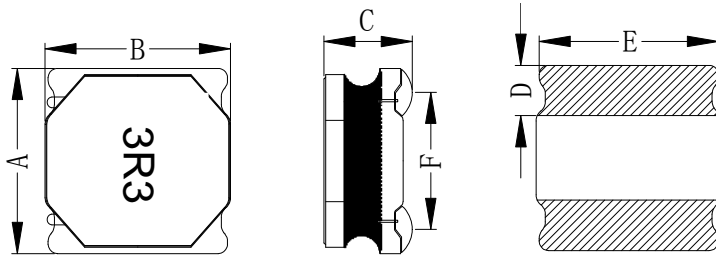
SMD Power Inductor **HPC5020NV-Series**

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)



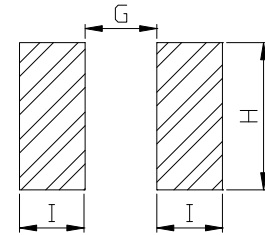
2. Dimensions



Series	*A(mm)	*B(mm)	*C(mm)	D(mm)	E(mm)	F(mm)
HPC5020NV	5.0±0.2	5.0±0.2	1.8±0.2	1.3±0.2	4.7±0.2	3.7ref

*Dimensions are not including the termination. For maximum overall dimensions with termination , add 0.1mm.

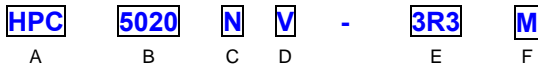
Recommended Land pattern



G(mm)	H(mm)	I(mm)
2.1	4.7	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 A/B*C
 - C: Type
 - D: Category Code V=Vehicle
 - E: Inductance 3R3=3.3uH
 - F: Inductance Tolerance M=±20%
- marking direction cannot decide polarity. Color: Black, unidirectional.
magnetic shielding

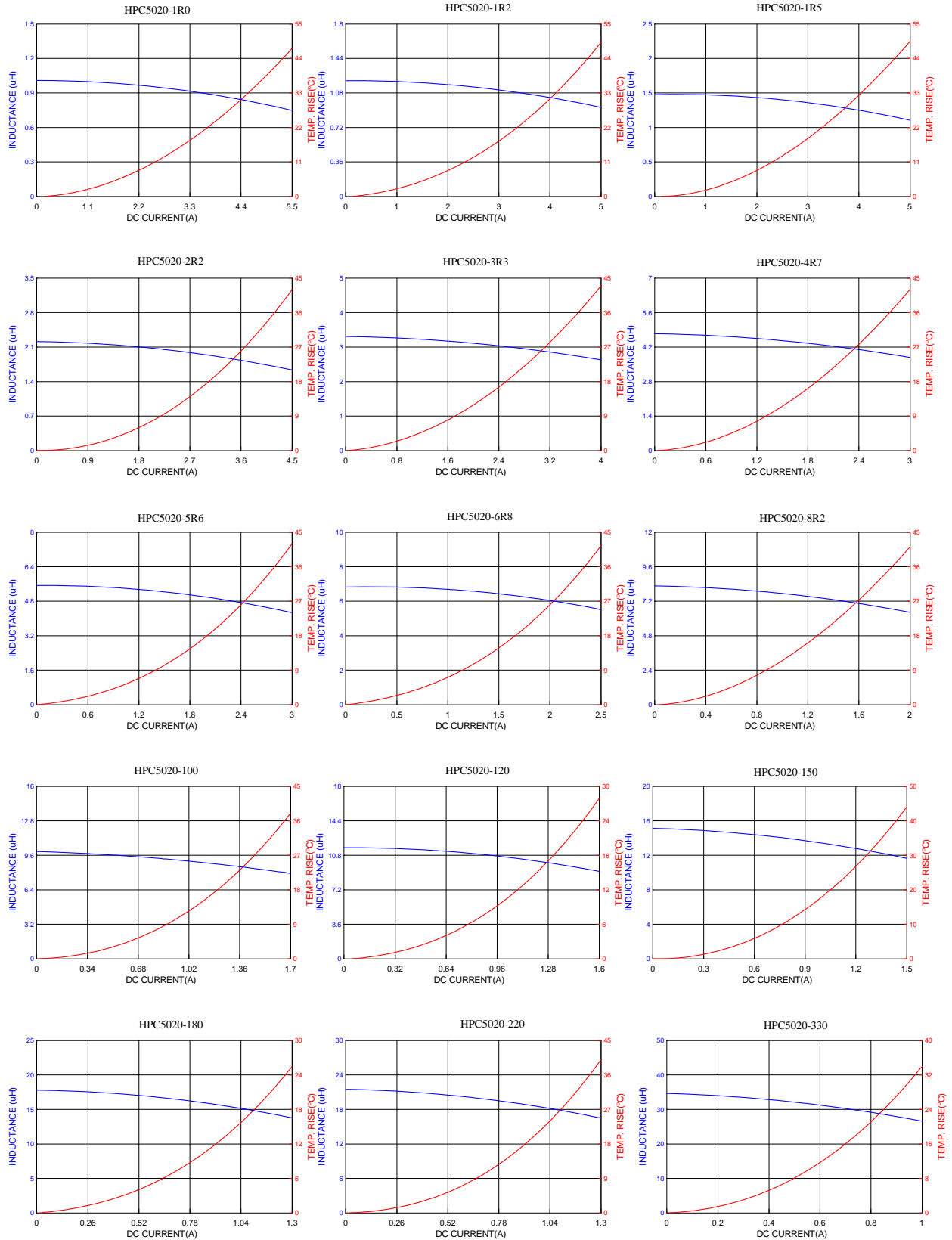
4. Specification

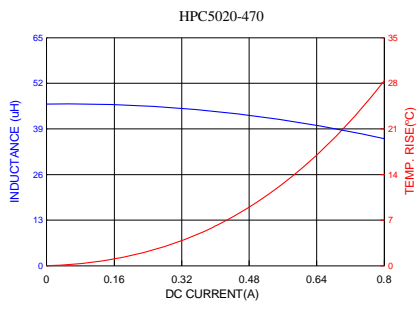
Part Number	Inductance L0 (uH) @ 0 A	Tolerance	Rated current		DCR (mΩ) @25°C ±20%.
			Tempetature current I rms (A)	Saturation current I sat (A)	
HPC5020NV-1R0Y	1.00	±30%	4.10	5.00	20
HPC5020NV-1R2Y	1.20	±30%	3.80	4.80	20
HPC5020NV-1R5Y	1.50	±30%	3.50	4.50	25
HPC5020NV-2R2M	2.20	±20%	3.30	4.10	32
HPC5020NV-3R3M	3.30	±20%	2.80	3.50	43
HPC5020NV-4R7M	4.70	±20%	2.40	2.70	60
HPC5020NV-5R6M	5.60	±20%	2.10	2.40	69
HPC5020NV-6R8M	6.80	±20%	1.90	2.10	90
HPC5020NV-8R2M	8.20	±20%	1.75	1.90	98
HPC5020NV-100M	10.0	±20%	1.60	1.70	110
HPC5020NV-120M	12.0	±20%	1.40	1.40	135
HPC5020NV-150M	15.0	±20%	1.25	1.30	165
HPC5020NV-180M	18.0	±20%	1.17	1.20	190
HPC5020NV-220M	22.0	±20%	1.10	1.10	225
HPC5020NV-330M	33.0	±20%	0.80	0.80	335
HPC5020NV-470M	47.0	±20%	0.70	0.70	460

Note:

1. All test data referenced to 25°C ambient , Ls/Q:100KHz/1V.
2. Testing Instrument(or equ) : L: HP4284A,CH11025,CH3302,CH1320,CH1320S LCR METER / Rdc:CH16502,Agilent33420A MICRO OHMMETER.
3. Heat Rated Current (I rms) will cause the coil temperature rise approximately ΔT of 40°C
4. Saturation Current (I sat) 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.
7. Special inquiries besides the above common used types can be met on your requirement.

5. Typical Performance Curves





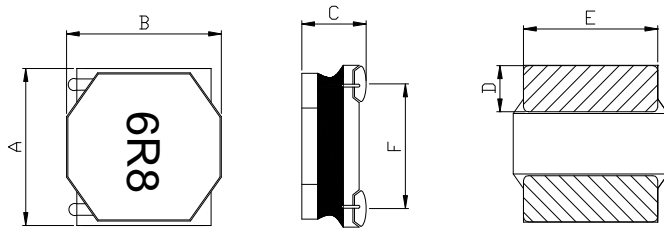
SMD Power Inductor **HPC5040NV-Series**

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)

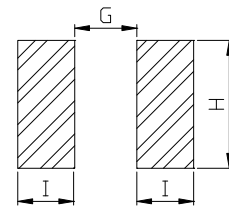


2. Dimensions



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

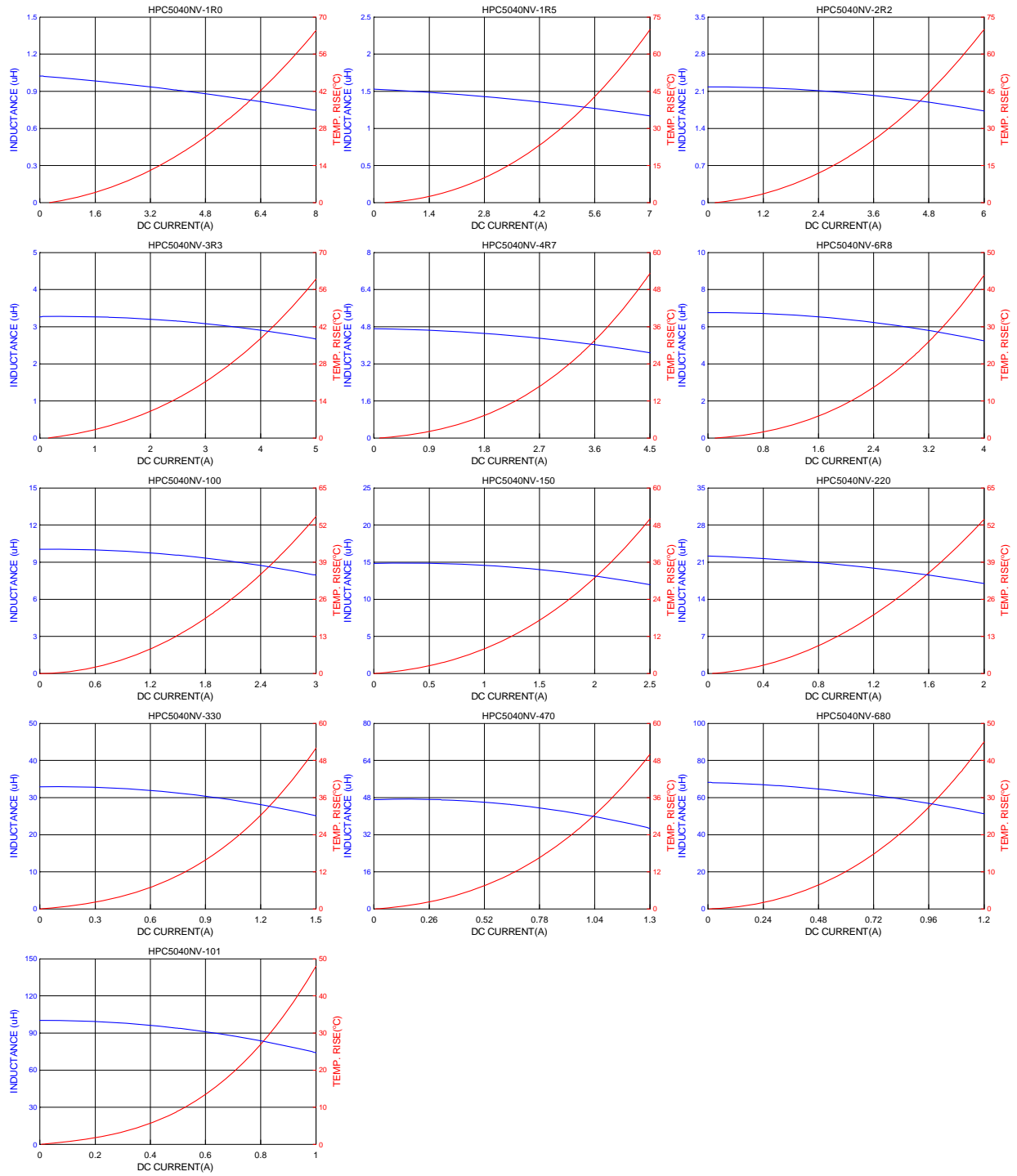
4. Specification

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:

1. All test data referenced to 25°C ambient , Ls:100KHz/1V.
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



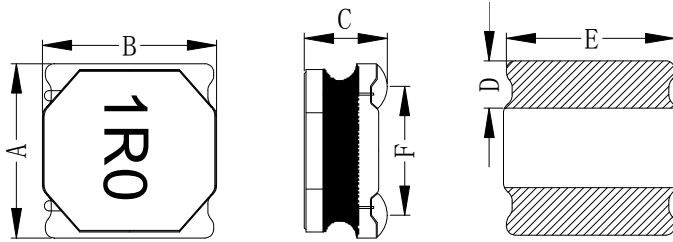
SMD Power Inductor **HPC6020NV-Series**

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)



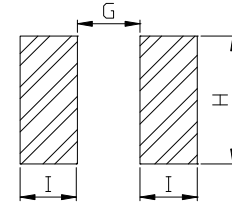
2. Dimensions



Series	*A(mm)	*B(mm)	*C(mm)	D(mm)	E(mm)	F(mm)
HPC6020NV	6.0±0.2	6.0±0.2	1.8±0.2	1.6±0.3	5.8±0.3	4.3ref

*Dimensions are not including the termination. For maximum overall dimensions with termination, add 0.1mm.

Recommended Land pattern



G(mm)	H(mm)	I(mm)
2.5	5.8	1.8

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
1R0=1.0uH
Y=±30%.
marking direction cannot decide polarity. Color: Black, unidirectional.
magnetic shielding

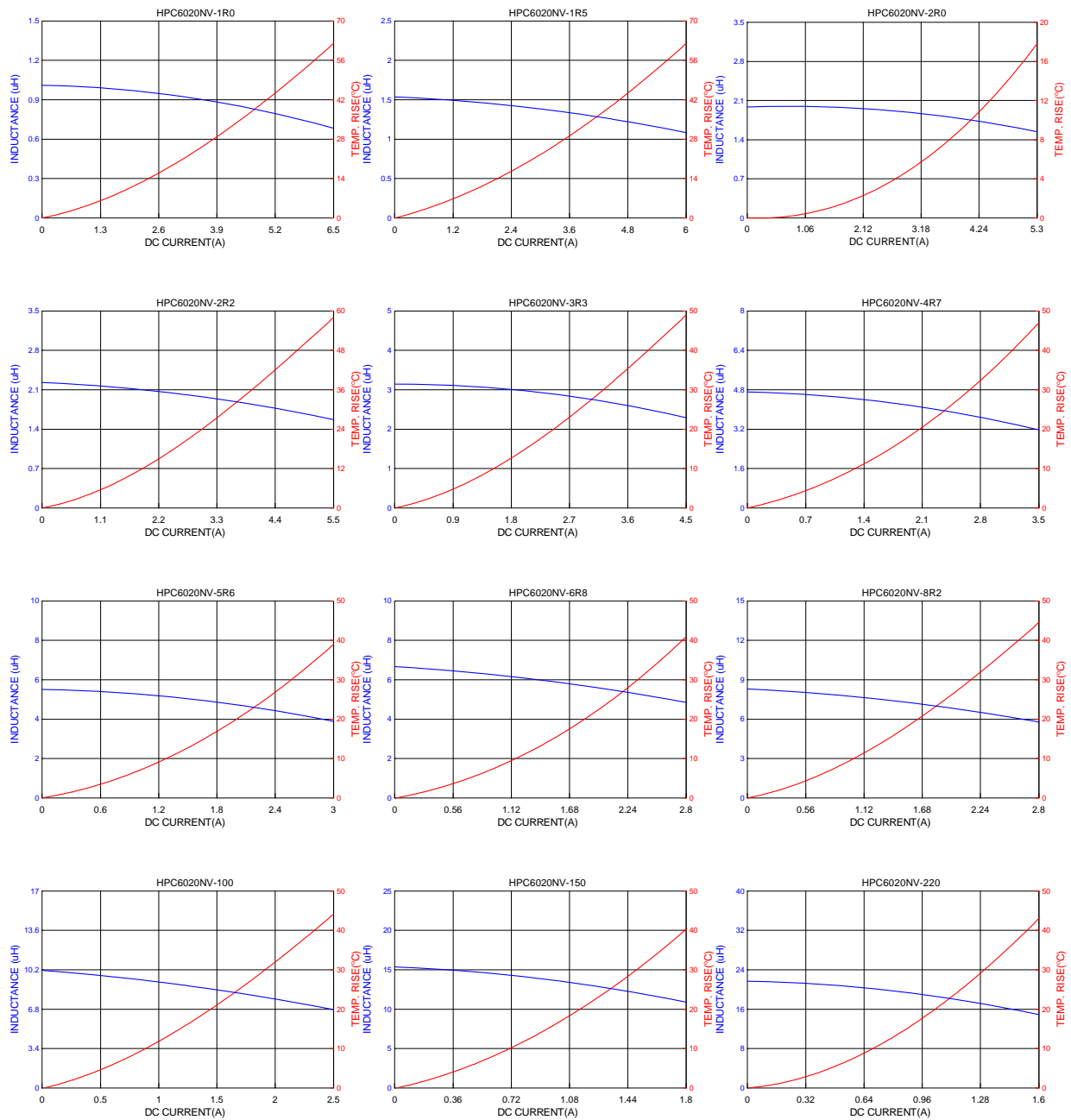
4. Specification

Part Number	Inductance L0 (uH) @ 0 A	Tolerance				Rated current		DCR (mΩ)@25°C ±20%.
						Temperature current I rms (A)	Saturation current I sat (A)	
		K	L	M	Y			
HPC6020NV-1R0	1.00	/	/	±20%	±30%	4.5	6.2	19
HPC6020NV-1R5	1.50	/	/	±20%	±30%	3.8	5.5	22.5
HPC6020NV-2R0	2.00	/	/	±20%	±30%	3.65	5.3	25
HPC6020NV-2R2	2.20	/	/	±20%	±30%	3.5	5	29
HPC6020NV-3R3	3.30	/	/	±20%	±30%	3.3	4	35
HPC6020NV-4R7	4.70	/	±15%	±20%	±30%	2.8	3	54
HPC6020NV-5R6	5.60	/	±15%	±20%	±30%	2.6	2.7	59
HPC6020NV-6R8	6.80	/	±15%	±20%	±30%	2.5	2.6	78
HPC6020NV-8R2	8.20	/	±15%	±20%	±30%	2.3	2.4	103
HPC6020NV-100	10.0	±10%	±15%	±20%	±30%	2.1	2.1	106
HPC6020NV-150	15.0	±10%	±15%	±20%	±30%	1.6	1.5	138
HPC6020NV-220	22.0	±10%	±15%	±20%	±30%	1.4	1.3	204

Note:

1. All test data referenced to 25°C ambient , Ls:100KHz/1V.
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 (I sat) 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



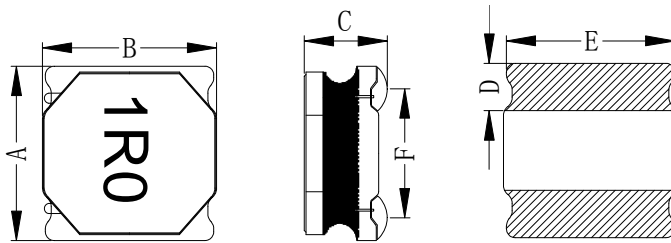
SMD Power Inductor **HPC6028NV-Series**

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)



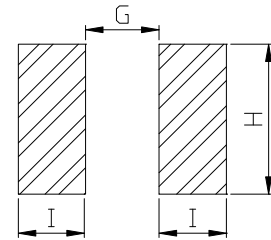
2. Dimensions



Series	*A(mm)	*B(mm)	*C(mm)	D(mm)	E(mm)	F(mm)
HPC6028NV	6.0±0.2	6.0±0.2	2.6±0.2	1.6±0.3	5.8±0.3	4.3ref

*Dimensions are not including the termination. For maximum overall dimensions with termination, add 0.1mm.

Recommended Land pattern



G(mm)	H(mm)	I(mm)
2.5	5.8	1.8

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
 1R0=1.0uH
 Y=±30%.
 marking direction cannot decide polarity. Color: Black, unidirectional.
 magnetic shielding

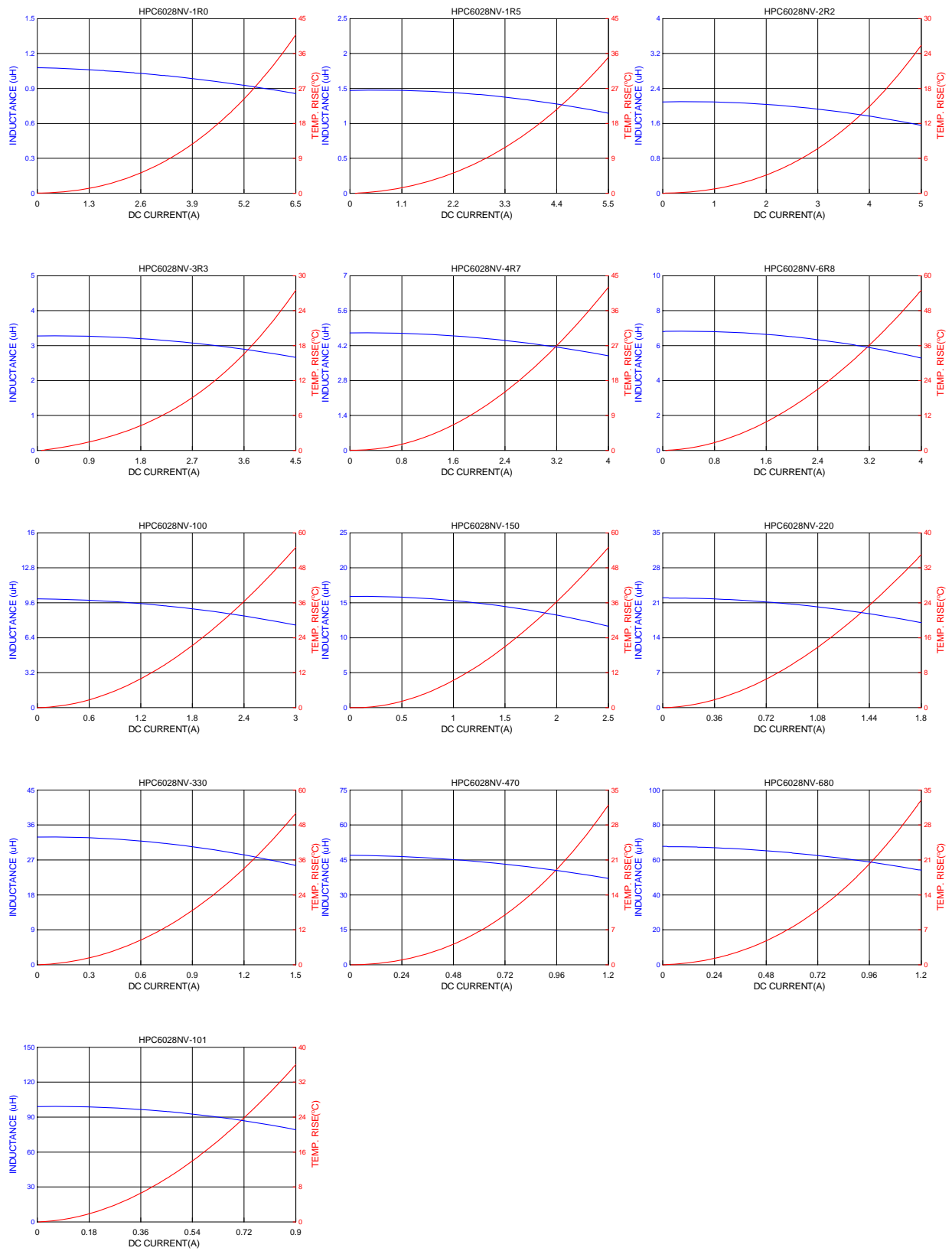
4. Specification

Part Number	Inductance L0 (uH) @ 0 A	Tolerance	Rated current		DCR (mΩ) @25°C ±20%.
			Temperature current I rms (A)	Saturation current I sat (A)	
HPC6028NV-1R0Y	1.00	±30%	5.20	5.75	10.0
HPC6028NV-1R5Y	1.50	±30%	4.95	5.30	14.0
HPC6028NV-2R2M	2.20	±20%	4.50	5.00	18.0
HPC6028NV-3R3M	3.30	±20%	3.60	4.30	24.0
HPC6028NV-4R7M	4.70	±20%	3.10	3.20	30.0
HPC6028NV-6R8M	6.80	±20%	2.50	2.85	47.0
HPC6028NV-100M	10.0	±20%	2.00	2.10	65.0
HPC6028NV-150M	15.0	±20%	1.80	2.00	98.0
HPC6028NV-220M	22.0	±20%	1.50	1.60	138
HPC6028NV-330M	33.0	±20%	1.30	1.40	200
HPC6028NV-470M	47.0	±20%	1.06	1.15	280
HPC6028NV-680M	68.0	±20%	0.81	1.00	420
HPC6028NV-101M	100	±20%	0.72	0.80	605

Note:

1. All test data referenced to 25°C ambient , Ls:100KHz/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 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



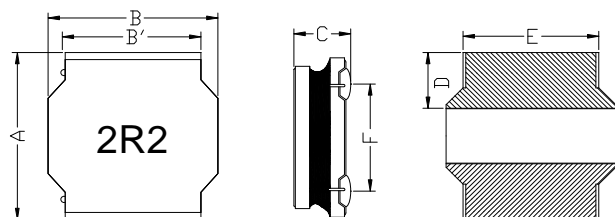
SMD Power Inductor **HPC6045NV-Series**

1. Features

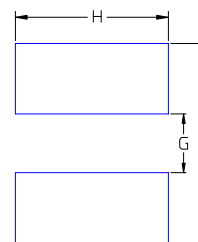
1. This specification applies Low Profile Power Inductors.
2. 100% Lead(Pb) & Halogen-Free and RoHS compliant.
3. High reliability -Reliability tests comply with AEC-Q200
4. Operating temperature: -55~+125°C (Including self-temperature rise)



2. Dimensions



Recommended Land pattern



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	1.7±0.3	4.5±0.3	4.25±0.3

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

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

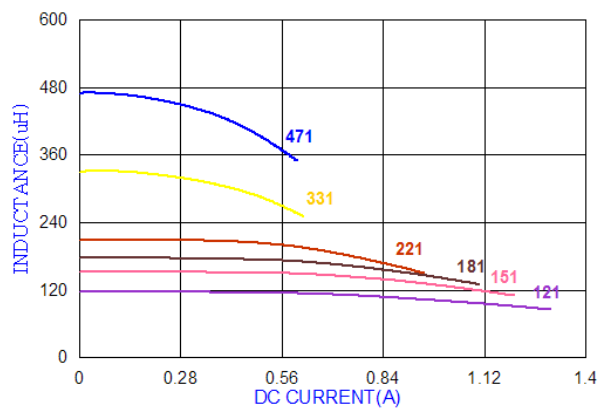
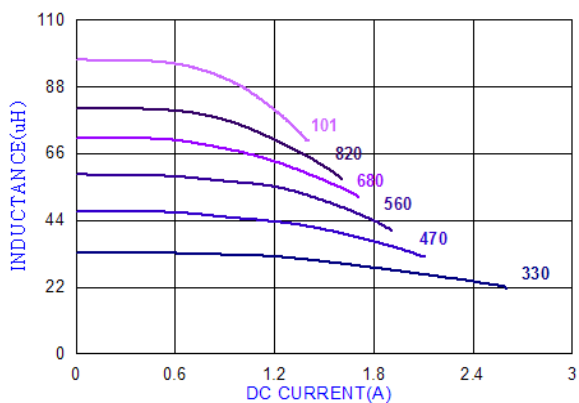
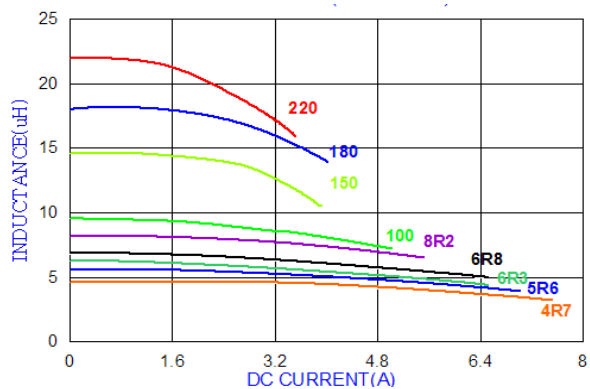
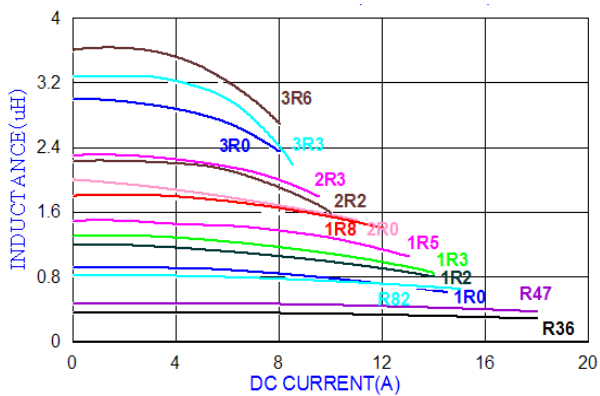
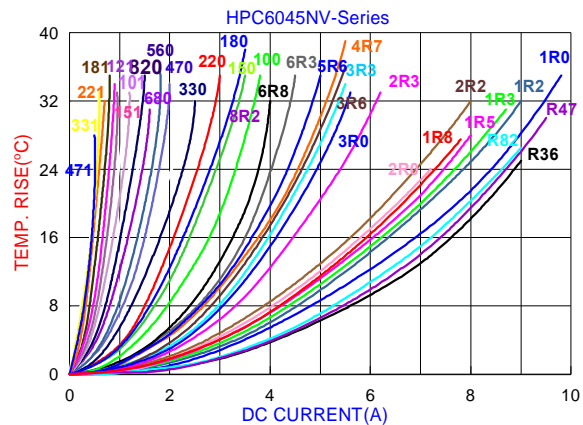
4. Specification

Part Number	Inductance L0 (uH) @ 0 A	Tolerance				Rated current				DCR (mΩ) @25°C ±20%.
						Temperature current I rms (A)		Saturation current I sat (A)		
		K	L	M	Y	Typ	Max	Typ	Max	
HPC6045NV-R36	0.36	/	/	±20%	±30%	9.00	8.50	18.00	16.50	4.80
HPC6045NV-R47	0.47	/	/	±20%	±30%	8.60	8.00	17.00	16.00	6.80
HPC6045NV-R82	0.82	/	/	±20%	±30%	8.20	7.50	14.50	13.50	8.50
HPC6045NV-1R0	1.00	/	/	±20%	±30%	8.00	7.30	13.50	12.50	10.0
HPC6045NV-1R2	1.20	/	/	±20%	±30%	7.50	7.00	12.50	11.50	10.5
HPC6045NV-1R3	1.30	/	/	±20%	±30%	7.50	7.00	12.50	11.50	10.5
HPC6045NV-1R5	1.50	/	/	±20%	±30%	7.00	6.60	12.00	11.00	11.7
HPC6045NV-1R8	1.80	/	/	±20%	±30%	6.80	6.20	11.00	10.00	12.0
HPC6045NV-2R0	2.00	/	/	±20%	±30%	6.50	5.80	10.50	9.50	13.5
HPC6045NV-2R2	2.20	/	/	±20%	±30%	6.00	5.30	9.50	8.55	15.0
HPC6045NV-2R3	2.30	/	/	±20%	±30%	5.80	5.00	9.30	8.20	16.0
HPC6045NV-3R0	3.00	/	/	±20%	±30%	5.20	4.60	8.00	7.50	20.0
HPC6045NV-3R3	3.30	/	/	±20%	±30%	5.00	4.50	7.80	7.30	21.0
HPC6045NV-3R6	3.60	/	/	±20%	±30%	4.90	4.30	7.40	6.90	22.5
HPC6045NV-4R7	4.70	/	±15%	±20%	±30%	4.50	4.00	6.80	6.20	26.0
HPC6045NV-5R6	5.60	/	±15%	±20%	±30%	4.10	3.70	6.40	5.70	31.0
HPC6045NV-6R3	6.30	/	±15%	±20%	±30%	3.80	3.50	5.90	5.30	33.0
HPC6045NV-6R8	6.80	/	±15%	±20%	±30%	3.60	3.30	5.70	5.15	34.0
HPC6045NV-8R2	8.20	/	±15%	±20%	±30%	3.40	2.90	5.10	4.50	46.0
HPC6045NV-100	10.0	±10%	±15%	±20%	±30%	3.20	2.60	4.60	4.20	52.0
HPC6045NV-150	15.0	±10%	±15%	±20%	±30%	2.80	2.20	3.80	3.30	71.0
HPC6045NV-180	18.0	±10%	±15%	±20%	±30%	2.60	2.10	3.40	2.90	80.0
HPC6045NV-220	22.0	±10%	±15%	±20%	±30%	2.30	1.90	3.30	2.70	96.0
HPC6045NV-330	33.0	±10%	±15%	±20%	±30%	1.80	1.50	2.50	2.10	145
HPC6045NV-470	47.0	±10%	±15%	±20%	±30%	1.60	1.20	2.00	1.75	200
HPC6045NV-560	56.0	±10%	±15%	±20%	±30%	1.40	1.00	1.80	1.65	230
HPC6045NV-680	68.0	±10%	±15%	±20%	±30%	1.10	0.92	1.60	1.52	305
HPC6045NV-820	82.0	±10%	±15%	±20%	±30%	0.98	0.88	1.50	1.40	365
HPC6045NV-101	100	±10%	±15%	±20%	±30%	0.92	0.82	1.33	1.25	456
HPC6045NV-121	120	±10%	±15%	±20%	±30%	0.85	0.79	1.20	1.10	500
HPC6045NV-151	150	±10%	±15%	±20%	±30%	0.75	0.70	1.10	1.00	626
HPC6045NV-181	180	±10%	±15%	±20%	±30%	0.68	0.60	1.00	0.90	745
HPC6045NV-221	220	±10%	±15%	±20%	±30%	0.60	0.50	0.88	0.77	900
HPC6045NV-331	330	±10%	±15%	±20%	±30%	0.55	0.45	0.60	0.55	1400
HPC6045NV-471	470	±10%	±15%	±20%	±30%	0.40	0.35	0.50	0.45	2050

Note:

- All test data referenced to 25°C ambient, Ls/Q:1MHz/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



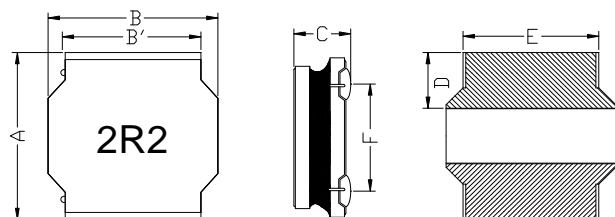
SMD Power Inductor **HPC8040NV-Series-Z01**

1. Features

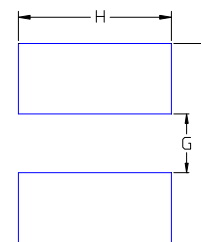
1. This specification applies Low Profile Power Inductors.
2. 100% Lead(Pb) & Halogen-Free and RoHS compliant.
3. High reliability -Reliability test meet AEC-Q200.
4. Operating temperature: -55~+125°C (Including self-temperature rise)



2. Dimensions



Recommended Land pattern



Series	Inductance	A(mm)	B(mm)	B'(mm)	C(mm)	D(mm)	E(mm)	F(mm)
HPC8040NV	≤10uH	8.0±0.3	8.0±0.3	6.3±0.2	3.9±0.3	2.0±0.3	6.0±0.3	5.5±0.3
	>10uH				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
 - F: Code
- 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℃ ±20%.
		K	L	M	Y		Temperature current I rms (A)		Saturation current I sat (A)		
							Typ	Max	Typ	Max	
HPC8040NV-1R0□-Z01	1.00	/	/	±20%	±30%	1MHz/1V	8.50	8.00	13.80	13.00	8.2
HPC8040NV-1R2□-Z01	1.20	/	/	±20%	±30%	1MHz/1V	8.30	7.80	12.80	11.50	8.2
HPC8040NV-1R4□-Z01	1.40	/	/	±20%	±30%	1MHz/1V	8.20	7.80	11.80	11.20	10.0
HPC8040NV-1R5□-Z01	1.50	/	/	±20%	±30%	1MHz/1V	8.00	7.70	11.50	11.00	10.0
HPC8040NV-1R6□-Z01	1.60	/	/	±20%	±30%	1MHz/1V	8.00	7.70	11.50	11.00	10.0
HPC8040NV-2R0□-Z01	2.0	/	/	±20%	±30%	1MHz/1V	7.50	7.10	10.20	9.60	11.0
HPC8040NV-2R2□-Z01	2.20	/	/	±20%	±30%	1MHz/1V	7.40	6.90	9.80	9.20	11.5
HPC8040NV-2R7□-Z01	2.70	/	/	±20%	±30%	1MHz/1V	7.00	6.50	9.00	8.20	13.0
HPC8040NV-3R3□-Z01	3.30	/	/	±20%	±30%	1MHz/1V	6.60	6.20	8.00	7.50	15.0
HPC8040NV-4R7□-Z01	4.70	/	±15%	±20%	±30%	1MHz/1V	5.80	5.30	6.70	6.00	19.5
HPC8040NV-5R6□-Z01	5.60	/	±15%	±20%	±30%	1MHz/1V	5.40	5.20	6.20	5.80	22.0
HPC8040NV-6R8□-Z01	6.80	/	±15%	±20%	±30%	1MHz/1V	5.10	5.00	5.60	5.10	25.0
HPC8040NV-8R2□-Z01	8.20	/	±15%	±20%	±30%	1MHz/1V	4.80	4.50	5.30	4.60	30.0
HPC8040NV-100□-Z01	10.0	±10%	±15%	±20%	±30%	1MHz/1V	4.60	4.20	5.00	4.30	33.0
HPC8040NV-150□-Z01	15.0	±10%	±15%	±20%	±30%	1MHz/1V	3.60	3.20	4.00	3.60	50.0
HPC8040NV-220□-Z01	22.0	±10%	±15%	±20%	±30%	1MHz/1V	2.90	2.45	3.10	2.80	73.0
HPC8040NV-330□-Z01	33.0	±10%	±15%	±20%	±30%	1MHz/1V	2.30	2.10	2.60	2.10	100
HPC8040NV-470□-Z01	47.0	±10%	±15%	±20%	±30%	1MHz/1V	2.00	1.70	2.20	1.90	135
HPC8040NV-560□-Z01	56.0	±10%	±15%	±20%	±30%	1MHz/1V	1.75	1.60	1.90	1.60	160
HPC8040NV-680□-Z01	68.0	±10%	±15%	±20%	±30%	1MHz/1V	1.65	1.50	1.75	1.50	205
HPC8040NV-820□-Z01	82.0	±10%	±15%	±20%	±30%	1MHz/1V	1.40	1.30	1.60	1.40	230
HPC8040NV-101□-Z01	100	±10%	±15%	±20%	±30%	1MHz/1V	1.20	1.10	1.45	1.20	300
HPC8040NV-121□-Z01	120	±10%	±15%	±20%	±30%	1MHz/1V	1.10	1.00	1.30	1.10	350
HPC8040NV-151□-Z01	150	±10%	±15%	±20%	±30%	1MHz/1V	0.98	0.90	1.20	1.03	410
HPC8040NV-181□-Z01	180	±10%	±15%	±20%	±30%	1MHz/1V	0.91	0.83	1.04	0.94	490
HPC8040NV-221□-Z01	220	±10%	±15%	±20%	±30%	1MHz/1V	0.85	0.76	0.99	0.90	610
HPC8040NV-331□-Z01	330	±10%	±15%	±20%	±30%	100KHz/1V	0.70	0.66	0.75	0.70	850
HPC8040NV-471□-Z01	470	±10%	±15%	±20%	±30%	100KHz/1V	0.63	0.58	0.60	0.55	1300

Note:

- All test data referenced to 25℃ ambient.
- 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℃.
- Saturation Current (Isat) will cause L0 to drop approximately 30%.
- 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.
- Special inquiries besides the above common used types can be met on your requirement.

5. Typical Performance Curves

