MPB/CBB21B-THB 85℃/85%RH Metallized Polypropylene Film Capacitors (Box-Type) Data Sheet

Feature

■Wide capacitance range from 0.01uF 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),good properties in damp environment.

Applications

■Widely used in high frequency, DC, AC and pulse circuit.

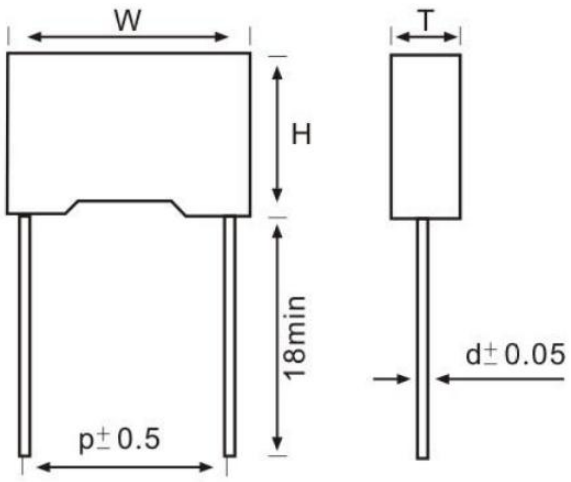
■Widely used in high current pulse.

Part numbering on request.

Specifications

Climatic Category	40/100/21
Rated Voltage	100VAC、220VAC、275VAC
Dissipation Factor(tanδ)	≤0.1%(1KHz、1.0Vrms、20℃)
Withstand Voltage	1.6U_R (5s)
Insulation Resistance (I.R.)	IR≥50000MΩ (AT 100VDC、60SEC、20℃)
High Temperature and high Humidity Test	Capacitance change rate ≤10% (Applied voltage:240VAC; Temperature: 85 ± 2 ℃; Humidity: 85±2%; Test period: 500 hours)

Dimensions (mm)

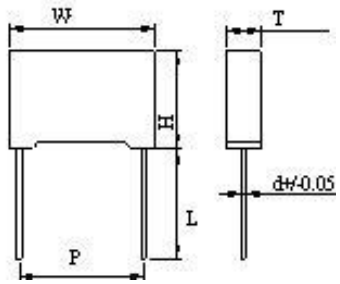
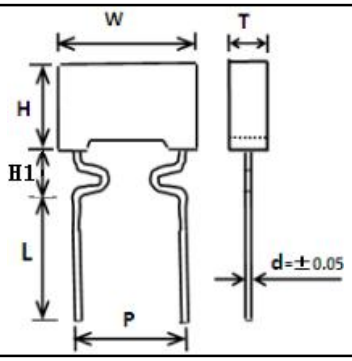


Capacitance (uF)	Rated Voltage	Size (mm)				
		W±0.5	H±0.5	T±0.5	P±1.0	d±0.05
0.01	100VAC/220VAC/275VAC	13.0	11.0	5.0	10.0	0.6
		18.0	12.0	6.0	15.0	0.8
0.022	100VAC/220VAC/275VAC	13.0	11.0	5.0	10.0	0.6
		18.0	12.0	6.0	15.0	0.8
0.033	100VAC/220VAC/275VAC	13.0	11.0	5.0	10.0	0.6
		18.0	12.0	6.0	15.0	0.8
0.047	100VAC/220VAC/275VAC	13.0	12.0	6.0	10.0	0.6
		18.0	12.0	6.0	15.0	0.8
0.056	100VAC/220VAC/275VAC	13.0	13.0	7.0	10.0	0.6
		18.0	12.0	6.0	15.0	0.8
0.068	100VAC/220VAC/275VAC	13.0	13.0	7.0	10.0	0.6
		18.0	12.0	6.0	15.0	0.8
0.082	100VAC/220VAC/275VAC	13.0	13.0	7.0	10.0	0.6
		18.0	12.0	6.0	15.0	0.8
0.1	100VAC/220VAC/275VAC	13.0	13.0	7.0	10.0	0.6
		18.0	12.0	6.0	15.0	0.8
0.15	100VAC/220VAC/275VAC	13.0	15.0	8.0	10.0	0.6
		15.0	14.0	8.0	12.5	0.6
		18.0	13.5	7.5	15.0	0.8
		26.5	15.0	6.0	22.5	0.8
0.18	100VAC/220VAC/275VAC	15.0	16.0	10.0	12.5	0.6
		18.0	14.5	8.5	15.0	0.8
		26.5	16.5	7.0	22.5	0.8

Capacitance (uF)	Rated Voltage	Size (mm)				
		W±0.5	H±0.5	T±0.5	P±1.0	d±0.05
0.22	100VAC/220VAC/275VAC	15.0	16.0	10.0	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	100VAC/220VAC/275VAC	18.0	16.0	10.0	15.0	0.8
		26.5	16.5	7.0	22.5	0.8
0.33	100VAC/220VAC/275VAC	18.0	16.0	10.0	15.0	0.8
		26.5	17.0	9.0	22.5	0.8
0.39	100VAC/220VAC/275VAC	18.0	16.0	10.0	15.0	0.8
		26.5	17.0	8.5	22.5	0.8
0.47	100VAC/220VAC/275VAC	18.0	19.0	11.0	15.0	0.8
		26.5	19.0	10.0	22.5	0.8
		31.0	20.5	11.0	27.5	0.8
0.56	100VAC/220VAC/275VAC	26.5	19.0	10.0	22.5	0.8
		31.0	21.0	12.0	27.5	0.8
0.68	100VAC/220VAC/275VAC	26.5	20.0	11.0	22.5	0.8
		31.0	21.0	12.0	27.5	0.8
0.82	100VAC/220VAC/275VAC	26.5	20.0	12.0	22.5	0.8
		31.0	21.0	12.0	27.5	0.8
1.0	100VAC/220VAC/275VAC	26.5	22.0	12.0	22.5	0.8
		31.0	21.0	12.0	27.5	0.8
1.2	100VAC/220VAC/275VAC	26.5	23.0	13.0	22.5	0.8
		31.0	22.0	13.0	27.5	0.8
1.5	100VAC/220VAC/275VAC	26.5	22.0	12.0	22.5	0.8
		41.0	28.5	16.0	37.5	0.8
1.8	100VAC/220VAC/275VAC	31.0	25.0	14.0	27.5	0.8
		41.0	28.5	16.0	37.5	0.8
2.0	100VAC/220VAC/275VAC	31.0	25.0	14.0	27.5	0.8
		41.0	31.5	18.0	37.5	0.8
2.2	100VAC/220VAC/275VAC	31.0	25.0	15.0	27.5	0.8
		41.5	31.5	18.0	37.5	0.8
2.5	100VAC/220VAC/275VAC	31.0	28.0	18.0	27.5	0.8
		41.5	31.5	18.0	37.5	0.8
2.7	100VAC/220VAC/275VAC	31.0	37.0	22.0	27.5	0.8
		41.5	31.5	18.0	37.5	0.8
3.0	100VAC/220VAC/275VAC	31.0	33.0	18.0	27.5	0.8
		41.5	35.5	22.5	37.5	0.8

Capacitance (uF)	Rated Voltage	Size (mm)				
		W±0.5	H±0.5	T±0.5	P±1.0	d±0.05
3.3	100VAC/220VAC/275VAC	31.0	37.0	22.0	27.5	0.8
		41.5	35.5	22.5	37.5	0.8
3.9	100VAC/220VAC/275VAC	31.0	31.0	22.0	27.5	0.8
		41.5	35.5	22.5	37.5	0.8
4.7	100VAC/220VAC/275VAC	31.0	37.0	22.0	27.5	0.8
		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)

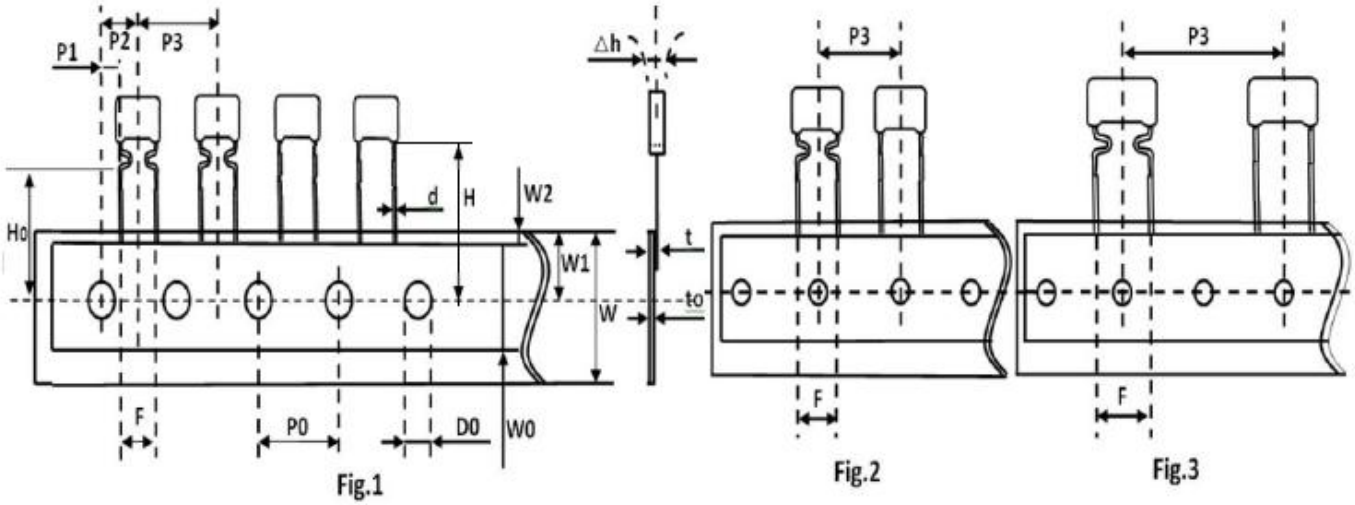
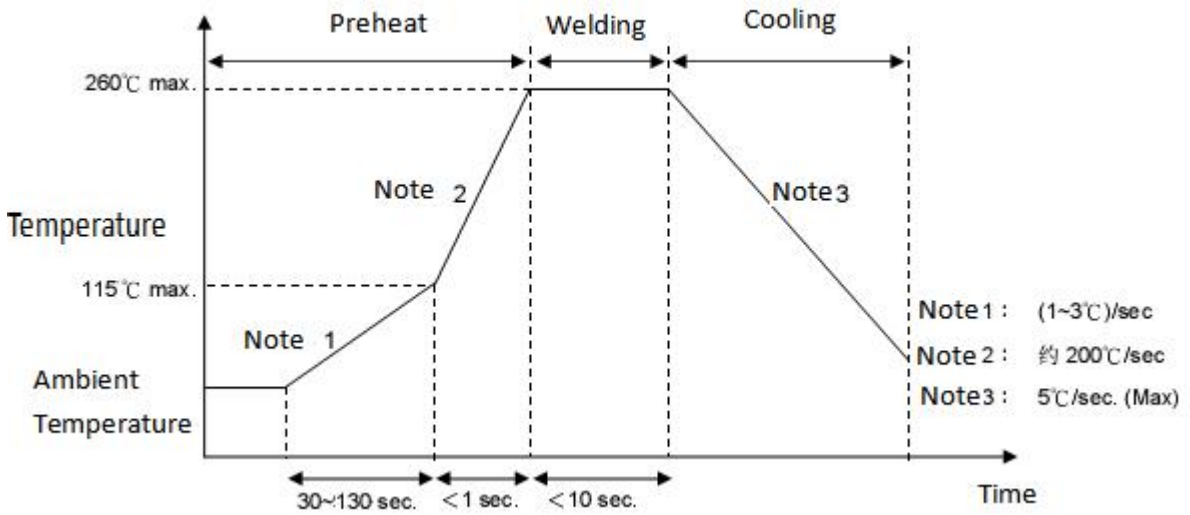


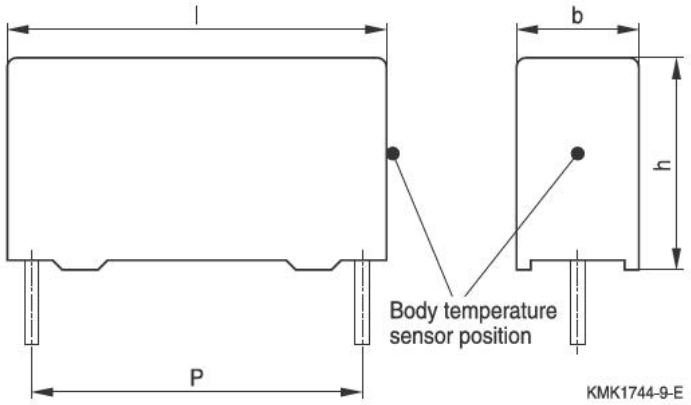
Fig.1 Fig.2 Fig.3

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