



東莞市威慶電子有限公司

DONGGUAN WEIQING ELECTRONIC CO., LTD

SPEC NO.:2021111601

REV:B

承認書

SPECIFICATION

客戶名稱(CUSTOMER) : _____

產品名稱(PRODUUCT NAME) : _____ CBB21 盒裝電容

承認規格(APPROVE ITEM) : _____ 683J/400V P=7.5MM L=23MM B4 盒 黃色

威慶料號(WEIQING PART NO.) : _____ C352G683JB4L230A10

客戶料號(CUSTOMER PART NO.) : _____ C20416221

送樣日期(SUBMIT THE SAMPLE DATE) : _____

產品尺寸(PRODUUCT SIZE) : _____ W*H*T: 10*11*5mm

樣品印字(SAMPLE PRINT) : _____ CBB21/683J400V

威慶確認表

WEIQING CONFIRM LIST

APPROVED	CHECKED	PREPARED
 BASE	徐進闊	何湘華

客戶承認結果

CUSTOMER ACKNOWLEDGE THE RESULT

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檔案名稱

MPC(DC) Approval Sheet
(Metallized Polypropylene Film
Capacitor(DC)(BOX))

文件編號

WQC-009

頁次

08/01

1. Scope:

This specification applied to capacitor for type MPP (Metallized Polypropylene Film Capacitor)

2. Temperature

2-1 Rated Temperature :120℃

2-2 Rated Temperature Range : -40 ~ +120 (+105℃ to +120℃ decreasing factor 1.25% per °C for VR(DC))

3. Capacitance Range:

0.001uF ~ 10 uF

4. Capacitance Tolerance:

±2%(G)、±3%(I)、±5%(J)、±10%(K)、±20%(M)

5. Rated Voltage:

50VDC、63VDC、100VDC、250VDC、400VDC、450VDC、500VDC、630VDC、1KVDC

6. 產品編碼說明 Film Capacitor Part number system

18 位元產品代碼如下 The 18 digits part number is formed as follow:

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

C 3 5 2 G 6 8 3 J B 4 L 2 3 0 A 1 0

Digit 1~3 Type Code

1 第 1~3 位 型號代碼

代碼 Code	型號 Type	代碼 Code	型號 Type	代碼 Code	型號 Type	代碼 Code	型號 Type
C11	CL11	C30	CBB20				
C12	CH11	C31	CBB21				
C20	CL20	C32	CBB22				
C21	CL21	C33	CBB23				
C22	CL21X	C34	CBB81				
C23	CL23	C35	CBB21B				
C24	CL23B	C36	CBB22B				



東莞市威慶電子有限公司

製作日期

2015-10-28

版本

04

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文件編號

WQC-009

頁次

08/02

型號代碼說明

代碼 Code	型號 TYPE	備註 NOTS
滌綸電容 Polyester film inductive Capacitors		
C11	PEI(CL11)	PEI(CL11)聚乙脂薄有感電容器
C12	PPI(CH11)	PPI(CH11)聚丙烯膜有感電容器
聚酯膜電容器 Polyester Capacitors		
C20	CL20	CL20(MET/A)金屬化聚乙脂膜(軸向)電容器(扁形/圓形)
C21	CL21	CL21(MEF)金屬化聚乙脂膜電容器
C22	CL21X	CL21X(MEM)小型金屬化聚乙脂膜電容器 腳距 5mm
C23	CL23	CL23(MEC)金屬化聚乙脂膜(盒裝)電容器
C24	CL23B	CL23B(MEB)小型金屬化聚乙脂(盒裝)電容器 Mini Box 腳距 5mm
聚丙烯膜電容器 Polypropylene Capacitors		
C30	CBB20	CBB20(MET/A)金屬化聚丙烯膜(軸向)電容器(扁形/圓形)
C31	CBB21	CBB21 (MPP)金屬化聚丙烯膜電容器
C32	CBB22	CBB22 (MPP)金屬化聚丙烯膜電容器
C35	CBB21B	CBB21 (MPP)金屬化聚丙烯膜(盒裝)電容器
C36	CBB22B	CBB22 (MPP)金屬化聚丙烯膜(盒裝)電容器

Digit 4~5 Rated Voltage Code

第 4~5 額定電壓代碼

	A	B	C	D	E	F	G	H	J	K	L	M	N
1			16	20				50	63			1100	
2	100	125	160	200	250	315	400	500	630	800	120		
3	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	1200	1400	
	P	Q	R	S	T	U	V	W	X	Y			
1	240	300	330	440	540	600	700	850	900				
2	275	305	350	450	520		760						
3	280	310		480									

說明：參考日本 JIS 標準，字母加數位元表示交流，數位元加字母表示直流，例如 A2 表示 100VAC，2A 表示 100VDC

Explanation:Refer to JIS standard,Letter and then number indicate AC,but number and then Letter indicate DC,for example,2A indicate 100VDC,A2 indicate 100VAC.

Digit 6~8 Capacitance Expressed in 3-digit code 3 Code

第 6~8 容值代碼

檔案名稱

MPC(DC) Approval Sheet
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Capacitor(DC)(BOX))

文件編號

WQC-009

頁次

08/03

The first 2digits indicate significant figures,and the third digit specifies the number of zero to follow.

前兩位表示基數，第三個數位表示其後零的個數

This gives the capacitance in picofarads.容量值單位元為皮法

For examples 舉例：

102=10*102PF=1,000PF=1.0nF=0.001uF 105=10*105PF=1,000,000PF=1000nF=1uF

Digit 9 Capacitance Tolerance Code

第 9 容量偏差代碼

公差 Tolerance	±1%	±2%	±3%	±5%	±10%	±20%	+80%/-20%
代碼 Code	F	G	H	J	K	M	Z

Digit 10~11 Box Case No. Or Pitch expressed by Case two digits Code

第 10~11 盒體或兩個數位的腳距代碼

Box Type 盒裝型

Pitch 腳距	7.5	10	12.5	15	20	22.5	27.5	37.5	42.5	55
Case No. 殼體代碼	B*	C*	G*	D*	S*	E*	F*	J*	K*	P*

Powder Coating Type 粉塗型

Pitch 腳距	2.5	5.0	7.5	10	15	20	22.5	27.5
Case No. 腳距代碼	02	05	07	10	15	20	22	27

Axial Type 軸向型

Code 代碼	Axial Type 軸向型
A1	軸向橢圓形
A2	軸向圓形

Digit 12 Lead Form Code

第 12 引線加工型代碼

Lead Type

Code 代碼	L	H	K	N	M	T	S
Lead Type 引線型式	長腳	短腳	內彎青蛙腳	內彎直腳	外彎直腳	Taping	Customer Special Require

Digit 13~14 Lead Length(Straight) and Tolerance of Lead Length(straight): Expressed in 3-Letter Code

第 13~15 引線長度和偏差以 3 個數位代碼表示

Example 舉例：Code 代碼 035:35/10=3.5mm 230:230/10=23mm

Digit 16~18 Internal use packing\material group\place of production\ product grade\Environmental Protection(EP)

Class (Halogen-Free Compliant ROHS Compliant) Code

第 16~18 內部特徵碼

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Capacitor(DC)(BOX))

文件編號

WQC-009

頁次

08/04

7. Specifications (IEC60384-16)

No	Test items	Performance	Test Method
7-1	Withstand voltage (Between Terminals)	Shall be no abnormality	125% Of Rated Voltage, 60sec.
	Between terminal and Enclosure	Shall be no abnormality	UR × 200% + 1000VDC, 60sec.
7-2	Insulation resistance (Between Terminals)	$C_R \leq 0.33\mu F$ $IR \geq 15,000 M \Omega$ $C_R > 0.33\mu F$ $IR \geq 5,000 M \Omega \div C(\mu F)$	Measured at $100 \pm 15VDC$, For 60sec / $25^\circ C$
7-3	Capacitance	Within the tolerance specified	1KHz, 1Vrms Max. at $25^\circ C$
7-4	Dissipation Factor	0.001 (0.1%) Max.	1KHz, 1Vrms Max. at $25^\circ C$
7-5	Tense Strength of Terminal	No wire breakage and No Damage of Capacitor	1. Load Force : 1.0 Kg 2. Holding Time : 10 ± 1 sec
7-6	Bending Strength of Terminal	No wire breakage and No Damage of Capacitor	1. Load Force : 0.5 Kg 2. Bending Time : $4 \times 90^\circ$ in 5sec
7-7	Vibration	(1) Appearance : No Visible Damage (2) Contact : Normal	a. Frequency change : 1min. per cycle 10~55~10Hz b. Vibration distance : 1.5mm c. course: X、Y、Z (axis) d. Time : 2h / axis (6h in total)

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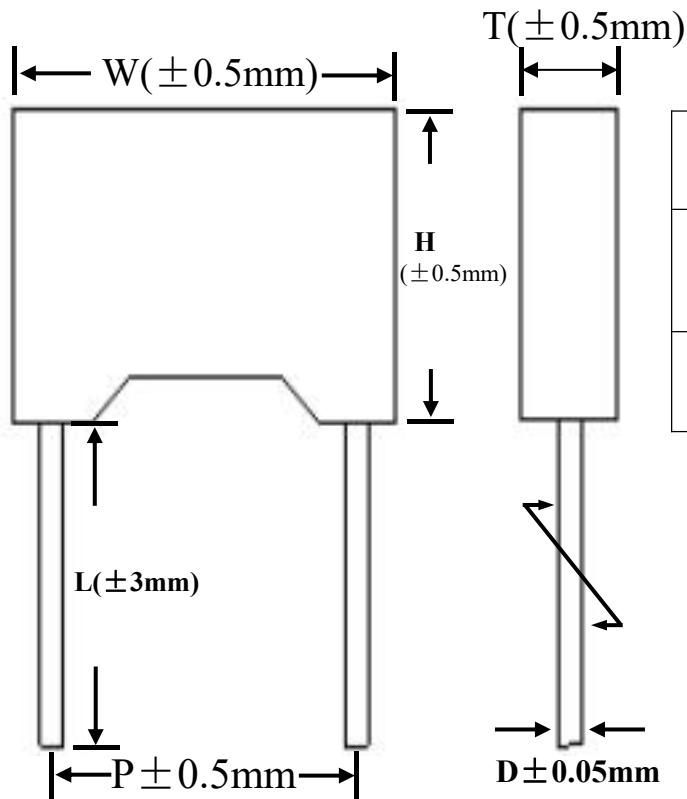
WQC-009

頁次

08/05

No	Test items	Performance	Test Method
7-8	Solder-ability	95% Of The Surface Tinning	a. Solder temperature: $270 \pm 5^{\circ}\text{C}$ b. Solder time: $2 \pm 0.5\text{sec}$
7-9	Heat Shock test	(1) Appearance : No Visible Damage (2) Withstand Voltage : Normal (3) Capacitance Change : $\leq \pm 3\%$ of The Initial Value	The terminal of capacitor shall be immersed in the melting solder. a. Solder temperature: $270 \pm 5^{\circ}\text{C}$ b. Solder time: $3 \pm 0.5\text{sec}$ c. Test Voltage: 150% of The Rate Voltage For 1min.
7-10	Cold Resistance	(1) Appearance : No Visible Damage (2) Capacitance Change : $\leq 0 \sim -10\%$ of The Initial Value	a. Test Temperature: -40°C b. Test Times: 2Hrs
7-11	Dry Heat Resistance	(1) Appearance : No Visible Damage (2) Withstand Voltage : Normal (3) Capacitance Change : $\leq +5 \sim -2\%$ Of The Initial Value (4) Insulation Resistance: $\geq 50\%$ of the rated value	a. TEST TEMPERATURE: $105^{\circ}\text{C} \pm 2^{\circ}\text{C}$ b. Test Times: 2Hrs

8. Dimensions:

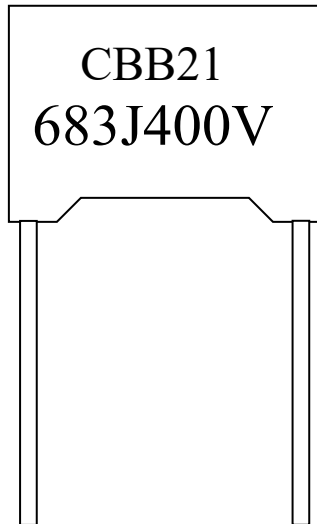


CAPACITOR BODY SIZE (Unit:mm)

CAP	RV	BOX TYPE	W ± 0.5	H ± 0.5	T ± 0.5	D ± 0.05	P ± 0.5	L ± 3
683 J	400 V	B4	10	11	5	0.5	7.5	23

L	H	K	N	M	T	S
					TAPING (refer to next page)	Customer Require
CAP	RV	Lead Style	L model-A section $\pm 3\text{mm}$ H.K.N.M model-A section $\pm 0.5\text{mm}$	K.N.M model-Bsection $\pm 0.5\text{mm}$	$P(\pm 0.5\text{mm})$	
683J	400V	L	23MM		7.5MM	

9. Marking:



CBB21	METALLIZED POLYPROPYLENE FILM CAPACITOR
683	CAPACITANCE
J	CAPACITANCE TOLERANCE
400	RATED VOLTAGE
V	DC VOLTAGE

10. PACKING:

CAP	R.V.	Pcs / Bag	Pcs/Taping Box (For Taping Style)	Pcs / Box (L:35Cm XH:35Cm X T:35Cm)
683J	400V	1000PCS		7K

11.Storage conditions and duration

Packaged capacitors should be kept in clean, ventilated, dry coffers, not near the heat source, not subject to direct sunlight, is strictly prohibited and chemical reagents, acid and harmful gas storage together.

Capacitor at a temperature within the range 20 ~ 25 °C, humidity less than 50% of the state of storage for one year.

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WQC-009

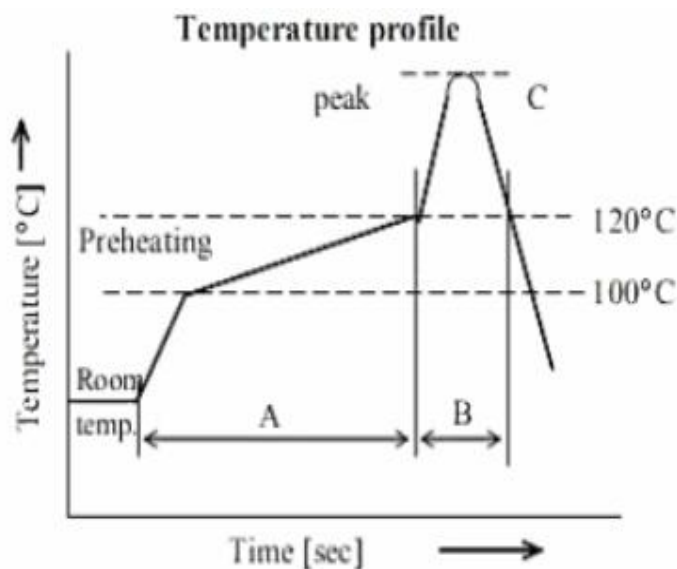
頁次

08/08

Lead Free wave soldering conditions

Component: Film Capacitors

1.Wave flow soldering



Recommendable condition

	Conditions	Values	Unit
A	Heating time	50-100	sec
	Heating temperature	100-120	°C
	Temp. rise gradient	1-2	°C/sec
B	Dipping time	<10	sec
C	Peak temperature	260	°C
	Peak-temp. hold time	Momentary	sec

2.Requirement (Wave flow soldering):

Polypropylene film capacitors body temperature less than 105°C, 60sec

Polyester film capacitors body temperature less than 120°C, 60sec

此类薄膜系列电容在客户端过波峰焊操作时，绝对不能过回流焊和 2 次波峰焊，否则产品会因热收缩导致性能问题。

3.Wave Flow soldering (solder dipping)

Peak temperature	260°C
Dipping time	<10 sec
Soldering	1 time

component for Insertion :Dipping to the lead joint of component

4.Hand soldering

Soldering iron tip temperature	350°C
Soldering time	3 sec