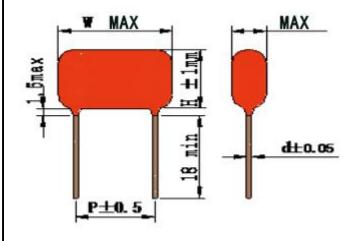


SPECIFICATIONS FOR APPROVAL

ITEM	Metallized Polypropylene Film Capacitor	
PART NO.	CBB21 155K630V P27.5 MP155K630DP27.5-002	

1 Dimension (mm) Form 1											
	CAP	D 1/	DF	TOL			Pro	duct Dim	nensions		
号 item		R. V	(1KHZ)	±%	W	Н	Т	Р	L	φd±	
	(uF)	(VDC)	≦%	± 70	(max)	(max)	(max)	(±0.8)	(±2)	0.05	
MP155K630DP27.5-002	1.5uF	630V	0.10	10	31	21	12	27.5	22	0.8	V



(laser printing) CBB21 155K630V



(Code)	I	П	Ш	IV	V	X
(Forming shapes)	A B	A B	A B B	A B	p ¬	A A
Carlo and the	Pa	≥F	Ps	≤F	P	P=F
(Applicable range)	0mm≤P-F	3mm≤P-F	3mm≤F-P	0mm≤F-P		
	≤3mm	≤8mm	≤5mm	≤3mm		
:		1 10				
Dimensionstandard)	A≤5.0m	m; B allow	deviation±0.	5mm; F all	ow deviation	± 1.0mm;



1. Product features and Usage
1.1 Product features:
1, Mini Size , Good self healing;
2. Low loss at high frequency ,low temperature rise; High impact strength;
3. Good pressure resistance and durability during High frequency ac
1.2 The main purpose:
High frequency, direct current, alternating current and pulse high current situations. Such as: lamps,
monitor equipment, power supply, etc
2. Reference standard
GB2693
IEC384-1
GB10190
SJ/T10353
GB2693
IEC384-1
GB10190



polypropylene film dielectric dc fixed capacitor》;

SJ/T10353 《Detailed specification for electronic components: CBB21Type Metallized polypropylene film dielectric dc fixed capacitor Evaluate level E》;

3. Number rule and product naming method

3.1 Number rule

3.11 Capacitance code representation method:

code	102	103	104	105
μF	0.001	0.01	0.1	1.0

3.12 Capacitance tolerance:

tolerance	±2%	±5%	±10%	±20%
symbol	G	J	К	М

4. Shape marks and geometric dimensions

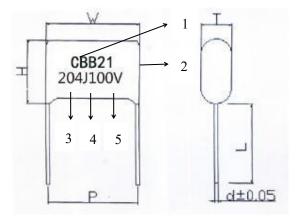


4.1 Capacitors marks can be marked

1.Product model; 2.Nominal capacitance; 3.Allowable capacitance

deviation; 4. Rated voltage,

For example



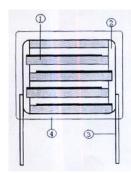
4.2 Cosmetic requirement

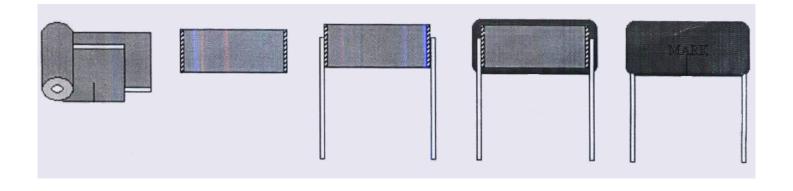
The mark is correct, clear and readable, no

obvious damage, pinhole bubble, the outlet line have no serious damage.

4.3 Structure drawing

- 1. Metallized polypropylene film
- 1. pray metallized layer
- 2. CP Wire
- 3. Epoxy resin







5. Technical re uirement (Form 2q)

NO	article	perform	ance requirement	test method
5.1	temperature range	- 40°C^	-+105℃	
5.2	related voltage U _R DC	100V 250V、400V、	450V、630V、1000V	
5.3	Capacitance range	0.0010µ	F ~8.2μF	
5.4	Capacitance tolerance deviation	J(±5%) K(±10%)		1KHz, 1V
5.5	Loss tangent	tgδ≤0.1% (20°C±5 1KHz)		20℃± 1KHz, 1V
5.6	Withstand voltage	between the pins	No breakdown or arc	testing voltage: 1.5UR duration time: 1~5sec



		pins	No	testing voltage: 2UR
		and outside	breakdown or arc	duration time: 60sec
5.7	Insulation resistance	C≤0.33μF, ≥15000 C>0.33μF, ≥7500S		100V charge 1min
				Welding groove
	Weld	上	Γhe tin area Beyond	method Ta, Way 1
5.8	ability	90%		Solder temperature: 260±
				5℃
				Dipping time: 2.0±0.5S
		a. pores, bubbles, v	No burrs, white.	
		L	ead is no long paint,	
5.9	annoaranco	no oxidation, no	bending, the same	visual inspection
	appearance	length, the same	e diameter.	
		c.		
		d. Clear and correc	ct marking is in the	
		middle, no ink, r	no characters, etc.	



6. Test requirements: Form 3

NO	article	Performance requirements	Test method
6.1	Initial measurement	Capacitance Loss tangent: 1KHz	
	Leading-out strength	The appearance have No visible damage	Pull test: Ua1: Pull: 0.5 < φd≤0.8mm; 10N Bend test Ub: Double bending torsion in each direction; Double successive torsion 180°
	Welding heat resistant Last measurement	The appearance have No visible damage, clear mark capacitance: I △C/C I≤5% Tgδ Increase ≤0.004 (1KHz)	Welding groove method Tb, Way 1A, 260±5%, 10±1S
6.2		1KHz	



	Initial	Capacitance , Loss tangent,	
	measurement	1KHz	
	Rapid	the appearance	0 _A = - 40°C, 0=+105°C
	temperature change	have No visible damage	5cycles, duration time: t=30min
	vibration	the appearance have No visible damage	Amplitude 0.75mm Or acceleration 98m/s² (Take the less severe), frequency 10~500Hz Three Direction, each direction 2h, Total 6h



NO		目 article	Performance requirements	Test way
		collision	the appearance have No visible damage	4000 Times , acceleration 390m/s ² Pulse duration : 6ms
6.2	Last n	neasurement	capacitance: I △C/C I≤5% Loss tangent: tgδ Increase ≤0.004 Insulation resistance IR: ≥ Rating 50%	
6.3	initial measurement Hot Climate Orderly		Capacitance Loss tangent: 1KHz	+105℃, 16h
	Orderly			Test Db, Severe degree b, First



	hot and humid		cycle
	Circulating		
	Cold		-40°C, 2h
			15~35°C, 8.5Kpa,1h
	Low depression	no permanent breakdown, Harmful deformation of arc or undercasing	At the last test 5 minutes , UR was applied
	hot and humid Circulating		UR Test Db, Severe degree b, rest cycle, at the end of the trial, URwas applied 1 minute
	Last measurement	the appearance have No visible damage ,Clear mark capacitance : I △C/C I ≤10% Loss tangent: tgδ Tgδ increasing ≤0.004	
		IR: C≤0.33μF, ≥ 3500MΩ	



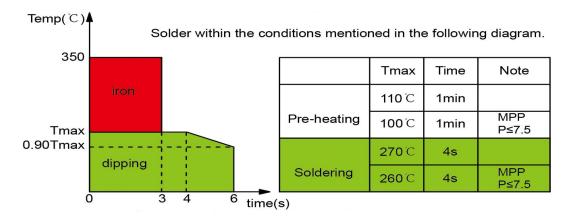
		C > 0.33µF, ≥	
		1000S	
6.4	humid hot of Voltage stabilizing	the appearance have No visible damage ,Clear mark capacitance: I \triangle C/C I $\le 10\%$ Loss tangent: tg δ : ≤ 0.003 IR: $C \le 0.33 \mu F$, $\ge 3500 M \Omega$ C > $0.33 \mu F$, $\ge 1000 S$	temperature: 40±2°C humidity: 93 %RH applied voltage: UR duration time: 500 (hours)
6.5	durability	the appearance have No visible damage ,Clear mark capacitance: I \triangle C/C I \le 10% Loss tangent: tg δ : \le 0.003 IR: C \le 0.33 μ F, \ge 3500M Ω	+85°C, 1000h applied voltage: 1.1× UR rate voltage



		passive	
		C > 0.33µF, ≥1000S	
6.6	characteristic changed by temperature	characteristics In the lower limit of Category temperature -40 °C : 0≤△ C/C≤±3% characteristics In the upper limit of Category temperature 105°C : -4%≤△ C/C≤0	Statically, the capacitors are kept in turn at each of the following temperatures: a. (20±2°C) b. (-40±3°C) d. (20±2°C) f. (105±2°C) g. (20 ±2°C)



7.



If re-working or dipping twice in necessary, it should be done after the capacitor returned to the normal temparature.

During manual welding, MPP film

capacitor is the worst temperature resistance component among all components, please pay special attention to the welding time, try not to exceed 5 seconds, solder spot as far as possible from the body, in addition, it is not suitable for reflow welding, otherwise the product will cause performance problems due to the thermal shrinkage of the film;

Wave soldering, capacitor is not horizontal installation, direct plug PC board is appropriate, to prevent soldering, tin wave scald capacitor internal materials; It is recommended not to cover the solder carrier, reduce the temperature of capacitor through the tin furnace as far as possible; The temperature of the third stage of preheating is between 80-100°C, and the temperature is 260°C+/-5. (The lower the temperature, the safer) soldering time within 5S; (double wave soldering total time) Solder process should not stop/stuck



material, resulting in long soldering time and soldering time of finished plate, resulting in potential risks of scald; (For other soldering methods, follow this requirement)

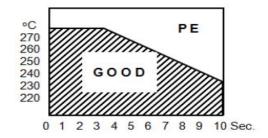
When the ambient

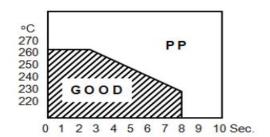
temperature of metallized film capacitor ≥ 85 °C, keep away from high-heat components to prevent the heat of other components from affecting the normal operation of the capacitor.

Ratio of capacitor operating temperature to rated voltage

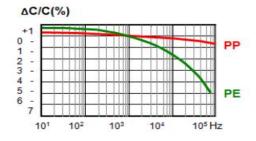
reduction

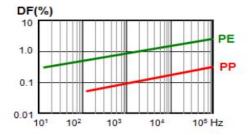
Soldering Temperature VS Time





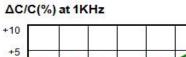
Frequency Characteristics

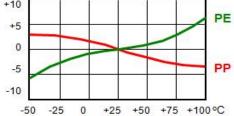


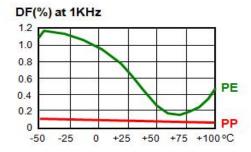




Temperature Characteristics







Vn(%) 100 90 80 70 0 +20 +40 +60 +80 +100°C

