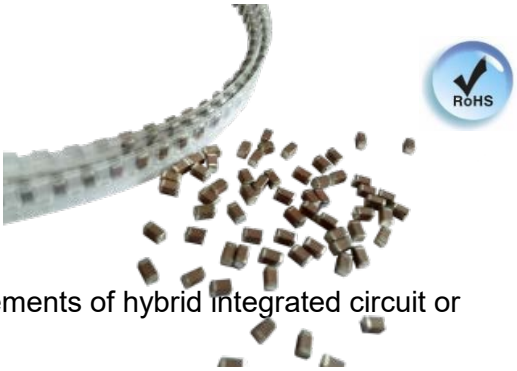


1. Capacitor characteristics and applications

1.1 FEATURES

- Size specification serial, suitable for surface mounting elements of hybrid integrated circuit or printed circuit;
- With high Q value, low ESR and high reliability characteristics;
- Low loss, high capacitance stability, the maximum working frequency up to 3GHz;
- Suitable for high frequency circuit, VHF-microwave section, radio frequency and amplifier circuit in all kinds of equipment;

1.2 Main performance indicators

- Temperature coefficient: NPO: 0 ± 30ppm /℃
- Capacitance drift: no more than ± 0.2% or ± 0.05 pF, take the larger one.
- Quality factor (Q value): greater than 2,000 when the frequency is 1 MHz / 1 KHz
- Insulation resistance: at 20℃: 100000M Ω
- Operating temperature: -55~125℃

2. Product model name

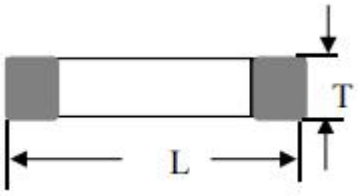
2.1 Specifications

CCHQ	2525	NPO	3RO	B	2D	N	T
Product appearance	size specifications	Media types	Nominal capacity (in pF)	Error level	rated voltage	tip type	pack form
CCHQ: High Q RF capacitor	0603 0708 0709 0805 0505 1111 2525 3838	NPO : 0 ±30ppm/℃	The first two digits are valid numbers, and the latter digit is 10 The power number of;	A :±0.05pF B :±0.10pF C :±0.25pF D :±0.50pF F :±1.0% G :±2.0% J :±5.0%	0J=6.3V 1A=10V 1C=16V 1D=20V 1E=25V 1V=35V 1H=50V 2H=500V 3H=5000V...	N: three-layer plating; S: all silver terminal	T: tape packaging; Bor vacancy:, loose packaging

2.2 Corresponding relationship between Jinpei product series and ATC product series

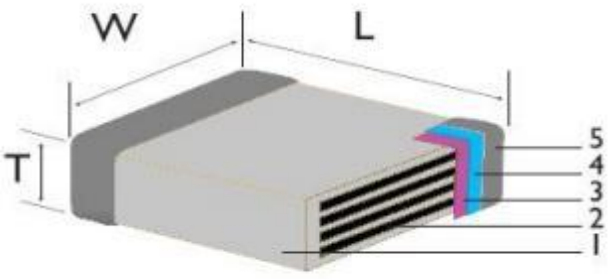
Jinpe i Series of specifications	Corresponding to the ATC series specifications
CCHQ-0603	ATC 600S
CCHQ-0805	ATC 600F
CCHQ-0505	ATC 100A /ATC 700A
CCHQ - 1111	ATC 100B
CCHQ-2525	ATC 100C
CCHQ-3838	ATC 100E

3. Product dimensions



model		Dimensions (mm)		
The British system said	Metric representation	L	W	T_{max}
0603	1608	1.52±0.25	0.76±0.25	1.01
0708	1821	1.78±0.15	2.03±0.25	3.04
0709	1823	1.78±0.25	2.29±0.25	2.92
0805	2012	2.00±0.25	1.25±0.25	1.45
0505	1212	$1.40^{+0.38}_{-0.25}$	1.40±0.38	1.45
1111	2828	$2.79^{+0.51}_{-0.25}$	2.79±0.38	2.59
2525	6363	$5.84^{+0.51}_{-0.25}$	6.35±0.38	3.68
3838	9696	$9.65^{+0.38}_{-0.25}$	9.65±0.25	4.50

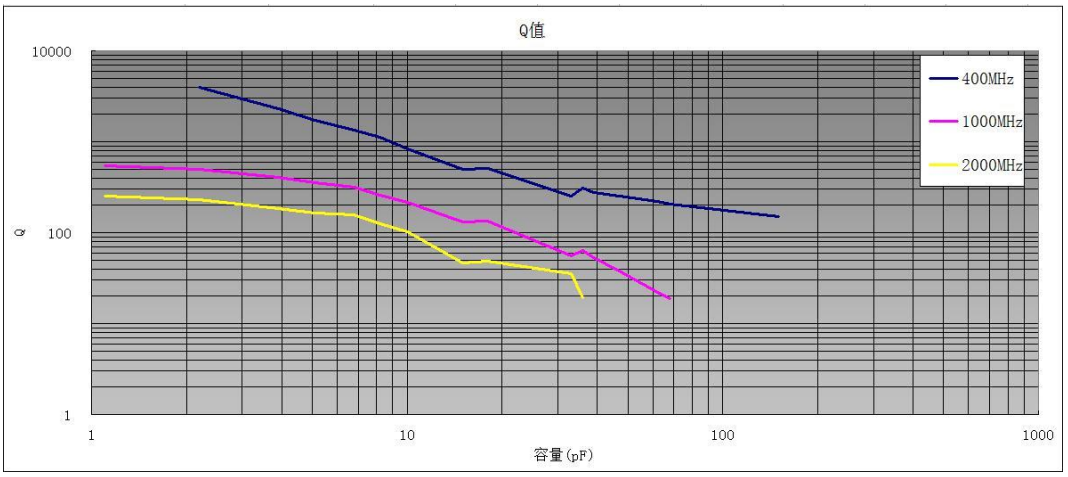
Note: Products that meet customer requirements can be designed according to the special requirements of customers.



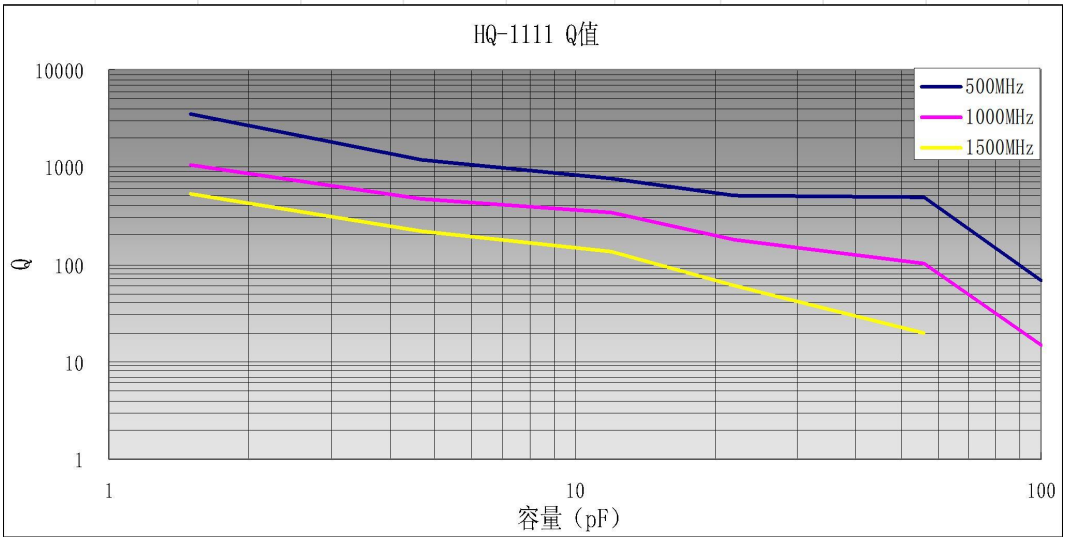
order number	name
1	ceramic dielectric
2	inner electrode
3	External electrode
4	nickel dam
5	Tin layer

4. Characteristic curve

CCHQ-0505 Q value



CCHQ-1111 Q value pair tolerance value



Note: The above chart is obtained using Agilent 4287A test for reference only and does not represent on-site inspection.

5. Capacity range

5. Technical requirements and test conditions

CCH Q-0603, specification and value table

Tolerance code	Tolerance (pF)	accuracy	Maximum direct current operating voltage (V)	Tolerance code	Tolerance (pF)	accuracy	Maximum direct current operating voltage (V)	Tolerance code	Tolerance (pF)	accuracy	Maximum direct current operating voltage (V)	Tolerance code	Tolerance (pF)	accuracy	Maximum direct current operating voltage (V)
0R1	0.1	B,C	250	1R7	1.7	B,C, D	250	6R2	6.2	B,C, D	250	300	30	F,G, J,K, M	250
0R2	0.2			1R8	1.8			6R8	6.8			330	33		
0R3	0.3			1R9	1.9			7R5	7.5			360	36		
0R4	0.4			2R0	2			8R2	8.2			390	39		
0R5	0.5	B,C, D		2R1	2.1			9R1	9.1			430	43		
0R6	0.6			2R2	2.2			100	10	F,G, J,K, M		470	47		
0R7	0.7			2R4	2.4			110	11			510	51		
0R8	0.8			2R7	2.7			120	12			560	56		
0R9	0.9			3R0	3			130	13			620	62		
1R0	1			3R3	3.3			150	15			680	68		
1R1	1.1			3R6	3.6			160	16			750	75		
1R2	1.2			3R9	3.9			180	18			820	82		
1R3	1.3			4R3	4.3			200	20			910	91		150
1R4	1.4			4R7	4.7			220	22			101	100		
1R5	1.5			5R1	5.1			240	24						
1R6	1.6			5R6	5.6			270	27						

5.2 0708 Specification capacity value table

CCH Q-0708, specification capacity table

Tolerance code	Tolerance (pF)	accuracy	Maximum direct current operating voltage (V)	Tolerance code	Tolerance (pF)	accuracy	Maximum direct current operating voltage (V)	Tolerance code	Tolerance (pF)	accuracy	Maximum direct current operating voltage (V)
1R0	1	B,C,D	500	3R9	3.9	B,C,D	500	220	22	F,G,J, K	500
1R1	1.1			4R3	4.3			240	24		
1R2	1.2			4R7	4.7			270	27		
1R3	1.3			5R1	5.1			300	30		
1R4	1.4			5R6	5.6			330	33		
1R5	1.5			6R2	6.2			360	36		
1R6	1.6			6R8	6.8			390	39		
1R7	1.7			7R5	7.5			430	43		
1R8	1.8			8R2	8.2			470	47		
1R9	1.9			9R1	9.1			510	51		
2R0	2			100	10	F,G,J,K		560	56		
2R1	2.1			110	11			620	62		
2R2	2.2			120	12			680	68		
2R4	2.4			130	13			750	75		
2R7	2.7			150	15			820	82		
3R0	3			160	16			910	91		
3R3	3.3			180	18			101	100		
3R6	3.6			200	20						

5.3 0709 Specification value table

CCH Q-0709, specification and value table

Tolerance code	Tolerance (pF)	accuracy	Maximum direct current operating voltage (V)	Tolerance code	Tolerance (pF)	accuracy	Maximum direct current operating voltage (V)	Tolerance code	Tolerance (pF)	accuracy	Maximum direct current operating voltage (V)
1R0	1	B,C,D	500	3R9	3.9	B,C,D	500	220	22	F,G,J, K	500
1R1	1.1			4R3	4.3			240	24		
1R2	1.2			4R7	4.7			270	27		
1R3	1.3			5R1	5.1			300	30		
1R4	1.4			5R6	5.6			330	33		
1R5	1.5			6R2	6.2			360	36		
1R6	1.6			6R8	6.8			390	39		
1R7	1.7			7R5	7.5			430	43		
1R8	1.8			8R2	8.2			470	47		
1R9	1.9			9R1	9.1			510	51		
2R0	2			100	10	F,G,J,K		560	56		
2R1	2.1			110	11			620	62		
2R2	2.2			120	12			680	68		
2R4	2.4			130	13			750	75		
2R7	2.7			150	15			820	82		
3R0	3			160	16			910	91		
3R3	3.3			180	18			101	100		
3R6	3.6			200	20						

5.4 0805 Specification capacity value table

Tolerance code	Tolerance (pF)	accuracy	Maximum direct current operating voltage (V)	Tolerance code	Tolerance (pF)	accuracy	Maximum direct current operating voltage (V)	Tolerance code	Tolerance (pF)	accuracy	Maximum direct current operating voltage (V)	Tolerance code	Tolerance (pF)	accuracy	Maximum direct current operating voltage (V)
0R2	0.2	B,C	250	1R9	1.9	B,C, D	250	9R1	9.1	B,C	250	510	51	F,G, J,K, M	250
0R3	0.3			2R0	2			100	10	F,G, J,K, M		560	56		
0R4	0.4			2R1	2.1			110	11			620	62		
0R5	0.5	B,C, D		2R2	2.2			120	12			680	68		
0R6	0.6			2R4	2.4			130	13			750	75		
0R7	0.7			2R7	2.7			150	15			820	82		
0R8	0.8			3R0	3			160	16			910	91		
0R9	0.9			3R3	3.3			180	18			101	100		
1R0	1			3R6	3.6			200	20			111	110		
1R1	1.1			3R9	3.9			220	22			121	120		
1R2	1.2			4R3	4.3			240	24			131	130		
1R3	1.3			4R7	4.7			270	27			151	150		
1R4	1.4			5R1	5.1			300	30			161	160		150
1R5	1.5			5R6	5.6			330	33			181	180		
1R6	1.6			6R2	6.2			360	36			201	200		
1R7	1.7			6R8	6.8			390	39			221	220		100
1R8	1.8			7R5	7.5			430	43			241	240		
				8R2	8.2			470	47						

CCHQ-0805, specification and value table

5.5 0505 Specification capacity value table

CCH Q-0505, specification and value table

Tolerance code	Tolerance (pF)	accuracy	Maximum direct current operating voltage (V)	Tolerance code	Tolerance (pF)	accuracy	Maximum direct current operating voltage (V)	Tolerance code	Tolerance (pF)	accuracy	Maximum direct current operating voltage (V)	Tolerance code	Tolerance (pF)	accuracy	Maximum direct current operating voltage (V)
0R2	0.2	B,C	250	1R9	1.9	B,C,D	250	9R1	9.1	B,C	250	510	51	F,G,J,K,M	250
0R3	0.3			2R0	2			100	10	F,G,J,K,M		560	56		
0R4	0.4			2R1	2.1			110	11			620	62		
0R5	0.5	B,C,D		2R2	2.2			120	12			680	68		
0R6	0.6			2R4	2.4			130	13			750	75		
0R7	0.7			2R7	2.7			150	15			820	82		
0R8	0.8			3R0	3			160	16			910	91		
0R9	0.9			3R3	3.3			180	18			101	100		
1R0	1			3R6	3.6			200	20			111	110		
1R1	1.1			3R9	3.9			220	22			121	120		
1R2	1.2			4R3	4.3			240	24			131	130		
1R3	1.3			4R7	4.7			270	27			151	150		150
1R4	1.4			5R1	5.1			300	30			161	160		
1R5	1.5			5R6	5.6			330	33			181	180		
1R6	1.6			6R2	6.2			360	36			201	200		100
1R7	1.7			6R8	6.8			390	39			221	220		
1R8	1.8			7R5	7.5			430	43						
				8R2	8.2			470	47						

5.6 1111 Specification capacity value table

CCH Q-1111, specification capacity table

Tolerance code	Tolerance (pF)	accuracy	Maximum direct current operating voltage (V)	Tolerance code	Tolerance (pF)	accuracy	Maximum direct current operating voltage (V)	Tolerance code	Tolerance (pF)	accuracy	Maximum direct current operating voltage (V)	Tolerance code	Tolerance (pF)	accuracy	Maximum direct current operating voltage (V)
0R2	0.2	B,C	1500	2R4	2.4	B,C, D	1500	200	20	F,G, J,K, M	1500	151	150	F,G ,J, K, M	500
0R3	0.3			2R7	2.7			220	22			161	160		
0R4	0.4			3R0	3			240	24			181	180		
				3R3	3.3			270	27			201	200		
0R5	0.5	B,C, D		3R6	3.6			300	30			221	220		
0R6	0.6			3R9	3.9			330	33			241	240		
0R7	0.7			4R3	4.3			360	36			271	270		
0R8	0.8			4R7	4.7			390	39			301	300		
0R9	0.9			5R1	5.1			430	43			331	330		
1R0	1			5R6	5.6			470	47			361	360		
1R1	1.1			6R2	6.2			510	51			391	390		
1R2	1.2			6R8	6.8			560	56						
1R3	1.3			7R5	7.5							431	430		250
1R4	1.4			8R2	8.2			620	62		1000	471	470		
1R5	1.5			9R1	9.1			680	68			511	510		
1R6	1.6							750	75			561	560		
1R7	1.7			100	10	F,G, J,K, M		820	82			621	620		
1R8	1.8			110	11			910	91			681	680		
1R9	1.9			120	12							751	750		
2R0	2			130	13			101	100		500	821	820		
2R1	2.1			150	15			111	110						
2R2	2.2			160	16			121	120			911	910		
				180	18			131	130			102	1000		
												112	1100		100

5.7 2525 Specification capacity value table

CCH Q-2525, specification capacity table

Tolerance code	Tolerance (pF)	accuracy	Maximum direct current operating voltage (V)	Tolerance code	Tolerance (pF)	accuracy	Maximum direct current operating voltage (V)	Tolerance code	Tolerance (pF)	accuracy	Maximum direct current operating voltage (V)	Tolerance code	Tolerance (pF)	accuracy	Maximum direct current operating voltage (V)
1R0	1	B ,C	3600	5R 1	5.1	B,C,D	3600	360	36	F,G, J,K, M	3600	241	240	F,G ,J, K , M	2000
1R1	1.1			5R 6	5.6			390	39			271	270		
1R2	1.2			6R 2	6.2			430	43			301	300		
1R3	1.3			6R 8	6.8			470	47			331	330		
				7R 5	7.5			510	51			361	360		
1R4	1.4	B,C, D		8R 2	8.2			560	56			391	390		1000
1R5	1.5			9R 1	9.1			620	62			431	430		
1R6	1.6			100	10	F,G, J,K, M		680	68			471	470		
1R7	1.7			110	11			750	75			511	510		
1R8	1.8			120	12			820	82			561	560		
1R9	1.9			130	13			910	91			621	620		
2R 0	2			150	15			101	100			681	680		500
2R 1	2.1			160	16			111	110			751	750		
2R 2	2.2			180	18			121	120			821	820		
2R 4	2.4			200	20							911	910		
2R 7	2.7			220	22			131	130		2000	102	1000		
3R 0	3			240	24			151	150			112	1100		
3R 3	3.3			270	27			161	160			122	1200		
3R 6	3.6			300	30			181	180			152	1500		
3R 9	3.9			330	33			201	200			182	1800		
4R 3	4.3							221	220						
4R 7	4.7														

5.8 3838 Specification capacity value table

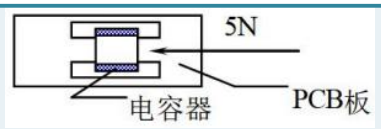
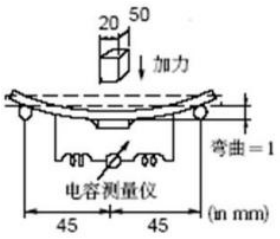
CCH Q-3838, specification and value table

Tolerance code	Tolerance (pF)	accuracy	Maximum direct current operating voltage (V)	Tolerance code	Tolerance (pF)	accuracy	Maximum direct current operating voltage (V)	Tolerance code	Tolerance (pF)	accuracy	Maximum direct current operating voltage (V)	Tolerance code	Tolerance (pF)	accuracy	Maximum direct current operating voltage (V)
1R0	1	B ,C	7200	8R2	8.2	B,C, D	7200	910	91	F,G, J,K, M	3600	112	1100	F,G ,J, K, M	1000
1R1	1.1			9R1	9.1			101	100			122	1200		
1R2	1.2			100	10	F,G, J,K, M		111	110			152	1500		
1R3	1.3			110	11			121	120			182	1800		500
1R4	1.4	B,C, D		120	12			131	130			202	2000		
1R5	1.5			130	13			151	150			222	2200		
1R6	1.6			150	15			161	160			242	2400		
1R7	1.7			160	16			181	180			272	2700		
1R8	1.8			180	18			201	200			302	3000		
1R9	1.9			200	20			221	220			332	3300		
2R0	2			220	22			241	240			362	3600	G,J ,K, M	250
2R1	2.1			240	24			271	270			392	3900		
2R2	2.2			270	27			301	300			432	4300		
2R4	2.4			300	30			331	330			472	4700		
2R7	2.7			330	33			361	360			512	5100		
3R0	3			360	36			391	390			562	5600		
3R3	3.3			390	39			431	430	F,G, J,K, M	1500	622	6200		
3R6	3.6			430	43			471	470			682	6800		
3R9	3.9			470	47			511	510						
4R3	4.3			510	51			561	560						
4R7	4.7			560	56			621	620						
5R1	5.1			620	62			681	680						
5R6	5.6			680	68			751	750						
6R2	6.2			750	75			821	820						
6R8	6.8			820	82			911	910						
7R5	7.5							102	1000						

6. Technical requirements and test conditions

project	technical specifications	test method			
operating temperature range	(-55 ~ +125)℃				
surface	no significant defect	eyeballing			
Electrostatic capacity of Cap acitance	Within the specification error range	Test frequency	test voltage	ambient temperature	
		1MHz (±10%)	(1.0±0.2)Vrms	(25±2)℃	
figure of merit (Q price)	Greater than 2,000 at a frequency of 1 MHz	Test method: the same as the "static electricity capacity"			
insulation resistance (I.R.) Insulation Resistance	≥100000M Ω	test voltage	testing time	Charge and discharge current	environment
		UR	(60±5) sec	≤50mA	Temperature (25 ± 2)℃ humidity <75%
Electric resistance strength of the medium (D.W.V.) D ielectric W ithstanding Voltag e	Media should not be broken down or damaged	test voltage		time	Charge and discharge current
		UR<200V 2.5UR200V ≤UR≤1000V 1.5URUR＞1000V 1.2UR		(1~5) sec	≤50mA
Capacity temperature coefficient or temperature characteristics	NPO : (0±30) ppm /℃	In the following temperature order (△ C to T 3)			
		step	temperature (℃)		
		T 1	20±2		
		T 2	-55±3		
		T 3	20±2		
		T 4	125±2		
		T 1	20±2		
sold erability	surface	No visible damage occurred, The upper tin rate is 95%	Soak the capacitor in ethanol and rosin (25% by weight) solution and remove in (80~120) sec (10~30) at ℃ temperature and then dip in the solder solution. Tin immersion temperature: (235 ± 5) ℃; tin immersion speed: (25 ± 0.25) mm / sec tin immersion time: (2 ± 0.5) sec		

6. Technical requirements and test conditions

Welding heat resistance	surface	No visible damage, with a tin loading rate of 95%	Absolve the capacitor in ethanol and rosin (25% weight) solution, remove and preheat at 100~200℃ for 10 ± 2min, and then dip in the solder solution. Tin immersion temperature: 260 ± 5℃; tin immersion speed: 25±0.25mm/s Tin immersion time: 5 ± 1 sec After removal, it was cleaned with solvent and observed under a microscope at 10 times more. 24 ± 2 hrs before measurement.
	△C/C	± 0.5% or ± 0.5 pF, taking the larger ones	
	D.F.	The same as the initial standard	
	I.R.	The same as the initial standard	
End electrode adhesive strength	The end electrode is not stripped, and there is no visible damage in appearance		Applied thrust: 5N Time: 10 + 1 sec Speed: 1 mm/sec 
Anti-bending strength	surface	No visible damage	Test substrate: PCB Bending depth: 1mm Pressure speed: 1 mm/sec. The measurement shall be made in the bent state. 
	△C/C	≤+5%	
temperature cycle	surface	No visible damage	Cyops: 5 times, one cycle in 4 steps:
	△C/C	± 1% or ± 1 pF Take more of the two	
	D.F.	The same as the initial standard	
	I.R.	The same as the initial standard	24,24 + 2 hrs before measurement.
Steady state wet test	surface	No visible damage	temperature:40±2℃ Humidity: 90 ~ 95% RH Time: 500 + 24 / -0 hours Placing conditions: room temperature Hold time: 24 hours
	△C/C	± 2% or ± 1 pF Take more of the two	
	D.F.	≤Two times the initial standard	
	I.R.	Ri≥2500 MΩ or Ri * CR> 25S	
life test	surface	No visible damage	
	△C/C	± 2% or ± 1 pF Take more of the two	
	D.F.	≤Two times the initial standard	Charge and discharge current:≤50mA temperature:(125±3)℃ Time: 96 ± 4 hours Placing conditions: room temperature Hold time: 24 hours
	I.R.	Ri≥4000 MΩ or Ri * CR> 40S	

stage	temperature	Time
Step 1	-55±3	30
Step 2	20±2	3
Step 3	-125±3	30
Step 4	20±2	3

rated voltage	Apply voltage
Ur<500V	2Ur
500V ≤Ur ≤1000V	1.5Ur
Ur >1000V	1.2Ur

Note: When testing the electric resistance strength of the capacitor, in order to exclude the influence of the external environment, when the test voltage exceeds 1000 Vdc, the capacitor should be soaked in insulating oil for testing.

7. Precautions for use

7.1 Notes before use:

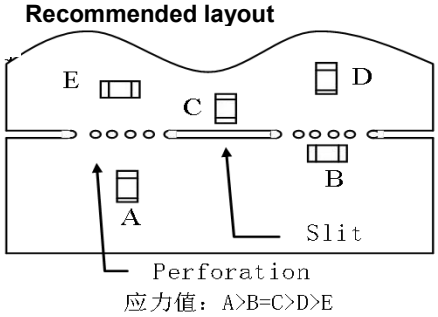
The RF-HQ-MLCC chip may be damaged under the harsh working conditions that go beyond the relevant statement, so first consider applying the relevant instructions in this statement.

7.2 Design of the PC board

7.2.1 The amount of solder used will affect the ability of the chip to resist mechanical stress, which may cause the breakage or cracking of RF-HQ-MLCC. Therefore, when designing the substrate, we must carefully consider the size and configuration of the welding pad, which has a decisive role in the amount of the solder composed of the substrate.

7.2.2 When designing the position of the pad and SMD RF-HQ-MLCC, the stress shall be reduced to the lowest point and the MLCC shall be installed in the least affected position on the PC plate.

Recommended layout



7.3 Automatic installation should consider the problems

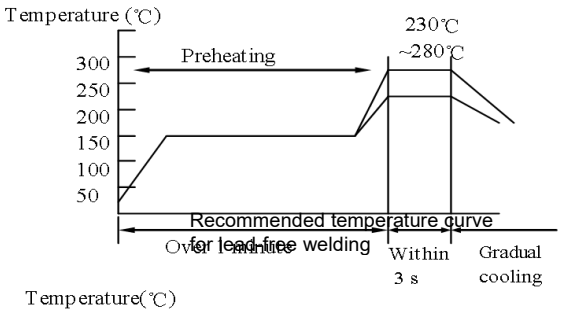
If the tube drops beyond the lowest limit, it will too excessive pressure on RF-HQ-MLCC, which leads cause RF-HQ-MLCC rupture. When lowering the tube, pay attention to the following points:

7.3.1 After correcting the deviation of the PC plate, the low limit of the suction tube should be adjusted to the surface horizontal position of the PC plate.

7.3.2 The suction pressure shall be adjusted between 1 and 3N.

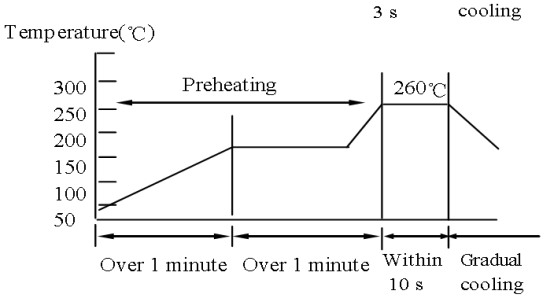
7.3.3 In order to reduce the deformation degree of the PC plate caused by the impact force of the suction, the support nail shall be placed under the PC plate.

Hand-welded temperature curve



7.4 Welding

7.4.1 RF-HQ-MLCC is a combination of ceramic and metal. As a ceramic body, especially the large size ceramic body, its own thermoplasticity is poor, the response to heat is relatively slow, by the cold and hot situation, the ceramic body is easy to crack. It is recommended to conduct continuous preheating for more than 1 minute before welding.



7.4.2 The interior of the RF-HQ-MLCC is a metal electrode, which is thermoplastic and responds responsive to heat. Therefore, in the case of heat, the metal part and the ceramic part must have a certain degree of inconsistent expansion, resulting in internal stress, easy to cause porcelain cracking. It is recommended to conduct continuous preheating for more than 1 minute before welding.

7.4.3 For manual welding, the maximum diameter of the tip using constant temperature iron is 1.0mm and the maximum power is 25 watts; the iron shall not directly touch the MLCC element.

7.4.4 Avoid crest welding for specifications 1111 and above.

7.5 Cleaning

7.5.1 The temperature difference between the components and the cleaning process should not be greater than 100℃.

7.5.2 In the case of ultrasonic cleaning, the output power will make the PC plate withstand excessive vibration, which will cause the MLCC or welding point cracking, or reduce the strength of the end electrode. Therefore, special attention should be paid to the following points:

Ultrasonic output: less than 20W / L; ultrasonic frequency: less than 40 KHz; ultrasonic cleaning time: 5 minutes or less

7.6 Cut the PC plate

7.6.1 After installing MLCC and other components, note that not any force should be applied to the PC board. The RF-HQ-MLCC cannot be subjected to excessive mechanical impact.

7.6.2 The segmentation of the board cannot be divided by hand, and appropriate equipment should be used.

7.7 Storage method

To maintain the weldability of the end electrodes and to keep the packaging materials in good condition, the recommended storage conditions are as follows:

Storage temperature: 5-40℃; storage relative humidity: 20-70% RH

RF-HQ-MLCC end welds will decrease over time, so RF-HQ-MLCC should be used within 6 months from the date of shipment.

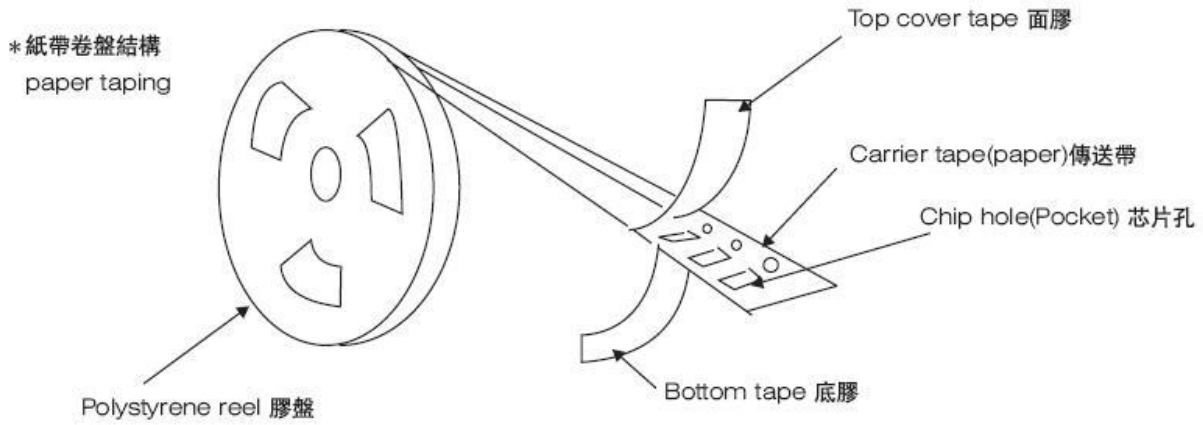
8. Product packaging

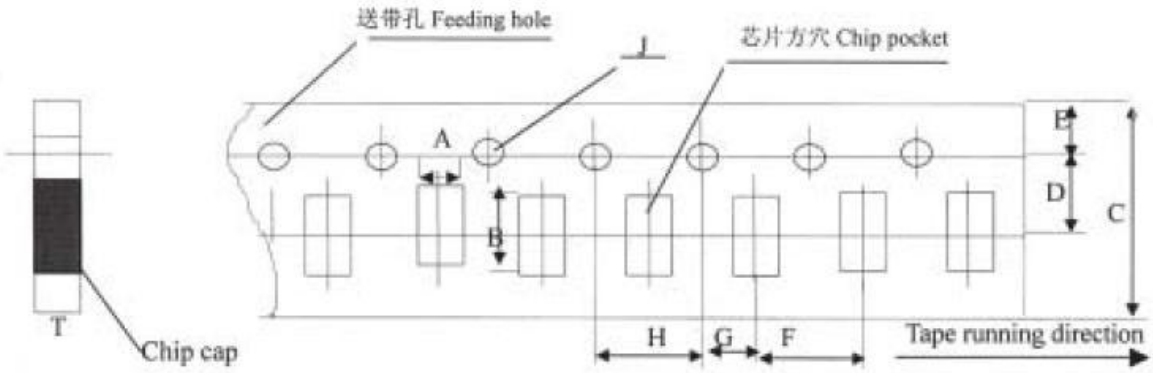
8.1 bag bulk

specifications	bulk	remarks
0603	5000	Packaging form and quantity can be determined according to the customer's requirements
0709	2000	
0805	5000	
0505	5000	
1111	2000	
2525	100	
3838	50	

8.2 Paper tape packaging

8.2.1 Paper tape coil structure

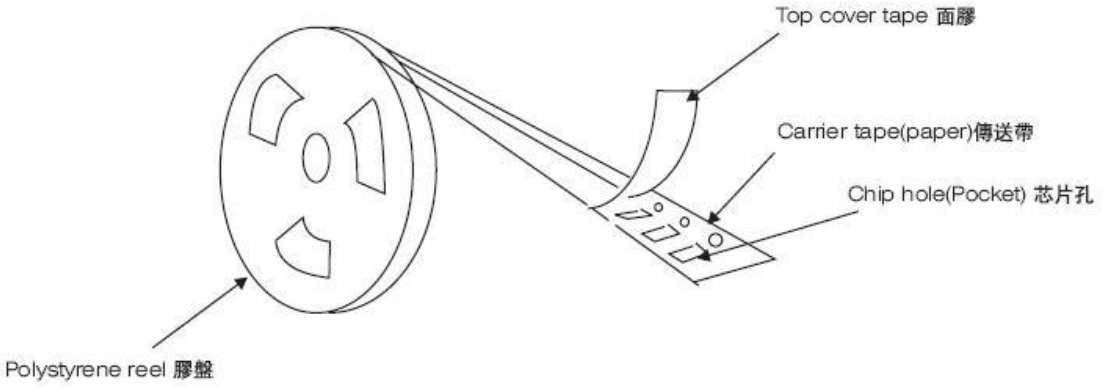


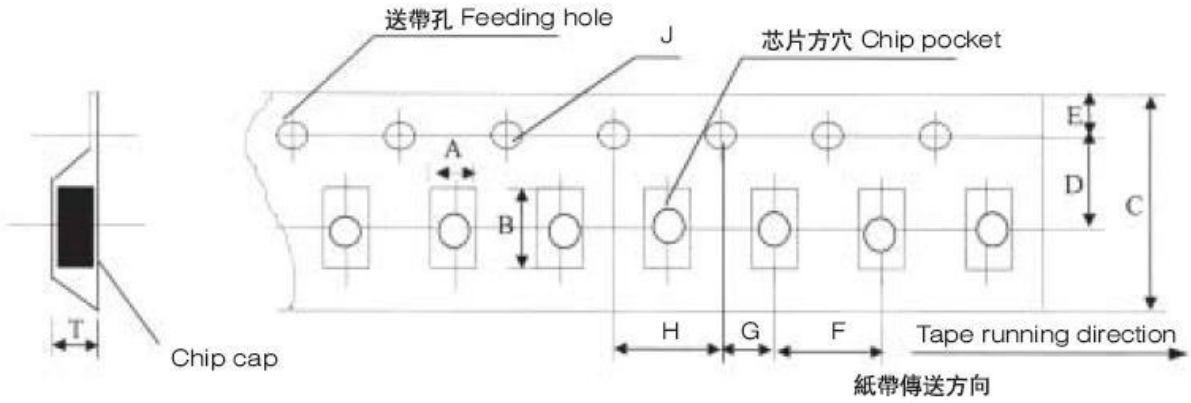


8.3 Plastic tape packaging

8.3.1 Plastic tape coil structure

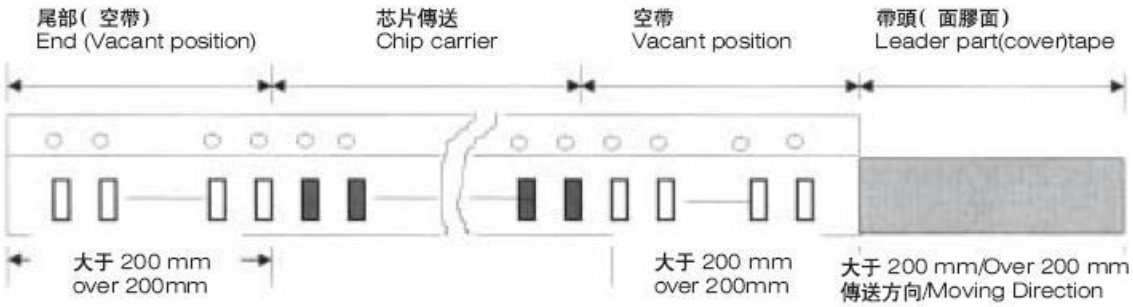
*塑膠卷盤結構
embossed taping





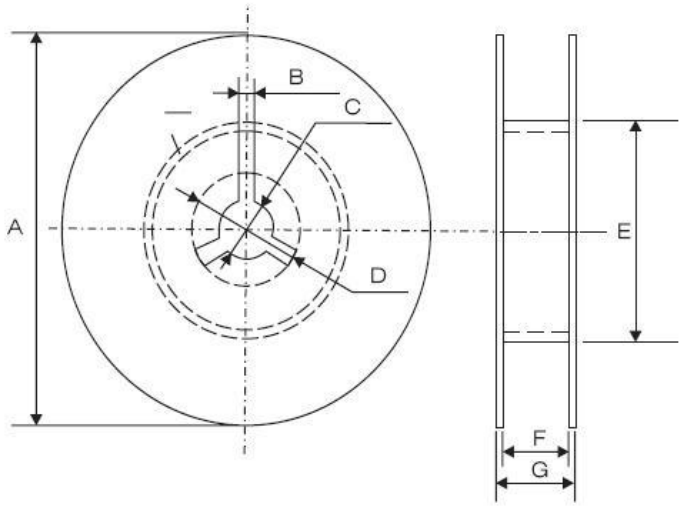
8.4 Front and rear structure of the conveyor belt

*傳送帶的前后結構
Structure of leader part and end part of the carrier paper



8.5 Reel dimensions

*卷盘尺寸 Reel Dimensions (unit:mm)



A	B	C	D	E	F	G
Φ 178.00±2.00	3.00	Φ13.00±0.50	Φ21.00±0.80	Φ 50.00 or greater	10.00±1.50	12Max
Φ 330.00±2.00	3.00	Φ13.00±0.50	Φ21.00±0.80	Φ 50.00 or greater	10.00±1.50	12Max

8.6 Ribbon preparation method

8.6.1 The belt of the packaging capacitor is wound clockwise. When the belt is pulled from the top to the down direction, the transfer hole is on the right side of the belt.

8.6.2 For the front end of the strip, leave at least 5 spaced strips.

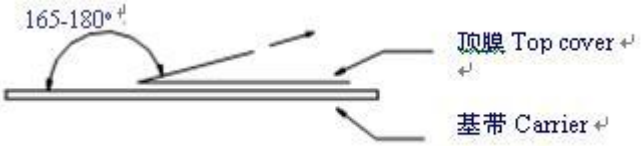
8.6.3 When compiling the tape, the lead tape part or blank part must be reserved according to the figure below.

8.6.4 The number of product errors in the installation of the disk must be less than 0. 1% of the number or 1 per disk, discontinuous errors.

8.6.5 The upper tape and the lower tape shall not exceed the edge of the tape and shall not block the transfer hole.

8.6.6 The cumulative error of the transmission hole is within 10 spacing: ± 0.3 mm.

8.6.7 The stripping moment of the upper tape shall be within 0.1 to 0.7 Newton as shown in the following below.



9. Test results of product prohibited substances About RoHS

All products comply with the RoHS directive:

- Lead (pb) (＜1000ppm)
- Mercury (Hg) (＜1000ppm)
- Cadmium (cd) (＜100ppm)
- Hexavalent Chromium Content (Cr 6+) (＜1000ppm)
- Polybrominated Biphenyls (PBBs) (＜1000ppm)
- Polybrominated diphenyl ethers (PBDE) (＜1000ppm)

Mark the “RoHS” logo or “GP” mark on the product label if necessary