PPN/CBB13 Non-inductive Polypropylene Film/Foil Capacitors (Dipped-Type) Data Sheet

Feature

■Wide capacitance range from 0.001uF to 0.047uF.

■Operating Temperature: -40℃～105℃.

■Storage Temperature: 15℃~35℃.

■Low loss(DF) and small inherent temperature rise.

■Polypropylene film foil, non-inductive winding construction.

■Suitable for high pulse and high current loading circuit, high frequency 100KHz.

■Capacitance change little, negative temperature coefficient of capacitance.

■Epoxy resin sealing.

Applications

■Suitable coupling of DC, and high pulse current loading circuit.

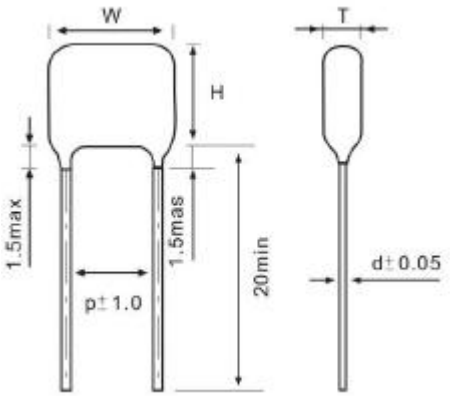
■Suitable for electronic ballast.

Part numbering on request.

Specifications

Climatic Category	40/100/21
Rated Voltage	400VDC、630VDC、1000VDC、
Dissipation Factor (tanδ)	≤0.1%(1KHz、1.0Vrms、20℃)
Withstand Voltage	2.0U_R (5s)
Insulation Resistance (I.R.)	C≤0.33uF,IR≥50000MΩ C＞0.33uF,IR≥15000S (AT 100VDC、60SEC、20℃)

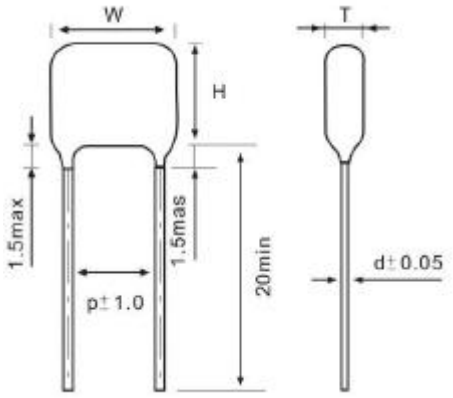
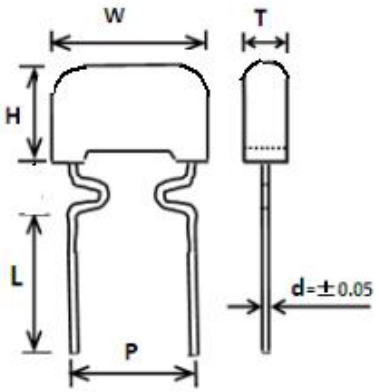
Dimensions (mm)



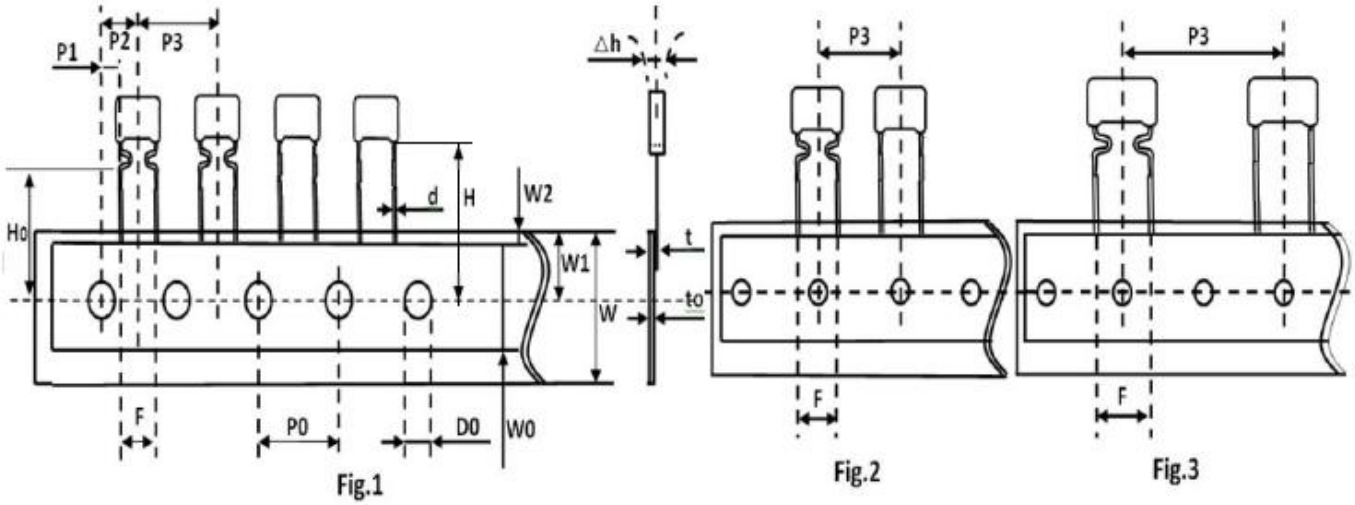
Capacitance (uF)	Rated Voltage	Size (mm)				
		W Max	H Max	T Max	P±1.0	d±0.05
0.001	400VDC	10.5	9.0	5.5	7.5	0.6
	630VDC	10.5	9.0	5.5	7.5	0.6
	1000VDC	13.0	9.5	5.0	10.0	0.6
0.0012	400VDC	10.5	9.0	5.5	7.5	0.6
	630VDC	10.5	9.0	5.5	7.5	0.6
	1000VDC	13.0	9.5	5.0	10.0	0.6
0.0015	400VDC	10.5	9.0	5.5	7.5	0.6
	630VDC	10.5	9.0	5.5	7.5	0.6
	1000VDC	13.0	9.5	5.0	10.0	0.6
0.0018	400VDC	10.5	9.0	5.5	7.5	0.6
	630VDC	10.5	9.0	5.5	7.5	0.6
	1000VDC	13.0	9.5	5.5	10.0	0.6
0.0022	400VDC	10.5	9.0	5.5	7.5	0.6
	630VDC	10.5	9.0	5.5	7.5	0.6
	1000VDC	13.0	10.0	5.5	10.0	0.6
0.0033	400VDC	10.5	9.5	5.5	7.5	0.6
	630VDC	10.5	9.5	5.5	7.5	0.6
	1000VDC	13.0	10.0	5.5	10.0	0.6
0.0047	400VDC	13.0	10.0	5.5	10.0	0.6
	630VDC	13.0	10.0	5.5	10.0	0.6
	1000VDC	18.0	10.5	5.5	15.0	0.8
0.0068	400VDC	13.0	10.5	6.0	10.0	0.6
	630VDC	18.0	11.0	6.5	15.0	0.8
	1000VDC	18.0	11.0	6.5	15.0	0.8

Capacitance (uF)	Rated Voltage	Size (mm)				
		W Max	H Max	T Max	P±1.0	d±0.05
0.0082	400VDC	13.0	11.0	6.5	10.0	0.6
	630VDC	18.0	12.0	7.0	15.0	0.8
	1000VDC	18.0	12.0	7.0	15.0	0.8
0.01	400VDC	13.0	11.0	6.5	10.0	0.6
	630VDC	18.0	12.0	7.0	15.0	0.8
	1000VDC	18.0	12.0	7.0	15.0	0.8
0.012	400VDC	13.0	11.5	6.5	10.0	0.6
	630VDC	18.0	12.0	7.5	15.0	0.8
	1000VDC	18.0	12.0	7.5	15.0	0.8
0.015	400VDC	13.0	12.0	7.0	10.0	0.6
	630VDC	18.0	12.0	7.0	15.0	0.8
	1000VDC	18.0	13.5	8.0	15.0	0.8
0.018	400VDC	13.0	12.5	7.0	10.0	0.6
	630VDC	18.0	12.0	6.5	15.0	0.8
	1000VDC	18.0	15.0	8.0	15.0	0.8
0.022	400VDC	18.0	11.5	6.5	15.0	0.8
	630VDC	18.0	13.5	7.0	15.0	0.8
	1000VDC	18.0	16.0	9.0	15.0	0.8
0.027	400VDC	18.0	13.5	6.5	15.0	0.8
	630VDC	18.0	14.0	7.5	15.0	0.8
	1000VDC	18.0	16.5	10.0	15.0	0.8
0.033	400VDC	18.0	13.5	7.0	15.0	0.8
	630VDC	18.0	15.0	8.0	15.0	0.8
	1000VDC	18.0	17.5	10.5	15.0	0.8
0.047	400VDC	18.0	15.5	8.5	15.0	0.8
	630VDC	18.0	16.5	9.5	15.0	0.8

Lead Configuration

Lead Style	Drawing	Lead Length L (mm)
Long Straight		①[2.5≤L＜6.0]+/-0.5; ②[6.0≤L≤10]+/-1.0
Inner Crimped		①[2.5≤L＜6.0]+/-0.5; ②[6.0≤L≤10]+/-1.0

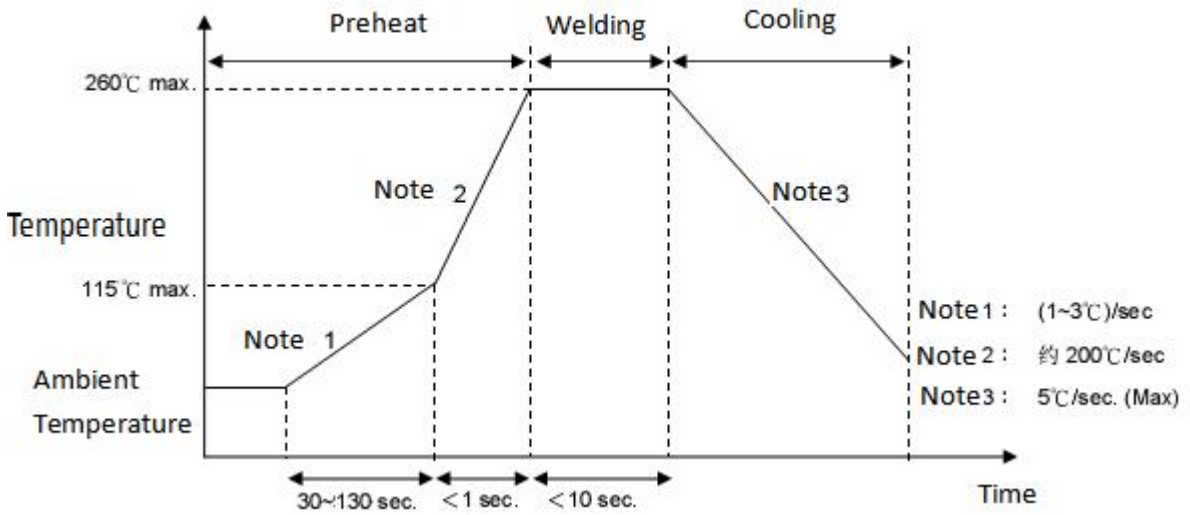
Taping And Dimensions (mm)

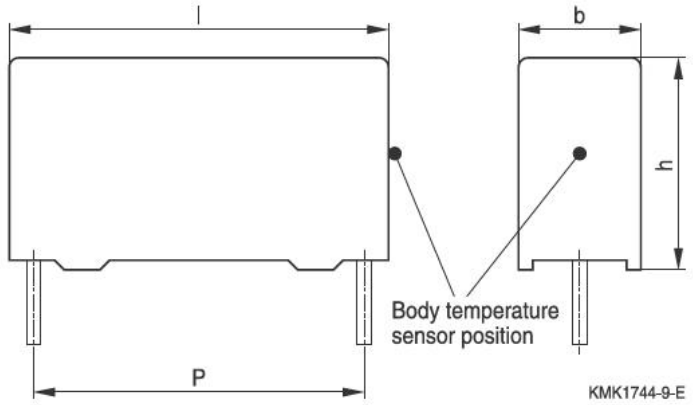


Symbol	Fig.1	Fig.2	Fig.2	Fig.3	Fig.3	Tolerance
	P=5.0	P=7.5	P=10	P=15	P=20/22.5	
P3	12.7	12.7	12.7	25.4	30.0	±1.0
P2	6.35	/	/	/	/	±1.3
P0	12.7	12.7	12.7	12.7	15.0	±0.3
P1	3.85	/	/	/	/	±0.7
F	5.0	7.5	10.0	15.0	20.0/22.5	±1.0
H	20.0	20.0	20.0	20.0	20.0	±1.0
H0	16.5	16.5	16.5	16.5	16.5	±0.5
Δ h	0	0	0	0	0	±2.0
W	18.0	18.0	18.0	18.0	18.0	+1.0/-0.5
W0	12.0	12.0	12.0	12.0	12.0	±1.0
W1	9.0	9.0	9.0	9.0	9.0	±0.5
W2	3.0	3.0	3.0	3.0	3.0	Max
D0	4.0	4.0	4.0	4.0	4.0	±0.3
d	0.5	0.6	0.6	0.8	0.8	±0.05
t	1.0	1.1	1.1	1.4	1.4	±0.2
t0	0.38	0.38	0.38	0.47	0.47	±0.04

Soldering Condition

Wave Soldering Graph





PP:
During pre-heating: Tp ≤110℃
During soldering: Ts ≤120℃, ts ≤15 s
PE:
During pre-heating: Tp ≤125℃
During soldering: Ts ≤160℃, ts ≤15 s

Note: Film capacitor is not suitable for reflow soldering, because it will cause thermal contraction and affect electrical performance.

Iron Soldering Condition

Item	Condition
Temperature of soldering copper bit	350℃（max.）
Soldering duration	3sec（max.）
Space between soldering position and coating layer	2mm（min.）

Storage Conditions

- When store under the atmosphere, the terminal may contact with the substance of hydrochloride, hydrosulfide, sulfuric acid, etc. in the atmosphere, which needs to be paid attention to the deterioration of the solderability of the terminal.
- Product could not be exposed to high humidity and high temperature environment. Please store under below condition with the original packing.

A. Temperature: ≤35℃

B. Himidity: ≤70%RH

C. Storage period: Max 12 months