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+HF)
SAMPLE LOT NO.	
PART NO.	CF252018-XXXX-LRH
DOC. REV.	
DATE	

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

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Customer Signature:_____ Date:_____

☐This part currently development section.

☐Production line can produce this series of products.

■Sales Office-Headquarter
No. 566-1, Kao-Shi Rd., Yangmei, Taoyuan 32668, Taiwan
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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+HF)	**CF252018-XXXX-LRH**			**0 PCS**

ENGINEERING CHANGE NOTICE - RECORD

REVISION NO.	REVISION DESCRIPTION	AUTHOR	DATE	REMARK

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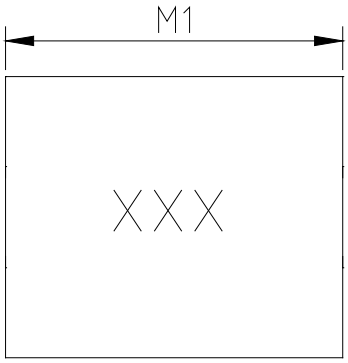
※This is a RoHS and REACH compliant product whose related documents are available on request.
※Graphic is only for dimensionally application.

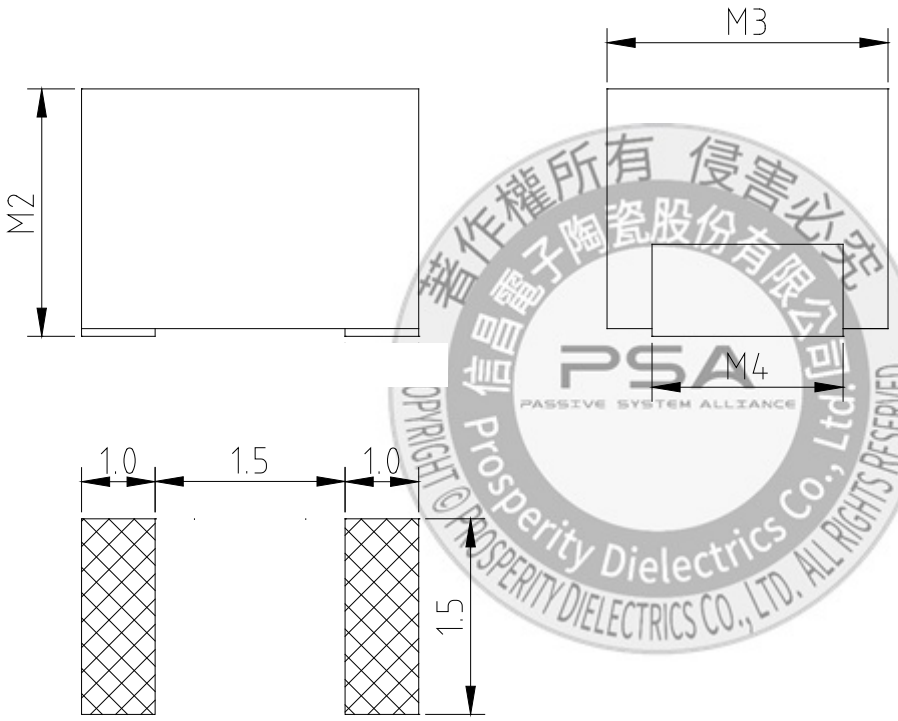
1. MECHANICAL DIMENSION



Marking:
10NJ~82NJ:Two digits
R10J only Three digits
R12J~101J:Four digits

UNIT: mm

	DIM.	TOL.
M1	2.5	±0.2
M2	1.8	±0.1
M3	2.0	±0.1
M4	1.40	±0.1



Recommended Patterns

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2. ELECTRICAL SPECIFICATION

Part number	Inductance (μH)	Inductance Tolerance (%)		Q MIN.	Test Frequency (MHz)	SRF (MHz) MIN.	Rdc (Ω) MAX.	Idc (mA) MAX.
CF252018-10N□-LRH	0.010	+/-	5	15	100	2150	0.26	530
CF252018-12N□-LRH	0.012	+/-	5	15	100	2050	0.27	500
CF252018-15N□-LRH	0.015	+/-	5	15	100	2000	0.29	480
CF252018-18N□-LRH	0.018	+/-	5	15	100	1850	0.31	450
CF252018-22N□-LRH	0.022	+/-	5	15	100	1650	0.37	420
CF252018-27N□-LRH	0.027	+/-	5	15	100	1550	0.40	410
CF252018-33N□-LRH	0.033	+/-	5	20	100	1450	0.42	400
CF252018-39N□-LRH	0.039	+/-	5	20	100	1350	0.45	380
CF252018-47N□-LRH	0.047	+/-	5	20	100	1200	0.50	360
CF252018-56N□-LRH	0.056	+/-	5	20	100	1100	0.60	340
CF252018-68N□-LRH	0.068	+/-	5	20	100	1050	0.65	320
CF252018-82N□-LRH	0.082	+/-	5	20	100	900	0.75	300
CF252018-R10□-LRH	0.10	+/-	5	20	100	800	0.80	280
CF252018-R12□-LRH	0.12	+/-	5	30	25.2	700	0.30	550
CF252018-R15□-LRH	0.15	+/-	5	30	25.2	550	0.35	500
CF252018-R18□-LRH	0.18	+/-	5	30	25.2	500	0.40	475
CF252018-R22□-LRH	0.22	+/-	5	30	25.2	450	0.50	450
CF252018-R27□-LRH	0.27	+/-	5	30	25.2	425	0.55	425
CF252018-R33□-LRH	0.33	+/-	5	30	25.2	400	0.60	400
CF252018-R39□-LRH	0.39	+/-	5	30	25.2	375	0.65	375
CF252018-R47□-LRH	0.47	+/-	5	30	25.2	350	0.68	350
CF252018-R56□-LRH	0.56	+/-	5	30	25.2	325	0.75	325
CF252018-R68□-LRH	0.68	+/-	5	30	25.2	300	0.85	300
CF252018-R82□-LRH	0.82	+/-	5	30	25.2	260	1.00	260
CF252018-1R0□-LRH	1.0	+/-	5	30	7.96	245	1.10	245
CF252018-1R2□-LRH	1.2	+/-	5	30	7.96	230	1.20	230
CF252018-1R5□-LRH	1.5	+/-	5	30	7.96	182	1.30	220
CF252018-1R8□-LRH	1.8	+/-	5	30	7.96	135	1.45	210
CF252018-2R2□-LRH	2.2	+/-	5	30	7.96	105	1.55	200
CF252018-2R7□-LRH	2.7	+/-	5	30	7.96	70	1.70	195
CF252018-3R3□-LRH	3.3	+/-	5	30	7.96	55	1.90	185
CF252018-3R9□-LRH	3.9	+/-	5	30	7.96	48	2.10	180
CF252018-4R7□-LRH	4.7	+/-	5	30	7.96	43	2.30	175
CF252018-5R6□-LRH	5.6	+/-	5	25	7.96	42	2.50	170
CF252018-6R8□-LRH	6.8	+/-	5	25	7.96	39	2.70	165
CF252018-8R2□-LRH	8.2	+/-	5	25	7.96	36	3.05	160
CF252018-100□-LRH	10.0	+/-	5	25	2.52	33	3.50	155
CF252018-120□-LRH	12.0	+/-	5	25	2.52	30	3.80	150
CF252018-150□-LRH	15.0	+/-	5	25	2.52	26	4.40	140
CF252018-180□-LRH	18.0	+/-	5	25	2.52	24	4.80	130
CF252018-220□-LRH	22.0	+/-	5	25	2.52	22	5.50	125
CF252018-270□-LRH	27.0	+/-	5	25	2.52	21	6.30	115
CF252018-330□-LRH	33.0	+/-	5	25	2.52	20	7.10	110
CF252018-390□-LRH	39.0	+/-	5	20	2.52	18	9.50	90
CF252018-470□-LRH	47.0	+/-	5	20	2.52	17	11.10	80
CF252018-560□-LRH	56.0	+/-	5	20	2.52	16	12.10	75
CF252018-680□-LRH	68.0	+/-	5	20	2.52	15	16.60	70
CF252018-820□-LRH	82.0	+/-	5	20	2.52	13	19.00	66
CF252018-101□-LRH	100.0	+/-	5	15	0.796	12	21.00	60

a Tolerance: J: ± 5%；K: ± 10%
b Operating Temperature range : -40° C to +85°C .
c Storage Temperature : -40°C to +85°C.
d Temperature Rise: 20°C MAX.
e Inductance & Q measured using the HP4291B
f SRF measured using the HP8753E network analyzer.
g DCR measured using the Zentech 502BC.
※MSL：LEVEL 1

SPECIFICATION FOR APPROVAL

3. RELIABILITY PERFORMANCE

Test Item	Test Condition	Specification
1.High Temperature Exposure	1.Temperature: 125±2℃. 2.Time: 96±2hours.	1.No mechanical and electrical damage. 2.Inductance shall not change more than ±10%.
2.Temperature Cycling	1.Temperature: -40℃~ +125℃. 2. Cycles: 50. 3. Dwell time: 30 minutes.	1.No mechanical and electrical damage. 2.Inductance shall not change more than ±10%.
3.Biased Humidity	1.Temperature: 40±2℃. 2.Humidity: 90~95％RH. 3.Time: 96±2 hours.	1.No mechanical and electrical damage. 2.Inductance shall not change more than ±10%.
4.Operational Life	1.Temperature: 125±2℃. 2.Time: 1000±12 hours. 3.Isat: 0.45A.	1.No mechanical and electrical damage. 2.Inductance shall not change more than ±10%.
5.Resistance To Solvents	Immerse into solvent for 3+0.5/-0 minutes&brush 10 times for three cycles.	1.No body deformation change in appearance or obliteration of marking. 2.Inductance shall not change more than ±10%.
6.Resistance To Soldering Heat	1.Peak temperature：250.0~250.3℃. 2.Time(temp.≧ 217℃): 86~88second. 3.IR reflow times: 3 times.	1.No mechanical and electrical damage. 2.Inductance shall not change more than ±10%.
7.Solderability	1. Baking in pre-testing: 150±5℃/4Hours±30 min. 2. After fluxing,inductor shall be dipped in a melted solder pot at 235±5℃ for 5±0.5 seconds.	The terminal shall be at least 95% covered with fresh solder.
8.Terminal Strength	1. A 0.5kg load shall be applied to both terminals in the axis direction for 1 minute.	Terminal shall not be loosened or ruptured.
9.Cold	1.Temperature: -40±2℃. 2.Time: 96±2hours.	1.No mechanical and electrical damage. 2.Inductance shall not change more than ±10%.
10.Humidity Load Life	1.Temperature: 40±2℃. 2.Humidity: 90~95％RH. 3.Time: 1000±12 hours. 4.Isat: 0.45A.	1.No mechanical and electrical damage. 2.Inductance shall not change more than ±10%.
11.Rated Current	1. Applied IDC current to chip inductor. 2. Test time: 5 seconds. 3.Isat: 0.45A.	Inductance change shall be 10% max to initial value.

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SPECIFICATION FOR APPROVAL

Test Item	Test Condition	Specification
12.Over Load	1. Applied double current of IDC to inductor for a period of 5 minutes.	After test , inductors shall be no electrical and mechanical damage.
13.Temperature Rise	1.Applied DC current (IDC) to chip inductor.Temperature measure by digital surface thermometer. 2.Test time: 10 minutes.	Temperature rise shall be 20℃ max.
14.Withstanding Voltage	AC voltage 1000V、3mA applied between inductors terminal and coating for 5 seconds.	After test , inductors shall be no electrical and surface damage.
15.Insulation Resistance	DC voltage 100V applied between inductor terminal and coating for 1 minute.	1.After testing , inductors shall be no electrical and mechanical damage. 2. 1000MΩ Min.
16.Drop	Inductors shall be dropped 10 times from a height of 1M onto 3 cm wooden board.	1.No mechanical and electrical damage. 2.Inductance shall not change more than ±10%.
17.Electrical Characterization	1.Operating temperature:-40℃ ~ 125℃. 2.Room temperature:25℃.	1.No mechanical and electrical damage. 2.Inductance shall not change more than ±10%.
18.Vibration	1. Amplitude：1.5mm. 2. Frequency：10--55--10HZ/1minute. 3. Direction：X，Y，Z. 4. Duration：2 hours /X，Y，Z.	1.No mechanical and electrical damage. 2.Inductance shall not change more than ±10%.

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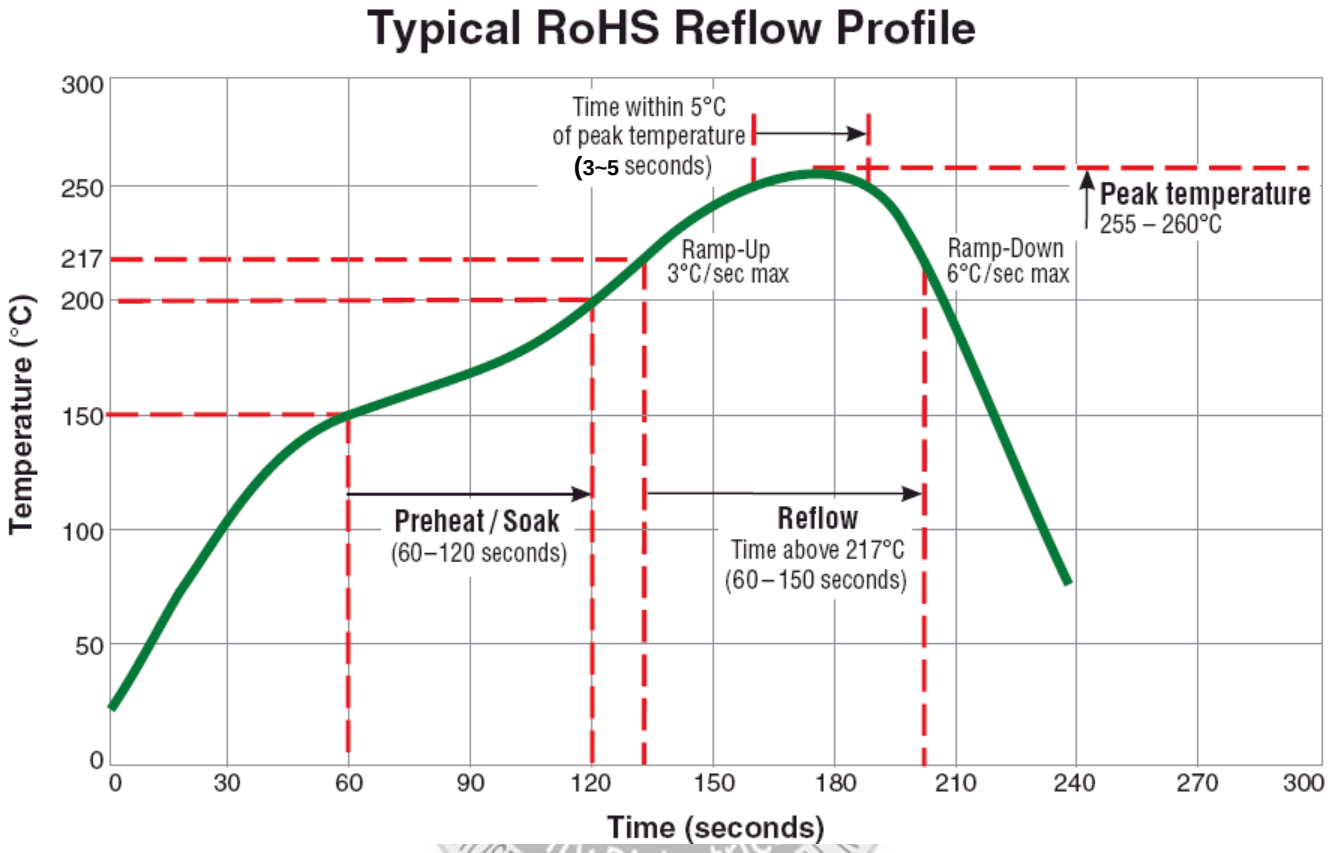
4. TYPICAL RoHS REFLOW PROFILE



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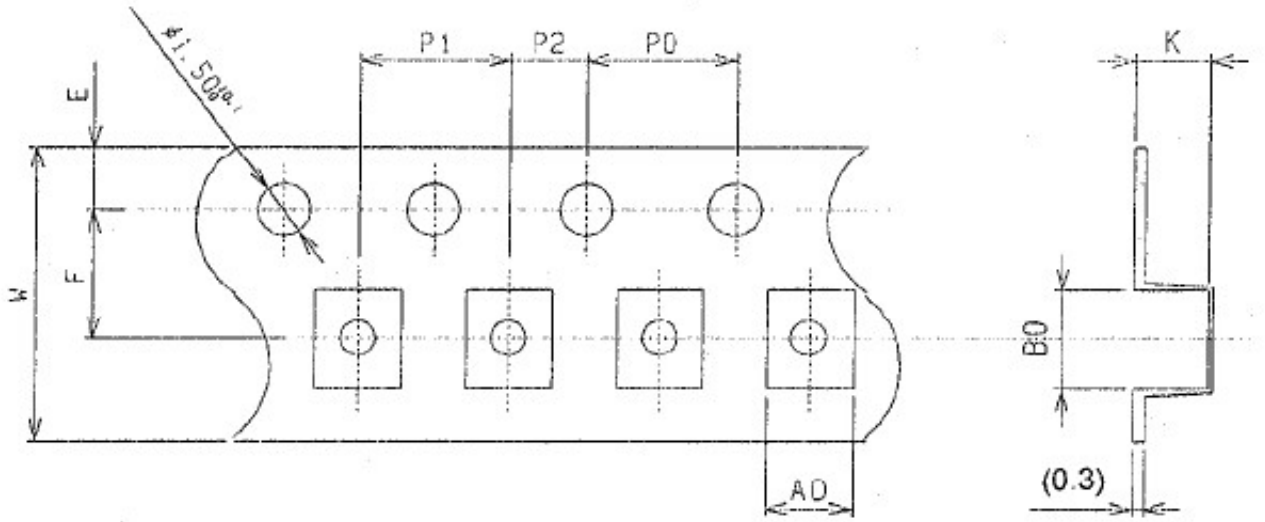
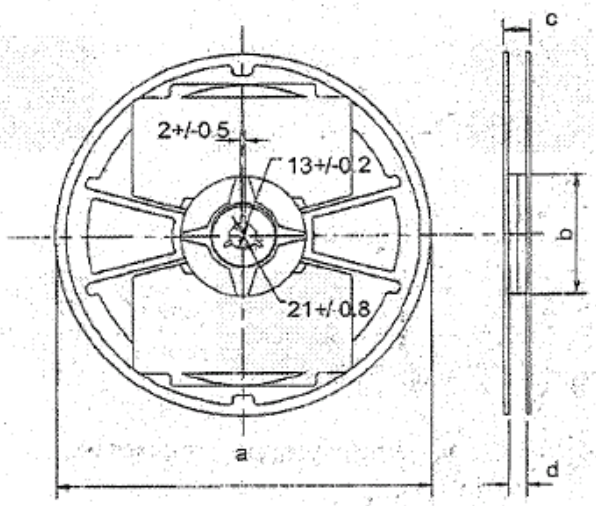
5. PACKING

5.1 Dimensions of emboss carrier tape.



	A0	B0	K	W	F	E	P0	P1	P2
DIM.	2.30	2.70	2.00	8.0 ±0.3	3.5 ±0.05	1.75 ±0.1	4.0 ±0.1	4.0 ±0.1	2.0 ±0.05

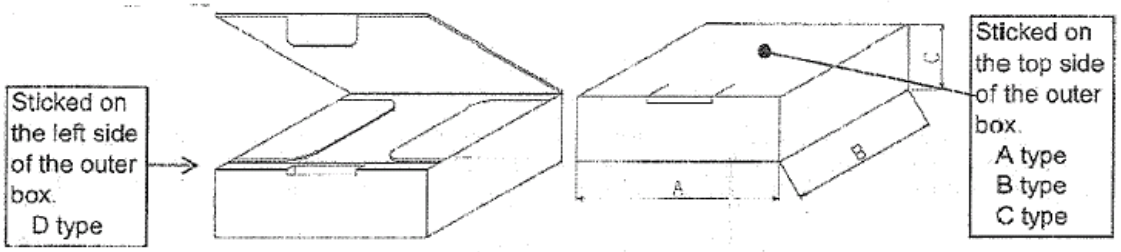
5.2 Dimensions of the reel.



	Dimension
a	180+0/-3 mm
b	60+1/-0 mm
c	13+/-1.4 mm
d	9.0+/-0.3 mm

5.3.Packaging

Outer Box	Reel number	Dimension A	Dimension B	Dimension C
Type A	2 reel Max.	185 mm	195 mm	35 mm
Type B	4reel Max.	185 mm	195 mm	60 mm
Type C	5 reel Max.	185 mm	195 mm	80 mm
Type D	10 reel Max.	185 mm	195 mm	155 mm



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