MEMB/CL23 Miniature Metallized Polyester Film Capacitors (Box-Type) Data Sheet

Feature

■Wide capacitance range from 0.001uF to 1.0uF.

■Operating Temperature: -40℃～125℃.

(+105℃ to +125℃ decreasing factor 1.25%per ℃ for VR DC)

■Storage Temperature: 15℃~35℃.

■Self-healing property.

■High moisture resistance.

■Good solder rability.

■Flame retardant plastic case and epoxy resin sealing (UL94V-0).

Applications

■By-passing, blocking, coupling, decoupling.

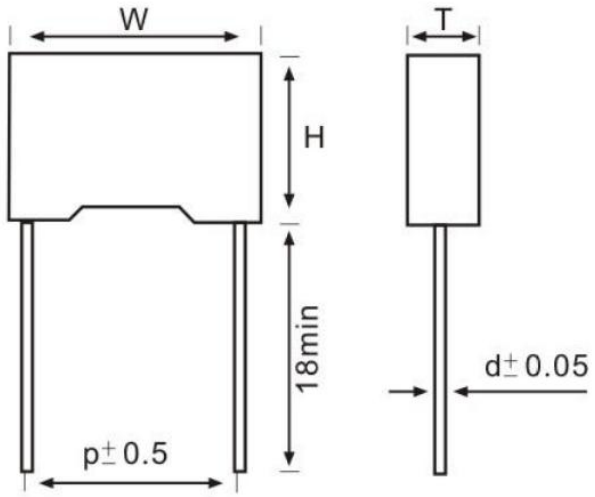
■Pulse, timing, oscillator circuits.

Part numbering on request.

Specifications

Climatic Category	40/105/21
Rated Voltage	63VDC、100VDC、250VDC、400VDC、630VDC
Dissipation Factor (tanδ)	≤1.0%(1KHz、1.0Vrms、20℃)
Withstand Voltage	$1.6U_R$ (5s)
Insulation Resistance (I.R.)	>100V(AT 100VDC 60S) C≤0.33uF,IR≥30000MΩ C＞0.33uF,IR≥10000S ≤100V(AT 10VDC 60S) C≤0.33uF,IR≥15000MΩ C＞0.33uF,IR≥5000S 注：T[s]=I.R.[MΩ]*C_N [μF]

Dimensions (mm)



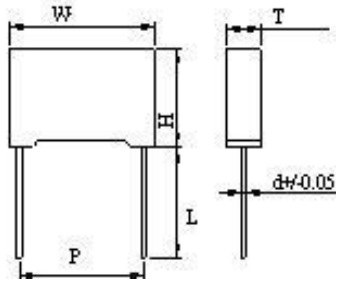
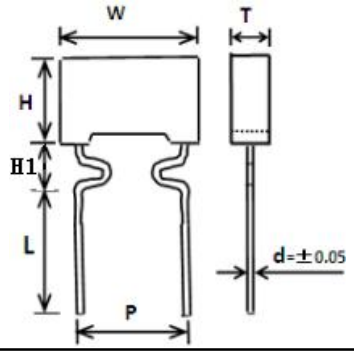
Capacitance (uF)	Rated Voltage	Size (mm)				
		W±0.5	H±0.5	T±0.5	P±1.0	d±0.05
0.001	63VDC	7.2	6.5	2.5	5.0	0.5
	100VDC	7.2	6.5	2.5	5.0	0.5
	250VDC	7.2	6.5	2.5	5.0	0.5
	400VDC	7.2	6.5	2.5	5.0	0.5
	630VDC	7.2	6.5	2.5	5.0	0.5
0.0012	63VDC	7.2	6.5	2.5	5.0	0.5
	100VDC	7.2	6.5	2.5	5.0	0.5
	250VDC	7.2	6.5	2.5	5.0	0.5
	400VDC	7.2	6.5	2.5	5.0	0.5
	630VDC	7.2	6.5	2.5	5.0	0.5
0.0015	63VDC	7.2	6.5	2.5	5.0	0.5
	100VDC	7.2	6.5	2.5	5.0	0.5
	250VDC	7.2	6.5	2.5	5.0	0.5
	400VDC	7.2	6.5	2.5	5.0	0.5
	630VDC	7.2	6.5	2.5	5.0	0.5
0.0018	63VDC	7.2	6.5	2.5	5.0	0.5
	100VDC	7.2	6.5	2.5	5.0	0.5
	250VDC	7.2	6.5	2.5	5.0	0.5
	400VDC	7.2	6.5	2.5	5.0	0.5
	630VDC	7.2	6.5	3.5	5.0	0.5

Capacitance (uF)	Rated Voltage	Size (mm)				
		W±0.5	H±0.5	T±0.5	P±1.0	d±0.05
0.0022	63VDC	7.2	6.5	2.5	5.0	0.5
	100VDC	7.2	6.5	2.5	5.0	0.5
	250VDC	7.2	6.5	2.5	5.0	0.5
	400VDC	7.2	6.5	2.5	5.0	0.5
	630VDC	7.2	6.5	3.5	5.0	0.5
0.0027	63VDC	7.2	6.5	2.5	5.0	0.5
	100VDC	7.2	6.5	2.5	5.0	0.5
	250VDC	7.2	6.5	2.5	5.0	0.5
	400VDC	7.2	6.5	2.5	5.0	0.5
	630VDC	7.2	6.5	3.5	5.0	0.5
0.0033	63VDC	7.2	6.5	2.5	5.0	0.5
	100VDC	7.2	6.5	2.5	5.0	0.5
	250VDC	7.2	6.5	2.5	5.0	0.5
	400VDC	7.2	6.5	2.5	5.0	0.5
	630VDC	7.2	6.5	3.5	5.0	0.5
0.0039	63VDC	7.2	6.5	2.5	5.0	0.5
	100VDC	7.2	6.5	2.5	5.0	0.5
	250VDC	7.2	6.5	2.5	5.0	0.5
	400VDC	7.2	6.5	2.5	5.0	0.5
	630VDC	7.2	6.5	3.5	5.0	0.5
0.0047	63VDC	7.2	6.5	2.5	5.0	0.5
	100VDC	7.2	6.5	2.5	5.0	0.5
	250VDC	7.2	6.5	2.5	5.0	0.5
	400VDC	7.2	6.5	2.5	5.0	0.5
	630VDC	7.2	9.5	4.5	5.0	0.5
0.0056	63VDC	7.2	6.5	2.5	5.0	0.5
	100VDC	7.2	6.5	2.5	5.0	0.5
	250VDC	7.2	6.5	2.5	5.0	0.5
	400VDC	7.2	7.5	3.5	5.0	0.5
	630VDC	7.2	9.5	4.5	5.0	0.5
0.0068	63VDC	7.2	6.5	2.5	5.0	0.5
	100VDC	7.2	6.5	2.5	5.0	0.5
	250VDC	7.2	6.5	2.5	5.0	0.5
	400VDC	7.2	7.5	3.5	5.0	0.5
	630VDC	7.2	9.5	4.5	5.0	0.5

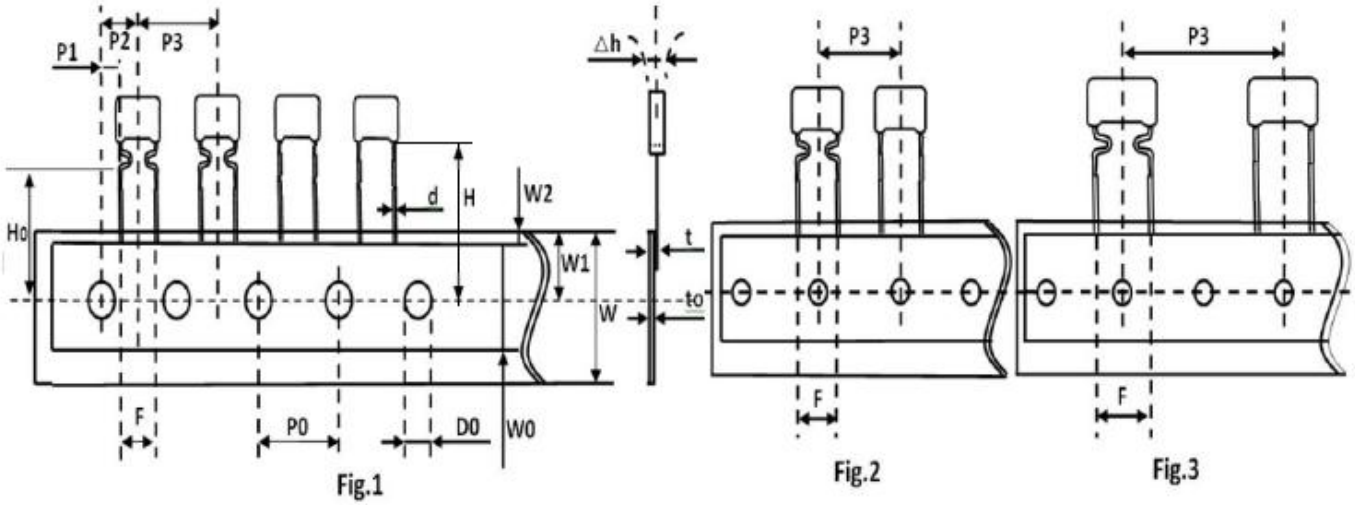
Capacitance (uF)	Rated Voltage	Size (mm)				
		W±0.5	H±0.5	T±0.5	P±1.0	d±0.05
0.0082	63VDC	7.2	6.5	2.5	5.0	0.5
	100VDC	7.2	6.5	2.5	5.0	0.5
	250VDC	7.2	6.5	2.5	5.0	0.5
	400VDC	7.2	7.5	3.5	5.0	0.5
	630VDC	7.2	9.5	4.5	5.0	0.5
0.010	63VDC	7.2	6.5	2.5	5.0	0.5
	100VDC	7.2	6.5	2.5	5.0	0.5
	250VDC	7.2	6.5	2.5	5.0	0.5
	400VDC	7.2	7.5	3.5	5.0	0.5
	630VDC	7.2	10.0	5.0	5.0	0.5
0.012	63VDC	7.2	6.5	2.5	5.0	0.5
	100VDC	7.2	6.5	2.5	5.0	0.5
	250VDC	7.2	6.5	2.5	5.0	0.5
	400VDC	7.2	9.5	4.5	5.0	0.5
	630VDC	7.2	11.0	6.0	5.0	0.5
0.015	63VDC	7.2	6.5	2.5	5.0	0.5
	100VDC	7.2	6.5	2.5	5.0	0.5
	250VDC	7.2	6.5	2.5	5.0	0.5
	400VDC	7.2	9.5	4.5	5.0	0.5
	630VDC	7.2	11.0	6.0	5.0	0.5
0.018	63VDC	7.2	6.5	2.5	5.0	0.5
	100VDC	7.2	6.5	2.5	5.0	0.5
	250VDC	7.2	6.5	2.5	5.0	0.5
	400VDC	7.2	9.5	4.5	5.0	0.5
0.022	63VDC	7.2	6.5	2.5	5.0	0.5
	100VDC	7.2	6.5	2.5	5.0	0.5
	250VDC	7.2	7.5	3.5	5.0	0.5
	400VDC	7.2	10.0	5.0	5.0	0.5
0.027	63VDC	7.2	6.5	2.5	5.0	0.5
	100VDC	7.2	6.5	2.5	5.0	0.5
	250VDC	7.2	7.5	3.5	5.0	0.5
	400VDC	7.2	11.0	6.0	5.0	0.5
0.033	63VDC	7.2	6.5	2.5	5.0	0.5
	100VDC	7.2	6.5	2.5	5.0	0.5
	250VDC	7.2	7.5	3.5	5.0	0.5
	400VDC	7.2	11.0	6.0	5.0	0.5

Capacitance (uF)	Rated Voltage	Size (mm)				
		W±0.5	H±0.5	T±0.5	P±1.0	d±0.05
0.047	63VDC	7.2	6.5	2.5	5.0	0.5
	100VDC	7.2	6.5	2.5	5.0	0.5
	250VDC	7.2	9.5	4.5	5.0	0.5
	400VDC	7.2	11.0	6.0	5.0	0.5
0.056	63VDC	7.2	6.5	2.5	5.0	0.5
	100VDC	7.2	6.5	2.5	5.0	0.5
	250VDC	7.2	9.5	4.5	5.0	0.5
0.068	63VDC	7.2	6.5	2.5	5.0	0.5
	100VDC	7.2	6.5	2.5	5.0	0.5
	250VDC	7.2	9.5	4.5	5.0	0.5
0.1	63VDC	7.2	7.5	3.5	5.0	0.5
	100VDC	7.2	7.5	3.5	5.0	0.5
	250VDC	7.2	10.0	5.0	5.0	0.5
0.12	63VDC	7.2	9.5	4.5	5.0	0.5
	100VDC	7.2	9.5	4.5	5.0	0.5
	250VDC	7.2	11.0	6.0	5.0	0.5
0.15	63VDC	7.2	9.5	4.5	5.0	0.5
	100VDC	7.2	9.5	4.5	5.0	0.5
	250VDC	7.2	11.0	6.0	5.0	0.5
0.18	63VDC	7.2	9.5	4.5	5.0	0.5
	100VDC	7.2	9.5	4.5	5.0	0.5
0.22	63VDC	7.2	10.0	5.0	5.0	0.5
	100VDC	7.2	10.0	5.0	5.0	0.5
0.27	63VDC	7.2	10.0	5.0	5.0	0.5
	100VDC	7.2	10.0	5.0	5.0	0.5
0.33	63VDC	7.2	11.0	6.0	5.0	0.5
	100VDC	7.2	11.0	6.0	5.0	0.5
0.47	63VDC	7.2	11.0	6.0	5.0	0.5
	100VDC	7.2	11.0	6.0	5.0	0.5
0.68	63VDC	7.2	10.0	5.5	5.0	0.5
	100VDC	7.2	10.0	5.5	5.0	0.5
1.0	63VDC	7.2	11.0	6.0	5.0	0.5
	100VDC	7.2	11.0	6.0	5.0	0.5

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

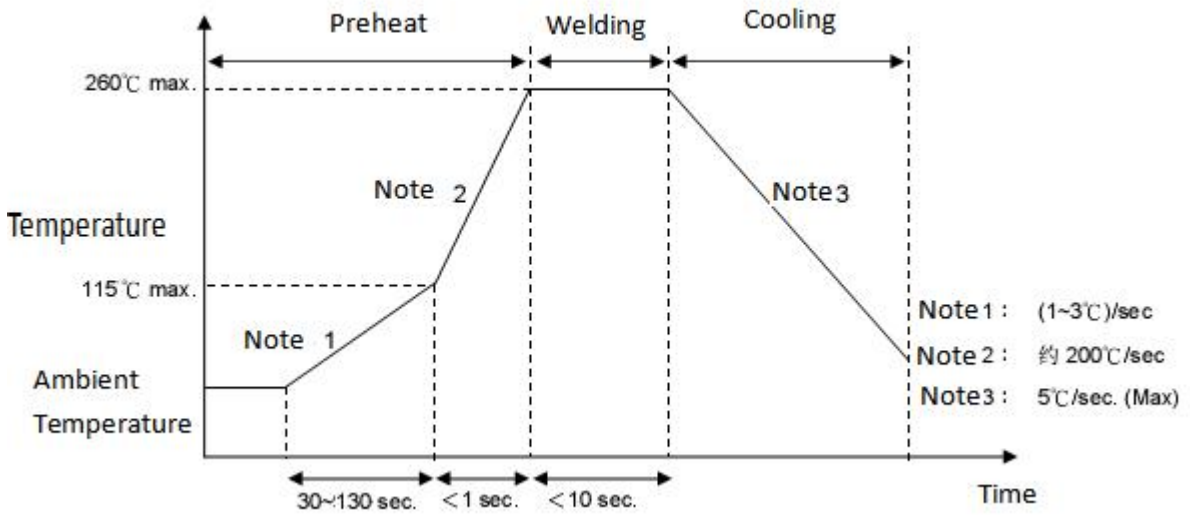
Taping And Dimensions (mm)

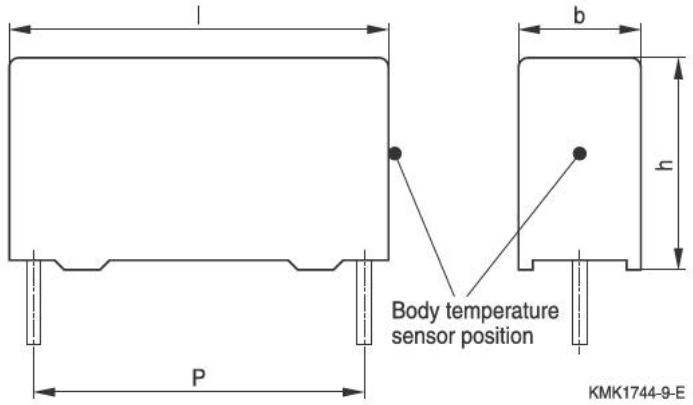


Symbol	Fig.1	Fig.2	Fig.2	Fig.3	Fig.3	Tolerance
	P=5.0	P=7.5	P=10	P=15	P=20/22.5	
P3	12.7	12.7	12.7	25.4	30.0	±1.0
P2	6.35	/	/	/	/	±1.3
P0	12.7	12.7	12.7	12.7	15.0	±0.3
P1	3.85	/	/	/	/	±0.7
F	5.0	7.5	10.0	15.0	20.0/22.5	±1.0
H	20.0	20.0	20.0	20.0	20.0	±1.0
H0	16.5	16.5	16.5	16.5	16.5	±0.5
Δ h	0	0	0	0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