

SPECIFICATION FOR APPROVAL

CUSTOMER	友創達
CUST. PART NO.	_____
CUST. DOC. REV.	_____
DESCRIPTION	CHIP INDUCTORS (RoHS+H.F.)
SAMPLE LOT NO.	S202009-0175
PART NO.	0603F-4R7K-2LRH
DOC. REV.	A
DATE	9/18/'20

Once you approve this part, please sign and return this page to the following marked location.

Customer Signature: _____ **Date:** _____

This part currently development section.

Production line can produce this series of products.

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ISSUE BY	CHECKED BY	APPROVED BY
<i>Bruce Hsu</i>	<i>Adam Lee</i>	<i>K.C. Tseng</i>

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SPECIFICATION FOR APPROVAL

CUSTOMER 友創達	CUSTOMER P/N	REV. -	SPL. LOT NO. S202009-0175	
PART NAME CHIP INDUCTORS (RoHS+H.F.)	PART NO. 0603F-4R7K-2LRH	REV. A	DATE OF ISSUE 9/18/'20	Q'TY 0 PCS

ENGINEERING CHANGE NOTICE – RECORD

REVISION NO.	REVISION DESCRIPTION	AUTHOR	DATE	REMARK
A		<i>Adam Lee</i>	9/18/'20	

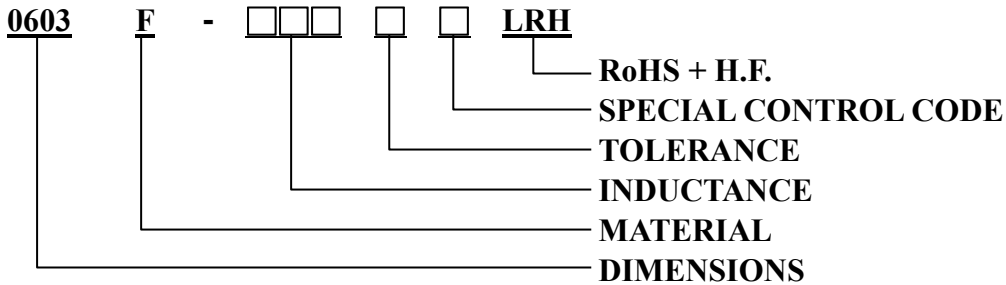


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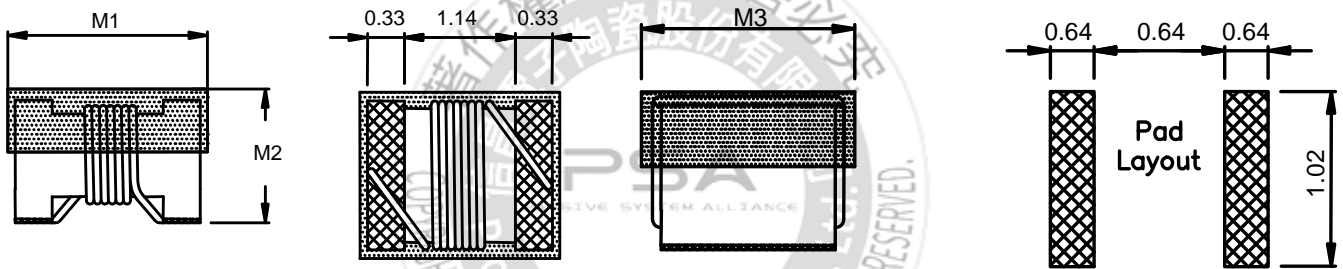
※This is a RoHS and REACH compliant product whose related documents are available on request.
 ※Graphic is only for dimensionally application.

1. SCOPE: THIS SPECIFICATION APPLIES TO WIRE WOUND CHIP INDUCTORS.

2. PART NUMBER IDENTIFICATION



3. MECHANICAL DIMENSION



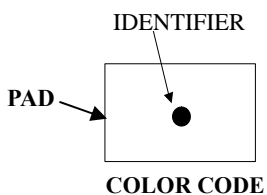
UNIT: mm

SERIES	M1	M2	M3
0603F-XXXK-2LRH	1.80(MAX)	1.10(MAX)	1.20(MAX)

4. RATED TEMPERATURE

OPERATING TEMPERATURE RANGE: -25°C ~ +125°C
TEMPERATURE RISE: Below 15°C at Rated Current

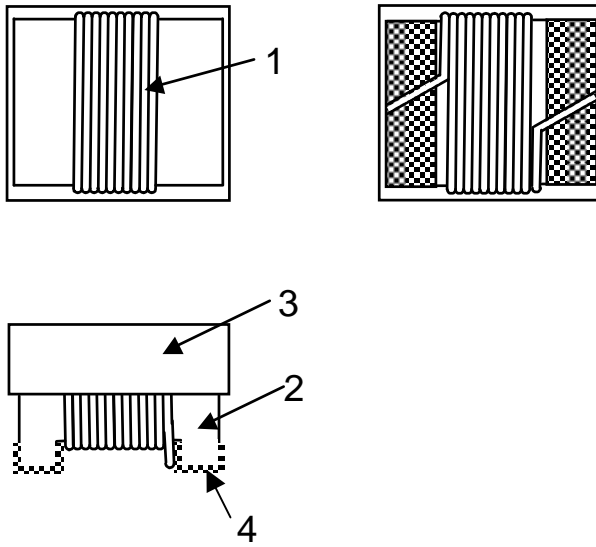
5. MARKING



Marking Direction: PAD is on the left and right, the color code is centered.
Example: 0603F-2R2K-2LRH
MARKING: ORANGE
MARK COLOR CODE IN COMPOSITE ELECTRICAL SPECIFICATION

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6. STRUCTURE



7. MATERIAL LIST

ITEM	MATERIAL CATEGORY	MATERIAL TYPE	UL NO.
1	WIRE	POLYSOL	E143312
2	CORE	FERRITE	
3	EPOXY	UV TYPE	
4.	TERMINAL	AgPd+Ni+Sn	

8. TEST INSTRUMENT

8-1 L、Q、SRF: TESTED BY KEYSIGHT E4991B with 16197A or its equivalent

8-2 DCR: TESTED BY CHROMA 16502 or its equivalent

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9. ELECTRICAL SPECIFICATION

Part number	Inductance (μH)	Inductance Tolerance	Test Frequency (MHz)	Q TYP.	Test Frequency (MHz)	SRF (MHz) TYP.	DC Resistance (Ω) ±30%	Idc (mA) TYP.	Irms (mA) TYP.	COLOR CODE
0603F-2R2K-2LRH	2.2	K	7.9	16	7.9	103	0.56	600	580	Orange
0603F-4R7K-2LRH	4.7	K	7.9	16	7.9	51	0.97	400	420	Violet
0603F-100K-2LRH	10.0	K	2.5	14	2.5	36	1.85	280	280	Brown

NOTE:

1. Tolerance: K:±10%
2. MSL: Level 1



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10. RELIABILITY PERFORMANCE

Reliability Experiment For Electrical

Test Item	Accept criteria	Test Condition	Standard Source
Humidity Test	1.Change from an initial value L:within±5% 2.no visible damage.	+40°C± 2°C, humidity of 90% ±5% (total 96 hours).	MIL-STD-202G Method 103B Test Condition B
High Temperature Test	1.Change from an initial value L:within±5% 2.no visible damage.	1.Temperature: +125°C±2°C. 2.Test time: 48±2hrs.	IEC 68-2 Test Condition B
Low Temperature Test	1.Change from an initial value L:within±5% 2.no visible damage.	1.Temperature: -25°C±2°C. 2.Test time: 48±2hrs.	IEC 68-2 Test Condition A
Thermal Shock	1.Change from an initial value L:within±5% 2.no visible damage.	+125°C±5°C (30 minutes) ~ -55±5°C (30 minutes), temperature switch time: 5 minutes (total 50 cycles) Wind speeds 10m/sec.	Reference MIL-STD-202G Method 107G Test Condition A-2
Life Test	1.Change from an initial value L:within±5% 2.no visible damage.	+70°C±5°C (250Hours).	Reference MIL-STD-202G Method 108A Test Condition B

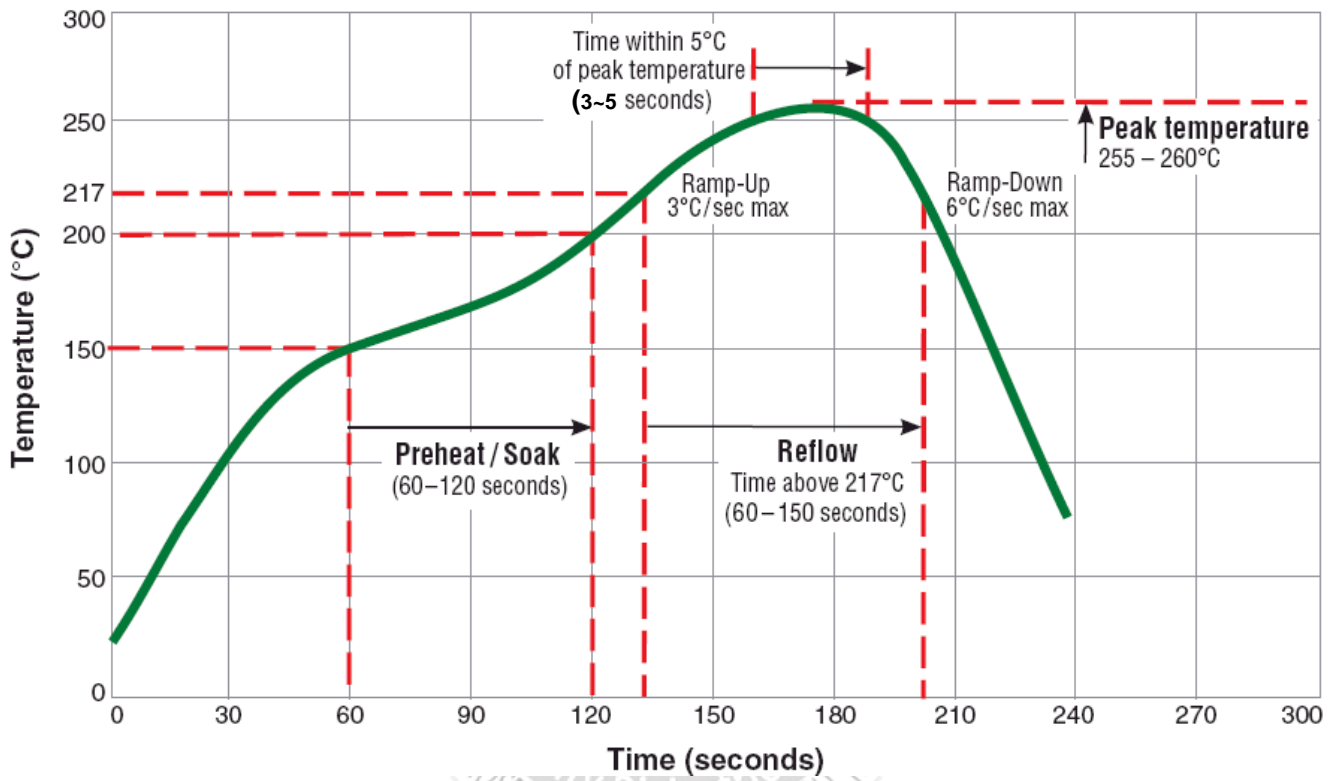
Reliability Experiment For Physical

Test Item	Accept criteria	Test Condition	Standard Source
Vibration Test	1.Change from an initial value L:within±5% 2.no visible damage.	10-55-10HZ, amplitude: 1.5mm, direction: X, Y, Z axes, each axis 2 hours (total 6 hours).	MIL-STD-202G Method 201A
Solder Heat Resistance Test	1.no visible damage.	IR/convection reflow: Peak Temp 255°C ~260°C for 3~5 Sec. in air, Through 2 Cycle. Temperature Ramp:+1~4°C/sec.;; Above 217°C, must keep 90 s - 120 s.	Reference MIL-STD-202G Method 210F Test Condition K (Reflow)
Solder Ability Test	1. Lead must have 95% above coverage.	Soak in 245°C solder pot of 3~5 Sec.	Reference J-STD-002D

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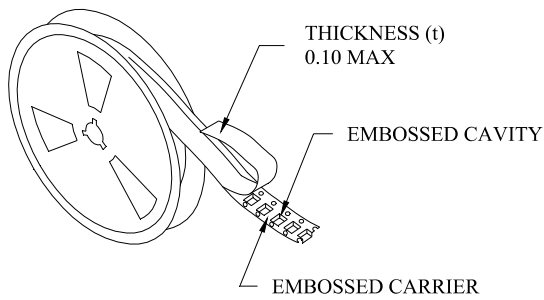
11. TYPICAL RoHS REFLOW PROFILE

Typical RoHS Reflow Profile

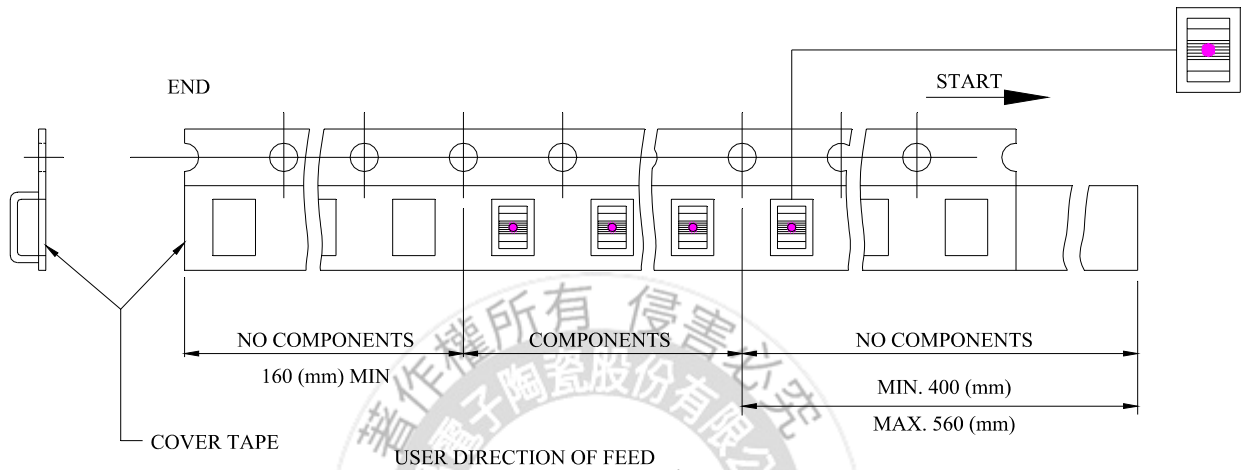
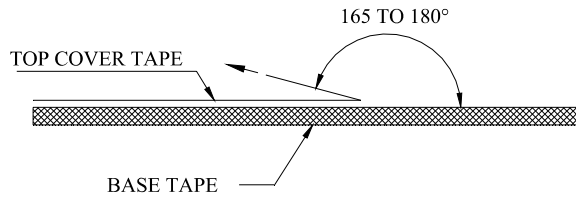


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12. PACKING



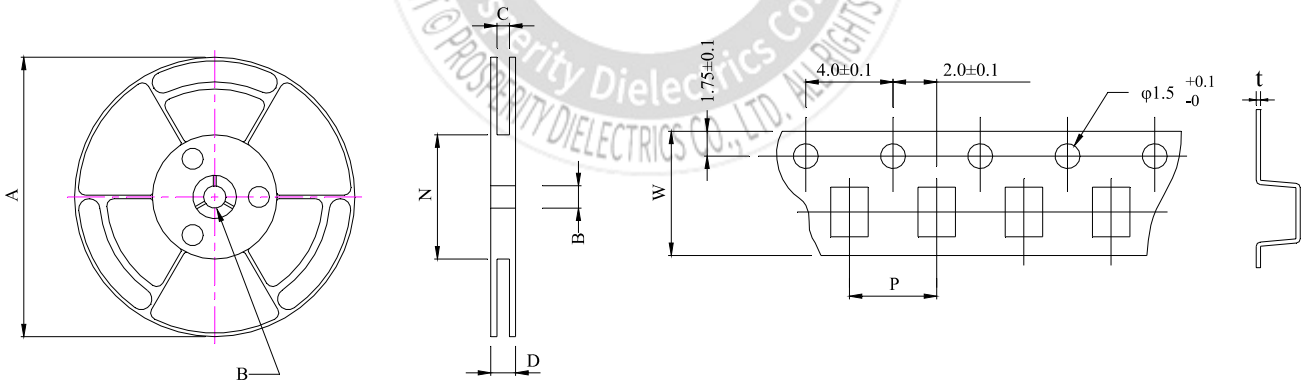
- THE FORCE FOR TEARING OFF COVER TAPE IS 10 TO 100 GRAMS IN THE ARROW DIRECTION.



■ CARRIER TAPE REELS (mm)

MATERIAL: PLASTIC

■ DIMENSIONS OF CARRIER TAPE (mm)

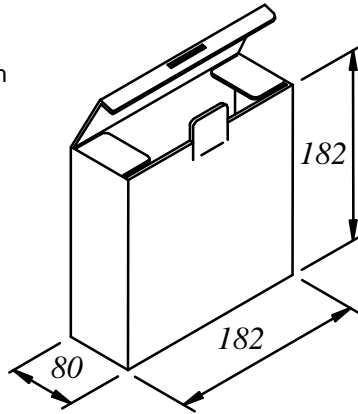


UNIT: mm

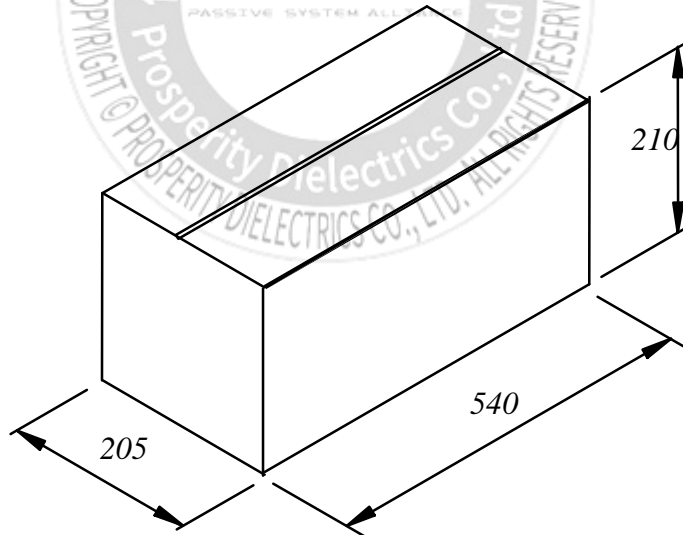
	A	B	C	D	N	P	W	t
DIM.	178	13.0	8.4	14.4	50	4.0	8.0	0.25
TOL.	MAX.	+0.5-0.2	+2.0-0	MAX	MIN.	±0.1	±0.2	±0.10

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UNIT : mm



- CONSTRUCTION:
A BOX CONTAINS 5 REELS.
Q'TY : 4000 / REEL
20000/BOX



TOTAL Q'TY : 120,000 PCS/CARTON