AIR CORE COIL, HIGH CURRENT POWER INDUCTOR
RC1010 SERIES

Our RC high–current, high–power air core inductors can handle up to 57 Amps with no core loss. Their size results in excellent Q factors – up to 230 at 400 MHz. Inductance values range from 23.5 nH to 146 nH, all with ±20% tolerance. High–reliability versions are available for space, military, and other critical applications.

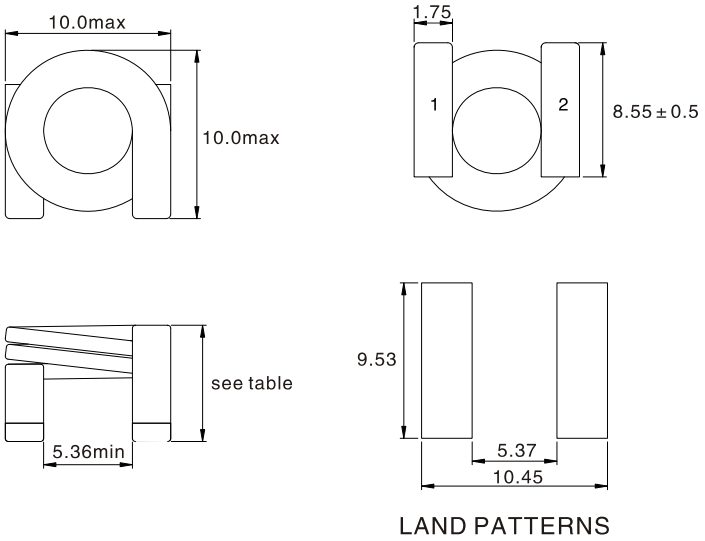
- Compact size using flat wire
- High current, high frequency power inductors
- Excellent Q factors – up to 230 at 400 MHz
- Current handling as high as 18 Amps
- RoHScompatible.

ELECTRICAL CHARACTERISTICS@25℃

Part No.	Inductance (nH) ± 20%	DCR (mΩ)Max	Quality factor		SRF (MHz)	Temperature rise 20℃ current (A)Max	Temperature rise 40℃ current (A)Max	Height (mm)Max
			Q	MHz				
RC1010–23NM	23.5	1.2	95	100	923	18.0	26.0	3.6
RC1010–46NM	46.5	1.6	150	100	526	17.9	25.5	4.1
RC1010–79NM	79.0	2.1	135	50	386	17.8	25.0	4.8
RC1010–R11M	111.0	2.7	150	50	382	15.7	22.0	5.6
RC1010–R14M	146.0	3.3	140	50	433	14.1	19.3	6.1

TECHNICAL INFORMATION & PHYSICAL CHARACTERISTICS:

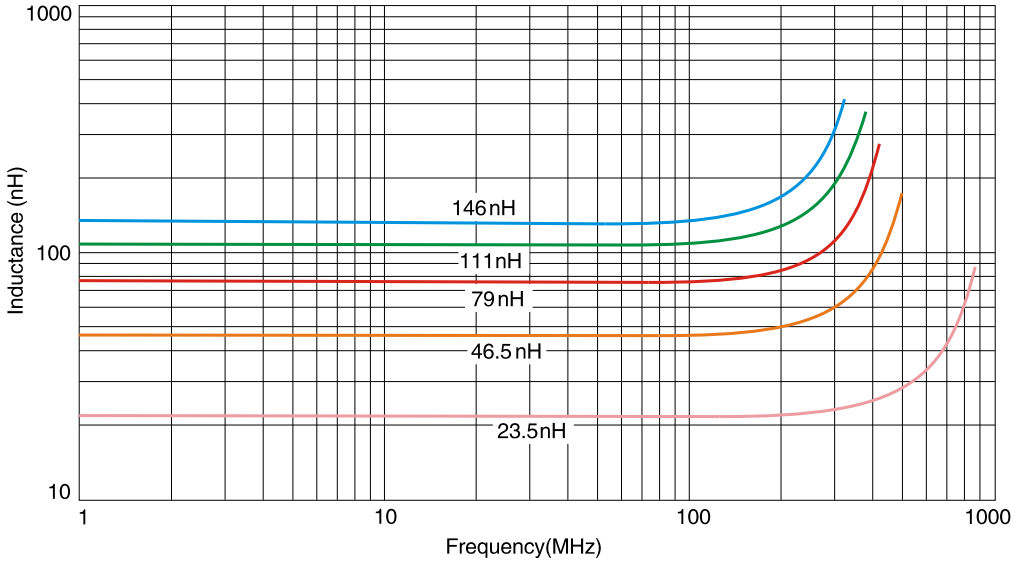
Dimensions(mm)



LAND PATTERNS

- Inductance is measured with a LCR meter 4284A or equivalent. Test frequency at 1MHz/0.1V
- DC resistance is measured with 16502 Milliohm Meter, or equivalent. Reference ambient temperature 25℃
- Q measured at the specified frequency using HP4991A impedance analyzer or equivalent.
- SRF measured using HP4991A impedance analyzer or equivalent.
- Current that causes the specified temperature rise from 25℃ ambient. This information is for reference only and does not represent absolute max. ratings.
- Operatingtemperature:–40℃~+220℃.Including self temperature rise.

INDUCTANCE VS FREQUENCY



AIR CORE COIL, HIGH CURRENT POWER INDUCTOR
RC1212 SERIES

Our RC high–current, high–power air core inductors can handle up to 57 Amps with no core loss. Their size results in excellent Q factors – up to 230 at 400 MHz. Inductance values range from 22 nH to 117 nH, all with ±20% tolerance. High–reliability versions are available for space, military, and other critical applications.

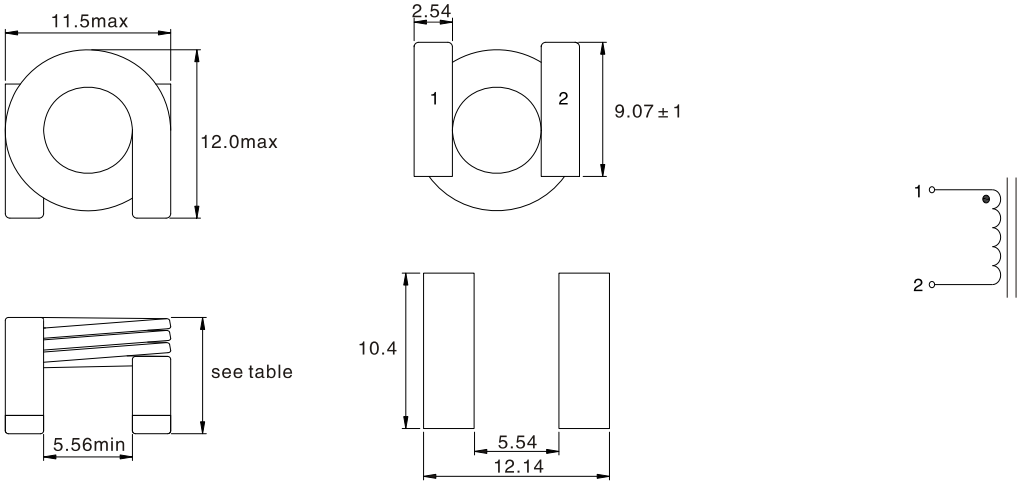
- Compact size using flat wire
- High current, high frequency power inductors
- Excellent Q factors – up to 230 at 400 MHz
- Current handling as high as 40.5Amps
- RoHScompatible.

ELECTRICAL CHARACTERISTICS@25℃

Part No.	Inductance (nH) ± 20%	DCR (mΩ)Max	Quality factor		SRF (MHz)	Temperature rise 20℃ current (A)Max	Temperature rise 40℃ current (A)Max	Height (mm)Max
			Q	MHz				
RC1212–22NM	22	0.55	200	100	918	40.5	57.0	6.6
RC1212–42NM	42	0.77	195	50	557	38.0	52.0	7.6
RC1212–66NM	66	0.99	200	50	480	35.0	48.0	8.8
RC1212–90NM	90	1.21	175	50	444	33.0	45.0	10.4
RC1212–R12M	117	1.43	165	50	399	32.0	44.0	11.3

TECHNICAL INFORMATION & PHYSICAL CHARACTERISTICS:

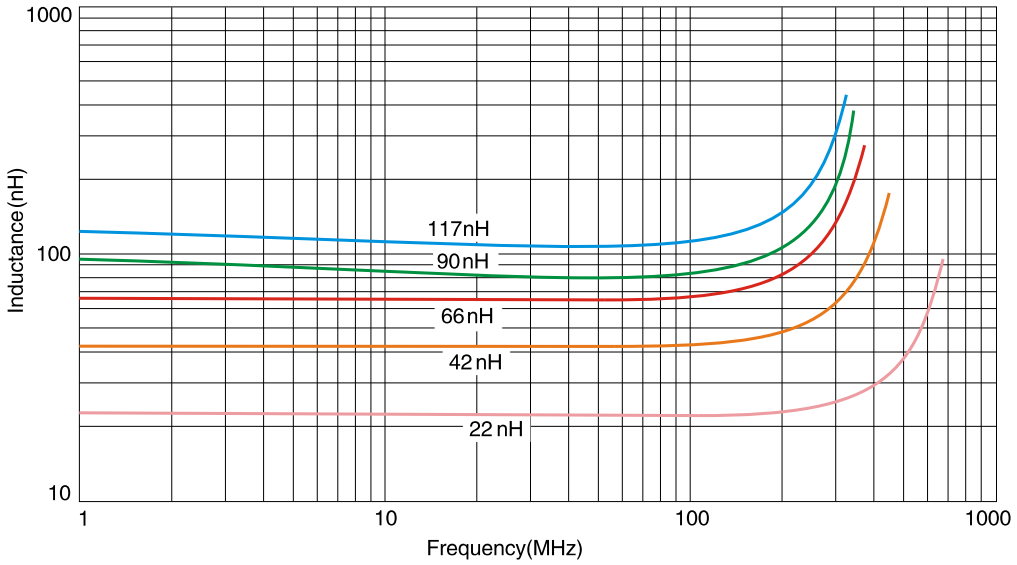
Dimensions(mm)



LAND PATTERNS

- Inductance is measured with a LCR meter 4284A or equivalent. Test frequency at 1MHz/0.1V
- DC resistance is measured with 16502 Milliohm Meter, or equivalent. Reference ambient temperature 25℃
- Q measured at the specified frequency using HP4991A impedance analyzer or equivalent.
- SRF measured using HP4991A impedance analyzer or equivalent.
- Current that causes the specified temperature rise from 25℃ ambient. This information is for reference only and does not represent absolute max. ratings.
- Operatingtemperature:–40℃~+220℃.Including self temperature rise.

INDUCTANCE VS FREQUENCY



AIR CORE COIL, HIGH CURRENT POWER INDUCTOR
RC2014 SERIES

Our RC high–current, high–power air core inductors can handle up to 57 Amps with no core loss. Their size results in excellent Q factors – up to 230 at 400 MHz. Inductance values range from 33 nH to 257 nH, all with ±20% tolerance. High–reliability versions are available for space, military, and other critical applications.

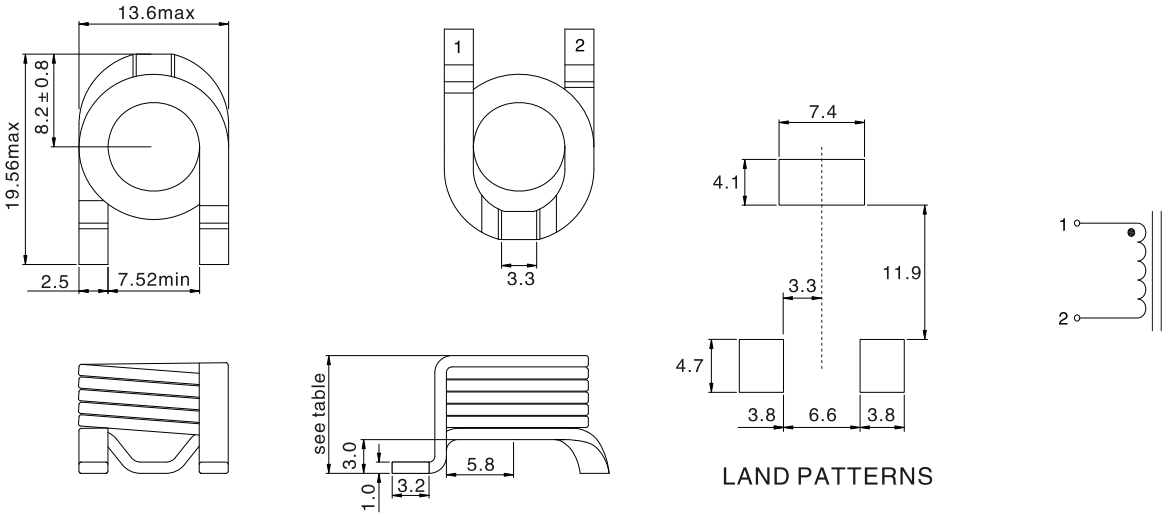
- Compact size using flat wire
- High current, high frequency power inductors
- Excellent Q factors – up to 230 at 400 MHz
- Current handling as high as 32.5 Amps
- RoHScompatible.

ELECTRICAL CHARACTERISTICS@25℃

Part No.	Inductance (nH)±20%	DCR (mΩ)Max	Quality factor		SRF (MHz)	Temperature rise 20℃ current (A)Max	Temperature rise 40℃ current (A)Max	Height (mm)Max
			Q	MHz				
RC2014–33NM	33	0.74	230	100	620	32.5	43.0	5.99
RC2014–66NM	66	1.0	200	50	413	31.5	42.5	7.09
RC2014–R11M	108	1.34	210	50	320	31.0	42.0	8.31
RC2014–R16M	155	1.6	205	50	296	29.4	39.7	9.19
RC2014–R20M	202	1.82	200	50	262	26.3	35.8	10.4
RC2014–R26M	257	2.15	200	50	230	21.9	34.5	11.4

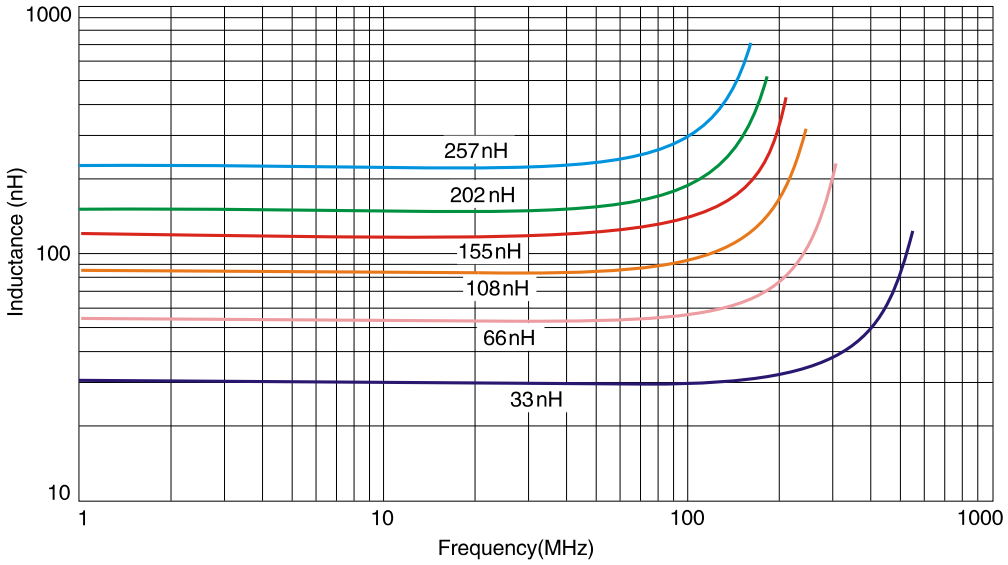
TECHNICAL INFORMATION & PHYSICAL CHARACTERISTICS:

Dimensions(mm)



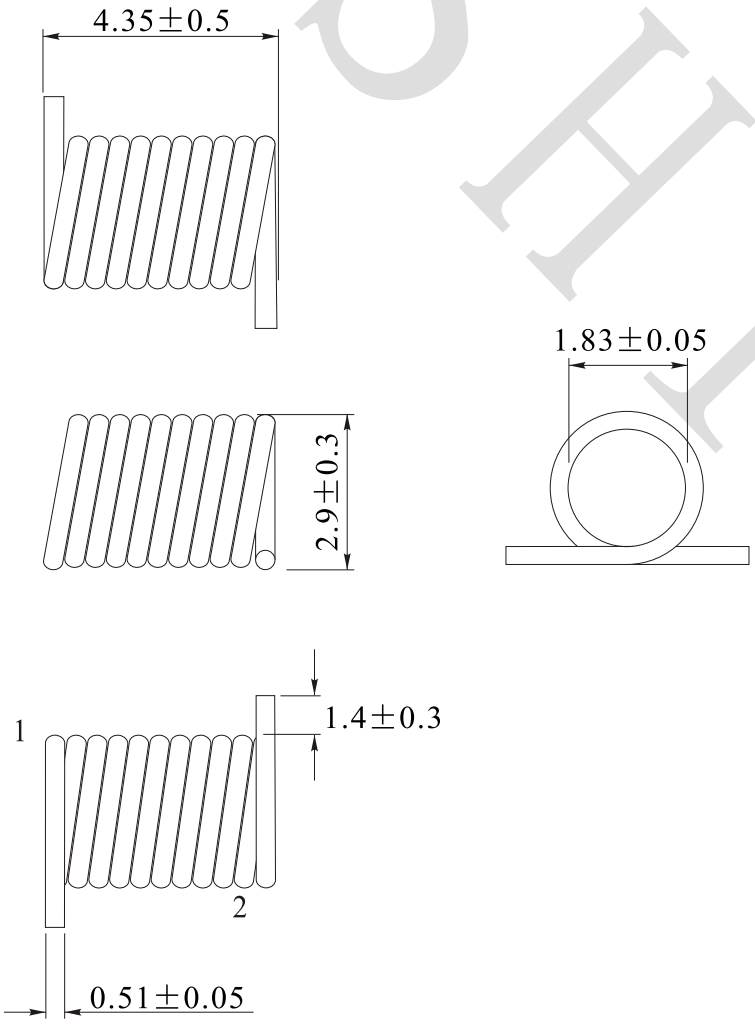
- Inductance is measured with a LCR meter 4284A or equivalent. Test frequency at 1MHz/0.1V
- DC resistance is measured with 16502 Milliohm Meter, or equivalent. Reference ambient temperature 25℃
- Q measured at the specified frequency using HP4991A impedance analyzer or equivalent.
- SRF measured using HP4991A impedance analyzer or equivalent.
- Current that causes the specified temperature rise from 25℃ ambient. This information is for reference only and does not represent absolute max. ratings.
- Operatingtemperature:–40℃~+220℃.Including self temperature rise.

INDUCTANCE VS FREQUENCY

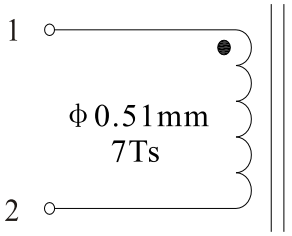


Rev.	Description	Date
A0	New release	2020.12.25

1.PHYSICAL CHARACTERISTICS(mm)



2.ELECTRONICAL SCHEMATIC



Operating temperature range: -40℃ to +125℃

(include temp. rise 40℃)

Storage temperature range: -40℃ to +85℃

NAME:	Air-core coil		
CUSTOMER P/N:	118030	DATE:	2020-12-25
SHINHOM P/N:	SMAR4329-1.83	REV: A0	PAGE
DRAWN BY	CHECKED BY	APPROVE BY	

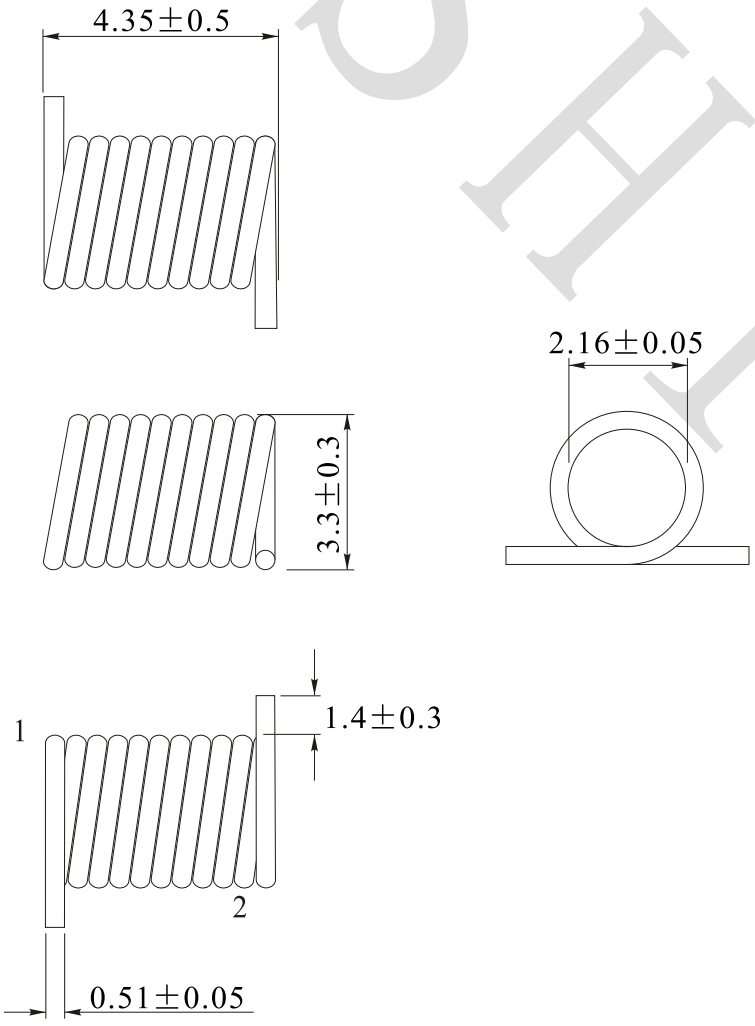
SHINHOM

SHINHOM

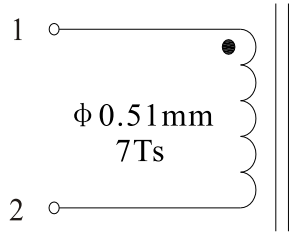
SHAANXISHINHOM ENTERPRISE CO LTD

Rev.	Description	Date
A0	New release	2020.12.25

1.PHYSICAL CHARACTERISTICS(mm)



2.ELECTRONICAL SCHEMATIC



Operating temperature range: -40℃ to +125℃

(include temp. rise 40℃)

Storage temperature range: -40℃ to +85℃

NAME:	Air-core coil		
CUSTOMER P/N:	118031	DATE:	2020-12-25
SHINHOM P/N:	SMAR4333-2.16	REV: A0	PAGE
DRAWN BY	CHECKED BY	APPROVE BY	

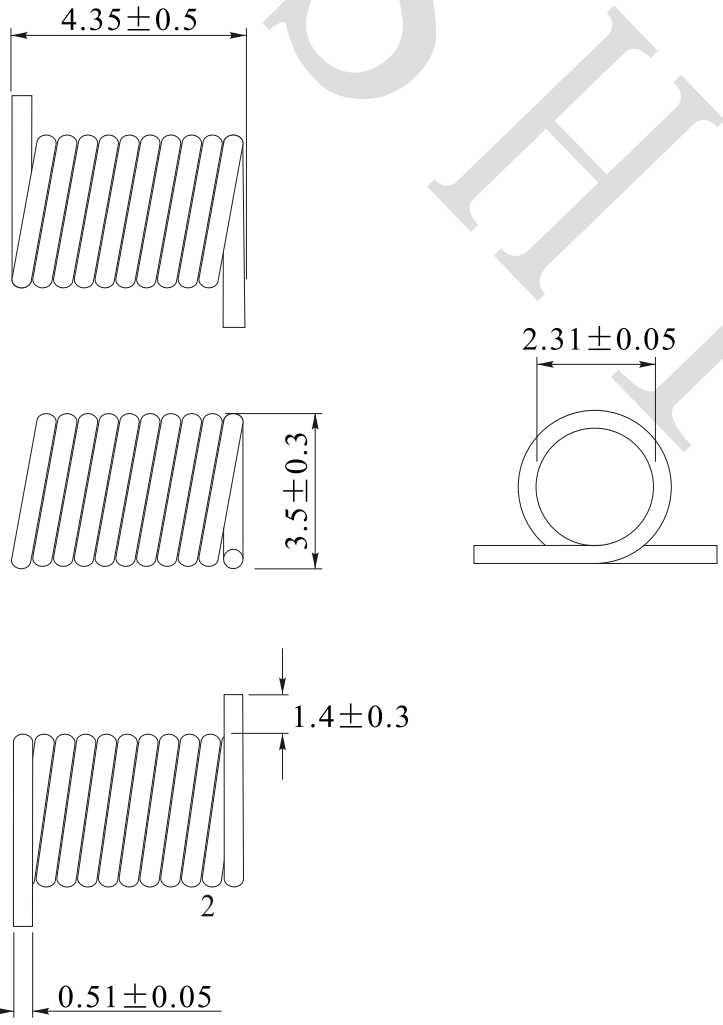
SHINHOM

SHINHOM

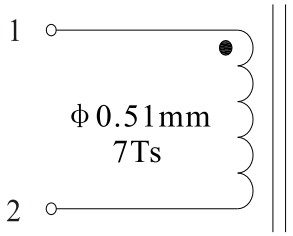
SHAANXISHINHOM ENTERPRISE CO LTD

Rev.	Description	Date
A0	New release	2020.12.25

1.PHYSICAL CHARACTERISTICS(mm)



2.ELECTRONICAL SCHEMATIC



Operating temperature range: -40℃ to +125℃

(include temp. rise 40℃)

Storage temperature range: -40℃ to +85℃

NAME:	Air-core coil		
CUSTOMER P/N:	118029	DATE:	2020-12-25
SHINHOM P/N:	SMAR4335-2.31	REV: A0	PAGE
DRAWN BY	CHECKED BY	APPROVE BY	

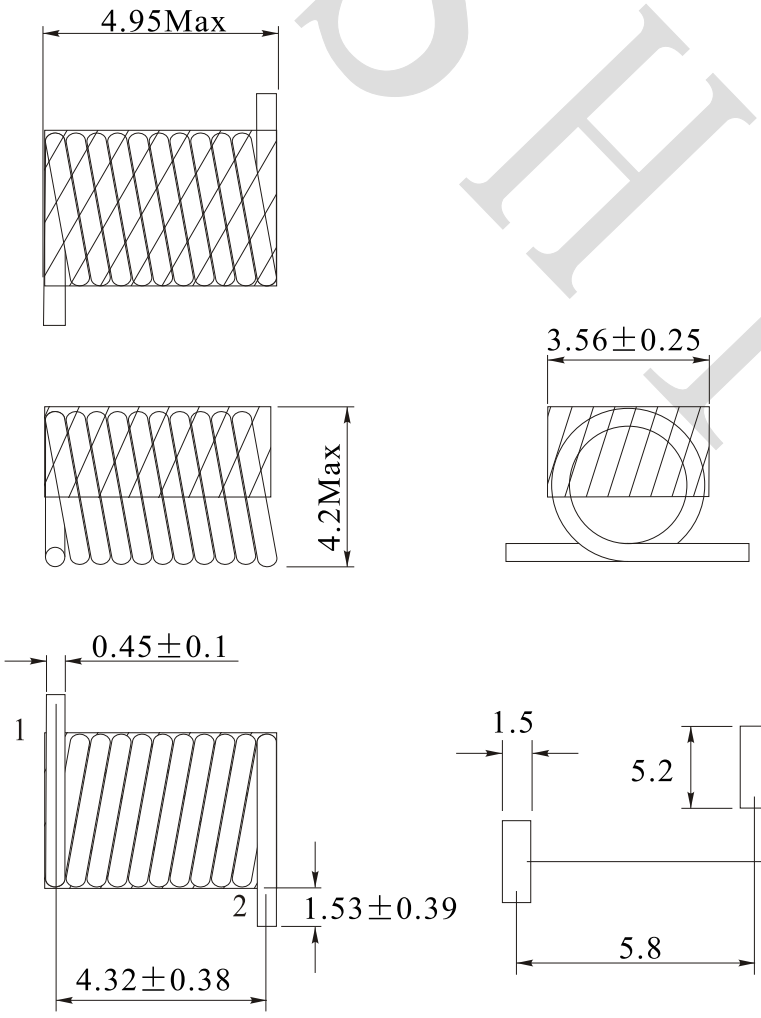
SHINHOM

SHINHOM

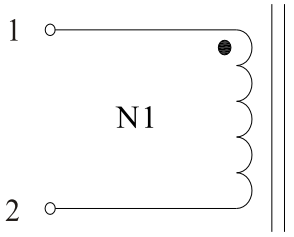
SHAANXISHINHOM ENTERPRISE CO LTD

Rev.	Description	Date
A0	New release	2017.03.06

1.PHYSICAL CHARACTERISTICS(mm)



2.ELECTRONICAL SCHEMATIC



3.ELECTRONICAL SPECIFICATIONS

L: 47nH±5% @150MHz,0.1V

DCR: 5.6mΩ Max

IDC: 3.0A Max

Q: 100Min@150MHz

SRF: 2.1GHz Min

Operating temperature range: -40℃ to +85℃

Storage temperature range: -40℃ to +85℃

Test Instrument:

L: HP4291A

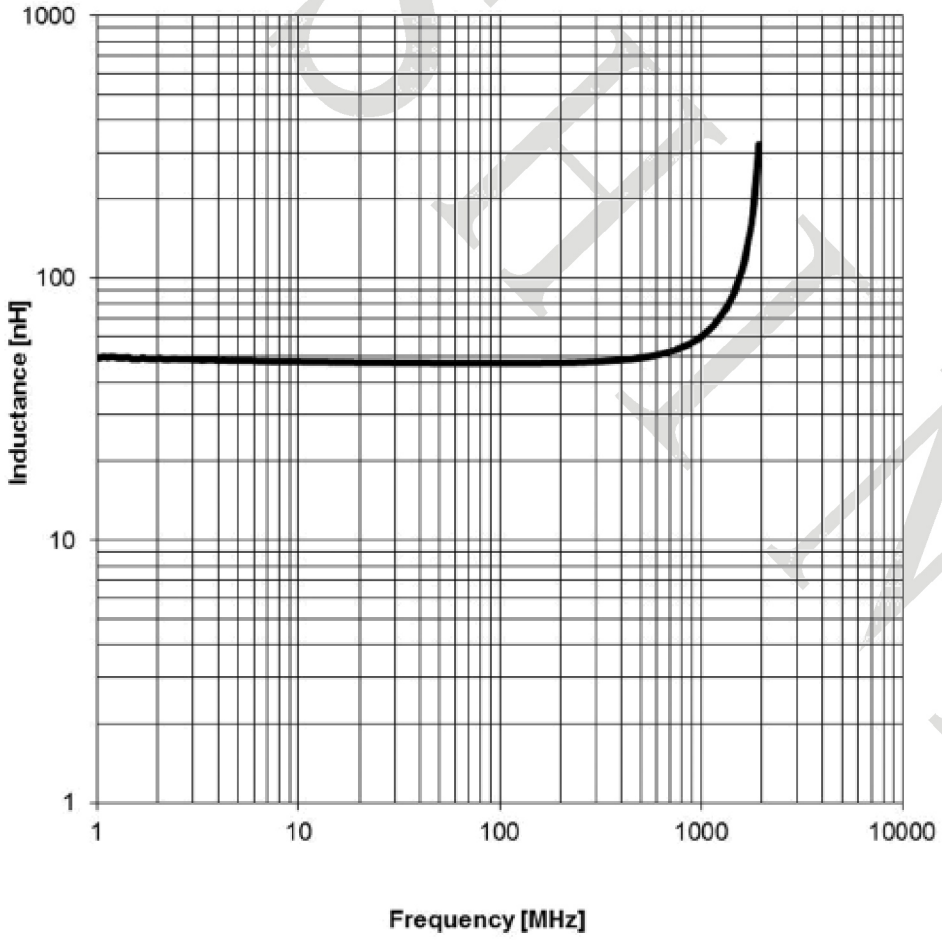
RDC: HM2540

SHINHOM

SHAANXISHINHOM ENTERPRISE CO LTD

NAME:	Air-core coil		
CUSTOMER P/N:		DATE:	2017-03-06
SHINHOM P/N:	SMAR5040-47NJ	REV: A0	PAGE
DRAWN BY	CHECKED BY	APPROVE BY	

Inductance vs Frequency



NAME:	Air-core coil		
CUSTOMER P/N:		DATE:	2017-03-06
SHINHOM P/N:	SMAR5040-47NJ	REV: A0	PAGE
DRAWN BY	CHECKED BY	APPROVE BY	

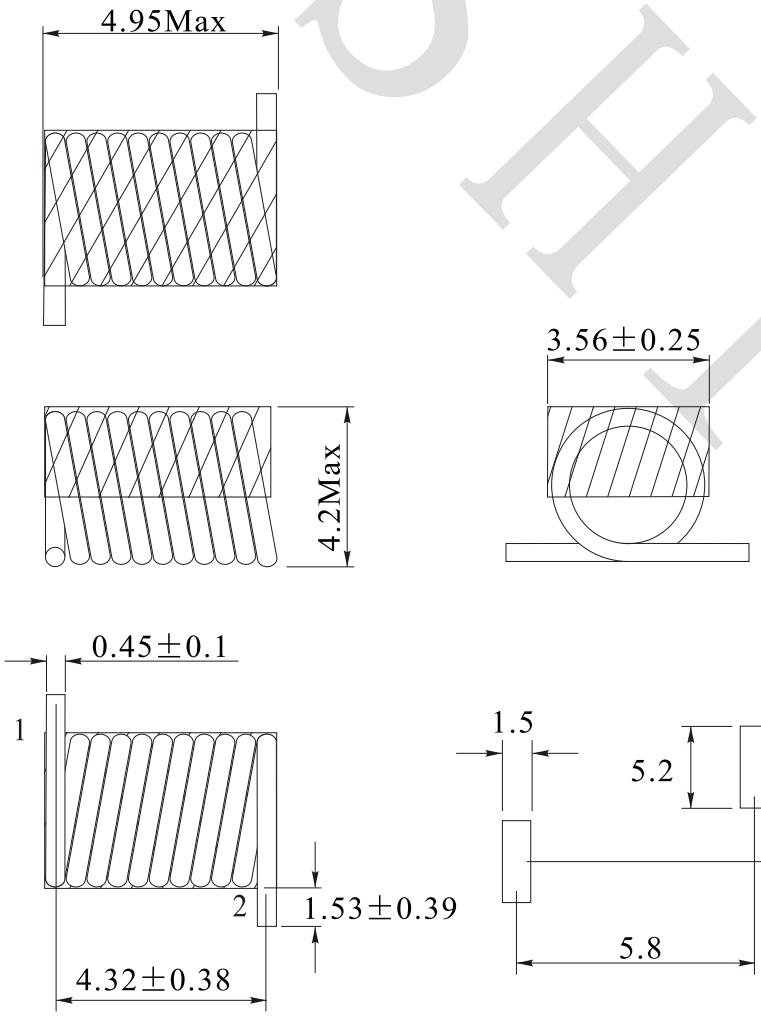
SHINHOM

SHINHOM

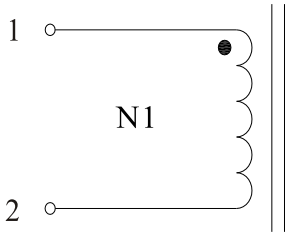
SHAANXISHINHOM ENTERPRISE CO LTD

Rev.	Description	Date
A0	New release	2017.03.06

1.PHYSICAL CHARACTERISTICS(mm)



2.ELECTRONICAL SCHEMATIC



3.ELECTRONICAL SPECIFICATIONS

L: 68nH±5% @150MHz,0.1V

DCR: 8.2mΩ Max

IDC: 2.5A Max

Q: 100Min@150MHz

SRF: 1.5GHz Min

Operating temperature range: -40℃ to +85℃

Storage temperature range: -40℃ to +85℃

Test Instrument:

L: HP4291A

RDC: HM2540

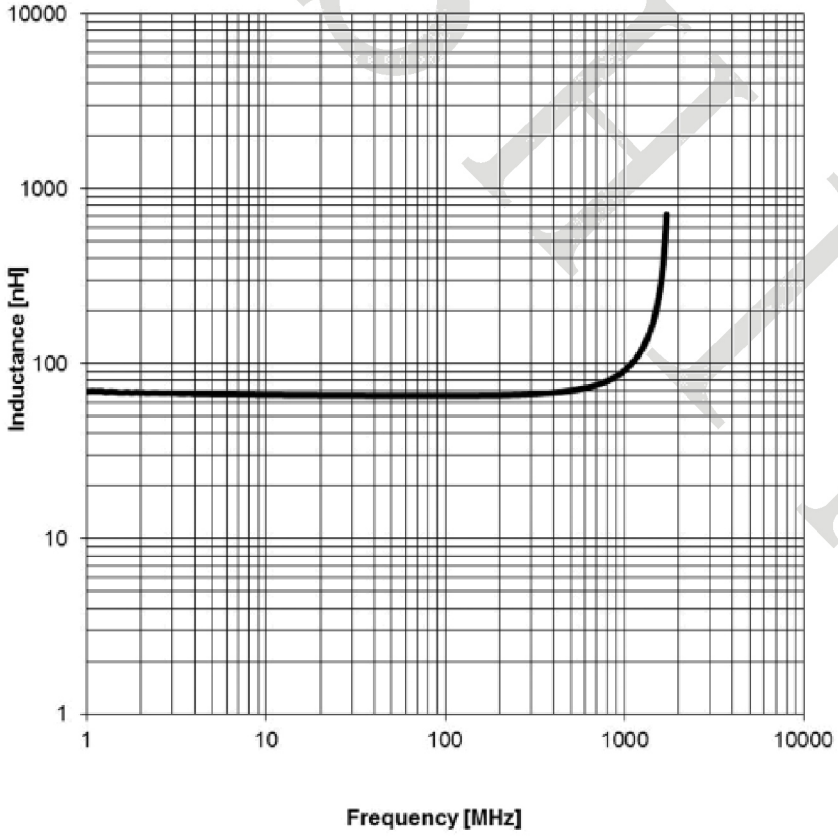
NAME:	Air-core coil		
CUSTOMER P/N:		DATE:	2017-03-06
SHINHOM P/N:	SMAR5040-68NJ	REV: A0	PAGE
DRAWN BY	CHECKED BY	APPROVE BY	

SHINHOM

SHINHOM

SHAANXISHINHOM ENTERPRISE CO LTD

Inductance vs Frequency

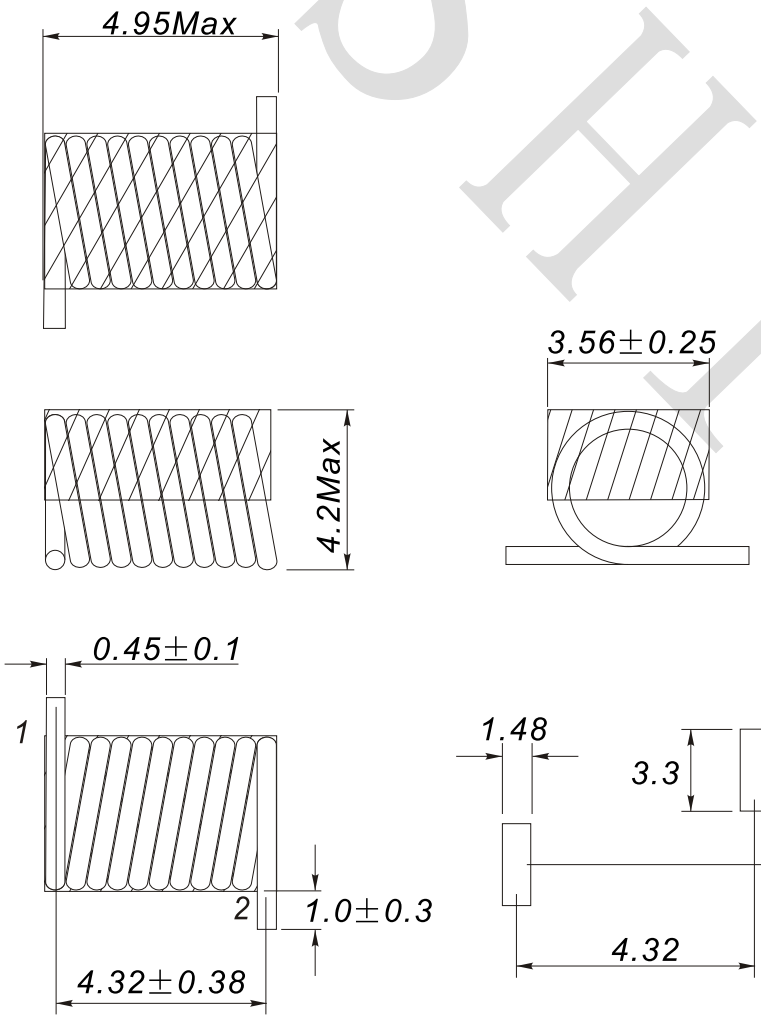


NAME:	Air-core coil		
CUSTOMER P/N:		DATE:	2017-03-06
SHINHOM P/N:	SMAR5040-68NJ	REV: A0	PAGE
DRAWN BY	CHECKED BY	APPROVE BY	

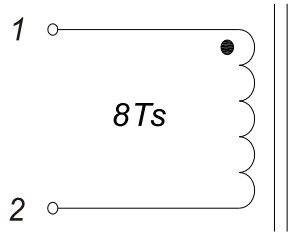
SHINHOM
SHAANXISHINHOM ENTERPRISE CO LTD

Rev.	Description	Date
A0	New release	2018.11.16

1.PHYSICAL CHARACTERISTICS(mm)



2.ELECTRONICAL SCHEMATIC



3.ELECTRONICAL SPECIFICATIONS

L: 82nH±5% @150MHz,0.1V

DCR: 9.4mΩ Max

Rated current: 2.5A Max

Q: 100Min@150MHz

SRF: 1300MHz Min

Operating temperature range: -40℃ to +125℃

(include temp. rise 40℃)

Storage temperature range: -40℃ to +85℃

NAME:	Air-core coil		
CUSTOMER P/N:		DATE:	2018-11-16
SHINHOM P/N:	SMAR5040-82NJ	REV: A0	PAGE
DRAWN BY	CHECKED BY	APPROVE BY	

SHINHOM

SHAANXISHINHOM ENTERPRISE CO LTD