

FEATURES 特征

- Chip common mode filter for large current applications.
适用大电流的片式共模滤波器
- Excellent impedance characteristics, making it great for suppressing common mode noise.
高阻抗特性，能高效抑制共模噪音效果
- Compact size high performance and low cost.
体积小、性能高、成本低
- Operating Temp : -40°C~+125°C(Including self heating)
工作温度范围:-40°C~+125°C(包括自身温度上升)



APPLICATIONS 用途

- Current compensated choke for data and signal lines.
数据线和信号线的电流补偿扼流圈
- Common mode noise suppression of various electronic products, multimedia equipment, power cords.
各种电子产品、多媒体设备,电源线的共模噪音抑制

PART NUMBERING 产品型号

PBCM	0905	C	-	100	Y	B
①	②	③		④	⑤	⑥

① Series Name	
PBCM	Wire Wound Chip Common Mode Choke

② External Dimensions [LxWxT mm]	
0904	9.5x5.6x5.2
0905	9.2x6.0x5.0

③ Feature Type	
	C Type
	L Type

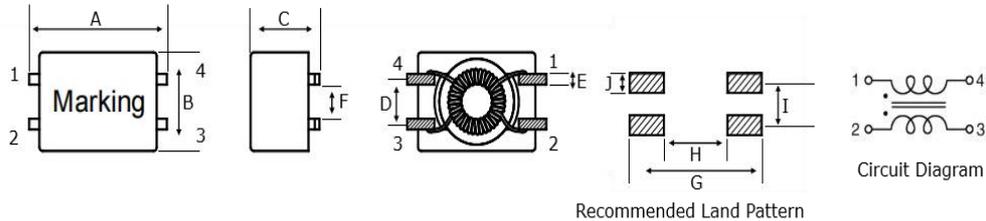
④ Nominal Impedance	
Code (example)	Nominal Inductance [μH]
100	10
471	470
202	2000

⑤ Inductance Tolerance	
Y	±50%/-30%

⑥ Design Code	
B~Z	Design Code

DIMENSIONS & RECOMMENDED LAND PATTERN 尺寸及推荐焊盘

● PBCM0904L



Unit: mm

Series	Dimensions						Recommended Land Pattern			
	A	B	C	D	E	F	G Typ.	H Typ.	I Typ.	J Typ.
PBCM0904L	9.5 Max.	5.6 Max.	5.2 Max.	2.54±0.5	0.5 Typ.	5.5 Typ.	10.5	4.5	2.54	1.0

ELECTRICAL CHARACTERISTICS 特性规格表

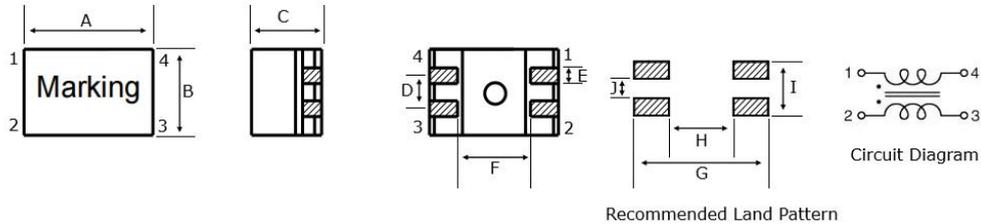
● PBCM0904L Series

Part Number	Inductance (μH)	Inductance Test Frequency	Leakage Inductance (nH)	DC Resistance (mΩ)	Rated Current (A)	Impedance (Ω)	Freq. range (MHz)	Rated Voltage (V)
	±50%/-30%	Hz/V	Typ.	Max.	Max.	Min.		Max.
PBCM0904L-6R0YB	6	100K/0.1	30	100	2.5	300	20-300	50
PBCM0904L-110YB	11	100K/0.1	80	120	0.5	160	20-300	50
PBCM0904L-250YB	25	100K/0.1	150	200	0.5	450	20-150	50
PBCM0904L-510YB	51	100K/0.1	200	300	0.5	800	20-100	50
PBCM0904L-101YB	100	100K/0.1	250	100	0.5	600	3-20	50
PBCM0904L-471YB	470	100K/0.1	280	280	0.5	1200	2-15	50
PBCM0904L-102YB	1000	100K/0.1	280	300	0.5	1800	1-10	50
PBCM0904L-222YB	2200	100K/0.1	290	400	0.5	3000	0.8-5	50
PBCM0904L-272YB	2700	100K/0.1	300	280	0.4	1500	0.8-5	50
PBCM0904L-302YB	3000	100K/0.1	300	520	0.35	1500	0.8-5	50
PBCM0904L-472YB	4700	100K/0.1	300	700	0.2	5000	0.5-3	50

- All data is tested based on 25 ambient temperature.
- Rated current the value of DC current when the temperature rise is $\Delta T40^{\circ}\text{C}$ ($T_a=25^{\circ}\text{C}$).
- Storage Temperature: 15°C up to 25°C , 65% RH max.

DIMENSIONS & RECOMMENDED LAND PATTERN 尺寸及推荐焊盘

● PBCM0905C



Unit: mm

Series	Dimensions						Recommended Land Pattern			
	A	B	C	D	E	F	G Typ.	H Typ.	I Typ.	J Typ.
PBCM0905C	9.2±0.3	6.0±0.3	5.0±0.3	2.54±0.2	1.0±0.1	5.7 Typ.	9.5	5.5	3.74	1.34

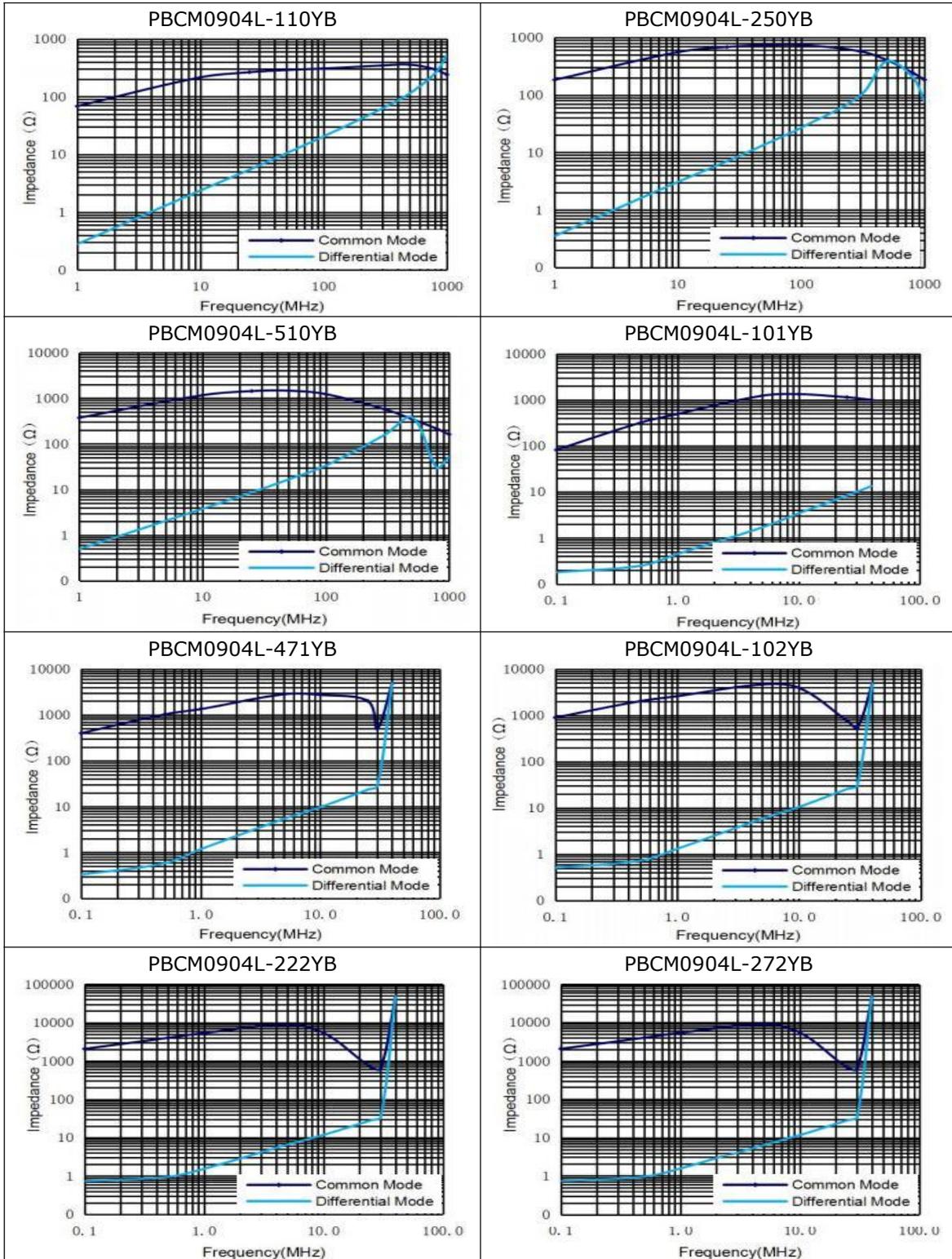
ELECTRICAL CHARACTERISTICS 特性规格表

● PBCM0905C Series

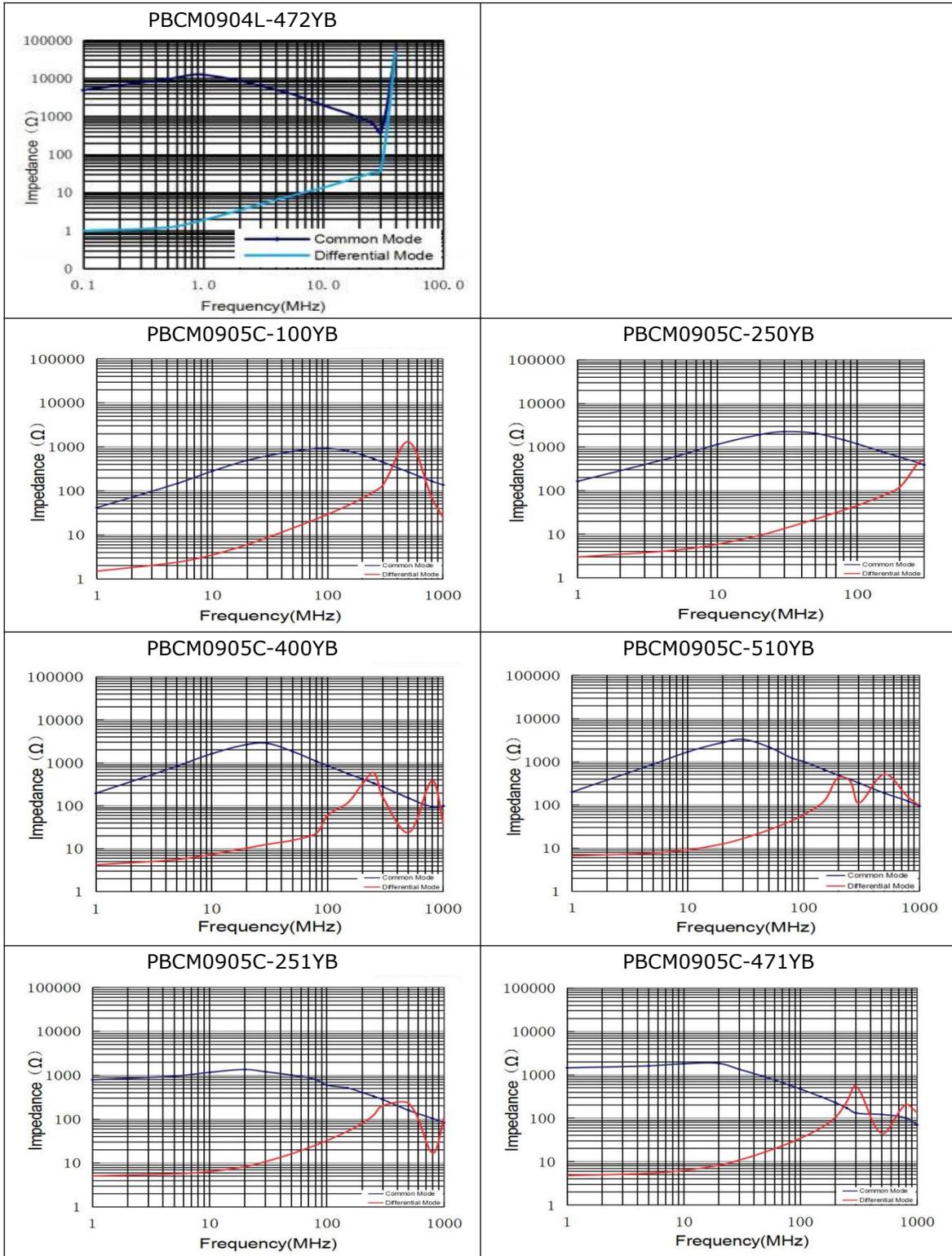
Part Number	Inductance (μH)	Inductance Test Frequency	Leakage Inductance (nH)	DC Resistance (mΩ)	Rated Current (A)	Impedance (Ω)	Freq. range (MHz)	Rated Voltage (V)
	±50%/-30%	Hz/V	Typ.	Max.	Max.	Min.		Max.
PBCM0905C-100YB	10	1K/0.1	55	80	1.6	300	20-200	50
PBCM0905C-250YB	25	1K/0.1	60	160	1	600	5-100	50
PBCM0905C-400YB	40	1K/0.1	80	250	0.9	800	5-100	50
PBCM0905C-510YB	51	1K/0.1	85	160	0.8	1000	5-50	50
PBCM0905C-251YB	250±50%	100K/5m	60	130	1.2	600	5-50	50
PBCM0905C-471YB	470±50%	100K/5m	72	140	1.1	800	1-50	50
PBCM0905C-501YB	500±50%	100K/5m	75	150	1	900	1-40	50
PBCM0905C-102YB	1000±50%	100K/5m	90	310	0.8	1000	1-30	50
PBCM0905C-202YB	2000±50%	100K/5m	130	420	0.6	3000	1-30	50
PBCM0905C-472YB	4700±50%	100K/5m	180	900	0.4	3000	0.5-5	50
PBCM0905C-652YB	6500±50%	100K/5m	280	1050	0.3	4000	0.3-2	50
PBCM0905C-103YB	10000±50%	10K/0.1	320	1150	0.26	4000	0.3-2	50

- All data is tested based on 25 ambient temperature.
- Rated current the value of DC current when the temperature rise is $\Delta T40^{\circ}\text{C}$ ($T_a=25^{\circ}\text{C}$).
- Storage Temperature: 15°C up to 25°C , 65% RH max.

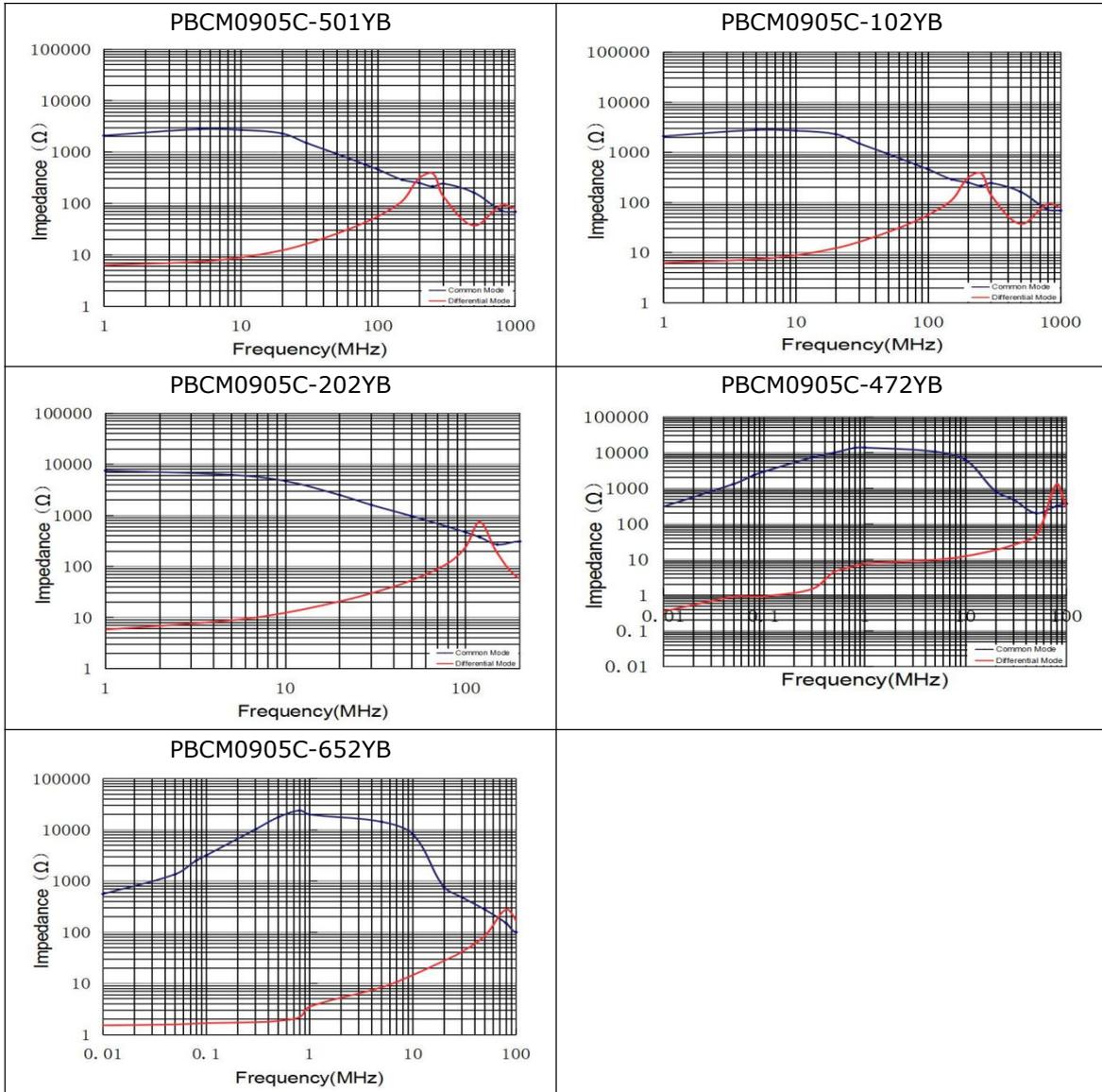
CHARACTERISTICS(REFERENCE) 特征曲线



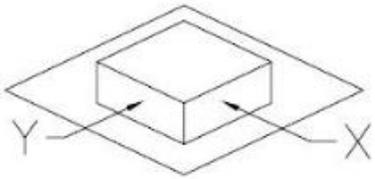
CHARACTERISTICS(REFERENCE) 特征曲线



CHARACTERISTICS(REFERENCE) 特征曲线

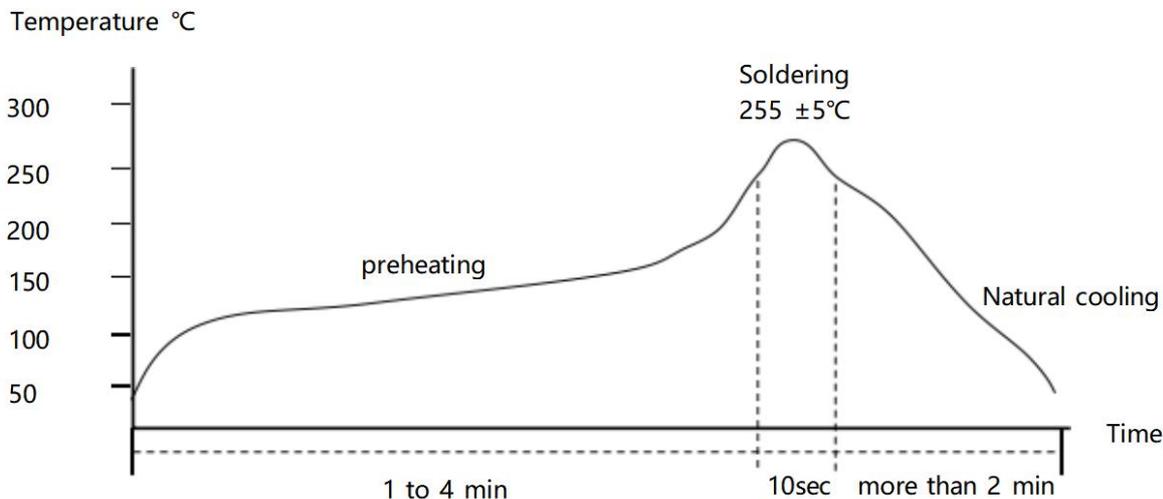


RELIABILITY TEST 可靠性测试

Operating Temperature	- 40 to +125 °C (Contain Heating coil)
Appearance Inspection	No external defects by visual inspection
Terminal Strength	 <p>After soldering , between copper plaet and terminals of coils , push in two directions of X , Y with standing 10N(1.02kg) for10+/-2 sec. Terminal should not peel off. (Refer to figure at right)</p>
Heat endurance of reflow soldering	Refer to figure
Insulating resistance	Over 10 MΩ at 50V D.C . between wire and core
Dielectric Strength	Apply at 0.5KV 1mA for 3S between wire and core
Temperature characteristics	Inductance coefficient (0~2,000) × 10 / °C (- 40~ + 125 °C)
Humidity characteristics	Inductance deviation within ± 10% , after 96 hours in 90~95% relative humidity at 40 ± 2 °C and 1 hours drying under normal condition

A test is made under the above mentioned condition , and it is kept for 2 hours in the normal

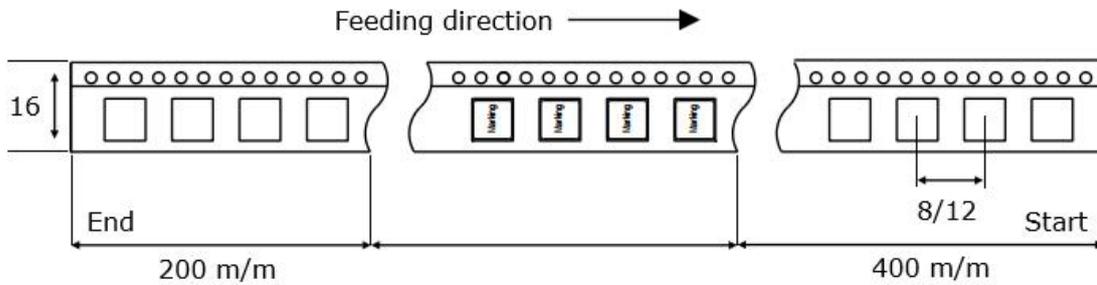
IR Reflow profile



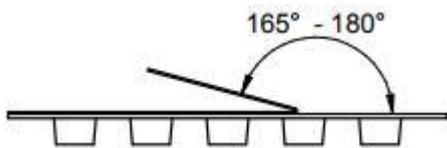
Temperature and humidity . After that , no mechanical and electrical defect should be found .

PACKING 包装

- Dimension of plastic taping: (Unit: mm)
The following dimensions are related to the actual fit of the machine, for reference only.
- PBCM0904-0905 Series



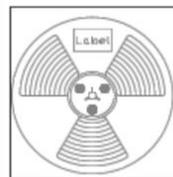
- Transparent carrier and cover tape.



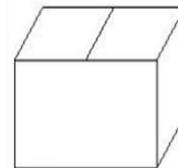
P/N	Tapewidth	Distance	Pull-of force
PBCM0904	16mm	8mm	10~120g
PBCM0905	16mm	12mm	10~120g



Reel



Inner Carton Quantity



Out Carton Quantity

Product Series	Reel	Inner Carton Quantity	Out Carton Quantity
PBCM0904	1500PCS	4500PCS	13500PCS
PBCM0905	1000PCS	3000PCS	9000PCS

■ SAFETY REMINDERS 注意事项

SAFETY REMINDERS

- 1. When the APV's products are used in occasions other than general electronic equipment, such as vehicle mounted, medical equipment, military, aerospace, etc., please be sure to contact the company's business department. In case of machine failure caused by exceeding the recommended use range of the company's products, the company will not bear relevant responsibilities
- 2. When the company's products are used outside the general electronic equipment, such as vehicle mounted, medical, military, aviation, aerospace and other environments, please contact the company's business department and put forward a request. Otherwise, the company will not bear any relevant responsibility for the machine failure caused by the use beyond the scope recommended by the company
- 3. Please pay attention to the storage conditions that temperature: below 15-25°C and humidity: 65% RH Max. If product is preserved for more than 6 months, the solderability of their terminals may be deteriorated..