

**SMD Power Inductor** TMPF0402AV-Series(N)-D

**1. Features**

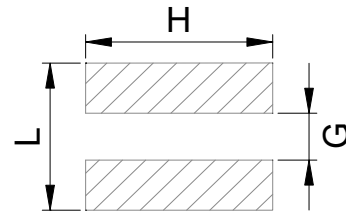
1. Soft saturation.
2. High current · low DCR · high efficiency.
3. Very low acoustic noise and very low leakage flux noise.
4. High reliability.
5. 100% Lead(Pb)-Free and RoHS compliant.
6. High reliability -Reliability test meet AEC-Q200.
7. Operating temperature: -55~+155°C (Including self - temperature rise)



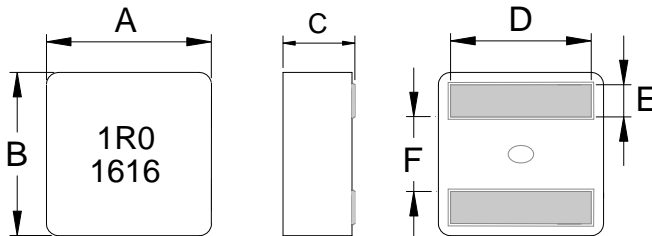
**2. Applications**

Note PC power system · incl. IMVP-6  
DC/DC converter .

**Recommend PC Board Pattern**



**3. Dimensions**

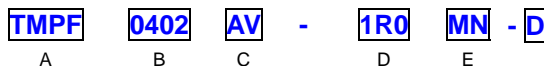


L(mm)	G(mm)	H(mm)
3.4 ref	1.4 ref	3.8 ref

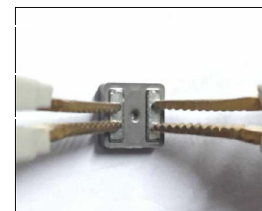
Note: 1、 The above PCB layout reference only.  
2、 Recommend solder paste thickness at 0.12mm and above.

Series	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)
TMPF0402AV	4.1±0.2	4.1±0.2	1.9±0.2	3.4±0.3	0.88±0.2	1.6±0.25

**4. Part Numbering**



- A: Series
  - B: Dimension
  - C: Type
  - D: Inductance
  - E: Inductance Tolerance
  - F: Code
- BxC
  - Material. V: Vehicle
  - 1R0=1.00uH
  - M=±20%
  - Marking: Black.1R0 and 1616(16 YY, 16 WW, follow production date).



**DCR Test**

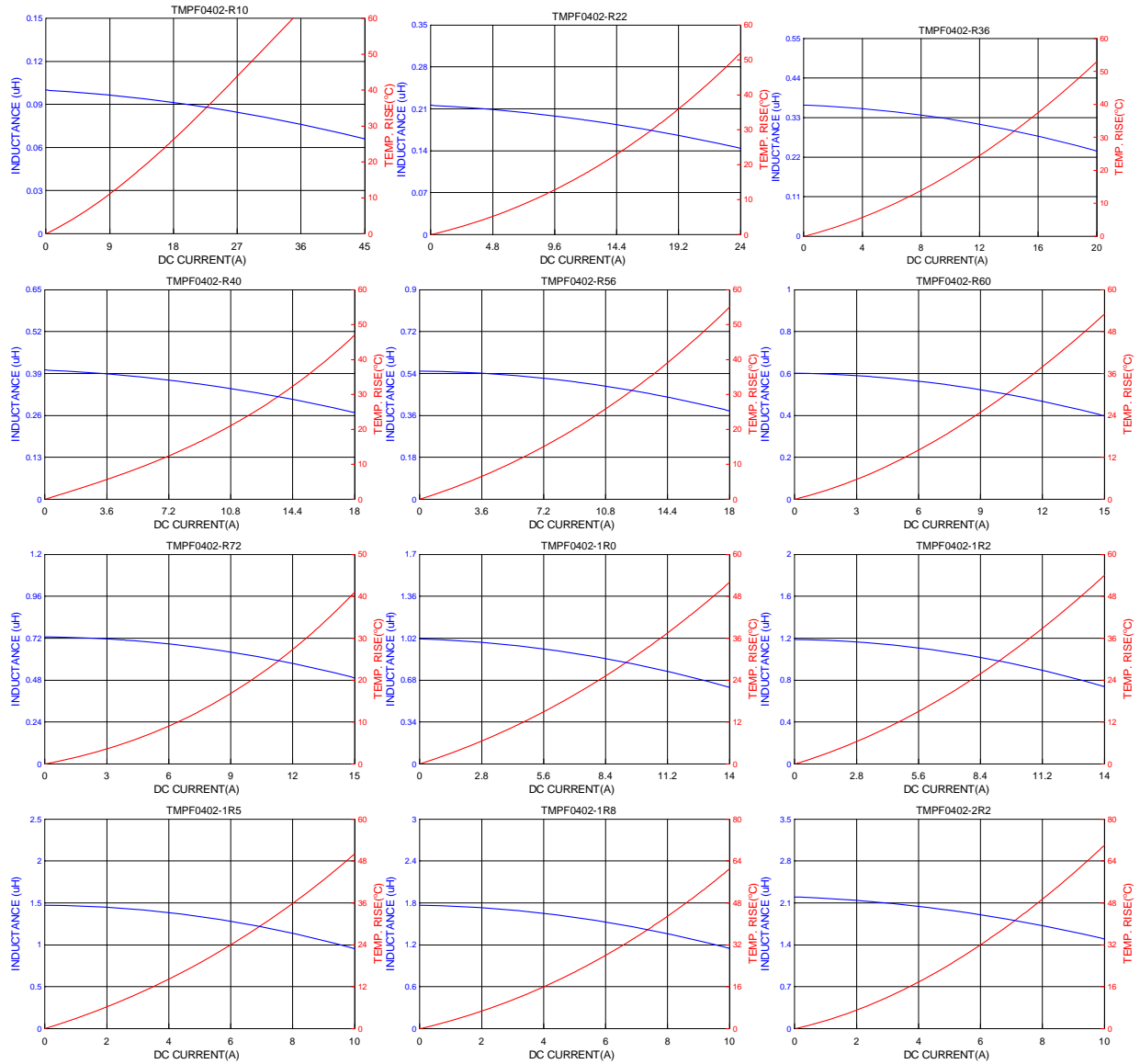
## 5. Specification

Part Number	Inductance (uH) $\pm 20\%$ @ 0 A	I rms(A) Typ		I sat(A)		DCR (m $\Omega$ ) Typ.	DCR (m $\Omega$ ) Max.
		20 $^{\circ}$ C rise	40 $^{\circ}$ C rise	Typ	Max		
TMPF0402AV-R10MN-D	0.10	13.5	18.0	38.0	33.0	2.2	2.42
TMPF0402AV-R22MN-D	0.22	13.0	16.8	19.5	18.8	4.1	4.6
TMPF0402AV-R36MN-D	0.36	11.0	14.5	17.0	15.0	5.6	6.3
TMPF0402AV-R40MN-D	0.40	10.0	14.0	15.5	13.5	6.9	7.73
TMPF0402AV-R56MN-D	0.56	8.5	12.0	14.0	12.6	8.4	9.3
TMPF0402AV-R60MN-D	0.60	8.0	11.7	13.7	12.3	8.6	9.52
TMPF0402AV-R72MN-D	0.72	7.6	10.5	12.0	10.6	10.4	11.6
TMPF0402AV-1R0MN-D	1.00	6.8	9.6	9.6	8.8	13.3	14.6
TMPF0402AV-1R2MN-D	1.20	6.6	9.0	9.0	7.8	16.2	17.9
TMPF0402AV-1R5MN-D	1.50	5.8	7.6	8.0	7.4	21.0	23.5
TMPF0402AV-1R8MN-D	1.80	5.2	7.0	7.5	7.0	25.0	28.0
TMPF0402AV-2R2MN-D	2.20	4.6	5.6	6.5	6.0	35.2	38.7

Note:

1. Test frequency : L : 100KHz /0.1V.
2. All test data referenced to 25 $^{\circ}$ C ambient.
3. Testing Instrument : L/Q: HP4284A,HP4395A,CH11025,CH3302,CH1320 ,CH1320S LCR METER / Rdc:CH16502,Agilent33420A MICRO OHMMETER,or EQU.
4. Current that causes the specified temperature rise from 25 $^{\circ}$ C ambient.
5. Saturation Current (Isat) will cause L0 to drop approximately 30%.
6. The part temperature (ambient + temp rise) should not exceed 155 $^{\circ}$ 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.

### 6. Typical Performance Curves



**SMD Power Inductor** TMPF0402LRV-Series(N)-D

**1. Features**

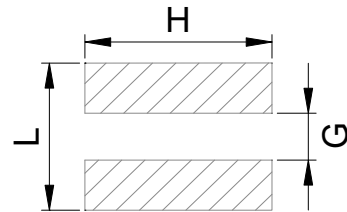
1. Soft saturation.
2. High current · low DCR · high efficiency.
3. Very low acoustic noise and very low leakage flux noise.
4. High reliability.
5. 100% Lead(Pb)-Free and RoHS compliant.
6. High reliability -Reliability test meet AEC-Q200.
7. Operating temperature -55~+155°C (Including self - temperature rise)



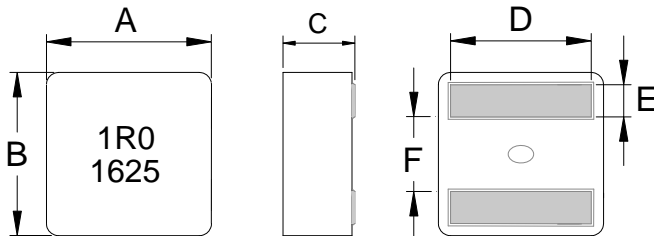
**2. Applications**

Note PC power system · incl. IMVP-6  
DC/DC converter .

**Recommend PC Board Pattern**



**3. Dimensions**

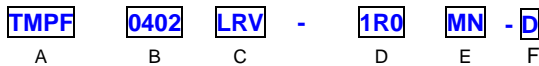


L(mm)	G(mm)	H(mm)
3.6 ref	1.4 ref	3.8 ref

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

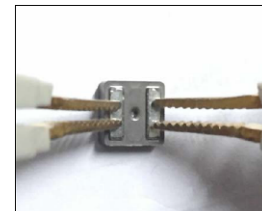
Series	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)
TMPF0402LRV	4.1±0.2	4.1±0.2	1.9±0.2	3.4±0.3	0.88±0.2	1.6±0.25

**4. Part Numbering**



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

BxC  
Material: V: Vehicle  
1R0=1.00uH  
M=±20%  
Marking: Black.1R0 and 1625(16 YY, 25 WW, follow production date).



**DCR Test**

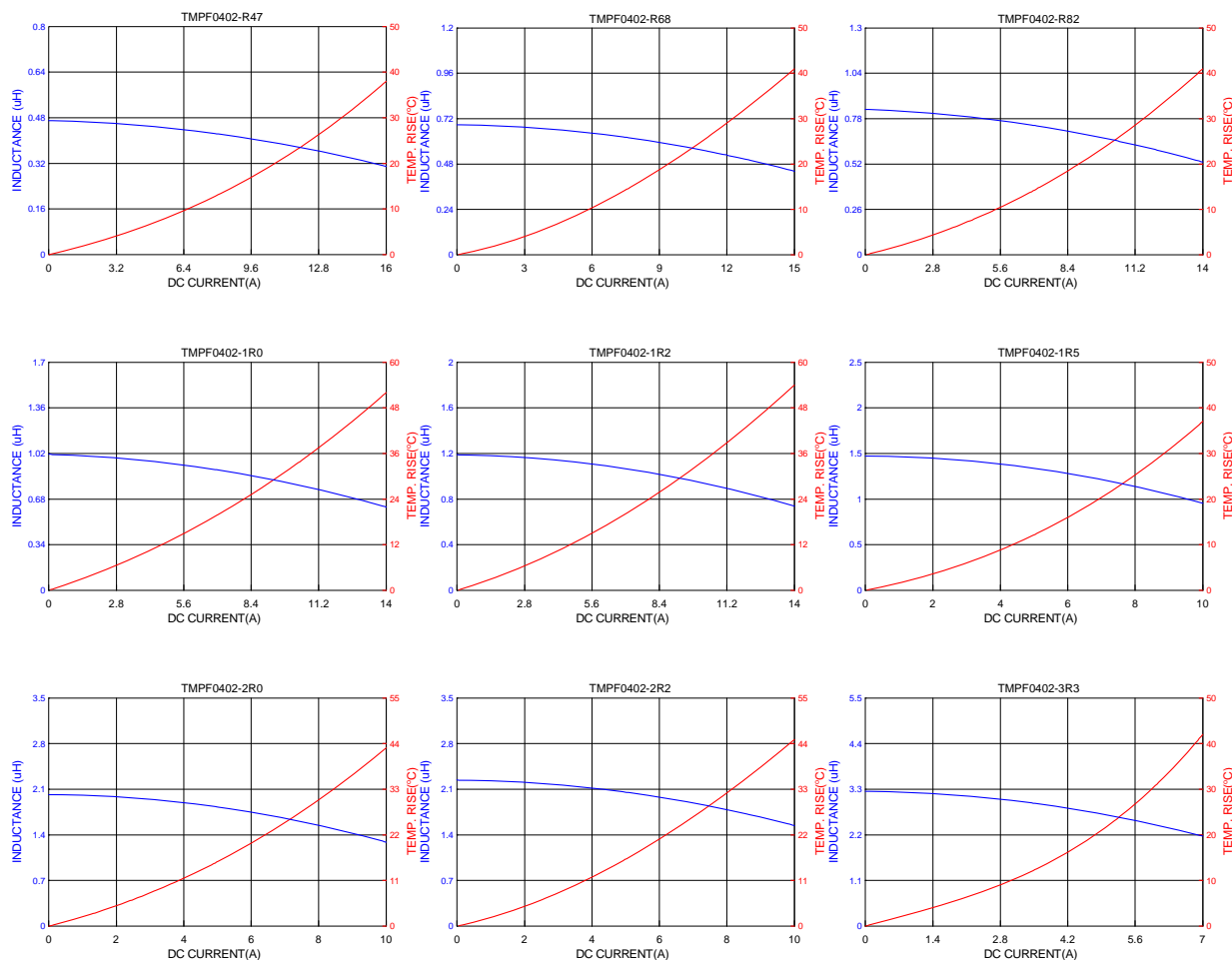
### 5. Specification

Part Number	Inductance (uH) ±20% @ 0 A	I rms(A) Typ		I sat(A)				DCR(mΩ) Typ.	DCR(mΩ) Max.
		20°C rise	40°C rise	Typ			Max		
				1	2	3			
TMPF0402LRV-R47MN-D	0.47	9.8	13.2	7.0	10.0	14.0	12.5	6.0	6.8
TMPF0402LRV-R68MN-D	0.68	9.2	12.0	5.2	8.0	11.6	10.0	7.3	8.2
TMPF0402LRV-R82MN-D	0.82	8.5	11.5	4.8	6.5	10.2	9.0	8.6	9.5
TMPF0402LRV-1R0MN-D	1.00	8.0	11.0	4.5	5.4	9.2	8.0	10.6	11.7
TMPF0402LRV-1R2MN-D	1.20	7.2	9.5	4.3	5.0	8.6	7.5	12.2	13.4
TMPF0402LRV-1R5MN-D	1.50	6.7	9.1	4.1	4.5	7.5	6.7	14.4	15.8
TMPF0402LRV-2R0MN-D	2.00	6.2	8.2	3.2	4.0	6.2	5.0	21.15	23.3
TMPF0402LRV-2R2MN-D	2.20	6.0	8.0	3.1	3.8	6.0	4.8	21.35	23.5
TMPF0402LRV-3R3MN-D	3.30	4.4	5.5	2.7	3.4	5.3	4.4	34.2	38.3

Note:

1. Test frequency : L : 100KHz /0.1V.
2. All test data referenced to 25°C ambient.
3. Testing Instrument : L : HP4284A,HP4395A,CH11025,CH3302,CH1320 ,CH1320S LCR METER / Rdc:CH16502,Agilent33420A MICRO OHMMETER,or EQU.
4. Current that causes the specified temperature rise from 25°C ambient.
5. Saturation Current (Isat 1) will cause L0 to drop approximately 10%.  
Saturation Current (Isat 2) will cause L0 to drop approximately 20%.  
Saturation Current (Isat 3) will cause L0 to drop approximately 30%.
6. 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.

### 6. Typical Performance Curves



**SMD Power Inductor** TMPF0502AV-Series(N)-D

**1. Features**

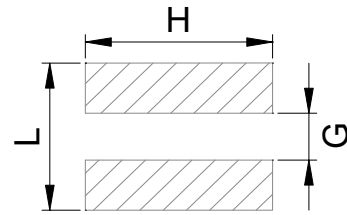
1. Soft saturation.
2. High current · low DCR · high efficiency.
3. Very low acoustic noise and very low leakage flux noise.
4. High reliability.
5. 100% Lead(Pb)-Free and RoHS compliant.
6. High reliability -Reliability test meet AEC-Q200.
7. Operating temperature: -55~+155°C (Including self - temperature rise)



**2. Applications**

Note PC power system · incl. IMVP-6  
DC/DC converter .

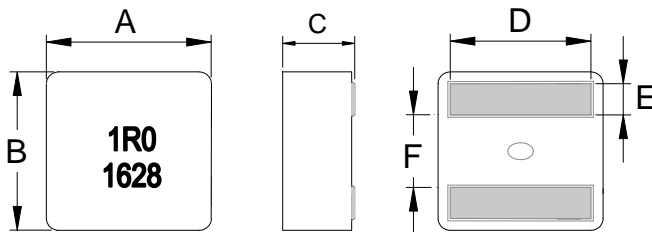
**Recommend PC Board Pattern**



L(mm)	G(mm)	H(mm)
4.5 ref	2.0 ref	4.7 ref

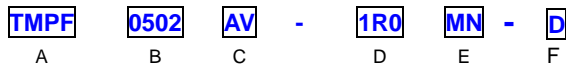
Note: 1、 The above PCB layout reference only.  
2、 Recommend solder paste thickness at 0.12mm and above.

**3. Dimensions**



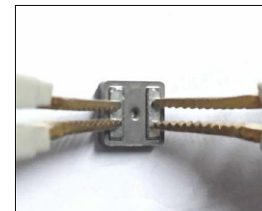
Series	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)
TMPF0502AV	5.5±0.2	5.3±0.2	1.9±0.2	4.3±0.3	1.1±0.2	2.3±0.25

**4. Part Numbering**



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

BxC  
Material. V: Vehicle  
1R0=1.00uH  
M=±20%  
Marking: Black.1R0 and 1628(16 YY, 28 WW, follow production date).



DCR Test

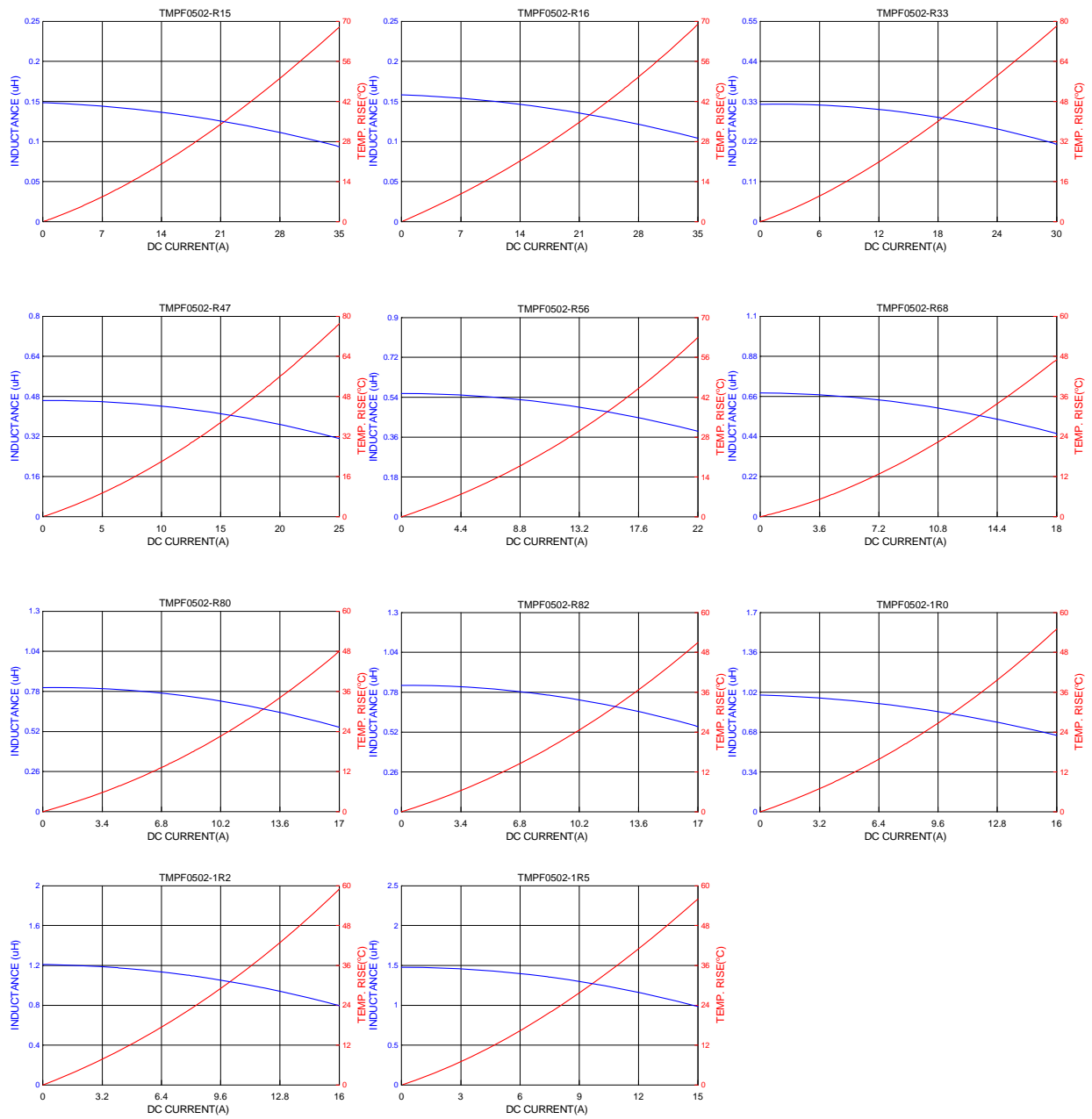
## 5. Specification

Part Number	Inductance (uH) $\pm 20\%$ @ 0 A	I rms(A) Typ		I sat(A)		DCR(m $\Omega$ ) Typ.	DCR(m $\Omega$ ) Max.
		20 $^{\circ}$ C rise	40 $^{\circ}$ C rise	Typ	Max		
TMPF0502AV-R15MN-D	0.15	13.9	18.8	30.0	27.0	4.00	4.60
TMPF0502AV-R16MN-D	0.16	13.9	18.8	30.0	27.0	4.00	4.60
TMPF0502AV-R33MN-D	0.33	10.5	14.4	26.0	24.0	6.10	7.00
TMPF0502AV-R47MN-D	0.47	10.1	14.1	22.0	20.0	7.00	8.05
TMPF0502AV-R56MN-D	0.56	9.9	13.9	19.0	16.0	8.70	9.54
TMPF0502AV-R68MN-D	0.68	9.6	13.4	16.0	14.0	8.90	10.2
TMPF0502AV-R80MN-D	0.80	9.4	13.0	15.5	13.5	10.3	11.8
TMPF0502AV-R82MN-D	0.82	8.5	12.0	15.0	13.0	11.0	12.7
TMPF0502AV-1R0MN-D	1.00	7.5	10.5	14.5	12.8	12.0	13.8
TMPF0502AV-1R2MN-D	1.20	6.8	9.40	14.0	12.2	14.2	16.3
TMPF0502AV-1R5MN-D	1.50	6.4	8.80	13.3	11.7	16.2	18.7

Note:

1. Test frequency : L : 100KHz /0.1V.
2. All test data referenced to 25 $^{\circ}$ C ambient.
3. Testing Instrument : L/Q: HP4284A,HP4395A,CH11025,CH3302,CH1320 ,CH1320S LCR METER / Rdc:CH16502,Agilent33420A MICRO OHMMETER,or EQU.
4. Current that causes the specified temperature rise from 25 $^{\circ}$ C ambient.
5. Saturation Current (Isat) will cause L0 to drop approximately 30%.
6. The part temperature (ambient + temp rise) should not exceed 155 $^{\circ}$ 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.

### 6. Typical Performance Curves





**SMD Power Inductor** TMPF0503AV-Series(N)-D

**1. Features**

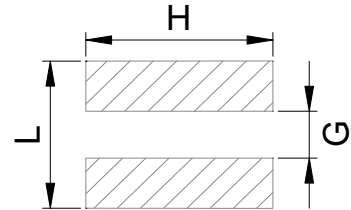
1. Soft saturation.
2. High current · low DCR · high efficiency.
3. Very low acoustic noise and very low leakage flux noise.
4. High reliability.
5. 100% Lead(Pb)-Free and RoHS compliant.
6. High reliability -Reliability test meet AEC-Q200.
7. Operating temperature: -55~+155°C (Including self - temperature rise)



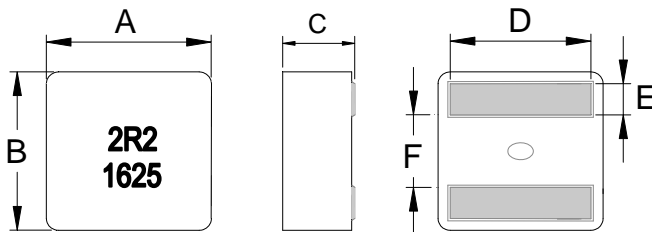
**2. Applications**

Note PC power system · incl. IMVP-6  
DC/DC converter .

**Recommend PC Board Pattern**



**3. Dimensions**

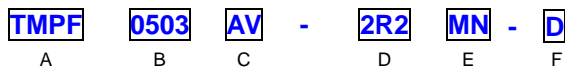


L(mm)	G(mm)	H(mm)
4.5 ref	2.0 ref	4.7 ref

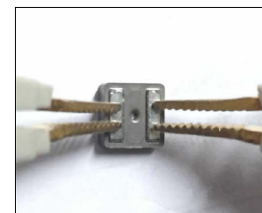
Note: 1、 The above PCB layout reference only.  
2、 Recommend solder paste thickness at 0.12mm and above.

Series	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)
TMPF0503AV	5.5±0.2	5.3±0.2	2.9±0.2	4.3±0.3	1.1±0.2	2.3±0.25

**4. Part Numbering**



- A: Series
- B: Dimension
- C: Type
- D: Inductance
- E: Inductance Tolerance
- F: Code
- BxC
- Material. V: Vehicle
- 2R2=2.20uH
- M=±20%
- Marking: Black.2R2 and 1625(16 YY, 25 WW, follow production date).



DCR Test

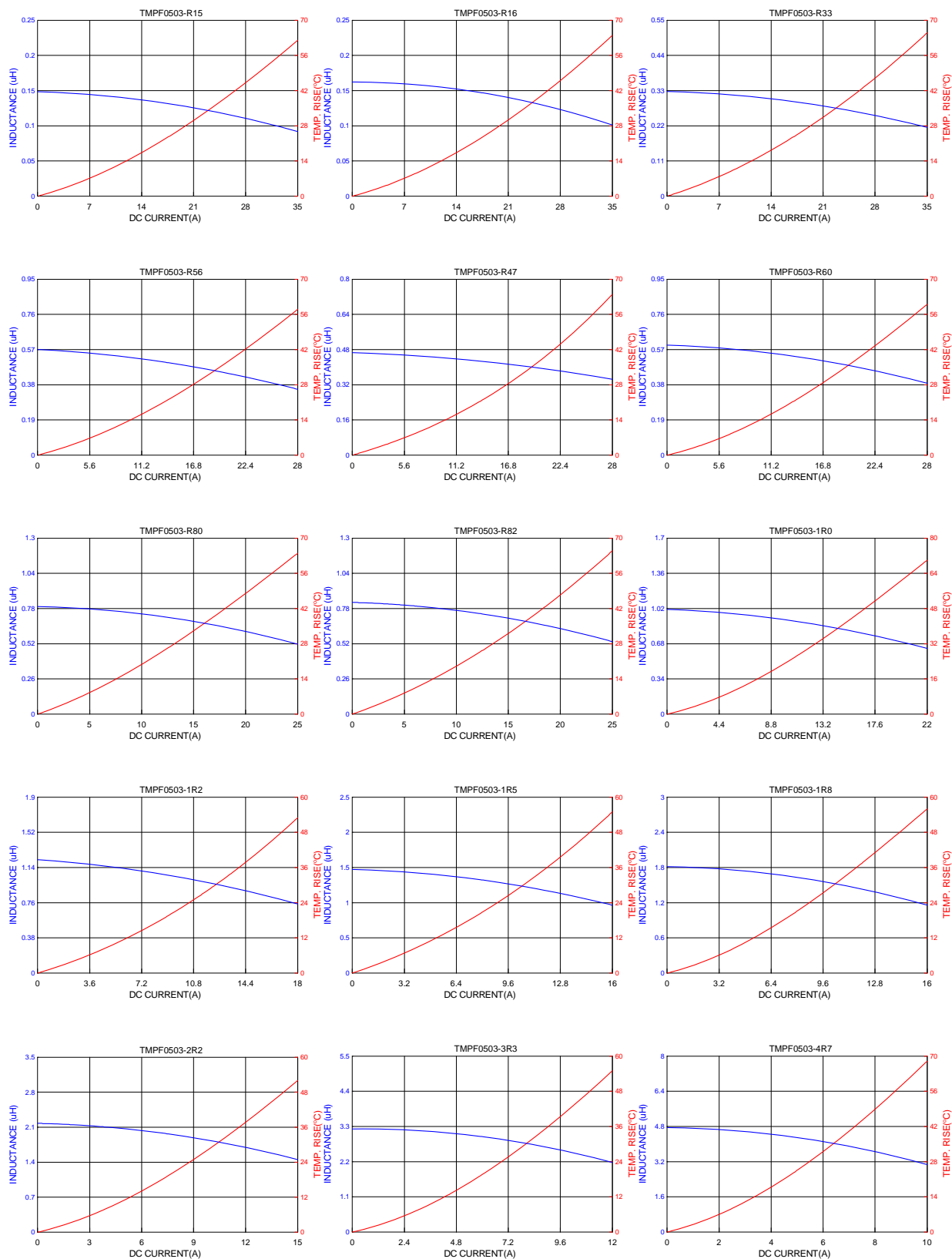
## 5. Specification

Part Number	Inductance (uH) $\pm 20\%$ @ 0 A	I rms(A) Typ		I sat(A)		DCR(m $\Omega$ ) Typ.	DCR(m $\Omega$ ) Max.
		20 $^{\circ}$ C rise	40 $^{\circ}$ C rise	Typ	Max		
TMPF0503AV-R15MN-D	0.15	14.3	22.2	36.0	32.5	2.10	2.31
TMPF0503AV-R16MN-D	0.16	14.2	22.2	35.0	32.0	2.12	2.33
TMPF0503AV-R33MN-D	0.33	13.8	19.2	28.0	26.0	3.20	3.52
TMPF0503AV-R47MN-D	0.47	13.7	18.4	26.0	24.0	3.75	4.13
TMPF0503AV-R56MN-D	0.56	13.6	17.7	22.2	20.2	4.05	4.52
TMPF0503AV-R60MN-D	0.60	13.6	17.7	22.0	20.0	4.11	4.52
TMPF0503AV-R80MN-D	0.80	10.1	13.1	20.0	18.0	5.14	5.65
TMPF0503AV-R82MN-D	0.82	9.90	12.9	19.7	17.6	5.25	5.78
TMPF0503AV-1R0MN-D	1.00	9.00	12.2	16.5	14.3	6.90	7.60
TMPF0503AV-1R2MN-D	1.20	8.50	11.0	15.0	13.5	8.80	9.70
TMPF0503AV-1R5MN-D	1.50	8.00	10.5	14.0	12.5	10.1	11.2
TMPF0503AV-1R8MN-D	1.80	7.60	10.1	12.3	11.3	11.5	12.7
TMPF0503AV-2R2MN-D	2.20	7.20	9.70	10.0	9.0	13.2	14.5
TMPF0503AV-3R3MN-D	3.30	5.90	8.10	9.5	8.7	21.0	23.1
TMPF0503AV-4R7MN-D	4.70	4.30	5.90	8.2	7.0	33.0	36.3

Note:

1. Test frequency : L : 100KHz /0.1V.
2. All test data referenced to 25 $^{\circ}$ C ambient.
3. Testing Instrument : L/Q: HP4284A,HP4395A,CH11025,CH3302,CH1320 ,CH1320S LCR METER / Rdc:CH16502,Agilent33420A MICRO OHMMETER,or EQU.
4. Current that causes the specified temperature rise from 25 $^{\circ}$ C ambient.
5. Saturation Current (Isat) will cause L0 to drop approximately 30%.
6. The part temperature (ambient + temp rise) should not exceed 155 $^{\circ}$ 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.

### 6. Typical Performance Curves



**SMD Power Inductor** TMPF0603AV-Series(N)-D

**1. Features**

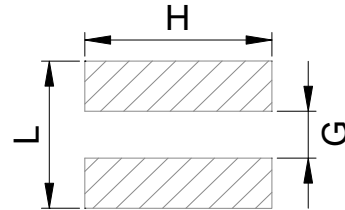
1. Soft saturation.
2. High current · low DCR · high efficiency.
3. Very low acoustic noise and very low leakage flux noise.
4. High reliability.
5. 100% Lead(Pb)-Free and RoHS compliant.
6. High reliability -Reliability test meet AEC-Q200.
7. Operating temperature -55~+155°C (Including self - temperature rise)



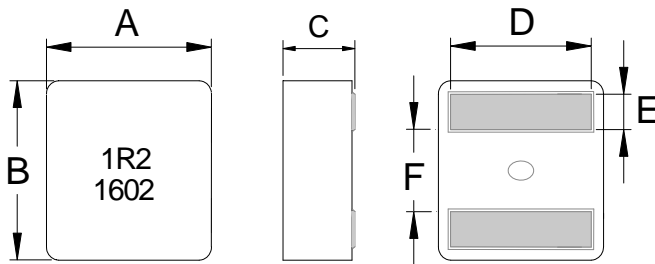
**2. Applications**

Note PC power system · incl. IMVP-6  
DC/DC converter .

**Recommend PC Board Pattern**



**3. Dimensions**

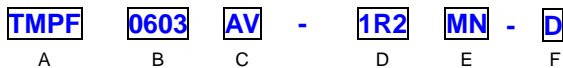


L(mm)	G(mm)	H(mm)
5.6 ref	2.5 ref	5.6 ref

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

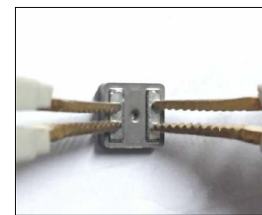
Series	Inductance Range	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)
TMPF0603AV	1.2uH and below	6.6±0.2	6.4±0.2	2.8±0.2	See Spec table	1.4±0.2	2.6±0.25
	1.5uH and above			2.9±0.2			

**4. Part Numbering**



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

BxC  
Material: V: Vehicle  
1R2=1.20uH  
M=±20%  
Marking: Black.1R2 and 1602(16 YY, 02 WW, follow production date).



DCR Test

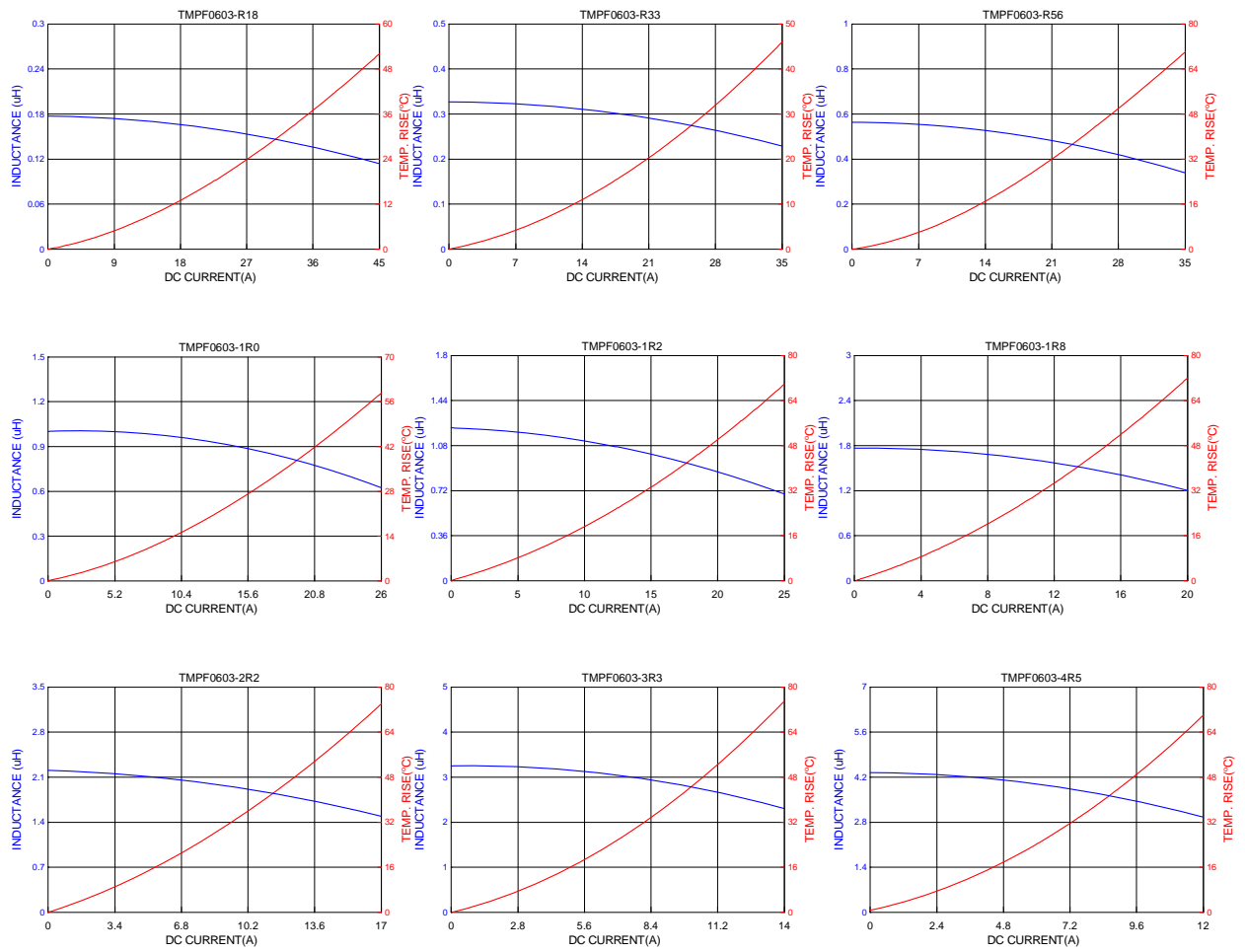
## 5. Specification

Part Number	Inductance(uH) ±20% @ 0 A	I rms(A) Typ		I sat(A)		DCR (mΩ) Typ.	DCR (mΩ) Max.	D(mm) ±0.3
		20℃ rise	40℃ rise	Typ	Max			
TMPF0603AV-R18MN-D	0.18	24.0	32.0	40.0	36.0	1.60	1.75	5.30
TMPF0603AV-R33MN-D	0.33	20.0	25.0	32.0	28.0	2.25	2.50	5.55
TMPF0603AV-R56MN-D	0.56	17.0	22.0	29.0	25.0	3.00	3.31	5.30
TMPF0603AV-1R0MN-D	1.00	13.0	18.0	23.0	18.0	5.50	6.05	5.20
TMPF0603AV-1R2MN-D	1.20	12.0	16.0	22.0	16.0	6.70	7.40	5.15
TMPF0603AV-1R8MN-D	1.80	10.0	14.0	18.2	13.0	9.20	10.2	5.10
TMPF0603AV-2R2MN-D	2.20	7.00	10.0	15.9	11.0	11.0	12.2	5.05
TMPF0603AV-3R3MN-D	3.30	6.00	8.00	12.2	9.00	18.8	20.8	5.00
TMPF0603AV-4R5MN-D	4.50	5.00	7.00	10.0	8.00	23.0	25.3	5.00

Note:

1. Test frequency : L : 100KHz /0.1V.
2. All test data referenced to 25℃ ambient.
3. Testing Instrument : L: HP4284A,HP4395A,CH11025,CH3302,CH1320 ,CH1320S LCR METER / Rdc:CH16502,Agilent33420A MICRO OHMMETER,or EQU.
4. Current that causes the specified temperature rise from 25℃ ambient.
5. Saturation Current (Isat) will cause L0 to drop approximately 30%.
6. The part temperature (ambient + temp rise) should not exceed 155℃ 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.

### 6. Typical Performance Curves



**SMD Power Inductor** TMPF0605AV-Series(N)-D

**1. Features**

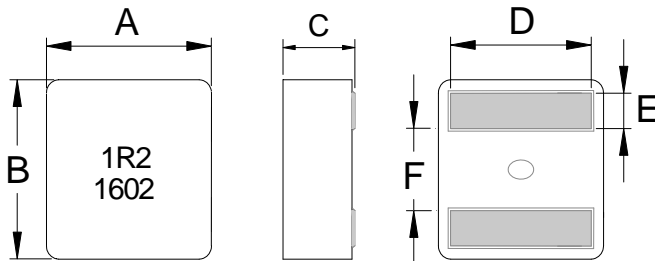
1. Soft saturation.
2. High current · low DCR · high efficiency.
3. Very low acoustic noise and very low leakage flux noise.
4. High reliability.
5. 100% Lead(Pb)-Free and RoHS compliant.
6. High reliability -Reliability test meet AEC-Q200.
7. Operating temperature: -55~+155°C (Including self - temperature rise)



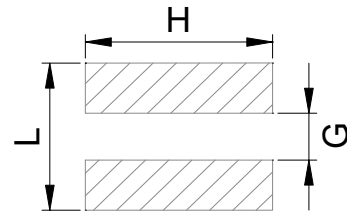
**2. Applications**

Note PC power system · incl. IMVP-6  
DC/DC converter .

**3. Dimensions**



**Recommend PC Bo ard Pattern**

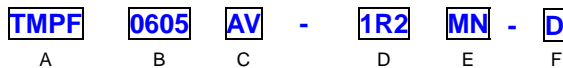


L(mm)	G(mm)	H(mm)
5.6 ref	2.5 ref	5.6 ref

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

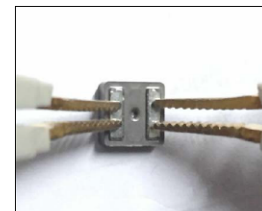
Series	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)
TMPF0605AV	6.6±0.2	6.4±0.2	4.8±0.2	See Spec	1.4±0.2	2.6±0.25

**4. Part Numbering**



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

BxC  
Material. V: Vehicle  
1R2=1.20uH  
M=±20%  
Marking: Black.1R2 and 1602(16 YY, 02 WW, follow production date).



**DCR Test**

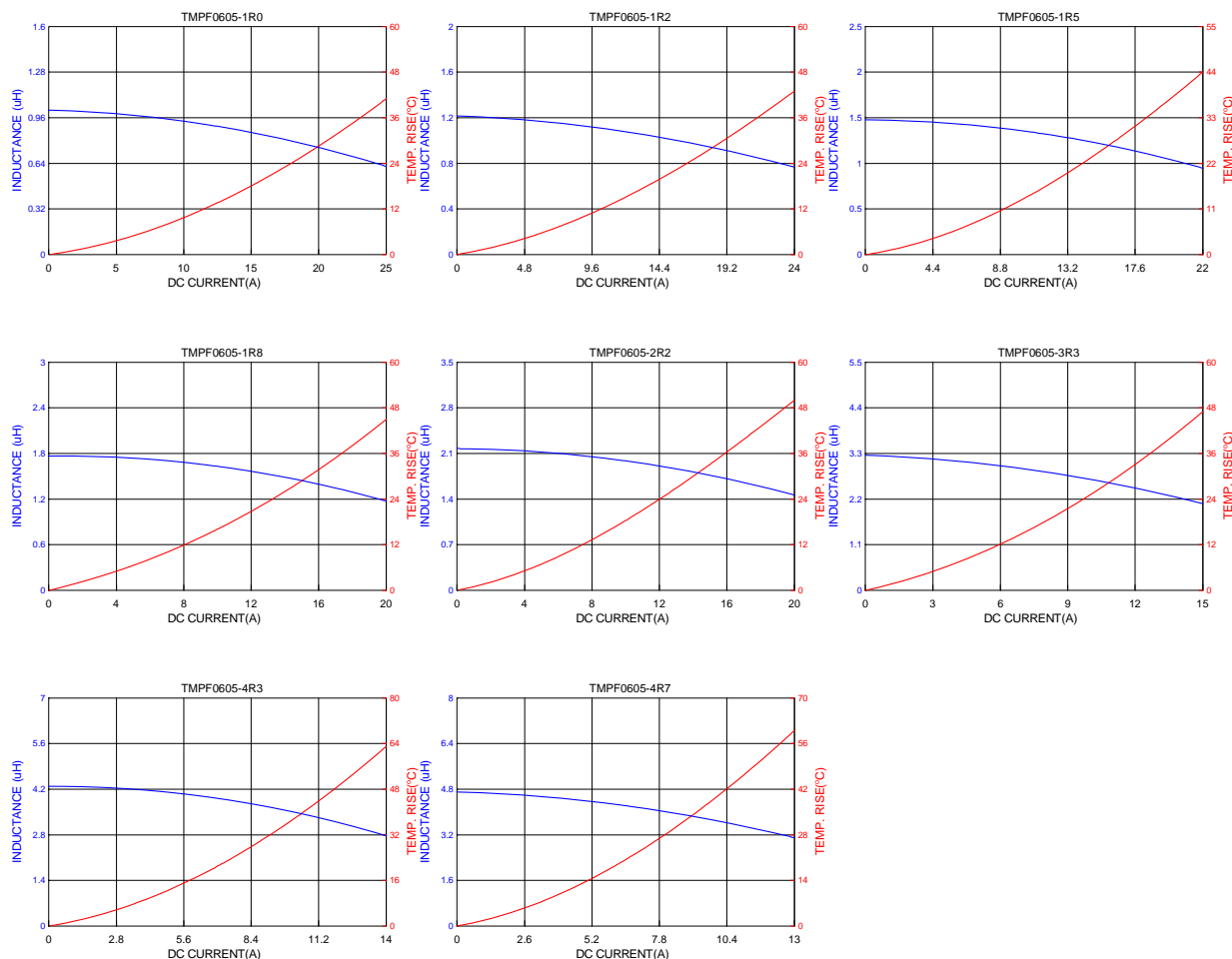
### 5. Specification

Part Number	Inductance (uH) ±20% @ 0 A	I rms(A) Typ		I sat(A)		DCR (mΩ) Typ.	DCR (mΩ) Max.	D (mm) ±0.3
		20°C rise	40°C rise	Typ	Max			
TMPF0605AV-1R0MN-D	1.00	15	20	23.0	18.0	4.1	4.52	5.3
TMPF0605AV-1R2MN-D	1.20	14	18	22.0	16.0	5.3	5.83	5.3
TMPF0605AV-1R5MN-D	1.50	13	17	19.5	14.5	5.7	6.3	5.3
TMPF0605AV-1R8MN-D	1.80	12	16	18.5	13.5	6.4	7.1	5.3
TMPF0605AV-2R2MN-D	2.20	10	13	16.0	12.0	7.7	8.5	5.2
TMPF0605AV-3R3MN-D	3.30	8.5	11	12.5	10.0	11.2	12.5	5.2
TMPF0605AV-4R3MN-D	4.30	7.0	9.0	11.0	8.5	15.1	16.2	5.2
TMPF0605AV-4R7MN-D	4.70	6.5	8.5	10.5	8.0	16.7	18.4	5.2

Note:

1. Test frequency : L : 100KHz /0.1V.
2. All test data referenced to 25°C ambient.
3. Testing Instrument : L: HP4284A,HP4395A,CH11025,CH3302,CH1320 ,CH1320S LCR METER / Rdc:CH16502,Agilent33420A MICRO OHMMETER,or EQU.
4. Current that causes the specified temperature rise from 25°C ambient.
5. Saturation Current (Isat) will cause L0 to drop approximately 30%.
6. The part temperature (ambient + temp rise) should not exceed 155°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.

### 6. Typical Performance Curves





**SMD Power Inductor** TMPF0606LRV-Series(N)-D

**1. Features**

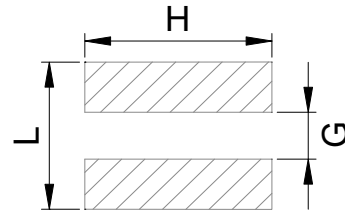
1. Soft saturation.
2. High current · low DCR · high efficiency.
3. Very low acoustic noise and very low leakage flux noise.
4. High reliability.
5. 100% Lead(Pb)-Free and RoHS compliant.
6. High reliability -Reliability test complied to AEC-Q200
7. Operating temperature: -55~+155°C (Including self - temperature rise)



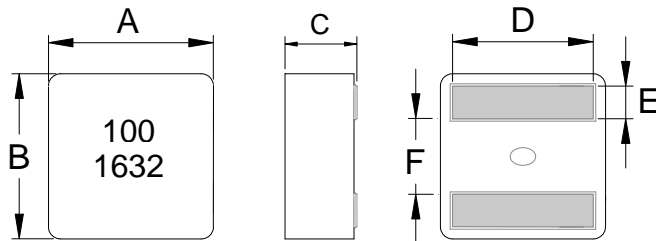
**2. Applications**

Note PC power system · incl. IMVP-6  
DC/DC converter .

**Recommend PC Board Pattern**



**3. Dimensions**



L(mm)	G(mm)	H(mm)
5.6 ref	2.5 ref	5.6 ref

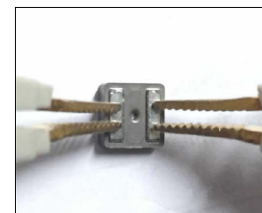
Note: 1、 The above PCB layout reference only.  
2、 Recommend solder paste thickness at 0.15mm and above.

Series	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)
TMPF0606LRV	6.6±0.2	6.4±0.2	5.8±0.2	5.3±0.3	1.4±0.2	2.6±0.25

**4. Part Numbering**



- A: Series
- B: Dimension
- C: Type
- D: Inductance
- E: Inductance Tolerance
- F: Code
- BxC
- Material. V: Vehicle
- 100=10.0uH
- M=±20%
- Marking: Black.100 and 1632(16 YY, 32 WW, follow production date).



DCR Test

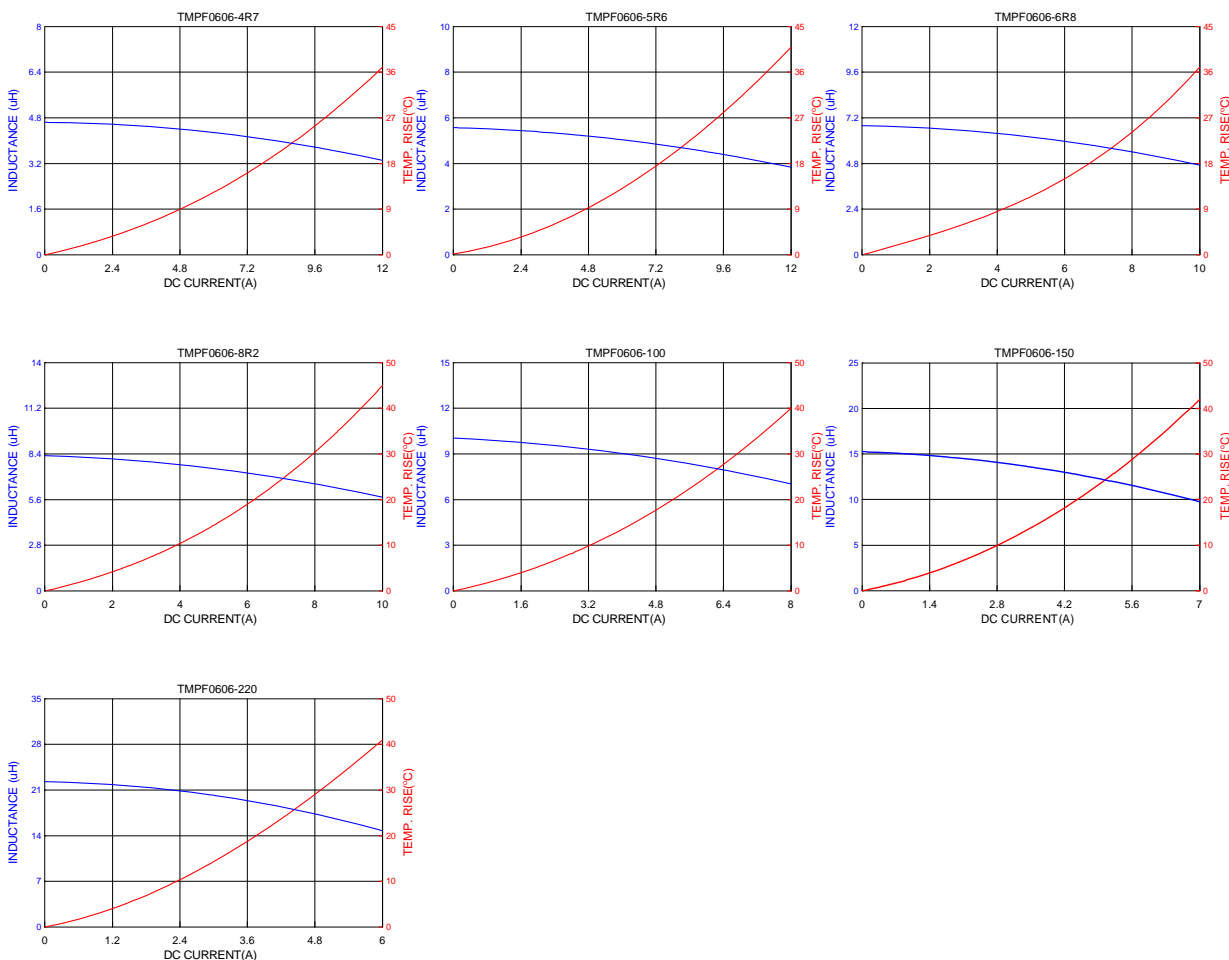
### 5. Specification

Part Number	Inductance (uH) ±20% @ 0 A	I rms(A) Typ		I sat(A)		DCR (mΩ) Typ.	DCR (mΩ) Max.
		20°C rise	40°C rise	Typ	Max		
TMPF0606LRV-4R7MN-D	4.70	8.0	11.0	10.5	9.5	13.1	14.4
TMPF0606LRV-5R6MN-D	5.60	7.5	10.0	10.0	9.0	14.3	15.8
TMPF0606LRV-6R8MN-D	6.80	7.0	9.0	9.2	8.7	18.9	20.8
TMPF0606LRV-8R2MN-D	8.20	6.0	8.0	8.5	8.0	22.5	24.8
TMPF0606LRV-100MN-D	10.0	5.0	7.0	7.6	6.8	26.6	29.3
TMPF0606LRV-150MN-D	15.0	4.5	6.0	5.8	5.2	39.0	43.0
TMPF0606LRV-220MN-D	22.0	3.8	5.0	5.6	5.0	55.0	60.5

Note:

1. Test frequency : L : 100KHz /0.1V.
2. All test data referenced to 25°C ambient.
3. Testing Instrument : L : HP4284A,HP4395A,CH11025,CH3302,CH1320 ,CH1320S LCR METER / Rdc:CH16502,Agilent33420A MICRO OHMMETER,or EQU.
4. Current that causes the specified temperature rise from 25 C ambient.
5. Saturation Current (Isat) will cause L0 to drop approximately 30%.
6. The part temperature (ambient + temp rise) should not exceed 155°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.

### 6. Typical Performance Curves



**SMD Power Inductor** TMPF0702AV-Series(N)-D

**1. Features**

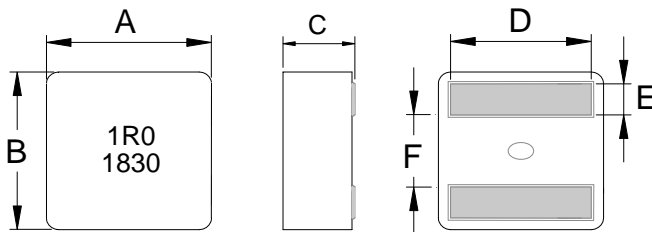
1. Soft saturation.
2. High current · low DCR · high efficiency.
3. Very low acoustic noise and very low leakage flux noise.
4. High reliability.
5. 100% Lead(Pb)-Free and RoHS compliant.
6. High reliability -Reliability test meet AEC-Q200.
7. Operating temperature: -55~+155°C (Including self - temperature rise)



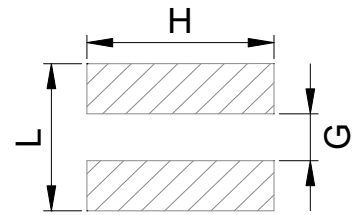
**2. Applications**

Note PC power system · incl. IMVP-6  
DC/DC converter .

**3. Dimensions**



**Recommend PC Board Pattern**



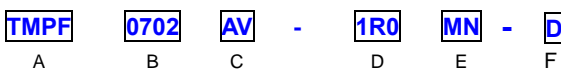
L(mm)	G(mm)	H(mm)
7.4 ref	2.8 ref	7.2 ref

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

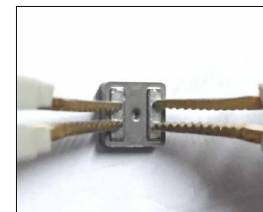
Series	A	B	C	D	E	F
TMPF0702AV	7.80±0.25	7.60±0.20	1.85±0.2	See Spec Table	1.75±0.2	3.15±0.25

Unit: mm

**4. Part Numbering**



- A: Series
- B: Dimension
- C: Type
- D: Inductance
- E: Inductance Tolerance
- F: Code
- BxC
- Material.
- 1R0=1.0uH
- M=±20%
- Marking: Black.1R0 and 1830(18 YY, 30 WW,follow production date).



DCR Test

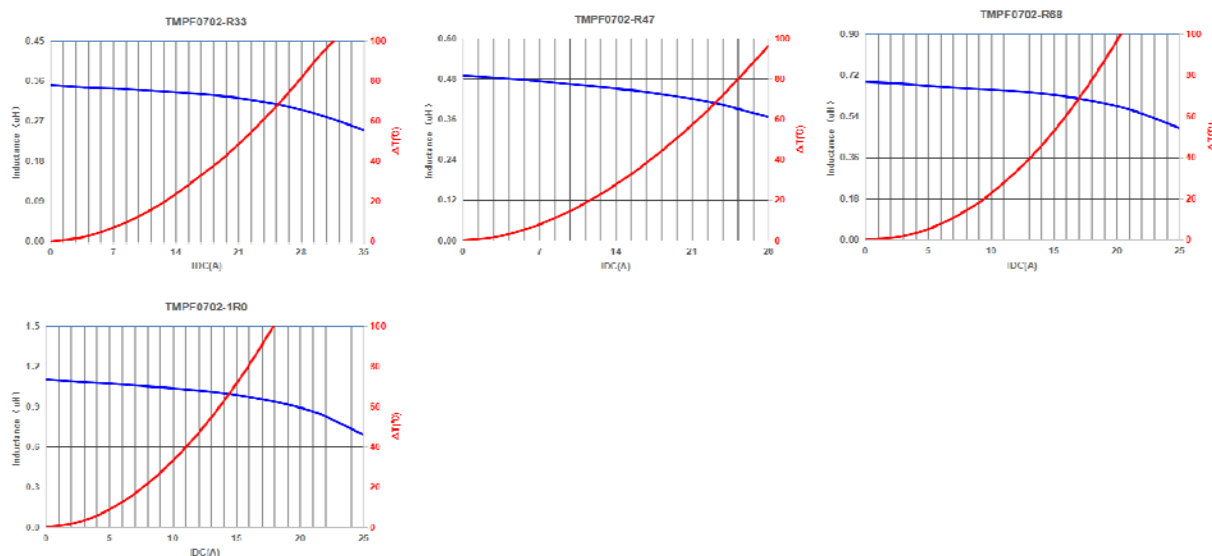
### 5. Specification

Part Number	Inductance (uH) ±20% @ 0 A	I rms(A) Typ		I sat(A)		DCR (mΩ) Typ.	DCR (mΩ) Max.	D (mm) ±0.3
		20°C rise	40°C rise	Typ	Max			
TMPF0702AV-R33MN-D	0.33	13	19	34	31	4.0	4.8	6.2
TMPF0702AV-R47MN-D	0.47	12	17	28	25	5.1	6.2	6.2
TMPF0702AV-R68MN-D	0.68	10	13	25	23	7.9	9.2	6.2
TMPF0702AV-1R0MN-D	1.00	8	11	23	20	9.8	10.8	6.2

Note:

1. Test frequency : L : 100KHz /0.1V.
2. All test data referenced to 25°C ambient.
3. Testing Instrument : L: HP4284A,HP4395A,CH11025,CH3302,CH1320 ,CH1320S LCR METER / Rdc:CH16502,Agilent33420A MICRO OHMMETER,or EQU.
4. Current that causes the specified temperature rise from 25°C ambient.
5. Saturation Current (Isat) will cause L0 to drop approximately 30%.
6. The part temperature (ambient + temp rise) should not exceed 155°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.
8. Rated operating voltage(across inductor) 40V ref.

### 6. Typical Performance Curves



**SMD Power Inductor** TMPF0703AV-Series(N)-D

**1. Features**

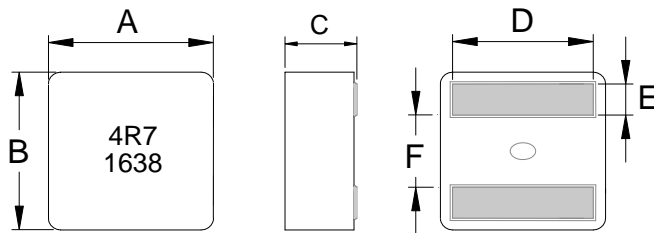
1. Soft saturation.
2. High current · low DCR · high efficiency.
3. Very low acoustic noise and very low leakage flux noise.
4. High reliability.
5. 100% Lead(Pb)-Free and RoHS compliant.
6. High reliability -Reliability test meet AEC-Q200.
7. Operating temperature: -55~+155℃ (Including self - temperature rise)



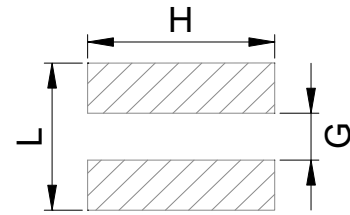
**2. Applications**

Note PC power system · incl. IMVP-6  
DC/DC converter .

**3. Dimensions**



**Recommend PC Board Pattern**

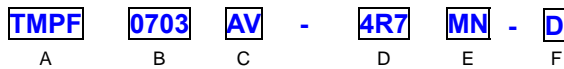


L(mm)	G(mm)	H(mm)
7.4 ref	2.8 ref	7.2 ref

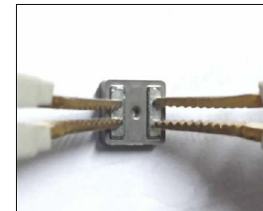
Note: 1、 The above PCB layout reference only.  
2、 Recommend solder paste thickness at 0.15mm and above.

Series	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)
TMPF0703AV	7.80±0.25	7.60±0.20	2.90±0.2	See Spec Table	1.75±0.2	3.15±0.25

**4. Part Numbering**



- A: Series
  - B: Dimension
  - C: Type
  - D: Inductance
  - E: Inductance Tolerance
  - F: Code
- BxC  
 Material. V: Vehicle  
 4R7=4.70uH  
 M=±20%  
 Marking: Black.4R7 and 1638(16 YY, 38 WW, follow production date).



**DCR Test**

## 5. Specification

Part Number	Inductance (uH) $\pm 20\%$ @ 0 A	I rms(A) Typ		I sat(A)		DCR (m $\Omega$ ) Typ.	DCR (m $\Omega$ ) Max.	D (mm) $\pm 0.3$
		20 $^{\circ}$ C rise	40 $^{\circ}$ C rise	Typ	Max			
TMPF0703AV-1R0MN-D	1.00	16.1	21.8	30.0	28.0	4.55	5.00	6.6
TMPF0703AV-1R5MN-D	1.50	12.0	15.3	25.0	23.5	7.50	8.25	6.6
TMPF0703AV-2R2MN-D	2.20	10.0	13.0	19.0	17.0	12.4	13.7	6.2
TMPF0703AV-3R3MN-D	3.30	8.00	10.0	15.0	13.0	16.3	18.0	6.2
TMPF0703AV-4R7MN-D	4.70	6.90	9.00	13.5	12.2	24.2	26.7	6.2
TMPF0703AV-5R6MN-D	5.60	5.30	7.30	12.5	11.5	30.1	33.2	6.2
TMPF0703AV-6R8MN-D	6.80	4.50	6.80	12.0	11.0	38.6	42.5	6.2
TMPF0703AV-8R2MN-D	8.20	3.00	5.90	10.2	9.0	44.3	48.73	6.2

Note:

1. Test frequency : L : 100KHz /0.1V.
2. All test data referenced to 25 $^{\circ}$ C ambient.
3. Testing Instrument : L: HP4284A,HP4395A,CH11025,CH3302,CH1320 ,CH1320S LCR METER / Rdc:CH16502,Agilent33420A MICRO OHMMETER,or EQU.
4. Current that causes the specified temperature rise from 25 $^{\circ}$ C ambient.
5. Saturation Current (Isat) will cause L0 to drop approximately 30%.
6. The part temperature (ambient + temp rise) should not exceed 155 $^{\circ}$ 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.

### 6. Typical Performance Curves

