信 昌 電 子 陶 瓷 股 份 有 限 公 司
PROSPERITY DIELECTRICS CO., LTD.

SPECIFICATION FOR APPROVAL

CUSTOMER	
CUST. PART NO.	
CUST. DOC. REV.	
DESCRIPTION	CHIP INDUCTORS (RoHS+H.F.)
SAMPLE LOT NO.	
PART NO.	0805HQ-XXXX-LRH
DOC. REV.	
DATE	

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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☐Sales Office-Dong Guan,China
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TESTED BY	CHECKED BY	APPROVED BY

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SPECIFICATION FOR APPROVAL

CUSTOMER	CUSTOMER P/N	REV.	SPL. LOT NO.	
		-		
PART NAME	**PART NO.**	**REV.**	**DATE OF ISSUE**	**Q'TY**
CHIP INDUCTORS (RoHS+H.F.)	**0805HQ-XXXX-LRH**	**ORIG**		**0 PCS**

ENGINEERING CHANGE NOTICE – RECORD

REVISION NO.	REVISION DESCRIPTION	AUTHOR	DATE	REMARK

SPECIFICATION FOR APPROVAL

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

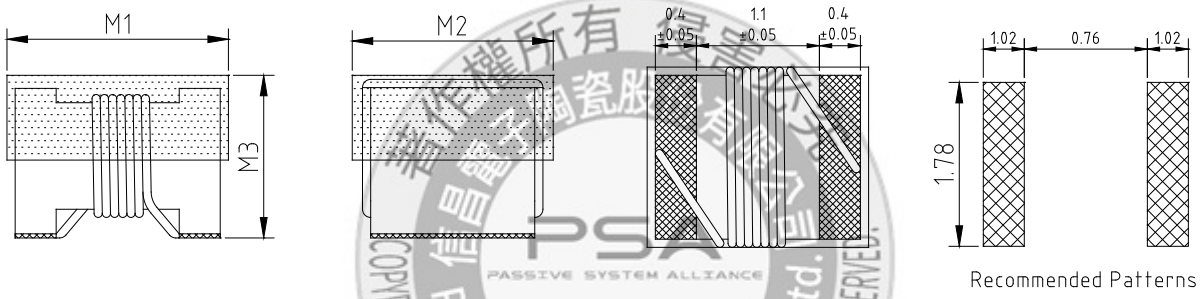
1. SCOPE: THIS SPECIFICATION APPLIES TO WIRE WOUND CHIP INDUCTORS.

2. PART NUMBER IDENTIFICATION

0805 H Q - □□□ □ - LRH

- **RoHS+HF: LRH**
- **TOLERANCE**
- **INDUCTANCE**
- **HIGH Q-VALUE**
- **CORE TYPE: H TYPE**
- **DIMENSIONS**

3. MECHANICAL DIMENSION (UNIT: mm)

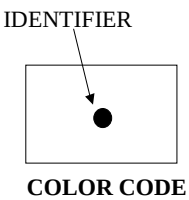


SERIES	M1	M2	M3
0805HQ	2.40 MAX.	1.65 MAX.	1.45 MAX

4. RATING TEMPERATURE

OPERATING TEMPERATURE: -25℃ ~ +125℃

5. MARKING



Ex.: 0805HQ-5N6□-LRH

MARKING: BROWN

MARK COLOR CODE IN COMPOSITE SPECIFICATION 8

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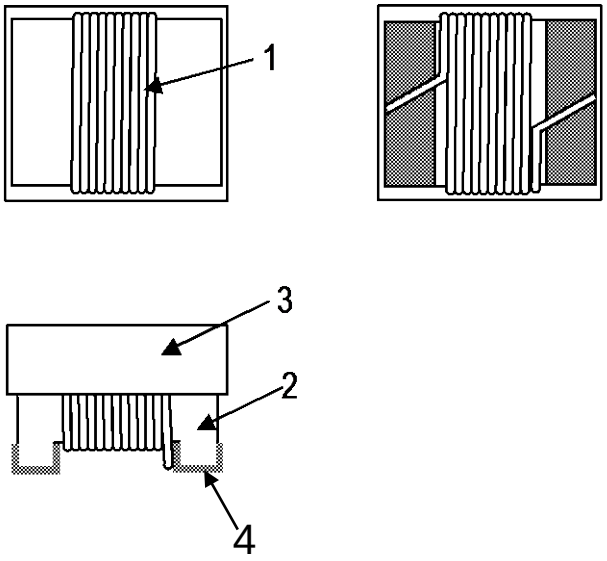
6. STRUCTURE



7. MATERIAL LIST

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

8. TEST INSTRUMENT

8-1 L、Q :TESTED BY AGILENT 4287A with 16197A or its equivalent

8-2 SRF : TESTED BY HP 8753E or HP4291B with 16193A or its equivalent

8-3 DCR: TESTED BY AGILENT 4338B or its equivalent

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9. ELECTRICAL SPECIFICATION

Part number	Inductance (nH)	Test Frequency (MHz)	Inductance Tolerance	Q MIN.	SRF (GHZ) MIN.	DC Resistance (mΩ) MAX.	Irms (A)	COLOR CODE
0805HQ-2N5□-LRH	2.5	250	J	80 @1500MHz	10.30	20	1.6	Black
0805HQ-5N6□-LRH	5.6	250	J	98 @1500MHz	6.10	35	1.6	Brown
0805HQ-6N2□-LRH	6.2	250	J	88 @1000MHz	4.75	35	1.6	Red
0805HQ-12N□-LRH	12	250	J，G	80 @1000MHz	3.00	45	1.6	Orange
0805HQ-16N□-LRH	16	250	J，G	72 @500MHz	2.95	60	1.5	Yellow
0805HQ-18N□-LRH	18	250	J，G	75 @500MHz	2.55	60	1.4	Green
0805HQ-20N□-LRH	20	250	J，G	70 @500MHz	2.05	55	1.4	Blue
0805HQ-27N□-LRH	27	250	J，G	75 @500MHz	2.00	70	1.3	Violet
0805HQ-30N□-LRH	30	250	J，G	65 @500MHz	1.95	95	1.2	Gray
0805HQ-39N□-LRH	39	250	J，G	65 @500MHz	1.60	110	1.1	White
0805HQ-48N□-LRH	48	200	J，G	65 @500MHz	1.40	95	1.2	Black
0805HQ-51N□-LRH	51	200	J，G	65 @500MHz	1.40	120	1.0	Brown

NOTE:
1. □Tolerance: J:±5%、G:±2%
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℃± 2℃, 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℃±2℃. 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℃±2℃. 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℃±5℃ (30 minutes) ~ -55±5℃ (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℃±5℃ (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℃ ~260℃ for 3~5 Sec. in air, Through 2 Cycle. Temperature Ramp:+1~4℃/sec.; Above 217℃, 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℃ solder pot of 3~5 Sec.	Reference J-STD-002D

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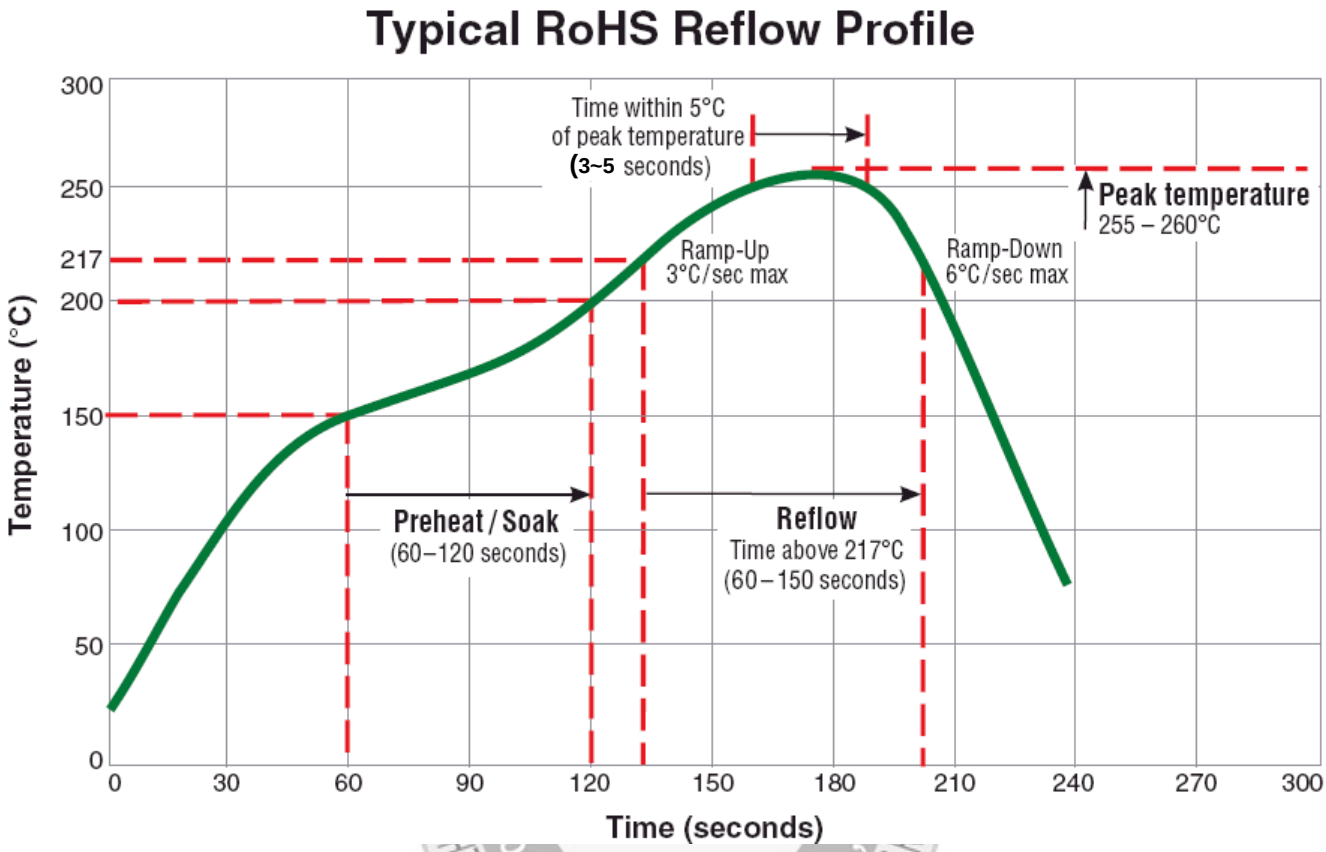
11. TYPICAL RoHS REFLOW PROFILE



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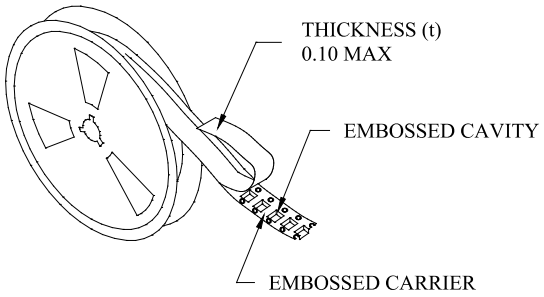
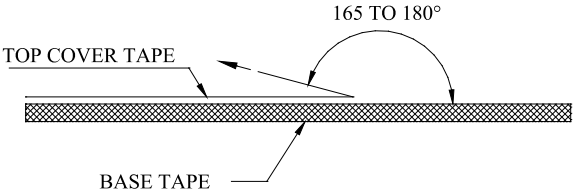
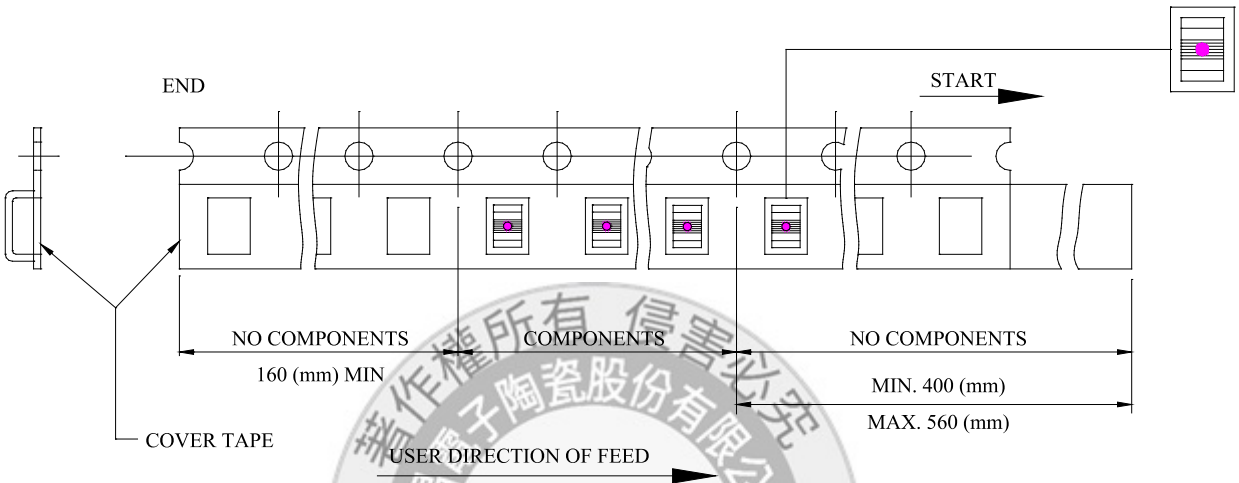
12. PACKING



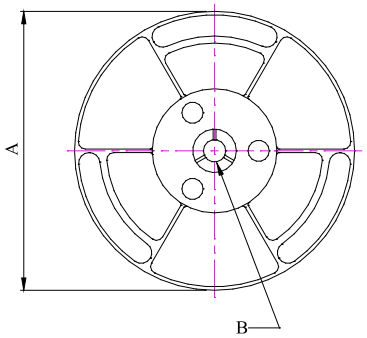
- THE FORCE FOR TEARING OFF COVER TAPE IS 10 TO 100 GRAMS IN THE ARROW DIRECTION.



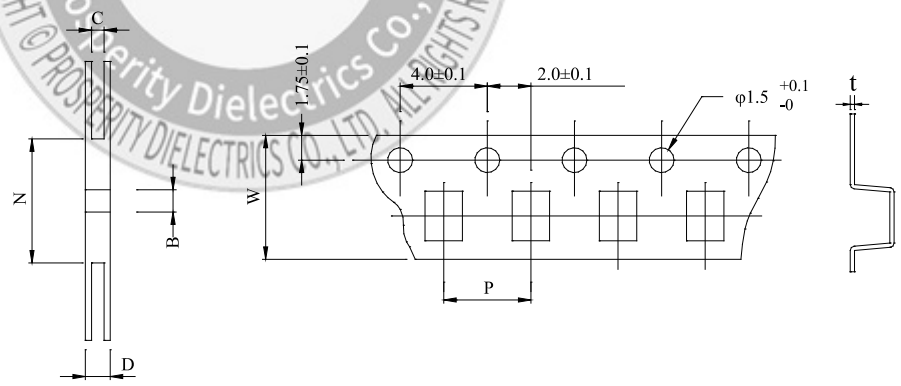


■ CARRIER TAPE REELS (mm)

MATERIAL: PLASTIC



■ DIMENSIONS OF CARRIER TAPE (mm)



UNIT: mm

	A	B	C	D	N	P	W	t
DIM.	178	13.0	8.4	12.5	50	4.0	8.0	0.25
TOL.	±2.0	±0.8	-	-	MIN	±0.1	±0.2	±0.05

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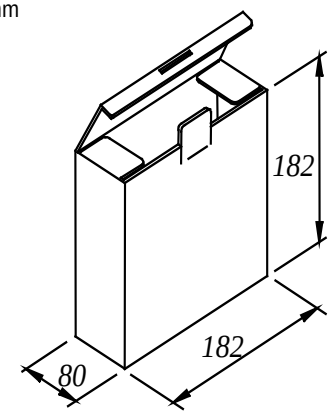
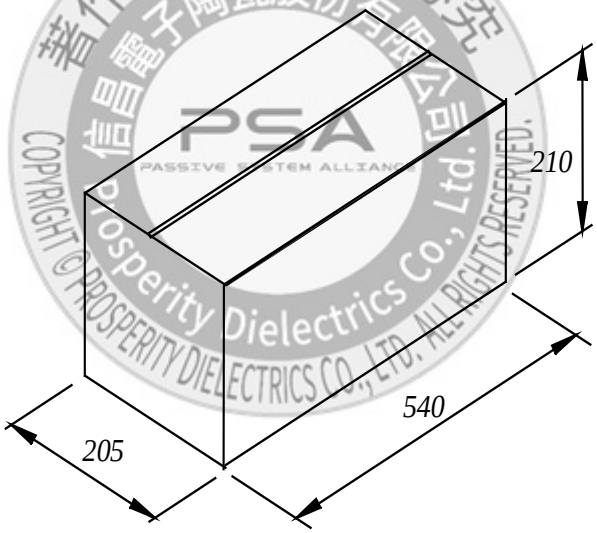
UNIT : mm



- CONSTURCTION:

A BOX CONTAINS 5 REELS

QTY:3000/REEL
15000/BOX



TOTAL Q'TY : 90,000 PCS/CARTON