SPECIFICATION FOR APPROVAL

CUSTOMER	
CUSTOMER'S P/N	
DATE	11/Nov/2026 REVISION NO. A
PART NO.	AHCI120611T-R10LT
DRAWN NO.	261111-EN01

Signature

Approved by	Checked by	Drawn by
零件 2026/11/11 承認課	蔡 2026/11/11 海	刘 2026/11/11 科云

苏州今鹏先进科技有限公司

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SPECIFICATION FOR APPROVAL

ECN HISTORY LIST

REV	DATE	DESCRIPTION	CHECK	APPROVED
A	26.11.11	New release	Keyun Liu	

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PRODUCT IDENTIFICATION

AHCI	120611	T	-	R10	L	T
1	2	3		4	5	6

1. Product Series
2. Dimension : Length*Width*High
3. Type : Type Code
4. Inductance : R10=105nH
5. Tolerance : L=±15%
6. Package : T= Taping reel ;V= Vacuum Packing

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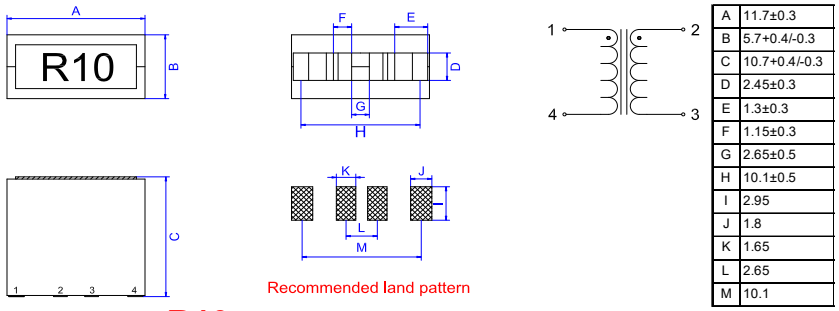
SHAPE & DIMENSION (UNIT:mm)



Recommended land pattern

A	11.7±0.3
B	5.7+0.4/-0.3
C	10.7+0.4/-0.3
D	2.45±0.3
E	1.3±0.3
F	1.15±0.3
G	2.65±0.5
H	10.1±0.5
I	2.95
J	1.8
K	1.65
L	2.65
M	10.1

Marking Code: **R10**

ELECTRICAL SPECIFICATION

MEAS. ITEM	SPEC.				TEST FREQ.	CONDITIONS(Ta=20~25°C)
L(1-4)	105	nH	±	15%	100KHz/1V	Idc=0A
L(2-3)	105	nH	±	15%	100KHz/1V	Idc=0A
DCR(1-4)	0.125	mΩ	±	10%		Ta=20°C
DCR(2-3)	0.37	mΩ	±	10%		Ta=20°C
Isat(1-4)@25°C	125	A	Typ.		100KHz/1V	△L/L≒20%
Isat(1-4)@100°C	106	A	Typ.		100KHz/1V	△L/L≒20%
Irms(1-4)	77	A	Typ.		100KHz/1V	△T≒40℃
Irms(2-3)	45	A	Typ.		100KHz/1V	△T≒40℃
Coupling Coefficient	0.95	Typ.				

※This product applies to Consumer Electronics only.
If needs to be used in high risk applications, please contact with our sales department .

GENERAL SPECIFICATION

Electrical specifications ： at 20~25℃
Operation Temperature ： -40~+125°C (Including self-temperature rise)
※The part temperature (ambient + temp rise) should not exceed 125°C under the worst case operating conditions. Circuit design, component placement, PCB trace size and thickness, airflow and other cooling provision all affect the part temperature. Part temperature should be verified in the end application.
Storage Condition ： +25℃±10℃,Humidity 40~70% RH

NOTE:

※Test Instrument ： LCR METER(Chroma3250,Test1790)， BIAS CURRENT SOURCE(Chroma1320,Chroma1320S)

※Isat ： For Inductance drop approximately 20% from its value without current.

※Irms ： Typical Heat Rating D.C current would cause an approximately △T of 40℃(Ta=25℃)

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MATERIAL LIST



No.	ITEM	MATERIAL	VENDER	Remark
1	Core	Mn-Zn Ferrite	FERRUM OR EQUIVALENT	
2	Electrode	Cu-Ni-Sn	LIANCHENG OR EQUIVALENT	

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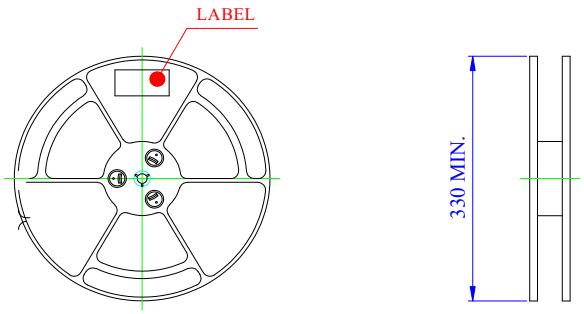
PACKAGING

Reel dimensions

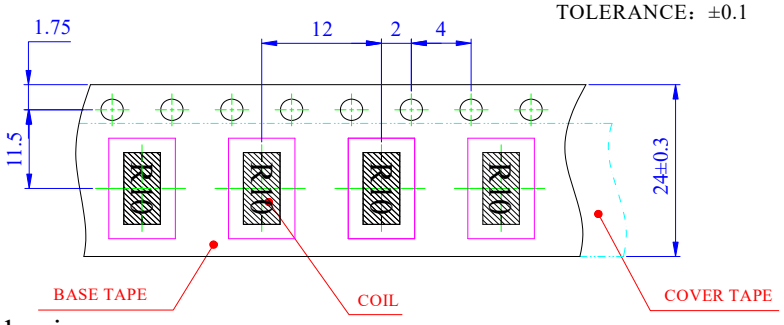
相关尺寸依据EIA-481-D规范管理

UNIT：mm



Tape dimensions

UNIT：mm
TOLERANCE：±0.1



Packaging

Quantity：400 pcs/reel

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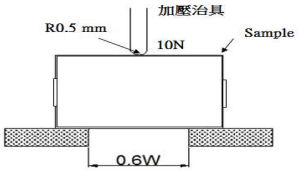
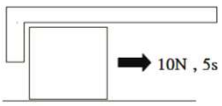
RELIABILITY TEST

MECHANICAL RELIABILITY

Test Items	Test Conditions	Criteria
Adhesion strength	A static load using a R0.5 pressing tool with 10N shall be applied to the body of the specimen in the direction of the arrow and shall be hold for 10s,measure after removing pressure. 	change from an initial value L:within±10%
Terminal strength	Add static load 10N to inductor through hole of test board for 5±2 sec. 	no detachment of terminal pin and no breakage of wire.
Vibration	Frequency: 10～55～10Hz Amplitude: 1.5mm Sweep time: 2 cycle Test Directions: X,Y,Z Test Time: 2 hours each direction	change from an initial value L:within±10%
Drop	Drop specimen three times on concrete floor from a height of 1 meter which mounted on test board.	change from an initial value L:within±10%

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RELIABILITY TEST

ENDURANCE RELIABILITY

Test Items	Test Conditions	Criteria
Low temperature storage	Placed at -40℃ for 500 hours, then measured at room ambient temperature after placing 24 hours.	change from an initial value L:within±10%
High temperature storage	Placed at +125℃ for 500 hours, then measured at room ambient temperature after placing 24 hours.	change from an initial value L:within±10%
Thermal shock	Condition for 1 cycle: -40℃, 30min. ～ +125℃,30min. Number of cycles:100	change from an initial value L:within±10%
Humidity resistance	Placed at 90 to 95%RH,+60±2℃ for 500 hours, then measured at room ambient temperature after placing 24 hours.	change from an initial value L:within±10%
High temperature dynamic operation test	Placed at +85℃ for 500 hours, then measured at room ambient temperature with current test after placing 24 hours.	Inductance shall be within ±10% of the initial value. Appearance: No damage
Solderability test	Terminals shall be immersed for 5 to 10 seconds in flux at room temperature.Dip sample into solder bath containing molten soldr at 245±3℃ for 3±0.5 seconds	New solder shall cover 90% minimun of the surface immersed.

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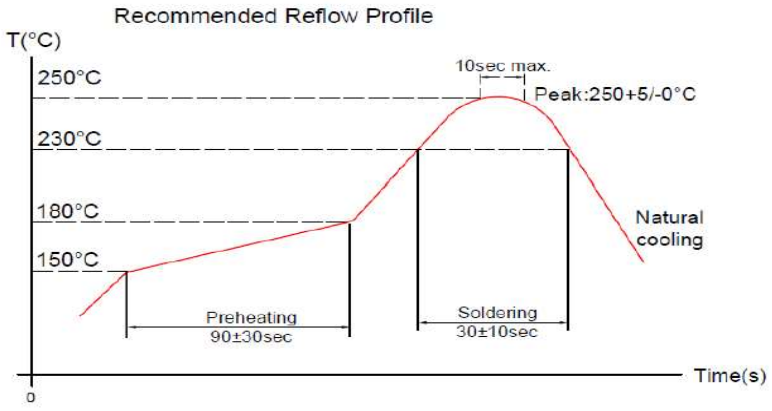
REFLOW-PROFILE



The reflow condition recommended above is according to the machine used by our company. Big differences will arise as a result of the type of machine, reflow conditions, method, etc used. Hence, before setting up your reflow conditions, please confirm with the above.

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Current Characteristic

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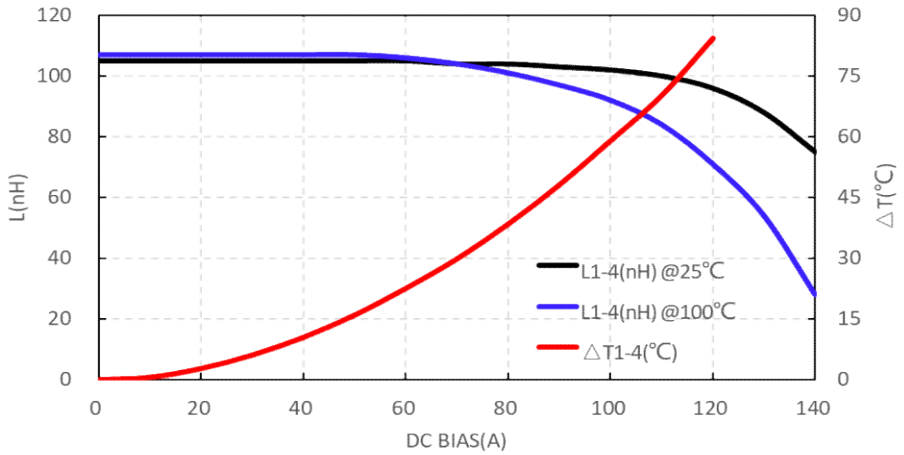
DC BIAS(A)	L_{1-4}(nH) @25℃	L_{1-4}(nH) @100℃	$\triangle T_{1-4}$(℃)
0	105	107	0.0
10	105	107	0.6
20	105	107	2.8
30	105	107	6.1
40	105	107	10.5
50	105	107	16
60	105	106	22.6
70	104	104	29.9
80	104	101	38.5
90	103	97	48.2
100	102	92	59.1
110	100	84	70.3
120	96	71	84.4
130	88	54	
140	75	28	



***DC bias current characteristics in the ambient temperature 20~25℃ Frequency 100KHz/1V**

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L-F CURVE

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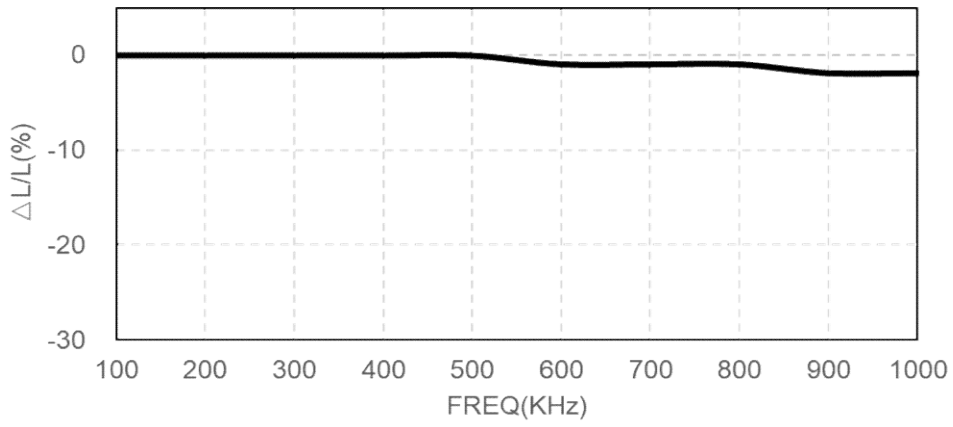
FREQ(KHz)	L(nH)	△L/L(%)
100	105	0.00%
200	105	0.00%
300	105	0.00%
400	105	0.00%
500	105	0.00%
600	104	-0.95%
700	104	-0.95%
800	104	-0.95%
900	103	-1.90%
1000	103	-1.90%



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TEST R.H.	40~85%
TEST TEMP.	20~25℃
DATE	2026/11/11

TEST DATA FOR PREPRODUCTION SAMPLE

TEST RESOLUTION								DIMENSION (Unit：mm)				
MEAS. ITEM	L(1-4) nH	DCR(1-4) mΩ	Isat(1-4)@25℃ nH	Irms(1-4) ℃				A	B	C	D	E
SPEC.	105 ± 15%	0.125 ± 10%	125 Typ. △L/L≒20%	77 Typ. △T≒40℃				11.7 ± 0.3	5.7 +0.4 -0.3	10.7 +0.4 -0.3	2.45 ± 0.3	1.3 ± 0.3
TEST FREQ.	100KHz/1V	Ta=20℃	100KHz/1V	100KHz/1V								
1	105	0.129	91	36.8				11.77	6.05	11.02	2.56	1.35
2	102	0.129	89	37.0				11.77	6.05	10.96	2.56	1.34
3	104	0.129	90	36.7				11.80	6.06	11.02	2.52	1.36
4	104	0.127	91	36.5				11.76	6.06	11.05	2.52	1.36
5	105	0.129	91	36.5				11.66	6.04	11.01	2.52	1.34
6	102	0.129	90	37.2				11.67	6.06	10.96	2.51	1.34
7	103	0.130	90	36.9				11.68	6.06	11.00	2.52	1.33
8	105	0.130	91	37.1				11.69	6.05	11.03	2.52	1.34
9	102	0.131	89	37.8				11.70	6.06	10.98	2.51	1.31
10	104	0.130	91	37.0				11.68	6.05	10.94	2.51	1.32
AVG.	103.6	0.1293	90.3	36.95				11.718	6.054	10.997	2.525	1.339
R	3	0.004	2	1.3				0.14	0.02	0.11	0.05	0.05

APPROVED BY	CHECKED BY	DRAWN BY
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