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.	ML100505H-XXXX-LRH
DOC. REV.	ORIG
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.

■Sales Office-Headquarter
No. 566-1, Kao-Shi Rd., Yangmei, Taoyuan 32668, Taiwan
TEL: +886-3-475-3355
FAX: +886-3-485-4959

☐Yong Zhou Plant
Tao-Yuan Rd., Fenghuang Park, Lengshuitan District, Yongzhou, Hunan 425000, P.R.C.
TEL: +86-746-8610-180
FAX: +86-746-8610-181

☐Sales Office-Dong Guan,China
No.638,Mei Jing West Road Xiniupo Administrative Zone Dalang Town,Dong Guan City,GuangDong Province,China.
TEL: +86-769-8555-0979
FAX: +86-769-8555-0972

TESTED BY	CHECKED BY	APPROVED BY

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CUSTOMER	CUSTOMER P/N	REV.	SPL. LOT NO.	
		-		
PART NAME	**PART NO.**	**REV.**	**DATE OF ISSUE**	**Q'TY**
CHIP INDUCTORS (RoHS+H.F.)	**ML100505H-XXXX-LRH**	**ORIG**		**0 PCS**

ENGINEERING CHANGE NOTICE - RECORD

REVISION NO.	REVISION DESCRIPTION	AUTHOR	DATE	REMARK
ORIG		*Bruce Hsu*		

SPECIFICATION FOR APPROVAL

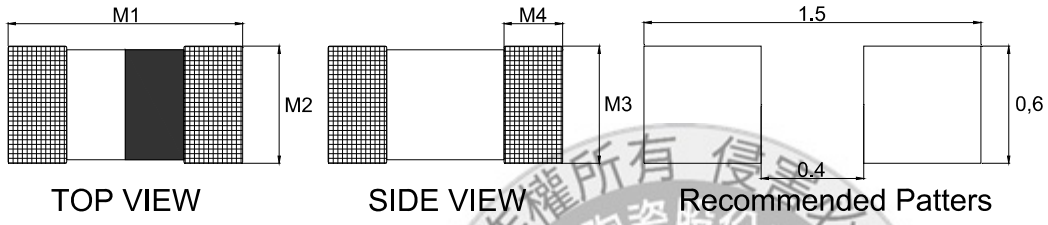
※This is a RoHS and REACH compliant product whose related documents are available on request.
※Graphic is only for dimensionally application.

1. PART NUMBER IDENTIFICATION

ML 100505 H - □□□ □ - LRH

- RoHs + H.F.
- TOLERANCE
- INDUCTANCE
- MATERIAL
- DIMENSIONS
- PRODUCT TYPE

2. MECHANICAL DIMENSION



UNIT: mm

	DIM.	TOL.
M1	1.0	±0.1
M2	0.5	±0.1
M3	0.5	±0.1
M4	0.2	±0.1

3. ELECTRICAL SPECIFICATION

Part number	Inductance (nH)	Tolerance	Q MIN.	Test Frequency (MHz)	SRF (MHz) MIN.	DC Resistance (Ω) MAX.	Irms (mA) MAX.
ML100505H-N30□-LRH	0.3	Z	8	100	10,000	0.08	1000
ML100505H-N40□-LRH	0.4	Z	8	100	10,000	0.08	1000
ML100505H-N50□-LRH	0.5	Z	8	100	10,000	0.08	1000
ML100505H-N60□-LRH	0.6	Z	8	100	10,000	0.08	1000
ML100505H-N70□-LRH	0.7	Z	8	100	10,000	0.08	1000
ML100505H-N80□-LRH	0.8	Z	8	100	10,000	0.08	1000
ML100505H-1N0□-LRH	1.0	Z.U.S	8	100	10,000	0.08	1000
ML100505H-1N1□-LRH	1.1	Z.U.S	8	100	10,000	0.08	1000
ML100505H-1N2□-LRH	1.2	Z.U.S	8	100	10,000	0.09	1000
ML100505H-1N3□-LRH	1.3	Z.U.S	8	100	10,000	0.09	1000
ML100505H-1N5□-LRH	1.5	Z.U.S	8	100	10,000	0.10	1000
ML100505H-1N6□-LRH	1.6	Z.U.S	8	100	10,000	0.10	1000
ML100505H-1N8□-LRH	1.8	Z.U.S	8	100	10,000	0.12	900
ML100505H-2N0□-LRH	2.0	Z.U.S	8	100	10,000	0.12	900
ML100505H-2N2□-LRH	2.2	Z.U.S	8	100	10,000	0.13	900
ML100505H-2N4□-LRH	2.4	Z.U.S	8	100	10,000	0.13	800
ML100505H-2N7□-LRH	2.7	Z.U.S	8	100	6,000	0.16	800
ML100505H-3N0□-LRH	3.0	Z.U.S	8	100	6,000	0.16	800
ML100505H-3N3□-LRH	3.3	Z.U.S	8	100	6,000	0.16	800
ML100505H-3N6□-LRH	3.6	Z.U.S	8	100	6,000	0.20	700
ML100505H-3N9□-LRH	3.9	Z.U.S	8	100	6,000	0.20	700
ML100505H-4N3□-LRH	4.3	Z.U.S	8	100	6,000	0.20	700

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Part number	Inductance (nH)	Tolerance	Q MIN.	Test Frequency (MHz)	SRF (MHz) MIN.	DC Resistance (Ω) MAX.	Irms (mA) MAX.
ML100505H-4N7□-LRH	4.7	Z.U.S	8	100	6,000	0.20	700
ML100505H-5N1□-LRH	5.1	Z.U.S	8	100	5,300	0.23	600
ML100505H-5N6□-LRH	5.6	Z.U.S	8	100	4,500	0.23	600
ML100505H-6N2□-LRH	6.2	Z.U.S	8	100	4,500	0.25	600
ML100505H-6N8□-LRH	6.8	G,H,J	8	100	4,500	0.25	600
ML100505H-7N5□-LRH	7.5	G,H,J	8	100	4,200	0.28	500
ML100505H-8N2□-LRH	8.2	G,H,J	8	100	3,700	0.28	500
ML100505H-9N1□-LRH	9.1	G,H,J	8	100	3,400	0.30	500
ML100505H-10N□-LRH	10	G,H,J	8	100	3,400	0.30	500
ML100505H-12N□-LRH	12	G,H,J	8	100	3,000	0.45	400
ML100505H-15N□-LRH	15	G,H,J	8	100	2,500	0.55	400
ML100505H-18N□-LRH	18	G,H,J	8	100	2,200	0.65	300
ML100505H-22N□-LRH	22	G,H,J	8	100	1,900	0.70	300
ML100505H-27N□-LRH	27	G,H,J	8	100	1,700	0.80	300
ML100505H-33N□-LRH	33	G,H,J	8	100	1,600	0.90	200
ML100505H-39N□-LRH	39	G,H,J	8	100	1,200	1.00	200
ML100505H-47N□-LRH	47	G,H,J	8	100	1,100	1.10	200
ML100505H-56N□-LRH	56	G,H,J	8	100	1,000	1.10	200
ML100505H-68N□-LRH	68	G,H,J	8	100	800	1.20	200
ML100505H-82N□-LRH	82	J	8	100	600	1.30	200
ML100505H-R10□-LRH	100	J	8	100	600	1.60	200
ML100505H-R12□-LRH	120	J	8	100	600	1.60	150
ML100505H-R15□-LRH	150	J	8	100	550	3.20	140

TEST INSTRUMENT: Agilent E4991A+16197A、Agilent 4338B

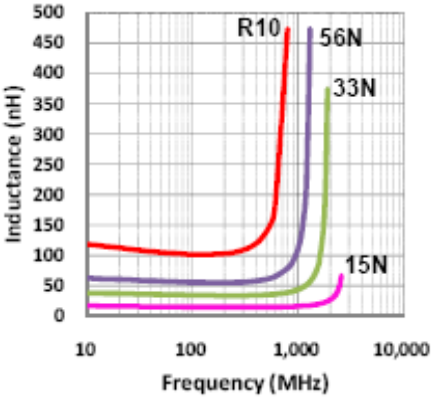
NOTE:

1. □Tolerance: Z=±0.1nH /U=±0.2nH /S=±0.3nH /G=±2% / H=±3% / J=±5%
2. Irms: Full rated current 5min,temperature rise should be less than 25℃.
3. MSL: Level 1

4. ELECTRICAL CURVE

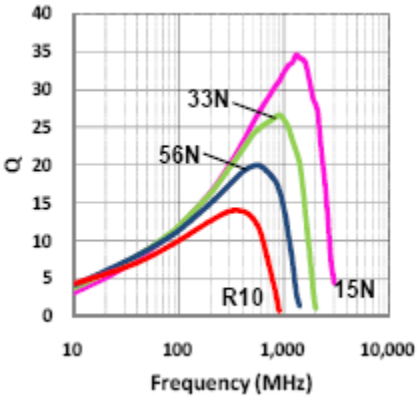
L vs. Frequency

ML100505H Series



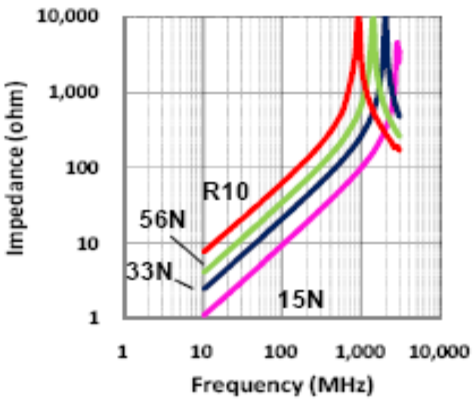
Q vs. Frequency

ML100505H Series



Z vs. Frequency

ML100505H Series



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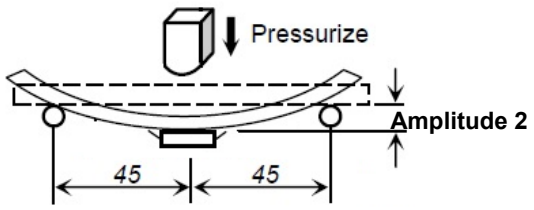
5. RELIABILITY PERFORMANCE

Item	Test Condition	Standard Source
Temperature Cycle	1.Temperature : -55 ~ +125℃ 2.Cycle : 100 cycles 3.Dwell time : 30minutes 4.Measurement : at ambient temperature 24 hrs after test completion	1.No mechanical damage 2.Inductance value should be within ±10 % of the initial value 3.Q vale should be within ±20 % of the initial value
Operational Life	1.Temperatture: 85 ± 5℃ 2.Testing time:1000 hrs 3.Applied current : Full rated current 4.Measurement:At ambient temperature 24 hours after test completion	1.No mechanical damage 2.Inductance value should be within ±10 % of the initial value 3.Q vale should be within ±20 % of the initial value
Biased Humidity	1.Temperature :40℃±2℃ 2.Humidity :90 ~95% RH 3.Test time :1000 hrs 4.Apply current : full rated current 5.Measurement : at ambient temperature 24 hrs after test completion	1.No mechanical damage 2.Inductance value should be within ±10 % of the initial value 3.Q vale should be within ±20 % of the initial value
Resistance to Solder Heat	1.Solder temperature : 260 ± 5℃ 2.Flux : Rosin 3.DIP time : 10 ± 1 sec	1.More than 95% of terminal electrode should be covered with new solder 2.Inductance value should be within ±10 % of the initial value 3.Q vale should be within ±20 % of the initial value
Solderability	1.Solder temperature : 235 ± 5℃ 2.Flux : Rosin 3.DIP time : 5 ± 1 sec	1.More than 95% of terminal electrode should be covered with new solder 2.No mechanical damage
Bending Strength	1.Solder the chip to test jig then apply a force in the direction shown in below. 2.The soldering shall be done with the reflow method and shall be conducted with care so that the soldering is uniform and free of defects such as heat shock. 	No mechanical damage

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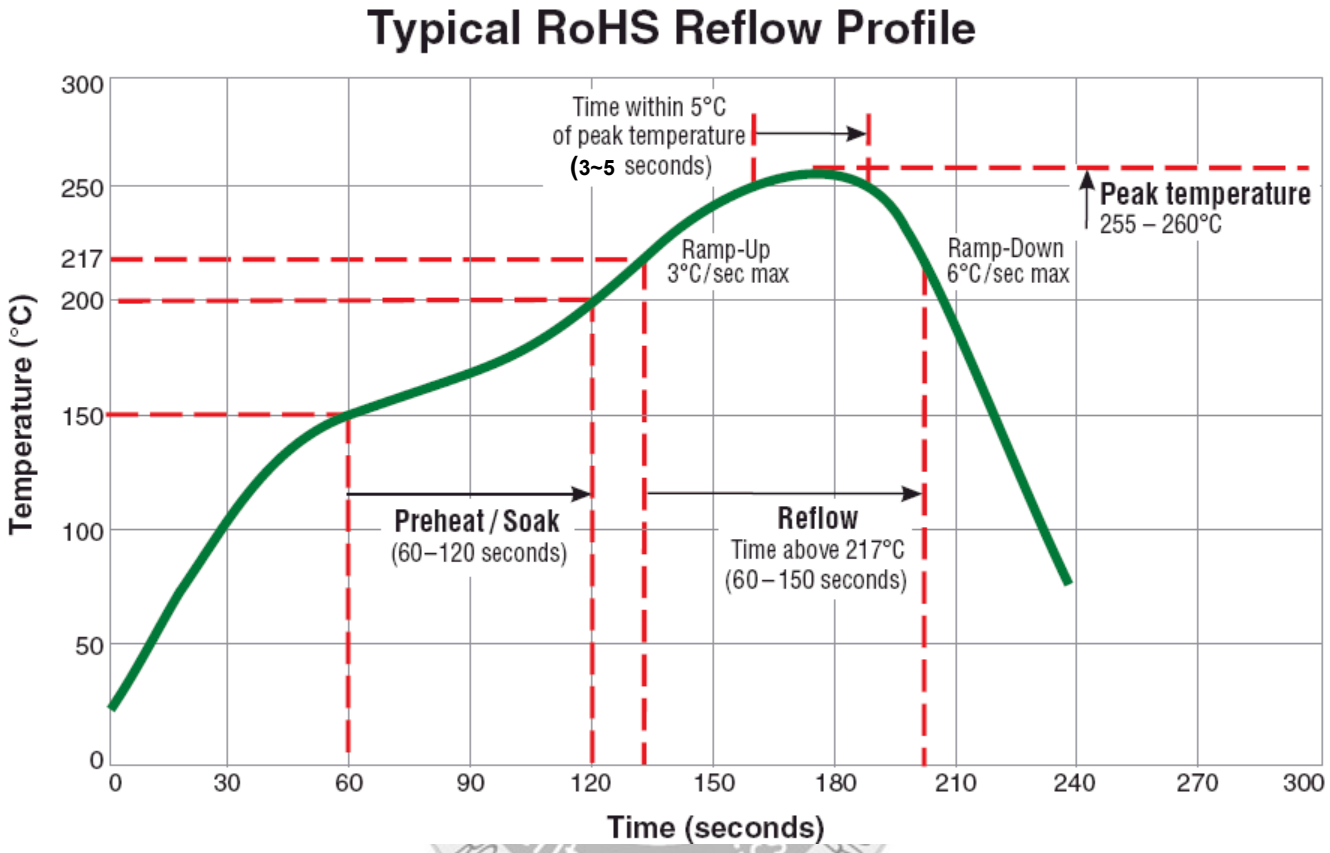
6. TYPICAL RoHS REFLOW PROFILE



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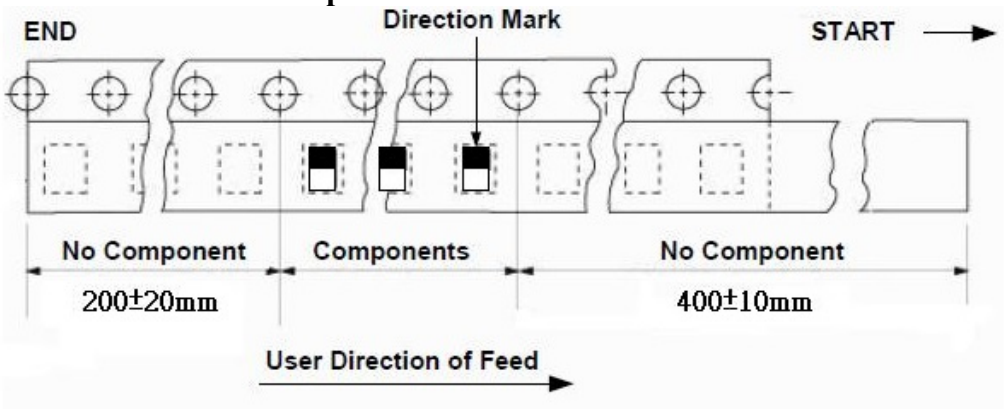
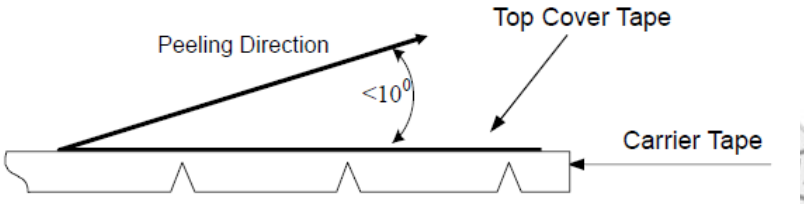
7. PACKING

7.1 Leader and Trailer Tape

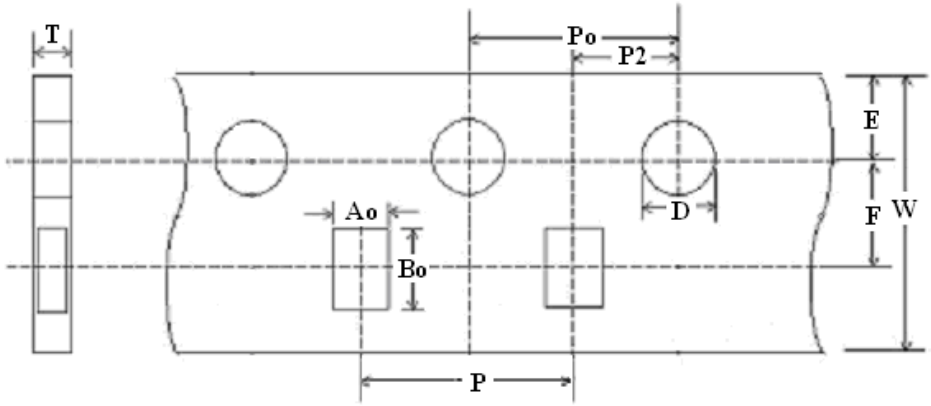


7.2 Peel-off force



Peel-off force should be in the range of 10~50g at a peel-off of 300mm/min

7.3 Dimensions



UNIT : mm

W	P	E	F	D	Po	P2	Ao	Bo	T
8.00±0.10	2.00±0.05	1.75±0.05	3.50±0.05	1.55±0.05	4.00±0.10	2.00±0.05	0.60±0.03	1.12±0.03	0.60±0.03

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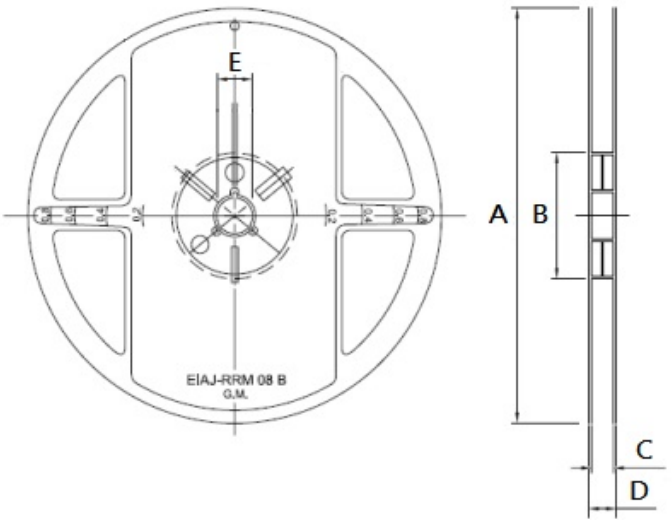
7.4 Reels



UNIT : mm

A	B	C	D	E
178±1.0	60±0.5	9.0±0.5	12±0.15	13.0±0.2

7.5 Packaging Quantity

Reel	Inner Box
10000 Pcs	5 Reels