Coilmaster

RoHs Compliant

SPECIFICATION APPROVAL

CUSTOMER	:	Ivent
PRODUCT	:	MM3225HP-102-LF
MATERIAL		Pb-free
CODE NO.	:	C02032060
CUS. CODE	:	
SPEC.NO.	:	C-2032-060(00)
DATE	:	16-May-22

CUSTOMER APPROVAL

Coilmaster Electronics Co., Ltd.
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PREPARED BY	APPROVED BY	AUTHORIZED BY
JEAN	TONY	MASCOT

PRODUCT	MM3225HP-102-LF	COIL SPECIFICATION	DATE	2022/5/16
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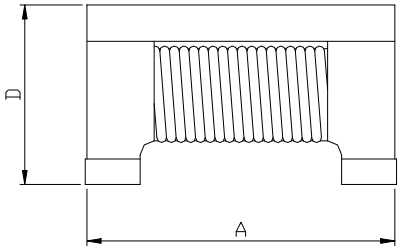
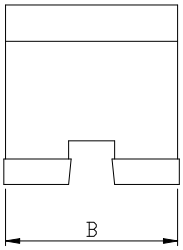
CONFIGURATION & DIMENSIONS ：



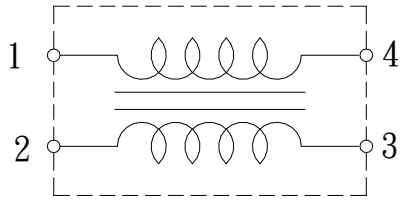


A ： 3.2±0.2 m/m
B ： 2.5±0.2 m/m
D ： 1.9±0.2 m/m

ELECTRICAL CHARACTERISTIC ：

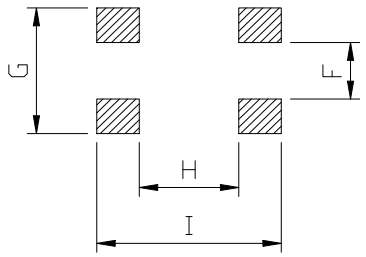
Impedance(Ω) ：	1000±25%	@ 100MHz
DCR(Ω)：	0.050	Max.
IDC(A)：	1.5	Max.
Rated Voltage (V) :	70	Typ.
Insulation Resistance (MΩ) :	10	Min.

EQUIVALENT CIRCUIT ：



No Polarity

PCB PATTERNS :



F ： 0.75 m/m
G ： 2.55 m/m
H ： 1.90 m/m
I ： 3.70 m/m

COILMASTER ELECTRONICS CO., LTD.

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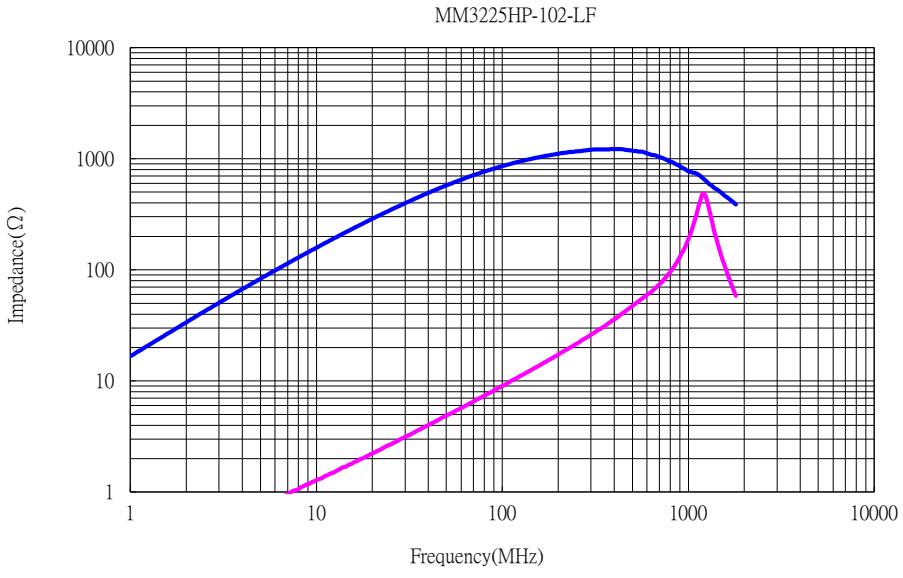
TEST DATA

ELECTRICAL CHARACTERISTICS					DIMENSION			
MEAS. ITEM	Impedance(Ω)	DCR(Ω)	IDC(mA)		A	B	C	D
TEST FREQ.	@ 100MHz	Max.	Max.		m/m	m/m	m/m	m/m
YOUR								
SPEC.	1000±25%	0.05	1.5		3.2±0.2	2.5±0.2		1.9±0.2
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
X	#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!		#DIV/0!
R	0.00	0.00	0.00		0.00	0.00		0.00

Curve



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RELIABILITY TEST

1.Mechanical Performance

No	Item	Specification	Test Method
1-1	Impedance	Refer To Standard Electrical Characteristic List.	HP 4291A
1-2	DC Resistance Rdc		DIGITAL MULTIMETER SC-7401
1-3	Rated Current idc		Applied The Current To Coil, The Impedance (Common Mode) Change Should Be Less Than 10% To Initial Value.

2.Environmental Performance

No	Item	Specification	Test Method
2-1	Temperature Cycle	Appearance: No Damage Z change: within±20%	One cycle: Step / Temperature (℃) / Time (min) 1 / -25±3 / 30 2 / 25±2 / 3 3 / 85±3 / 30 4 / 25±2 / 3 Total: 5 cycles Measured After Exposure In The Room Condition For 1hrs
2-2	Humidity Resistance		Temperature: 40±2℃ Relative Humidity: 90 ~ 95% Time: 100hrs Measured After Exposure In The Room Condition For 1hrs
2-3	High Temperature Resistance		Temperature: 85±3℃ Time: 50Hrs Measured After Exposure In The Room Condition For 1Hrs
2-4	Low Temperature Resistance		Temperature: -40±3℃ Time: 50Hrs Measured After Exposure In The Room Condition For 1Hrs
2-5	High Temperature Load Life	There should be no evidence of short or open circle	Temperature: 85±3℃ Load: Allowed DC Current Time: 500Hrs
2-6	Humidity Load Life		Temperature: -40±2℃ Relative Humidity: 90~95% Load: Allowed DC Current Time: 500Hrs

3.Mechanical Performance

No	Item	Specification	Test Method
3-1	Resistance To Soldering Heat	Appearance: No Damage	1. Pre-Heating: 150℃,1min. 2. Solder Composition: 3. Solder Temperature: 260±5℃. 4. Immersion Time: 10±1 sec.
3-2	Solderability	The Electrodes Shall Be At Least 90% Covered with New Solder Coating	1. Pre-Heating: 150℃,1min. 2. Solder Composition: Sn/Pb = 63/37. 3. Solder Temperature: 230±5℃. 4. Immersion Time: 4±1 sec.
3-3	Commponent Adhesion	2 Lbs	The device should be reflow soldered (230±5℃ For 10 seconds) to a tinned copper substrate. A force guauge should be applied to the side of the component.

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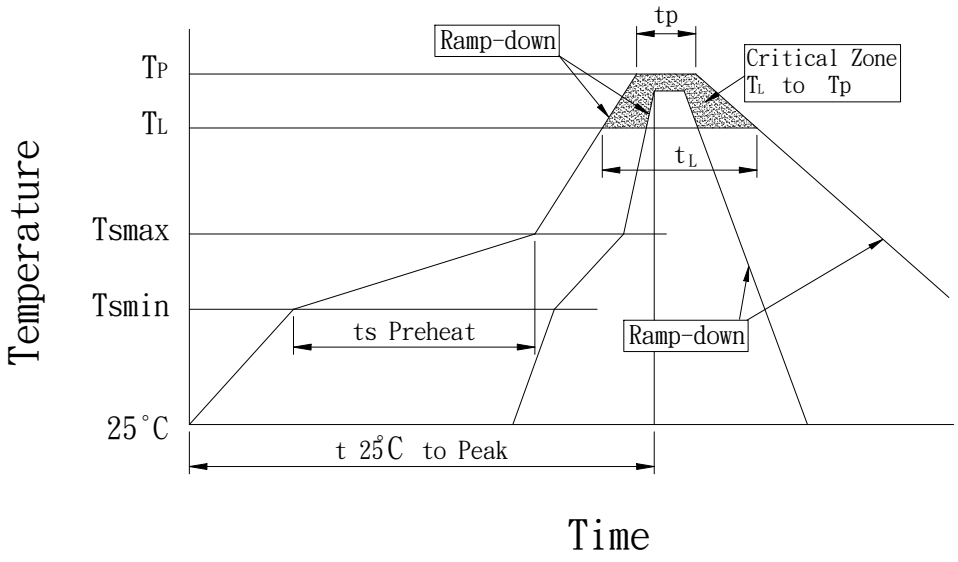
RECOMMENDED SOLDERING CONDITIONS：

CLASSIFICATION REFLOW PROFILES

Profile Feature	Sn-Pb Eutectic Assembly		Pb-Free Assembly	
	Large Body	Small Body	Large Body	Small Body
Average ramp-up rate (T_L to T_P)	3℃/second max.		3℃/second max.	
Preheat -Temperature Min (Ts_{min}) -Temperature Min (Ts_{max}) -Time (min to max) (ts)	100℃ 150℃ 60-120 seconds		150℃ 200℃ 60-180 seconds	
Tsmax to T_L -Ramp-up Rate			3℃/second max.	
Time maintained above: -Temperature (T_L) -Time (t_L)	183℃ 60-150 seconds		217℃ 60-150 seconds	
Peak Temperature (Tp)	225 +0/-5℃	240 +0/-5℃	245 +0/-5℃	255 +5/-5℃
Time within 5℃ of actual Peak Temperature (tp)	10-30 seconds	10-30 seconds	10-30 seconds	20-40 seconds
Ramp-down Rate	6℃/second max.		6℃/second max.	
Time 25℃ to Peak Temperature	6 minutes max.		8 minutes max.	

Note : All temperatures refer t topside of the package. Measured on the package body surface.

REFLOW SLODERINGS



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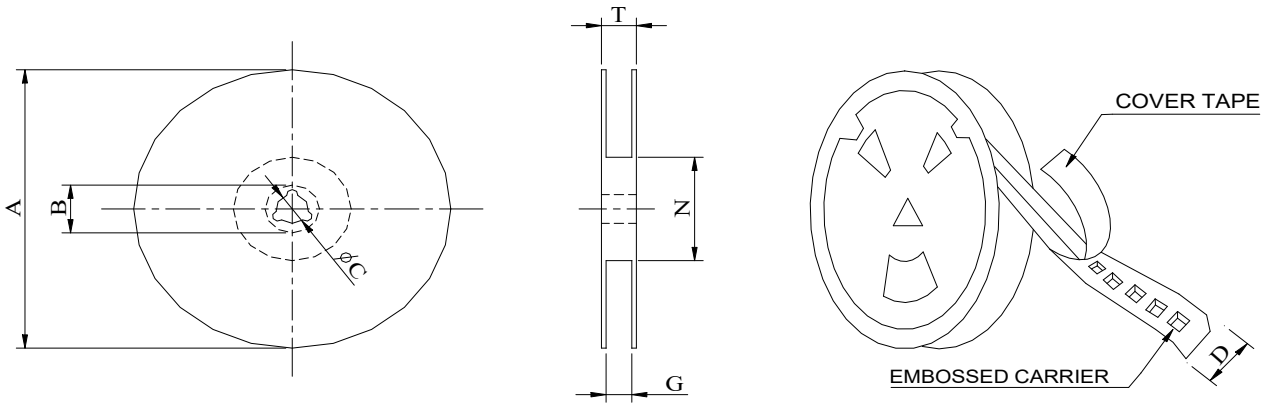
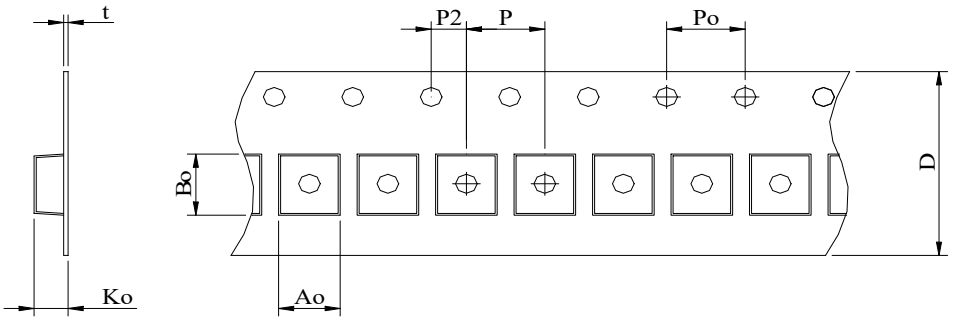
PACKAGE：



*CARRIER TAPE WIDTH：D



STYLE	DIMENSIONS (m/m)														
	Q'TY (PCS)	A	B	C	D	G	N	T	Ao	Bo	Ko	t	P	Po	P2
—	2000	178	—	—	8.0	—	60	—	2.80 ±0.1	3.60 ±0.1	2.20 ±0.1	—	4	4	—

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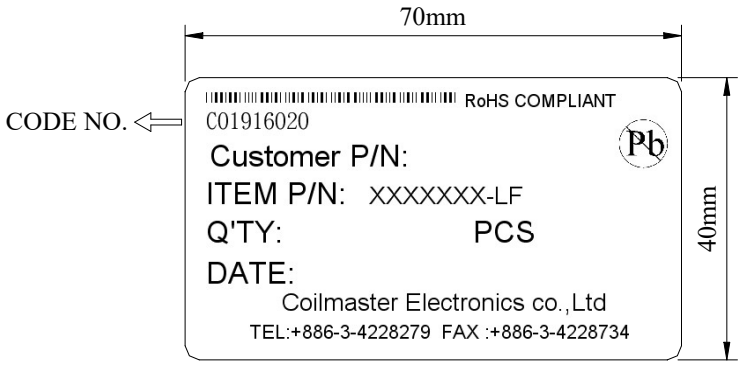
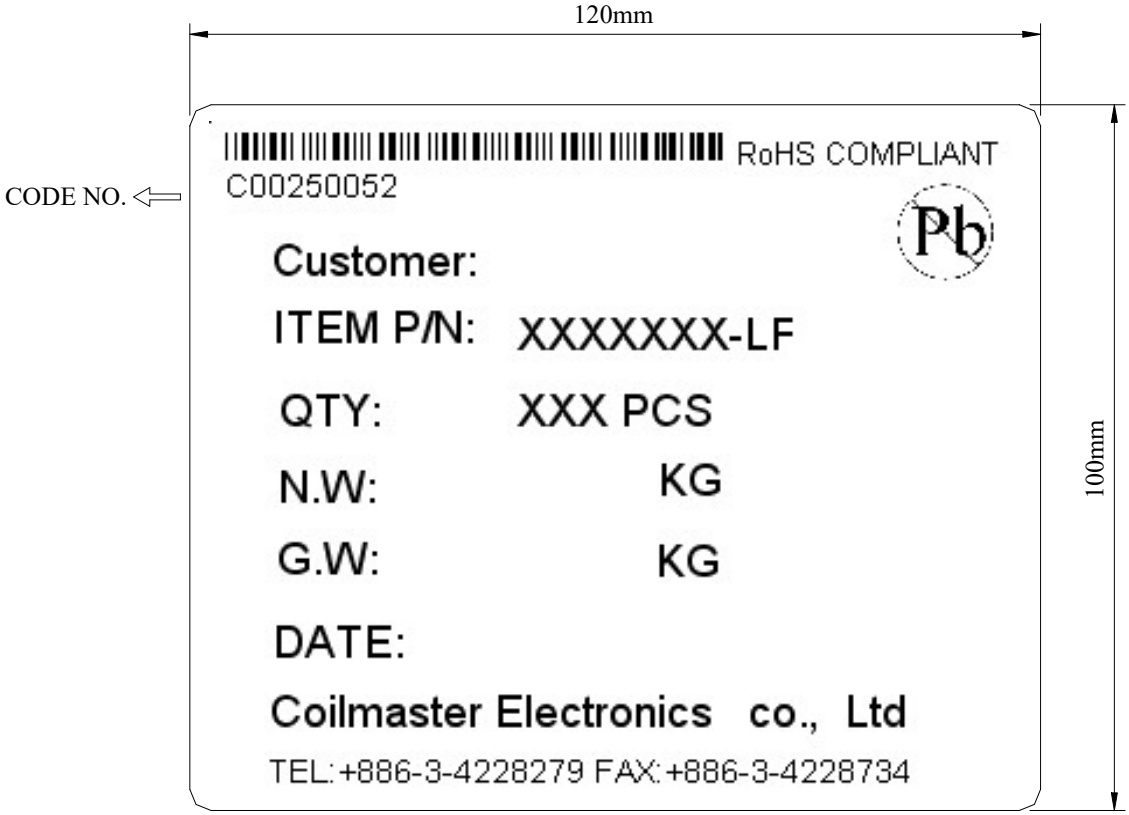
LABLE：



INNER BOX LABEL



OUT BOX LABEL

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Cautions and Warnings：

1. All of the components are manufactured, designed, and promoted for applying in general electronics devices, for the specific area such as automotive, medical, military and aerospace except for general electronic devices, Coilmaster must be asked for written approval before incorporating the components into these areas.

2. The components that will be used in high-reliability / high level of safety applications should be pre-evaluated by the end customer. Especially in customer applications in which the malfunction or failure of an electronic component could endanger human life or health. The customer shall be responsible for evaluating and confirming Coilmaster product is suitable for use in customer's applications.

3. Customer must be cautioned to verify that data sheets are the updated ones before placing orders. In the individual cases, any trouble or failure of electronic components happens during their long span cannot be eliminated even follow the instruction with existing technology.

4. Washing / Cleaning process may jeopardize the product and cause the defect. Washing agents may harm the long-term functionality of the product

5. The storage period should not be longer than 12 months (In the specific storage environment). The oxidization may happen on the terminals. Hence all the products shall be used within 12 months after the shipping date. If the time is over 12 months, please check the solderability before use it.

6. Products should not be kept in unsuitable storage conditions, such as areas susceptible to high humidity, high temperatures, dust or corrosion.

7. Don't touch electrodes directly with bare hands as oil secretions may inhibit soldering. Always ensure optimum conditions for soldering.

8. Don't bend the terminals or subject them to excessive stress.

9. Please ensure that all terminals and case lugs are completely fixed with solder onto PCB

10. Ensure the tuning slug or cap is not fixed by solder flux during the production process.

11. Avoid placing coils near the edge of the PCB

12. Don't touch any exposed winding part and avoid coming into contact with the guide of the electrode in automatic mounting

13. The inductor / coil / common mode choke generates heat when current is applied. Please take care of this during the design.

14. Always handle the product with care to prevent the damage.

15. Our specification specifies the quality of the component as a single unit. Please ensure the component is thoroughly evaluated in your application circuit. Even for customized products, conclusive validation of the component in the circuit can only be carried out by customer.

16. The general testing condition is in the room temperature 25 +/- 5°C and humidity under 65% RH, which is applied to all products.

17. If have any query, please feel free to contact our sales department.