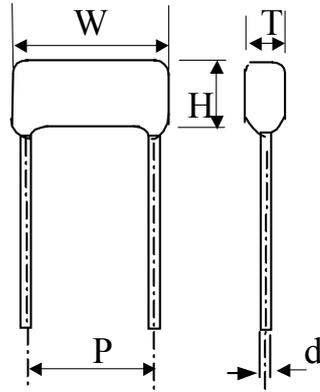


# CBB21 METALLIZED POLYPROPYLENE FILM CAPACITOR

## ✧ Outline Drawing



## ✧ Dimensions

No.	Type	Size(mm)				
		$W\pm 1$	$H\pm 1$	$T\pm 1$	$P\pm 1$	$d$
1	MET-333-400JP10	12	8	5	10	0.6

## ✧ Hanway Technology (H.K.) Ltd. ordering part-number:

**MET-333-400JP10**

**MET:** Capacitor Type ( MET for Metallized Capacitor)

**333:** Capacitor Value

**400:** Capacitor Voltage

**J:** Tolrence (J= +/-5%)

**P10: Pitch Size P=10mm**

**Remarks: This part-number are only applicable for ordering this item from Hanway.**

1、 Model/type: Only for “CBB21” Metalized Polypropylene Film Capacitor

*(\*CBB21 is a material type, defined by factory)*

2、 Climate category: 40/085/21

3、 Rated Voltage: 100V、 250V、 400V、 630V 、 1200V

4、 Capacitance Range: 0.01 $\mu$ F $\sim$ 1 $\mu$ F

Code    Capacitance

103 = 10,000pf    = 0.01 $\mu$ F

104 = 100,000pf    = 0.1 $\mu$ F

105 = 1,000,000pf    = 1 $\mu$ F

223 = 22,000pf    = 0.022 $\mu$ F

474 = 470,000pf    = 0.47 $\mu$ F

5、 Symbols of Capacitance Tolerance:

F=±1%      J=±5%

G=±2%      K=±10%

H=±3%      M=±20%

6、 Printing:

- 1、 Capacitance Tolerance
- 2、 Rated Value
- 3、 Rated Voltage

400V 473 J  
↓ ↓ ↓  
3 2 1

## 7. Specification

No.	Test	Test condition	Specifications
1	Temperature		-40□ — +85□
2	Rated Voltage		100V — 1200V
3	Capacitance range		0.01μF — 1μF
4	Capacitance Tolerance	Frequency: 1KHz +0.1KHz. Tested Voltage: ≤1Vrms	+5% (J) , +10% (K)
5	Loss angle	Frequency: 1KHz +0.1KHz. Tested Voltage: ≤1Vrms	CR≤1μF ≤0.002 CR> 1μF ≤0.003
6	Insulation Resistance	Tested Voltage: 100V Temperature: 20°C+5°C Duration: 60+5sec	C≤0.33μF ≥ 25000 MΩ C> 0.33μF≥7500MΩ:μF
7	Dielectric Strength	Tested Voltage: 1.6U <sub>R</sub> , Duration: 1 — 5sec	No Damage
8	Solderability	Melting solder: 235+5°C Duration: 2.0+0.5sec Materials: 60 / 40(Tin / Lead) Solder: 25 / 75(Resin / Alcohol)	No Damage
9	Lead Pull Test	Pull: 1.5Kg Duration: 10sec	No Damage
10	Lead Bend Test	attaching a load of 1.5Kg to the end of the lead and then rotating the capacitor 90 degree from the direction of lead degrees then 180 degree to opposite direction	No Damage
11	Solder Test	Immersed Melting solder:260+5°C Duration: 10+1 sec	C / C≤3 % Δtgδ≤0.004 No Damage
12	Thermal Stability	Temperature: θ <sub>A</sub> = -40°C , θ <sub>B</sub> = +85°C Duration: 30min Cycles: 5 cycles	No Damage ΔC / C≤3 % Δtgδ≤0.004
13	Libration	Frequency: 10 — 500Hz Libration: 0.75mm	No Damage ΔC / C≤3 % Δtgδ≤0.004
14	Collision Test	Collision Times:4000 times Acceletation Speed:390m/s, Duration:6ms Temperature: 40+2°C Humidity: 90 — 95 %	No Damage ΔC / C≤3 % Δtgδ≤0.004 No Damage ΔC / C≤5 %

No	Test	Test Condition	Specification
16	Heat	+85□, Duration: 16h	No Damage
	Humidity	Testing Db, level b, circular one	
	Cold	-40□, Duration: 2h.	
	Temperature	Temperature:15□-35□, Barometric :8.5kPa, Duration: 10min., after the test, U <sub>R</sub> 1mins.	
16	Barometric Test	Testing Db, level b, all circular ended, add on U <sub>R</sub> 1 minutes.	No Damage
	Last Test		No Damage $\Delta C / C \leq 5\%$ $\Delta tg\delta \leq 0.005$ $R_i \geq \text{Initial} * 50\%$
17	Load-life continuous	+85□, RV x 125%, Duration: 1000h	No Damage $\Delta C / C \leq 5\%$ $\Delta tg\delta \leq 0.004$ $R_i \geq \text{Initial} * 50\%$
18	Charge and discharge Test	Duration:10000cycles Charging Duration:0.5s Discharge Duration:0.5s	$\square C / C \leq 5\%$ $\Delta tg\delta \leq 0.005$ $R_i \geq \text{Initial} * 50\%$