



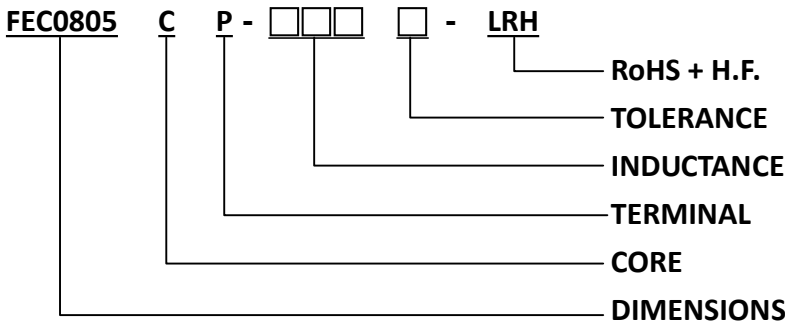
# PRODUCT SPECIFICATION

DOCUMENT NO. ENS000147540

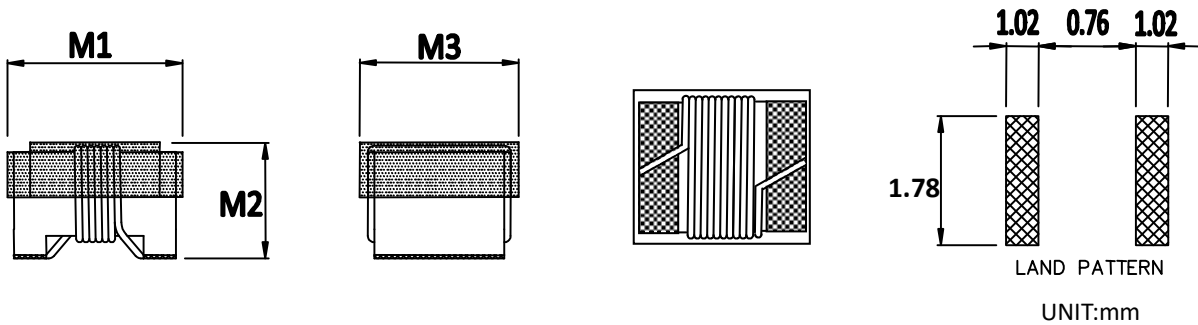
DESCRIPTION	DRAWN BY	DESIGNED BY	CHECKED BY	APPROVED BY
FEC0805CP-XXXX-LRH	Angeline Lin	Sam Lin	Adam Lee	Sogo Hong

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

2. PART NUMBER IDENTIFICATION



3. MECHANICAL DIMENSION



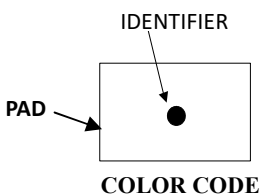
Part number	M1	M2	M3
FEC0805CP-XXXX-LRH	2.29(MAX)	1.52(MAX)	1.73(MAX)

4. RATING TEMPERATURE

OPERATING TEMPERATURE RANGE: -25°C TO +125°C.

STORAGE TEMPERATURE RANGE: COMPONENT: -25°C TO +85°C.

5. MARKING



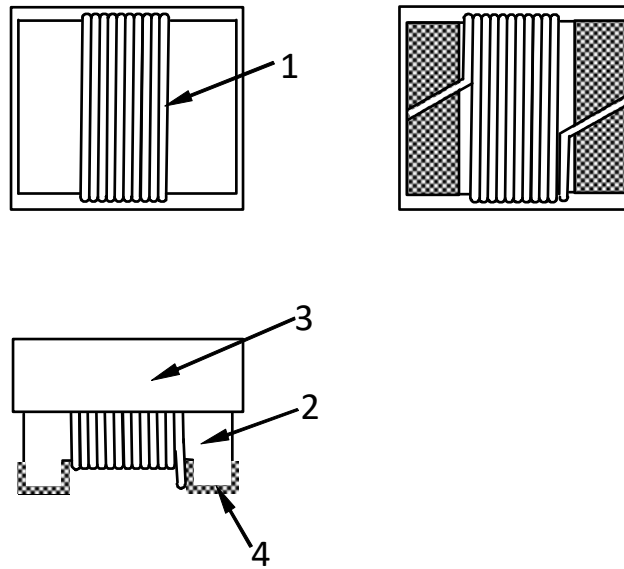
Marking Direction: PAD is on the left and right, the color code is centered.

Example: FEC0805CP-2N8□-LRH

MARKING: RED

MARK COLOR CODE IN COMPOSITE ELECTRICAL SPECIFICATION.

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 Inductance \ Q TEST BY HP4291B.

8-2 SRF TEST BY HP 8753E.

8-3 DC Resistance TEST BY ZENTECH 502BC.

9. ELECTRICAL SPECIFICATION

Part number	Inductance (nH)	Test Frequency (MHz)	Inductance Tolerance	Q MIN.	Test Frequency (MHz)	SRF (MHz) MIN.	DC Resistance (Ω) MAX.	Irms (mA)	COLOR CODE
FEC0805CP-2N2□-LRH	2.2	250	K,J	35	1500	3000	0.08	600	WHITE
FEC0805CP-2N7□-LRH	2.7	250	K,J	80	1500	7900	0.03	600	BROWN
FEC0805CP-2N8□-LRH	2.8	250	K,J	80	1500	7900	0.06	800	RED
FEC0805CP-2N9□-LRH	2.9	250	K,J	50	1000	4700	0.05	600	BLUE
FEC0805CP-3N0□-LRH	3.0	250	K,J	65	1500	7900	0.06	800	VIOLET
FEC0805CP-3N3□-LRH	3.3	250	K,J	35	1500	7900	0.08	600	BLACK
FEC0805CP-5N6□-LRH	5.6	250	K,J	65	1000	5500	0.08	600	VIOLET
FEC0805CP-6N8□-LRH	6.8	250	K,J	50	1000	5500	0.11	600	BROWN
FEC0805CP-7N5□-LRH	7.5	250	K,J	50	1000	4500	0.10	600	BLACK
FEC0805CP-8N2□-LRH	8.2	250	K,J,G	50	1000	4700	0.12	600	RED
FEC0805CP-8N7□-LRH	8.7	250	K,J,G	50	1000	4700	0.10	400	WHITE
FEC0805CP-10N□-LRH	10	250	K,J,G	60	500	4200	0.10	600	RED
FEC0805CP-12N□-LRH	12	250	K,J,G	50	500	4000	0.15	600	ORANGE
FEC0805CP-15N□-LRH	15	250	K,J,G	50	500	3400	0.17	600	YELLOW
FEC0805CP-18N□-LRH	18	250	K,J,G	50	500	3300	0.20	600	GREEN
FEC0805CP-22N□-LRH	22	250	K,J,G	55	500	2600	0.22	500	BLUE
FEC0805CP-24N□-LRH	24	250	K,J,G	50	500	2000	0.22	500	RED
FEC0805CP-27N□-LRH	27	250	K,J,G	55	500	2500	0.25	500	VIOLET
FEC0805CP-33N□-LRH	33	250	K,J,G	60	500	2050	0.27	500	GRAY
FEC0805CP-36N□-LRH	36	250	K,J,G	55	500	1700	0.27	500	YELLOW
FEC0805CP-39N□-LRH	39	250	K,J,G	60	500	2000	0.29	500	WHITE
FEC0805CP-43N□-LRH	43	200	K,J,G	60	500	1650	0.34	500	YELLOW
FEC0805CP-47N□-LRH	47	200	K,J,G	60	500	1650	0.31	500	BLACK
FEC0805CP-56N□-LRH	56	200	K,J,G	60	500	1550	0.34	500	BROWN
FEC0805CP-68N□-LRH	68	200	K,J,G	60	500	1450	0.38	500	RED
FEC0805CP-82N□-LRH	82	150	K,J,G	65	500	1300	0.42	400	ORANGE
FEC0805CP-91N□-LRH	91	150	K,J,G	65	500	1200	0.48	400	BLUE
FEC0805CP-R10□-LRH	100	150	K,J,G	65	500	1200	0.46	400	YELLOW
FEC0805CP-R11□-LRH	110	150	K,J,G	50	500	1000	0.48	400	VIOLET
FEC0805CP-R12□-LRH	120	150	K,J,G	50	250	1100	0.51	400	GREEN
FEC0805CP-R15□-LRH	150	100	K,J,G	50	250	920	0.56	400	BLUE
FEC0805CP-R16□-LRH	160	100	K,J,G	50	250	900	0.60	400	YELLOW
FEC0805CP-R18□-LRH	180	100	K,J,G	50	250	870	0.64	400	VIOLET
FEC0805CP-R20□-LRH	200	100	K,J,G	50	250	860	0.68	400	RED
FEC0805CP-R22□-LRH	220	100	K,J,G	50	250	850	0.70	400	GRAY
FEC0805CP-R24□-LRH	240	100	K,J,G	44	250	690	1.00	350	BLACK
FEC0805CP-R25□-LRH	250	100	K,J,G	50	250	680	1.00	350	YELLOW
FEC0805CP-R27□-LRH	270	100	K,J,G	48	250	650	1.15	350	WHITE
FEC0805CP-R30□-LRH	300	100	K,J,G	48	250	620	1.20	300	GRAY
FEC0805CP-R33□-LRH	330	100	K,J,G	48	250	600	1.40	300	BLACK
FEC0805CP-R36□-LRH	360	100	K,J,G	35	250	400	0.90	300	ORANGE
FEC0805CP-R39□-LRH	390	100	K,J,G	48	250	560	1.50	300	BROWN
FEC0805CP-R43□-LRH	430	100	K,J,G	33	100	430	1.70	190	WHITE
FEC0805CP-R47□-LRH	470	50	K,J,G	33	100	375	1.70	250	VIOLET
FEC0805CP-R56□-LRH	560	25	K,J,G	23	50	340	1.90	230	ORANGE
FEC0805CP-R62□-LRH	620	25	K,J,G	23	50	200	2.00	190	ORANGE
FEC0805CP-R68□-LRH	680	25	K,J,G	23	50	188	2.20	190	GREEN
FEC0805CP-R82□-LRH	820	25	K,J,G	23	50	215	2.50	190	BROWN
FEC0805CP-R91□-LRH	910	25	K,J,G	24	50	250	2.30	170	RED
FEC0805CP-1R0□-LRH	1000	25	K,J,G	23	50	100	2.7	170	BLACK
FEC0805CP-2R2□-LRH	2200	7.9	K,J,G	16	7.9	60	2.70	160	RED

NOTE:

- Tolerance: M:±20%、K:±10%、J:±5%、G:±2%
- MSL: LEVEL 1

10. RELIABILITY PERFORMANCE

Reliability Experiment For Electrical

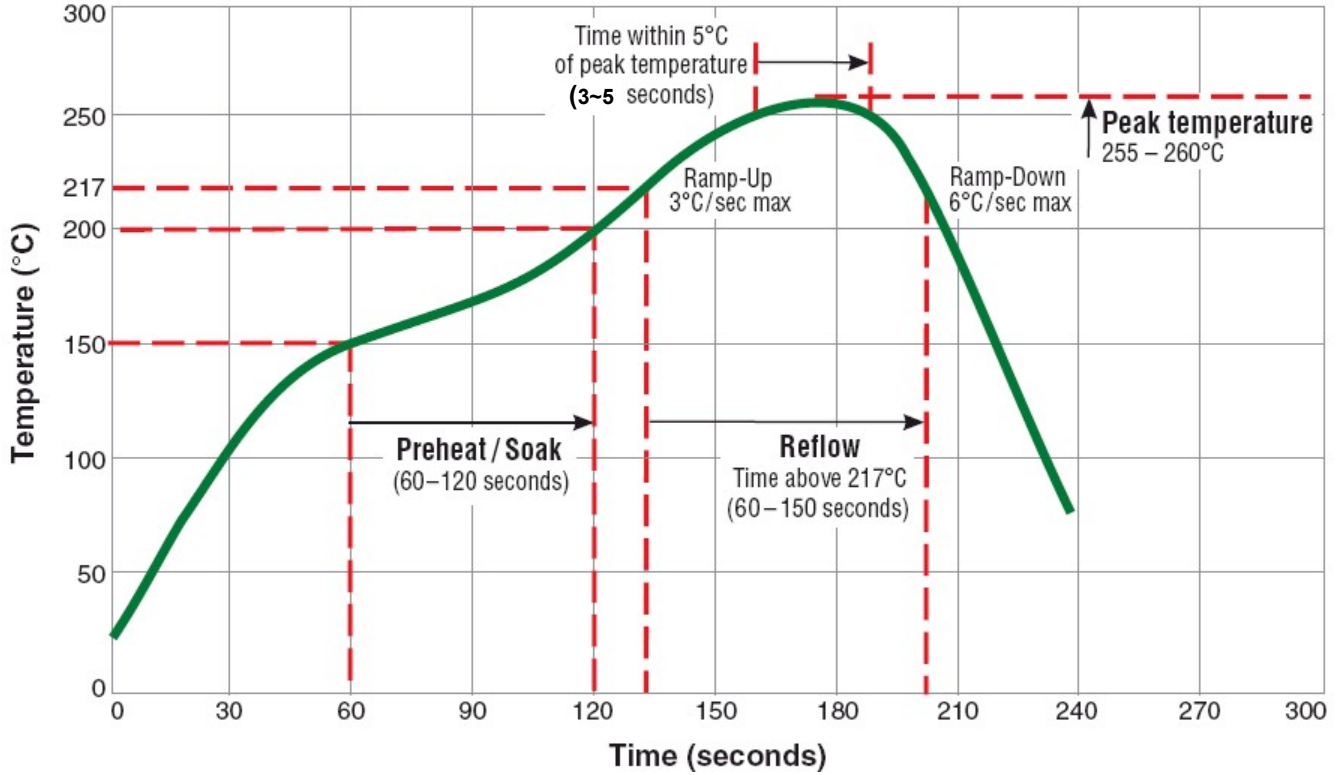
Test Item	Accept criteria	Test Condition	Standard Source
Humidity Test	1.Change from an initial value L:within±5% 2.no visible damage.	+40°C± 2°C, humidity of 90% ±5% (total 96 hours).	MIL-STD-202H Method 103 Test Condition B
High Temperature Test	1.Change from an initial value L:within±5% 2.no visible damage.	1.Temperature: +125°C±2°C. 2.Test time: 72±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: 72±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) ~ -65±5°C (30 minutes), temperature switch time: 5 minutes (total 50 cycles).	Reference MIL-STD-202H Method 107 Test Condition B-2
Life Test	1.Change from an initial value L:within±5% 2.no visible damage.	+70°C±5°C (250Hours).	Reference MIL-STD-202H Method 108 Test Condition B

Reliability Experiment For Physical

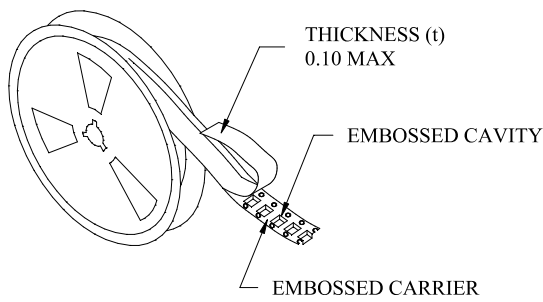
Test Item	Accept criteria	Test Condition	Standard Source
Vibration Test	1.Change from an initial value L:within±5% 2.no visible damage.	10-55-10HZ, amplitude: 1.5mm, direction: X, Y, Z axes, each axis 2 hours (total 6 hours).	MIL-STD-202H Method 201
Solder Heat Resistance Test	1.no visible damage.	IR/convection reflow: Peak Temp 250±5°C for 30±5Sec. in air, Through 3 Cycle. Temperature Ramp:+1~4°C/sec.; Above 183°C, must keep 90 s - 120 s.	Reference MIL-STD-202H Method 210 Test Condition K (Reflow)
Solder Ability Test	1. Lead must have 95% above coverage.	Solder temp: 245±5°C, Immersion time: 5 second. Immersion rate: 25±6mm/sec.	J-STD-002D Test condition B1

11. REFLOW CHART

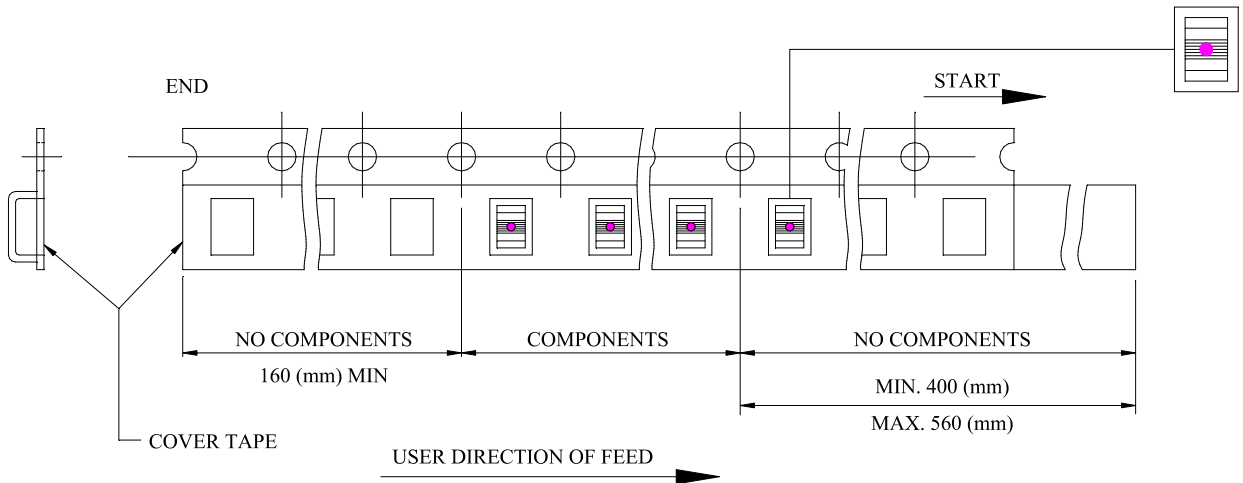
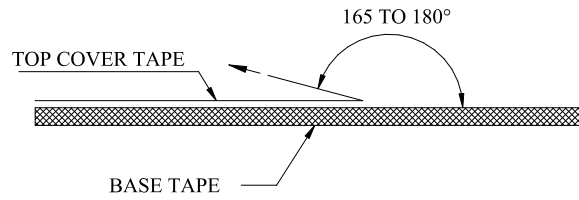
Typical RoHS Reflow Profile



12. PACKING



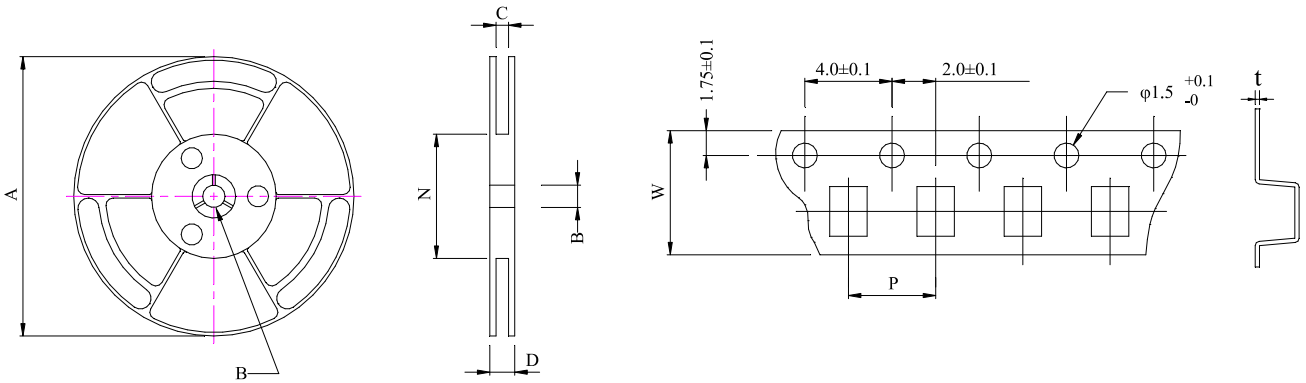
- THE FORCE FOR TEARING OFF COVER TAPE IS 10 TO 100 GRAMS IN THE ARROW DIRECTION.



■ CARRIER TAPE REELS (mm)

MATERIAL: PLASTIC

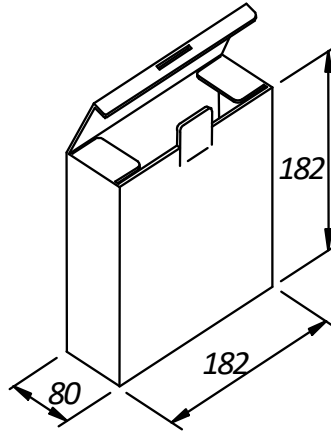
■ DIMENSIONS OF CARRIER TAPE (mm)



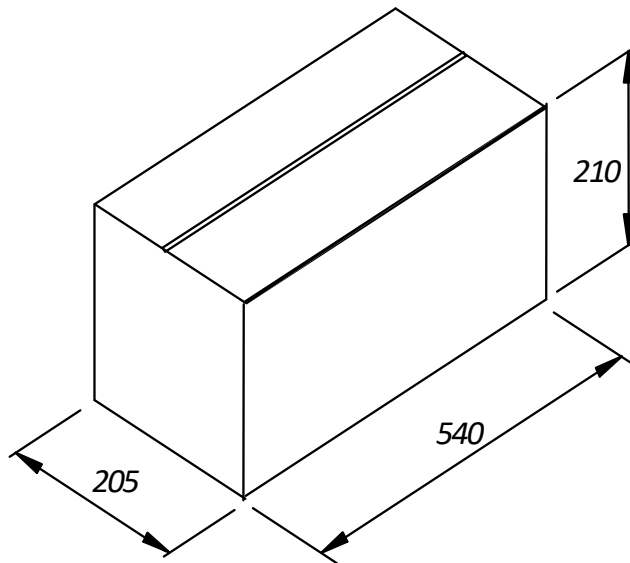
UNIT: mm

	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	+1.0-0	MAX.	MIN.	±0.1	±0.2	±0.05

UNIT : mm



- CONSTRUCTION:  
A BOX CONTAINS 5 REELS  
Q'TY : 3,000/ REEL  
15,000/BOX



TOTAL Q'TY : 90,000 PCS