



川磊电子科技
ThreeLayer Technologies, Inc.
專業電感製造商

南充新川电子科技有限公司

ThreeLayer Scientific-Technics Co.,Ltd



产品承认书

SPECIFICATION FOR APPROVAL

客户名称 -----
CUSTOMER NAME.

产品类型 SMD Power Inductors
PRODUCT TYPE

客户料号 -----
CUSTOMER P/N

川磊料号 CLNR-4012 SERIES
OURS P/N

文件编号 SP-21072147
FILE NO.

客户承认/CUSTOMER ACCEPTED

承认
APPROVED

确认
CHECKED

承办
DESIGN

批注/REMARK

批准
APPROVED

确认
CHECKED

作成
DESIGN

程志华

陈尧

潘立

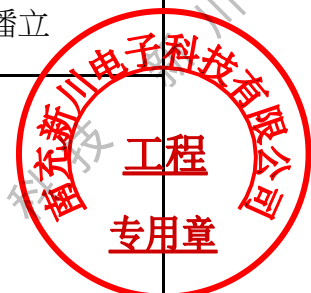
生产工厂：南充川磊电子科技有限公司

销售公司：南充新川电子科技有限公司

业务专线：0817-2111163/18681773184

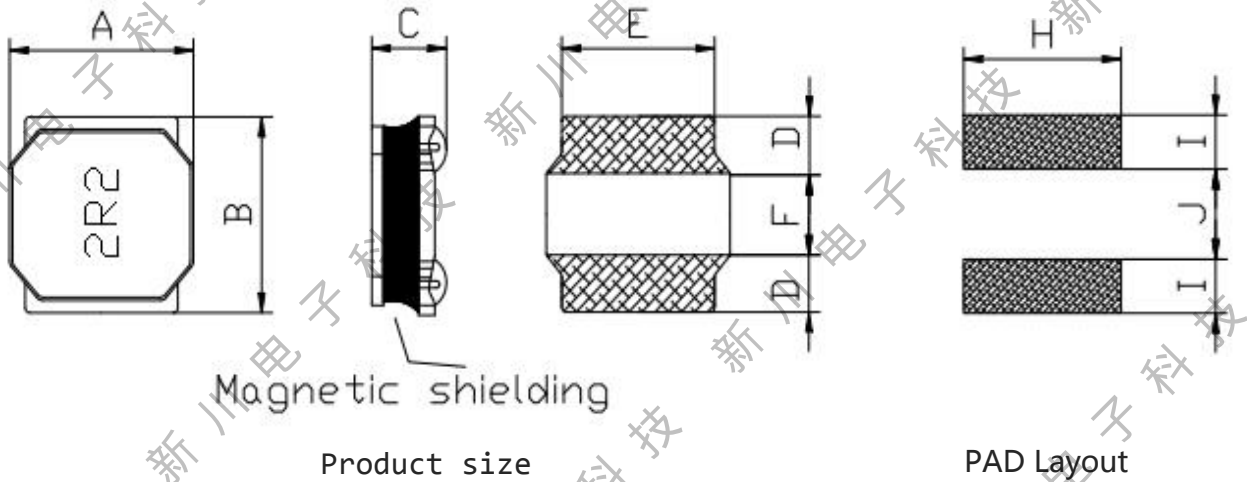
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客户名称 CUSTOMER	-----	客户品名 CUSTOMER P/N	-----	版别 REV.	1.0
产品类型 PRODUCT TYPE	SMD Power Inductors	新川品名 OURS P/N	CLNR-4012 SERIES	文件编号 FILE NO.	SP-21072147

一.尺寸图/DIMENSION (单位/UNIT : mm)



ITEM	A	B	C	D	E	F	H	I	J
DIM	4.0	4.0	1.2	1.2	3.5	1.6	3.8	1.6	1.3
TOLE	±0.2	±0.2	Max	Typ	Typ	Typ	Typ	Typ	Typ

二.电路图/CIRCUIT DIAGRAM



三.注意事项/NOTE :

1.印字：黑色

四.电气特性/ELECTRICAL CHARACTERISTIC

Part Number	Inductance (uH)	Tolerance	Test Frequency(Hz)	DCR (Ω) ±30%	IDC1 (A) Max.	IDC2 (A) Max.	MARK
CLNR-4012-R82□	0.82	N	100KHZ/1V	0.05	3.02	1.65	R82
CLNR-4012-1R0□	1.0	N	100KHZ/1V	0.05	2.61	1.65	1R0
CLNR-4012-1R5□	1.5	N	100KHZ/1V	0.07	2.10	1.46	1R5
CLNR-4012-1R8□	1.8	N	100KHZ/1V	0.08	2.12	1.32	1R8
CLNR-4012-2R2□	2.2	M N	100KHZ/1V	0.08	1.76	1.32	2R2
CLNR-4012-3R3□	3.3	M N	100KHZ/1V	0.11	1.72	1.12	3R3
CLNR-4012-4R7□	4.7	M N	100KHZ/1V	0.125	1.15	1.05	4R7

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四.电气特性/ELECTRICAL CHARACTERISTIC

Part Number	Inductance (uH)	Tolerance	Test Frequency(Hz)	DCR (Ω) ±30%	IDC1 (A) Max.	IDC2 (A) Max.	MARK
CLNR-4012-6R8□	6.8	M N	100KHZ/1V	0.198	0.85	0.84	6R8
CLNR-4012-100□	10	M N	100KHZ/1V	0.265	0.80	0.77	100
CLNR-4012-120□	12	M N	100KHZ/1V	0.290	0.66	0.70	120
CLNR-4012-150□	15	M N	100KHZ/1V	0.340	0.56	0.64	150
CLNR-4012-220□	22	M N	100KHZ/1V	0.587	0.46	0.49	220
CLNR-4012-330□	33	M N	100KHZ/1V	0.81	0.42	0.42	330
CLNR-4012-470□	47	M N	100KHZ/1V	1.10	0.35	0.37	470
CLNR-4012-680□	68	M N	100KHZ/1V	1.95	0.38	0.27	680
CLNR-4012-820□	82	M N	100KHZ/1V	2.14	0.28	0.26	820
CLNR-4012-101□	100	M N	100KHZ/1V	2.21	0.25	0.25	101

(1) Specify the inductance tolerance, K(±10%),M(±20%),N(±30%)

(2).IDC1:Base on temp.rise & ΔL/L0A 30% Typ

(3).IDC2:Temp.rise 40°C Typ

(4).Operating temp.: -40°C to +125°C

(5).Storage temp.: -20°C up to +40°C, 75% RH max.

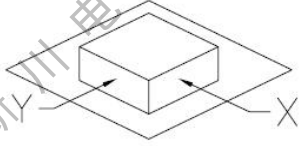
五.材料清单/MATERIAL LIST

NO.	ITEM	DESCRIPTION
1	CORE	FERRITE
2	WIRE	P180 G1
3	ADHESIVE	NR-3614
4	TIN	107H
5	INK	BLACK

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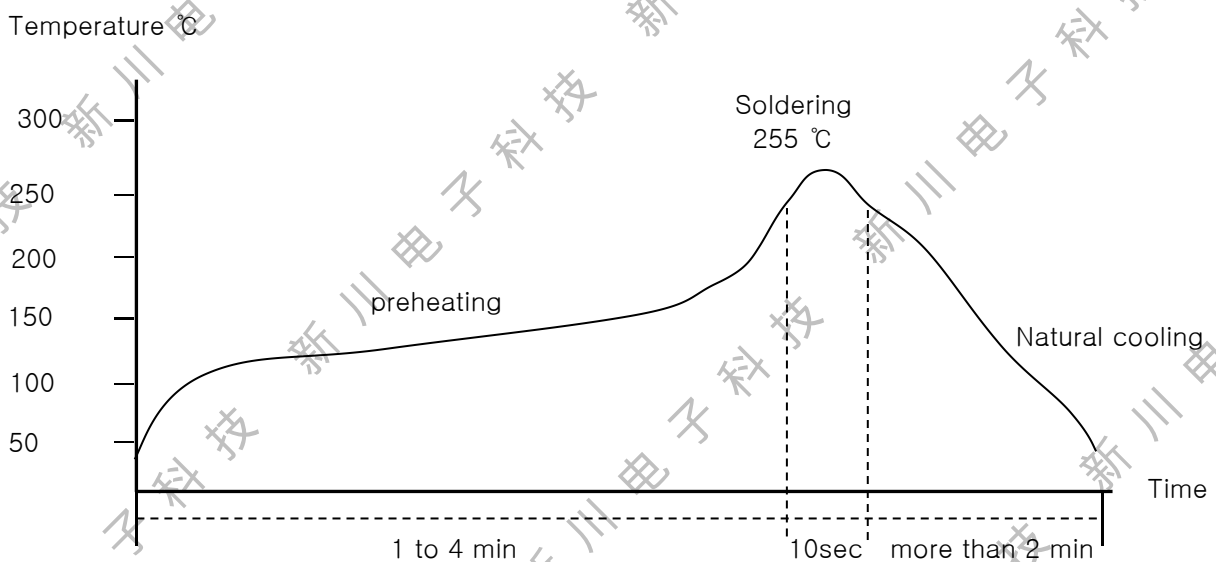
六.可靠性测试/RELIABILITY TESTING

Operating Temperature	- 40 to +125 °C (Contain Heating coil)
Appearance Inspection	No external defects by visual inspection
Terminal Strength	After soldering , between copper plaet and terminals of coils , push in two directions of X , Y with standing 10N(1.02kg) for10+/-2 sec. Terminal should not peel off. (Refer to figure at right)
Heat endurance of reflow soldering	Refer to figure
Insulating resistance	Over 100 MΩ at 100V D.C . between wire and core
Dielectric Strength	Apply at 0.5KV 3mA for 1 minute between wire and core
Temperature characteristics	Inductance coefficient (0~2,000) × 10 / °C (- 40~ + 125 °C)
Humidity characteristics	Inductance deviation within ± 10% , after 96 hours in 90~95% relative humidity at 40 ± 2 °C and 1 hours drying under normal condition



A test is made under the above mentioned condition , and it is kept for 2 hours in the normal

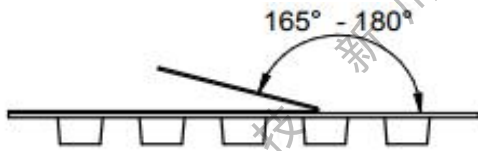
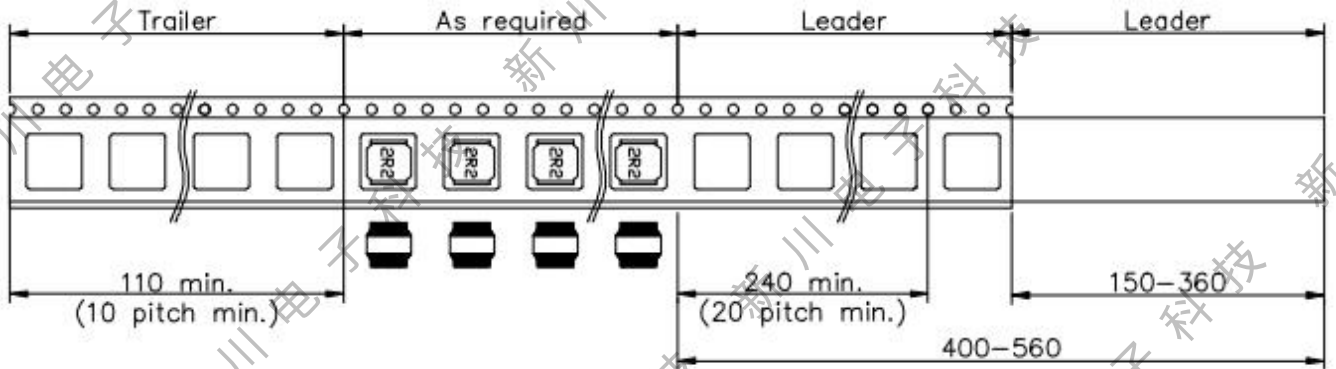
IR Reflow profile



Temperature and humidity . After that , no mechanical and electrical defect should be found .

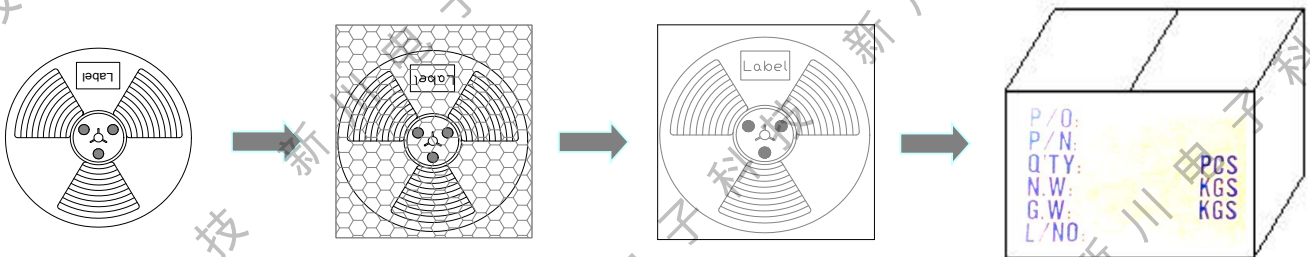
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七. 编带规格/TAPING SPECIFICATIONS



Tape width	Distance	Pull-of force
12 mm	8 mm	10~120g

八. 包装方式/PACKING LIST



轮盘：13'(直径330mm)
数量：4000PCS/盘

PE袋
数量：4000PCS/袋

内盒
数量：16000PCS/
盒

外箱，数量：80000PCS/箱
不足整箱用内盒或填充物
装满