PSA

SPECIFICATION FOR APPROVAL

CUSTOMER	
CUST. PART NO.	
CUST. DOC. REV.	
DESCRIPTION	CHIP INDUCTORS(RoHS+H.F.)
SAMPLE LOT NO.	
PART NO.	ML060303H-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.

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TESTED BY	CHECKED BY	APPROVED BY
Bruce Hsu	Adam Lee	K.C. Tseng

PROSPERITY DIELECTRICS CO., LTD.

FRONTIER ELECTRONICS

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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.)	**ML060303H-XXXX-LRH**	**ORIG**		**0 PCS**

ENGINEERING CHANGE NOTICE - RECORD

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

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SPECIFICATION FOR APPROVAL

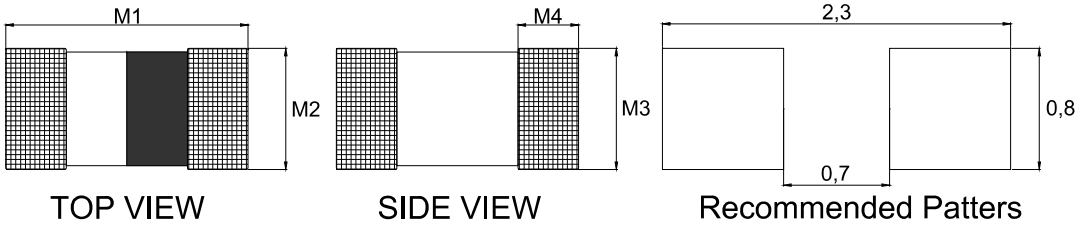
※This is a RoHS and REACH compliant product whose related documents are available on request.
※Graphic is only for dimensionally application.

1. PART NUMBER IDENTIFICATION

ML 060303 H - □□□ □ - LRH

- LRH — RoHs+HF
- □ — TOLERANCE
- □□□ — INDUCTANCE
- H — MATERIAL
- 060303 — DIMENSIONS
- ML — PRODUCT TYPE

2. MECHANICAL DIMENSION



UNIT: mm

	DIM.	TOL.
M1	0.60	±0.03
M2	0.30	±0.03
M3	0.30	±0.03
M4	0.15	0.05

3. ELECTRICAL

PART NO.	L (nH)	L Tolerance	Q MIN.	L,Q TEST FREQ. (MHz)	SRF (MHz) MIN.	DCR (Ω) MAX.	Irms (mA) MAX.
ML060303H-N30□-LRH	0.3	Z	4	100	10,000	0.07	850
ML060303H-N40□-LRH	0.4	Z	4	100	10,000	0.07	850
ML060303H-N50□-LRH	0.5	Z	4	100	10,000	0.08	800
ML060303H-N60□-LRH	0.6	Z	4	100	10,000	0.08	800
ML060303H-N70□-LRH	0.7	Z	4	100	10,000	0.09	750
ML060303H-N80□-LRH	0.8	Z	4	100	10,000	0.10	750
ML060303H-N90□-LRH	0.9	Z	4	100	10,000	0.10	750
ML060303H-1N0□-LRH	1.0	Z,U,S	4	100	10,000	0.14	600
ML060303H-1N1□-LRH	1.1	Z,U,S	4	100	10,000	0.14	600
ML060303H-1N2□-LRH	1.2	Z,U,S	4	100	10,000	0.14	600
ML060303H-1N3□-LRH	1.3	Z,U,S	4	100	10,000	0.14	600
ML060303H-1N4□-LRH	1.4	Z,U,S	4	100	10,000	0.18	550
ML060303H-1N5□-LRH	1.5	Z,U,S	4	100	10,000	0.18	550
ML060303H-1N6□-LRH	1.6	Z,U,S	4	100	10,000	0.18	500
ML060303H-1N7□-LRH	1.7	Z,U,S	4	100	10,000	0.19	500
ML060303H-1N8□-LRH	1.8	Z,U,S	4	100	10,000	0.19	500
ML060303H-1N9□-LRH	1.9	Z,U,S	4	100	10,000	0.20	450
ML060303H-2N0□-LRH	2.0	Z,U,S	4	100	10,000	0.20	450
ML060303H-2N1□-LRH	2.1	Z,U,S	4	100	10,000	0.20	450
ML060303H-2N2□-LRH	2.2	Z,U,S	4	100	10,000	0.22	450
ML060303H-2N3□-LRH	2.3	Z,U,S	4	100	10,000	0.22	450
ML060303H-2N4□-LRH	2.4	Z,U,S	4	100	10,000	0.24	450
ML060303H-2N5□-LRH	2.5	Z,U,S	4	100	10,000	0.24	450

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PART NO.	L (nH)	L Tolerance	Q MIN.	L,Q TEST FREQ. (MHz)	SRF (MHz) MIN.	DCR (Ω) MAX.	Irms (mA) MAX.
ML060303H-2N6□-LRH	2.6	Z,U,S	4	100	10,000	0.25	450
ML060303H-2N7□-LRH	2.7	Z,U,S	5	100	10,000	0.25	450
ML060303H-2N9□-LRH	2.9	Z,U,S	5	100	9,500	0.28	450
ML060303H-3N0□-LRH	3.0	Z,U,S	5	100	9,500	0.28	450
ML060303H-3N1□-LRH	3.1	Z,U,S	5	100	9,500	0.28	450
ML060303H-3N2□-LRH	3.2	Z,U,S	5	100	9,500	0.30	450
ML060303H-3N3□-LRH	3.3	Z,U,S	5	100	9,500	0.30	450
ML060303H-3N4□-LRH	3.4	Z,U,S	5	100	8,000	0.30	400
ML060303H-3N5□-LRH	3.5	Z,U,S	5	100	8,000	0.30	400
ML060303H-3N6□-LRH	3.6	Z,U,S	5	100	8,000	0.30	400
ML060303H-3N7□-LRH	3.7	Z,U,S	5	100	8,000	0.30	400
ML060303H-3N8□-LRH	3.8	Z,U,S	5	100	6,500	0.30	400
ML060303H-3N9□-LRH	3.9	Z,U,S	5	100	6,500	0.30	400
ML060303H-4N3□-LRH	4.3	Z,U,S	5	100	6,500	0.40	350
ML060303H-4N7□-LRH	4.7	Z,U,S	5	100	6,500	0.40	350
ML060303H-5N1□-LRH	5.1	Z,U,S	5	100	6,500	0.40	350
ML060303H-5N6□-LRH	5.6	Z,U,S	5	100	6,000	0.40	350
ML060303H-6N2□-LRH	6.2	Z,U,S	5	100	6,000	0.44	300
ML060303H-6N8□-LRH	6.8	H,J	5	100	5,400	0.50	300
ML060303H-7N5□-LRH	7.5	H,J	5	100	4,800	0.53	300
ML060303H-8N2□-LRH	8.2	H,J	5	100	4,800	0.55	250
ML060303H-9N1□-LRH	9.1	H,J	5	100	4,500	0.62	250
ML060303H-10N□-LRH	10	H,J	5	100	4,500	0.65	250
ML060303H-12N□-LRH	12	H,J	5	100	3,700	0.70	250
ML060303H-15N□-LRH	15	H,J	5	100	2,200	0.80	250
ML060303H-18N□-LRH	18	H,J	5	100	2,200	0.90	200
ML060303H-22N□-LRH	22	H,J	5	100	2,000	1.20	150
ML060303H-27N□-LRH	27	H,J	4	100	1,800	1.80	140
ML060303H-33N□-LRH	33	J	4	100	1,700	2.10	120
ML060303H-39N□-LRH	39	J	4	100	1,500	2.40	120
ML060303H-47N□-LRH	47	J	4	100	1,300	2.80	100
ML060303H-56N□-LRH	56	J	4	100	1,100	3.00	80
ML060303H-68N□-LRH	68	J	4	100	1,100	2.66	80
ML060303H-82N□-LRH	82	J	4	100	1,000	3.37	70
ML060303H-R10□-LRH	100	J	4	100	900	3.74	60

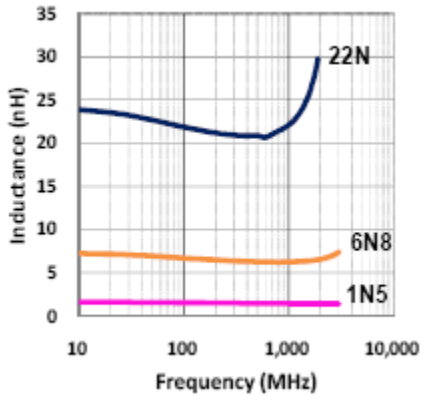
TEST INSTRUMENT: **Agilent E4991A+16197A、Agilent 4338B**

□ **Tolerance: Z=±0.1nH / U=±0.2nH /S=±0.3nH/ G±2% / H±3% / J±5%**

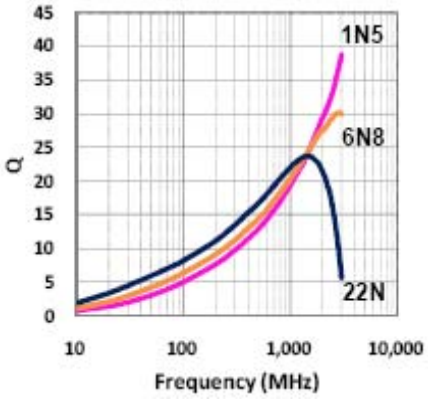
※MSL：LEVEL 1

4. ELECTRICAL CURVE

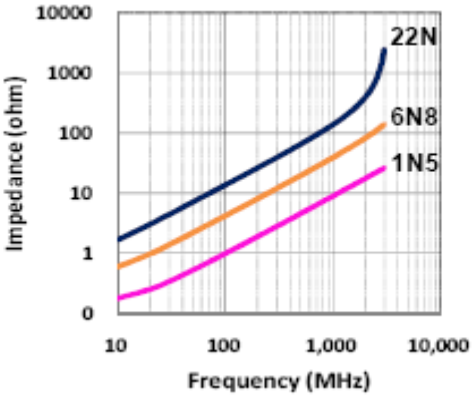
L vs. Frequency
ML060303H Series



Q vs. Frequency
ML060303H Series



Z vs. Frequency
ML060303H Series



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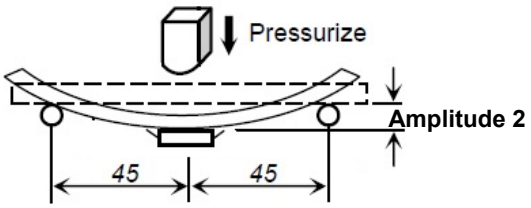
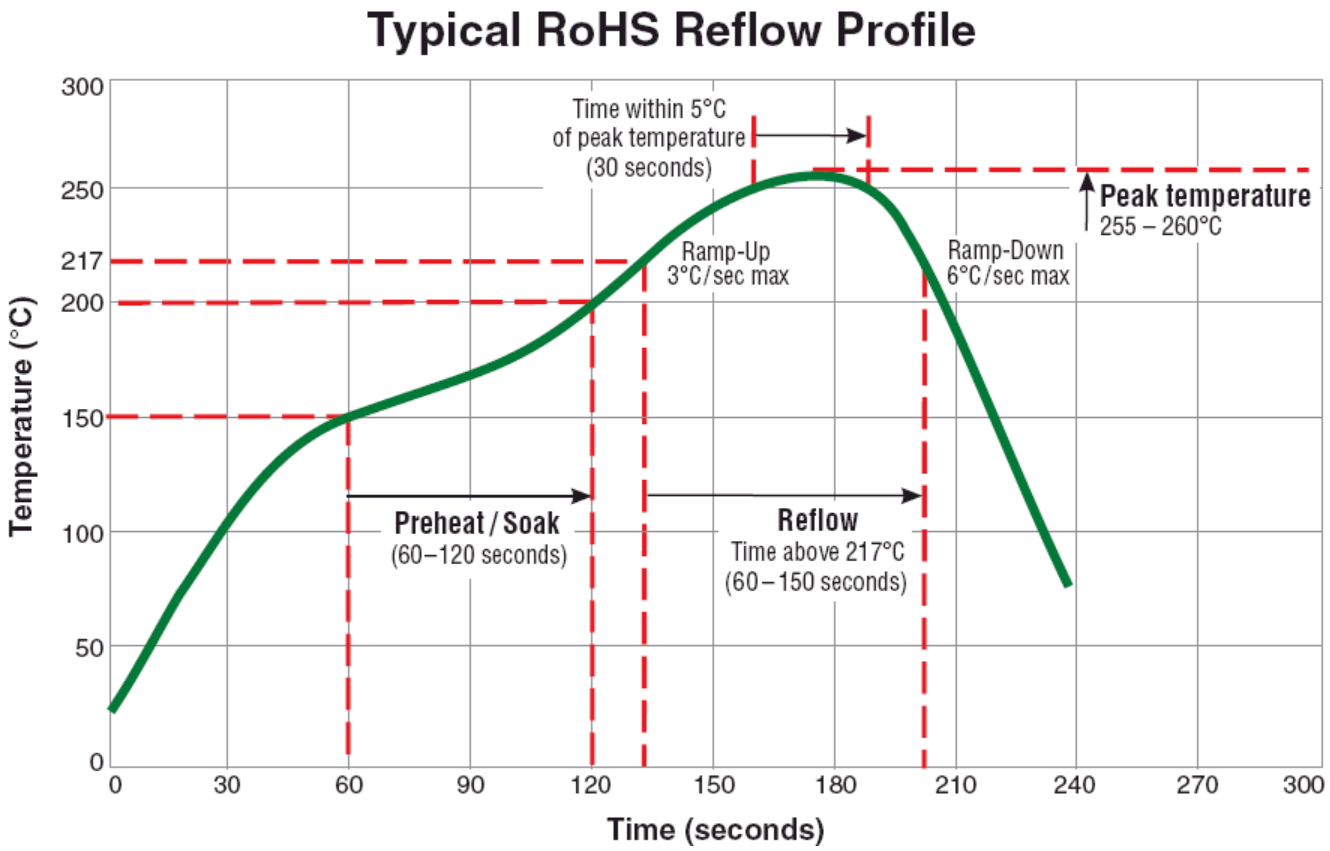
5. RELIABILITY PERFORMANCE

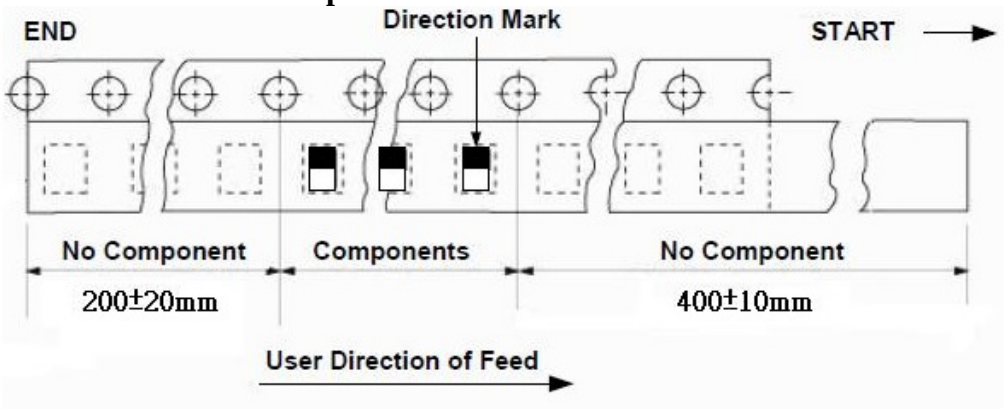
Item	Test Condition	Standard Source
Temperature Cycle	1.Temperature : -55 ~ +125℃ 2.Cycle : 100 cycles 3.Dwell time : 30minutes 4.Measurement : at ambient temperature 24 hrs after test completion	1.No mechanical damage 2.Inductance value should be within ±10 % of the initial value 3.Q vale should be 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

6. TYPICAL RoHS REFLOW PROFILE

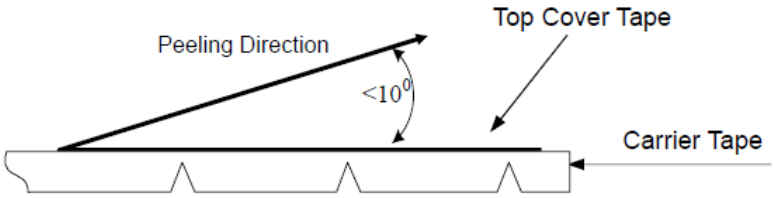


7. PACKAGING

7.1 Leader and Trailer Tape

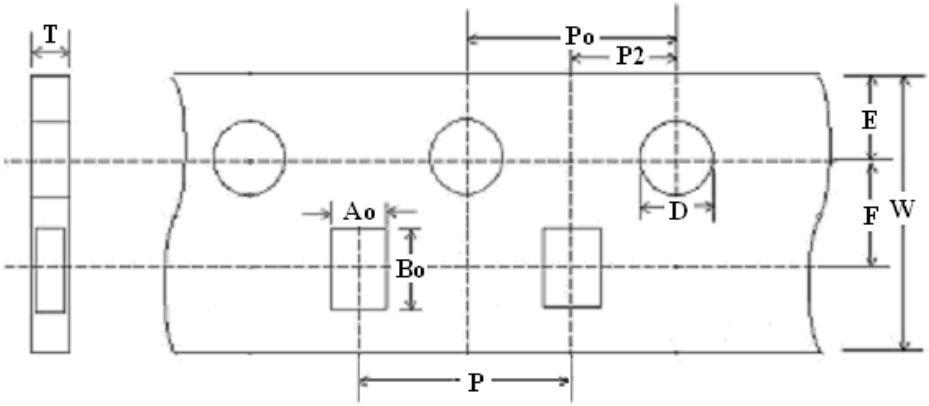


7.2 Peel-off force



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

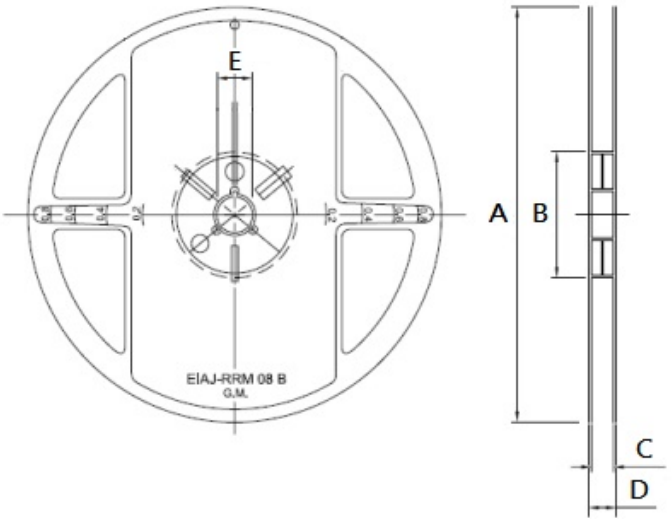
7.3 Dimensions



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	0.36±0.02	0.66±0.02	0.42±0.02

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
15000 Pcs	5 Reels