MPB/CBB21B-RC Metallized Polypropylene Film Capacitors For Capacitive Divider (Box-Type) Data Sheet

Feature

■Wide capacitance range from 0.001uF to 4.7uF.

■Operating Temperature: -40℃～105℃

■Storage Temperature: 15℃~35℃

■Metallized polypropylene film.

■Good self-healing properties, withstanding over-voltage stressing.

■Long stability of capacitance

■Excellent active and passive flame resistant abilities (UL94V-0).

Applications

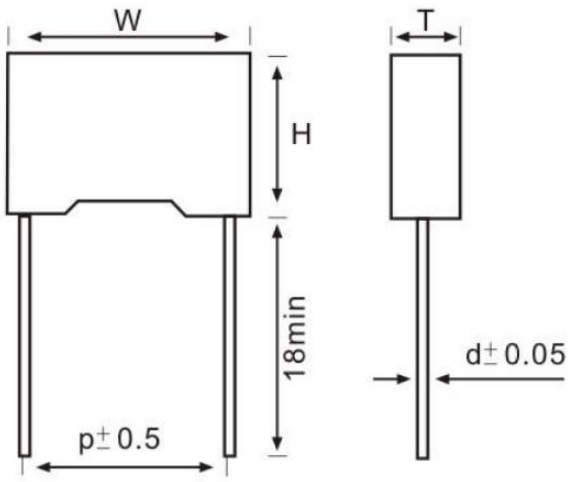
■Widely used in energy meter, LED driver ect.

Part numbering on request.

Specifications

Climatic Category	40/100/21
Rated Voltage	220VAC、250VAC、275VAC
Dissipation Factor (tanδ)	≤0.1%
Withstand Voltage	$1.6U_R$ (5s)
Insulation Resistance (I.R.)	IR≥50000MΩ (AT 100VDC、60SEC、20℃)

Dimensions (mm)

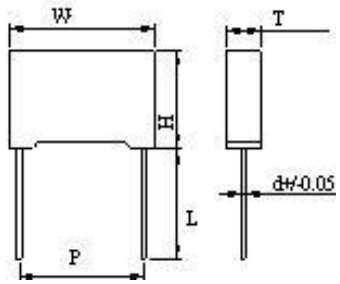
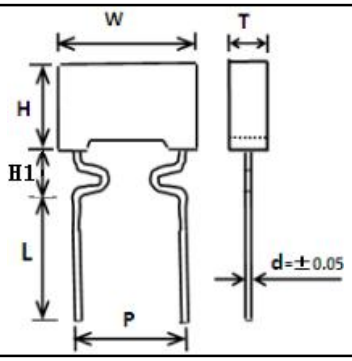


Capacitance (uF)	Rated Voltage	Size (mm)				
		W±0.5	H±0.5	T±0.5	P±1.0	d±0.05
0.001	220VAC/250VAC/275VAC	10.0	11.0	5.0	7.5	0.6
		13.0	11.0	5.0	10.0	0.6
0.0022	220VAC/250VAC/275VAC	10.0	11.0	5.0	7.5	0.6
		13.0	11.0	5.0	10.0	0.6
0.0033	220VAC/250VAC/275VAC	10.0	11.0	5.0	7.5	0.6
0.0047	220VAC/250VAC/275VAC	10.0	11.0	5.0	7.5	0.6
		13.0	11.0	5.0	10.0	0.6
0.0068	220VAC/250VAC/275VAC	10.0	11.0	5.0	7.5	0.6
		13.0	11.0	5.0	10.0	0.6
0.0082	220VAC/250VAC/275VAC	10.0	11.0	5.0	7.5	0.6
		13.0	11.0	5.0	10.0	0.6
0.01	220VAC/250VAC/275VAC	10.0	11.0	5.0	7.5	0.6
		13.0	11.0	5.0	10.0	0.6
		18.0	12.0	6.0	15.0	0.8
0.022	220VAC/250VAC/275VAC	10.0	11.0	5.0	7.5	0.6
		13.0	11.0	5.0	10.0	0.6
		18.0	12.0	6.0	15.0	0.8
0.033	220VAC/250VAC/275VAC	10.0	11.0	5.0	7.5	0.6
		13.0	11.0	5.0	10.0	0.6
		18.0	12.0	6.0	15.0	0.8
0.047	220VAC/250VAC/275VAC	10.0	12.0	6.0	7.5	0.6
		13.0	12.0	6.0	10.0	0.6
		18.0	12.0	6.0	15.0	0.8

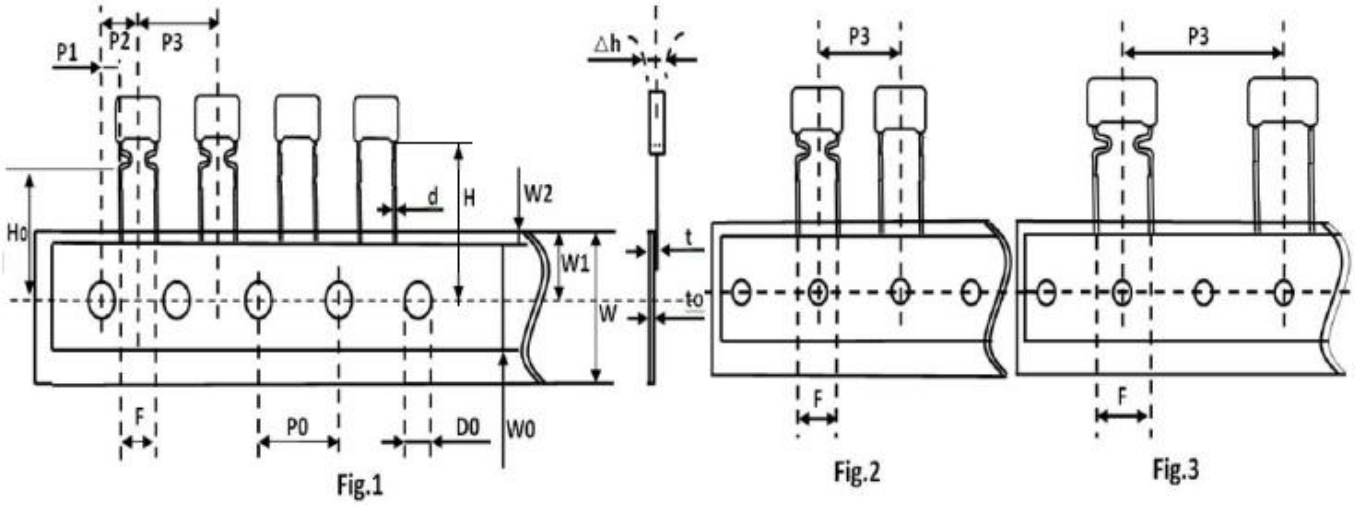
Capacitance (uF)	Rated Voltage	Size (mm)				
		W±0.5	H±0.5	T±0.5	P±1.0	d±0.05
0.056	220VAC/250VAC/275VAC	13.0	13.0	7.0	10.0	0.6
		18.0	12.0	6.0	15.0	0.8
0.068	220VAC/250VAC/275VAC	10.0	12.0	6.0	7.5	0.6
		13.0	12.0	6.0	10.0	0.6
		18.0	12.0	6.0	15.0	0.8
0.082	220VAC/250VAC/275VAC	10.0	15.0	8.0	7.5	0.6
		13.0	13.0	7.0	10.0	0.6
		18.0	12.0	6.0	15.0	0.8
0.1	220VAC/250VAC/275VAC	10.0	16.0	6.0	7.5	0.6
		13.0	13.0	7.0	10.0	0.6
		18.0	12.0	6.0	15.0	0.8
0.15	220VAC/250VAC/275VAC	13.0	14.0	8.0	10.0	0.6
		15.0	14.0	8.0	12.5	0.6
		18.0	12.0	6.0	15.0	0.8
		26.5	16.5	7.0	22.5	0.8
0.18	220VAC/250VAC/275VAC	13.0	16.0	8.0	10.0	0.6
		15.0	16.0	10	12.5	0.6
		18.0	13.5	7.5	15.0	0.8
		26.5	16.5	7.0	22.5	0.8
0.22	220VAC/250VAC/275VAC	13.0	16.0	8.0	10.0	0.6
		15.0	16.0	10	12.5	0.6
		18.0	14.5	8.5	15.0	0.8
		26.5	16.5	7.0	22.5	0.8
0.27	220VAC/250VAC/275VAC	18.0	15.0	9.0	15.0	0.8
		26.5	16.5	7.0	22.5	0.8
0.33	220VAC/250VAC/275VAC	15.0	15.0	9.0	12.5	0.6
		18.0	15.0	9.0	15.0	0.8
		26.5	16.5	7.0	22.5	0.8
0.39	220VAC/250VAC/275VAC	18.0	16.0	10.0	15.0	0.8
		26.5	17.0	8.5	22.5	0.8
0.47	220VAC/250VAC/275VAC	18.0	15.0	9.0	15.0	0.8
		26.5	17.0	8.5	22.5	0.8
		26.5	19.0	10.0	22.5	0.8
		31.0	20.5	11.0	27.5	0.8

Capacitance (uF)	Rated Voltage	Size (mm)				
		W±0.5	H±0.5	T±0.5	P±1.0	d±0.05
0.56	220VAC/250VAC/275VAC	18.0	19.0	11.0	15.0	0.8
		26.5	19.0	10.0	22.5	0.8
0.68	220VAC/250VAC/275VAC	18.0	19.0	11.0	15.0	0.8
		26.5	20.0	10.0	22.5	0.8
		31.0	22.0	11.0	27.5	0.8
0.82	220VAC/250VAC/275VAC	26.5	23.0	12.0	22.5	0.8
		31.0	21.0	11.0	27.5	0.8
1.0	220VAC/250VAC/275VAC	26.5	23.0	13.0	22.5	0.8
		31.0	22.0	12.0	27.5	0.8
1.2	220VAC/250VAC/275VAC	26.5	22.0	11.0	22.5	0.8
		31.0	25.0	14.0	27.5	0.8
		36.5	26.0	18.0	31.5	0.8
1.5	220VAC/250VAC/275VAC	36.5	26.0	18.0	31.5	0.8
		41.0	28.5	16.0	37.5	0.8
1.8	220VAC/250VAC/275VAC	36.5	26.0	18.0	31.5	0.8
		41.0	28.5	16.0	37.5	0.8
2.0	220VAC/250VAC/275VAC	36.5	26.0	18.0	31.5	0.8
		41.0	28.5	16.0	37.5	0.8
2.2	220VAC/250VAC/275VAC	36.5	26.0	18.0	31.5	0.8
		41.5	28.5	16.0	37.5	0.8
2.5	220VAC/250VAC/275VAC	41.5	28.5	16.0	37.5	0.8
2.7	220VAC/250VAC/275VAC	36.5	28.0	18.0	31.5	0.8
		41.5	31.5	18.0	37.5	0.8
3.0	220VAC/250VAC/275VAC	31.0	31.0	22.0	27.5	0.8
		41.5	31.5	18.0	37.5	0.8
3.3	220VAC/250VAC/275VAC	31.0	31.0	22.0	27.5	0.8
		41.5	35.5	22.5	37.5	0.8
3.9	220VAC/250VAC/275VAC	31.0	31.0	22.0	27.5	0.8
		41.5	35.5	22.5	37.5	0.8
4.7	220VAC/250VAC/275VAC	41.5	35.5	22.5	37.5	0.8

Lead Configuration

Lead Style	Drawing	Lead Length L (mm)	Coating Lead Length H1(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	Pitch P＞10mm:H1＜6.0mm Pitch P≤10mm:H1＜5.0mm

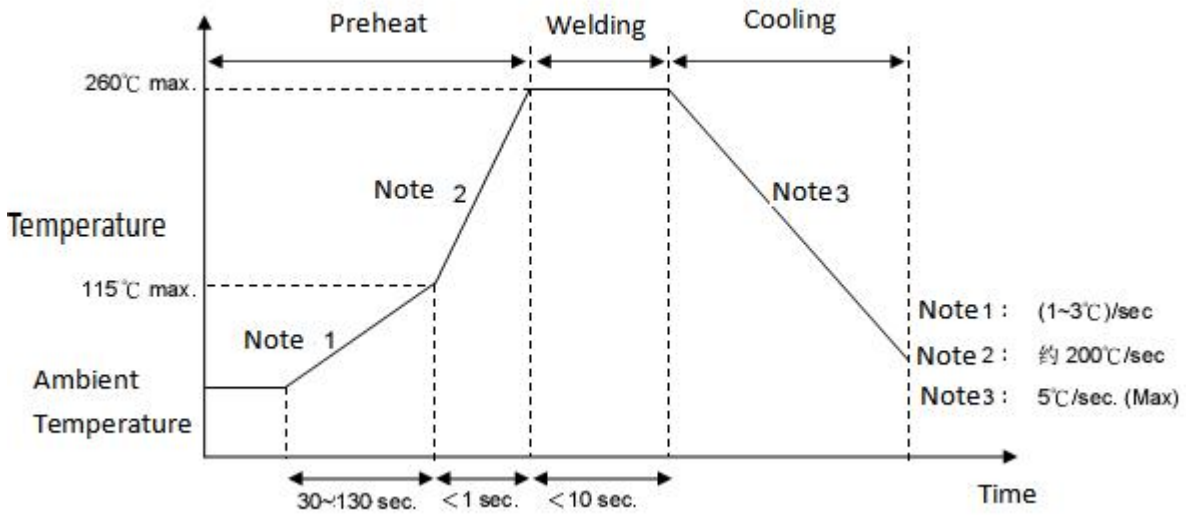
Taping And Dimensions (mm)

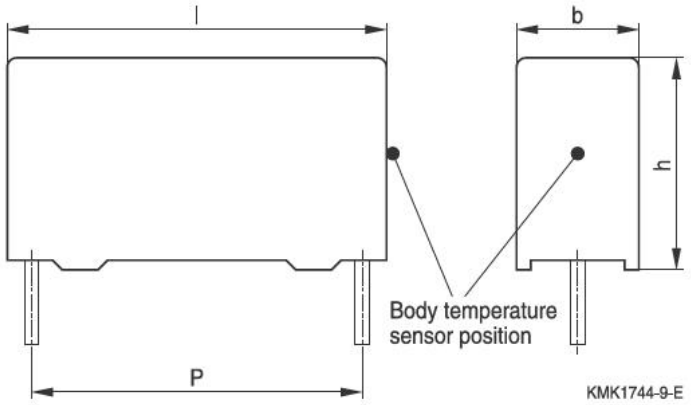


Symbol	Fig.1	Fig.2	Fig.2	Fig.3	Fig.3	Tolerance
	P=5.0	P=7.5	P=10	P=15	P=20/22.5	
P3	12.7	12.7	12.7	25.4	30.0	±1.0
P2	6.35	/	/	/	/	±1.3
P0	12.7	12.7	12.7	12.7	15.0	±0.3
P1	3.85	/	/	/	/	±0.7
F	5.0	7.5	10.0	15.0	20.0/22.5	±1.0
H	20.0	20.0	20.0	20.0	20.0	±1.0
H0	16.5	16.5	16.5	16.5	16.5	±0.5
Δ h	0	0	0	0	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